May 11, 2023

WWDC/SWC JOINT MEETING

E-NOTEBOOK

Wyoming Water Development Office

6920 Yellowtail Road | Cheyenne, WY 82009

WYOMING WATER DEVELOPMENT COMMISSION

WATER DEVELOPMENT COMMISSIONER ORIENTATION
WWDO 6920 Yellowtail Road | Cheyenne, WY
Wednesday, May 10, 2023 | 9:00 AM
Livestream will not be available

JOINT MEETING: WWDC/SWC
WWDO 6920 Yellowtail Road | Cheyenne, WY
Thursday, May 11, 2023 | 8:30 AM
Livestream is available on the Legislature's website: www.wyoleg.gov.
To provide public comment for this meeting, or to view the Select Water Committee agenda, please visit the Legislature's website: www.wyoleg.gov.

JOINT MEETING AGENDA: Thursday, May 11 | 8:30 Am

**Action Item*

1. **Call to Order**

2. **Pledge of Allegiance**

3. **Recognition of members present to establish a quorum**

WWDC* 4. **Approval of Minutes (A)
- March 14, 2023: Workshop
- March 15, 2023: Meeting

WWDC* 5. **New Level I and Level II Project Applications

Level I Reconnaissance Projects – New Development (B)
- Alpine Water Master Plan
- Bairoil Water Master Plan
- Chugwater Water Master Plan
- Douglas Water Master Plan
- GR\RS\SC Regional Water Master Plan
- Hudson Water Master Plan
- Laramie Water Master Plan
- Salt River Watershed Study
- Shoshone Municipal Pipeline Regional Water Master Plan
- Sinclair Water Master Plan

Level II Feasibility Projects – New Development (C)
- Burns Groundwater Supply
- Cody Areas Evaluation 2024

Level II Feasibility Projects – New Development (C) - continued

- Greybull Water System Improvements
- Hot Springs County Test Well
- Owl Creek Test Well
- Sheridan Lake DeSmet Water Supply

Level I Reconnaissance Projects – Rehabilitation (D)

- Big Horn Canal ID Master Plan
- Elk Canal Master Plan
- Horse Creek Conservation District Master Plan
- Midvale ID Master Plan
- Powder River ID Master Plan
- Strawberry Canal Master Plan

WWDC/SWC* **6. Planning Project Amendments (E)

- Douglas Test Well, Level II Study, Amendment No. 4
- LaPrele ID Rehabilitation, Level II, Phase II Study, Amendment No. 6
  - Project Update

WWDC* **7. Small Water Program Project Amendment (F)

- Lower Snake River Ranch Bank Stabilization & Fish Habitat, Amendment No. 3 (Time Only)

WWDC/SWC* **8. Groundwater Exploration Grant Application\Contract (G)

- Cheyenne Board of Public Utilities

WWDC/SWC* **9. Planning Projects Consultant Selection & Contract Approval (H)

- Green River\Little Snake River Basins Conveyance Loss Study
- Rawlins Water Master Plan

WWDC* **10. Fontenelle Reservoir – 3rd Party Contract Consideration (I)

WWDC* **11. Aladdin Water District – Water Service Contract Extension (J)

WWDC/SWC* **12. UW Water Research Program (K)

- Consideration of 2024 RFP for the UW Water Research Program

13. Construction Project Updates

- **Gillette Madison and Regional Extensions (L)**
- **Leavitt Reservoir Expansion – Rebid**

WWDC* **14. Idle Well – State No. 1 Test Well #1 Final Disposition (M)

15. Future Meetings Schedule (Mc)

16. **Discussion**

17. **Adjourn**

WYOMING WATER DEVELOPMENT COMMISSION

COMMISSIONERS

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State Engineer

Greg Kerr
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Josh Dorrell
Wyoming Business Council

STAFF

Jason Mead
Director

David Ray
Administrative/Fiscal Manager

Janet Belmonte
Accountant

Nancy Casner
Office Support Specialist

Jason Mead
Dams & Reservoirs

Shawn Albrandt
High Savery Dam Technician

Return to Agenda

STAFF (Continued)

Barry Lawrence
Deputy Director – Planning

Bill Brewer
Deputy Director – Construction

Chace Tavelli
Technical Resource Coordinator

Sol Brich
Project Manager

Keith Clarey
Project Manager

Jeffrey Kaiser
Project Manager

Julie Gondzar
Project Manager

Larry Mallo
Project Manager

Mabel Jones
Project Manager

Ken Mitchell
Project Manager

George Moser
Project Manager

Jennifer Russell
Project Manager

Jodie Pavlica
Project Manager

Wade Verplancke
Project Manager

Jay Smith
Project Manager

Return to Agenda

WYOMING WATER DEVELOPMENT COMMISSION

Select Water Committee

Revised 03/03/2023

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Return to Agenda

APPROVAL OF MINUTES

Return to Agenda

WYOMING WATER DEVELOPMENT COMMISSION

WWDO Workshop:
Water Development Office
6920 Yellowtail Road | Cheyenne, WY
Downstairs Conference Room
Tuesday, March 14, 2023

Workshop Minutes

1. Chairman Mark Kot called the meeting to order at 2:00 p.m.

2. The pledge of allegiance was recited.

3. **Recognition of Members Present to Establish Quorum** – Secretary Liisa Anselmi-Dalton

Commission Attendance:
Mark Kot, Chairman
Ron Kailey, Jr., Vice-Chairman
Liisa Anselmi-Dalton, Secretary
Robert "Bob" Choma – Virtual
Leonard "Lee" Craig
Clinton Glick
Todd Hoese
John Lawson
Dennis Pince
Larry Suchor

Advisor Attendance:
Patrick Kent

4. **Legislative Update – Interim Director Jason Mead**

Interim Director Jason Mead provided a recap of the 2023 legislative session and discussed the following legislative bills:

- HB0001/SF0001: General Government Appropriations
- SF0096: Omnibus Water Bill – Planning & Administration
- HB0093: Omnibus Water Bill – Construction
- SF0082: Eligible Water and Sewer Projects Funding
- HB0195: American Rescue Plan Act Appropriations - Amendments

5. **Project Updates**

- Critical Aging Irrigation Infrastructure Assessment, Level I Study

Project Manager Chace Tavelli provided an overview regarding the Critical Aging Irrigation Infrastructure Assessment, Level I Study and what led to its inception. He stated that the collapse of the Goshen Irrigation District Tunnel and structural concerns with the LaPrele Dam caused concern as to the condition of all aging irrigation infrastructure throughout the state and ways to assess those that are poor and\or failing. A criticality workshop was held to help define variables to apply to such structures statewide to assist in developing a ranking system to help inform decision makers. Interim Director Jason Mead added that it's important to have

help from other entities identifying their critical infrastructure and its condition. He said having Federal Agencies attend each of the project's stakeholder outreach meetings is very beneficial in helping the local water users understand what funding opportunities are available to them. The study was funded through a $500,000 appropriation from the 2022 Wyoming State Legislature

Interim Director Mead reminded the Commission about the discussion back in November regarding funds for the Board of Control coming out of the State of Wyoming Water Development Account I and that less and less funds were available to get such projects on the ground. He added, therefore the office was strongly promoting to water users the idea of funding partnerships with Federal Agencies in leveraging available limited state funding.

- LaPrele Irrigation District Rehabilitation

Project Manager Chace Tavelli provided details as to the progression of the various studies done on LaPrele Dam. He stated that the Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law, invested $100 million dollars towards rebuilding deteorating infrastructure. The Water Development Office made application to receive $5 million of this IIJA funding. Strict criteria had to be met in order to qualify. The latest cost analysis estimated $118 Million is needed for the design and reconstruction of the new dam.

- Consultant Selection Process:

Barry Lawrence, Deputy Director of Planning reminded the Commission that at the December 7, 2022 Select Water Committee Meeting, Senator Larry Hicks proposed an amendment to the Omnibus Water Bill – Planning in the amount of $500,000 for the Green River/Little Snake River Basins Conveyance Loss Study as well as $250,000 for the City of Rawlins Water Master Plan. He further stated that because these two projects were amended into the Omnibus Water Bill – Planning , there wasn't time to go through the normal consultant selection timelines and an expedited process was initiated while the Bill was being considered by the 2023 legislature. The interviews for the Green River/Little Snake River Basins Conveyance Loss Study and the Rawlins Water Master Plan will be held on April 21, 2023.

  - Green River/Little Snake River Basins Conveyance Loss, Level I Study

    Jay Smith, Project Manager, provided information regarding the Green River/Little Snake River Basins Conveyance Loss Study. He said that the scope requests prospective consultants to identify sites, develop methods for measuring conveyance loss, consumptive use, and to characterize return flows. This data will be used in the development of a consumptive use and conveyance loss tool for both basins.

  - Rawlins Water Master Plan, Level I Study

    George Moser, Project Manager provided information regarding the Rawlins Water Master Plan, Level I Study. Water master plans are a high-level reconnaissance looks at a water system, identifying challenges and helping to plan for the future. The Rawlins Water Master Plan is proceeding at a quick speed. The WWDC Office had a site tour in early February and helped mold a scope of work to tailor it to

address some specific items that Rawlins would like to see addressed within the water master plan. A pre-proposal meeting has been held.

6. **New Level I and II Project Applications** (Received by March 1)
   Barry Lawrence, Deputy Director of Planning provided a WWDC Planning Project Funding Approval and Consultant Selection Schedule to the Commission that shows the timeline for the thirteen-month funding and consultant selection process. March 1, 2023 was the deadline to receive applications. Twenty-two applications were received this year which definitely shows an upward trend. Planning staff will be meeting soon and project managers will be assigned to each of the project applications received. These project managers will then set up site visits and begin preparing preliminary funding recommendations. Two Commissioners will be assigned to each project and they will shadow these projects from inception to completion.

7. **2023 Summer Meeting/Tour**
   Barry Lawrence, Deputy Director of Planning, provided information regarding the Summer Meeting/Tour to be held in the Cody/Powell Area August 15-17, 2023. The new Game and Fish facility in Cody has been reserved for the meeting. Commissioner Lee Craig, the local Commissioner in the area, will be heavily involved with the logistics of planning tour stops etc., and those details are still being worked out at this time.

8. **Discussion**
   George Moser, Project Manager reminded the commission that at the December Commission meeting, the Water Development Office in coordination with the Attorney General's Office was tasked with identifying options for acquisition and disposal of idle groundwater wells drilled under the Department of Economic Planning and Development (WWDC's predecessor) and the WWDC program. He stated that the Attorney General's Office recently hired Patrick Kent and that the two of them have coordinated on potential solutions for many of the wells. Mr. Moser conveyed that each well will have unique constraints and will require subsequently unique solutions. In particular, Mr. Kent will be working on streamlining some of the contracting challenges and the WWDC can expect more discussion on idle wells in the future.

9. **Adjournment**
   A motion was made and seconded to adjourn the meeting; motion carried unanimously.

Respectfully submitted,

Lee Craig, Secretary

Return to Agenda

WYOMING WATER DEVELOPMENT COMMISSION

WWDO REGULAR MEETING:
Water Development Office
6920 Yellowtail Road | Cheyenne, WY
Downstairs Conference Room
Wednesday, March 15, 2023

Meeting Minutes

1. Chairman Mark Kot called the meeting to order at 8:30 a.m.

2. The pledge of allegiance was recited.

3. **Recognition of Members Present to Establish Quorum** – Secretary Liisa Anselmi-Dalton

Commission Attendance:
Mark Kot, Chairman
Ron Kailey, Vice-Chairman
Liisa Anselmi-Dalton, Secretary
Robert "Bob" Choma – Virtual
Leonard "Lee" Craig
Clinton Glick
Todd Hoese
John Lawson
Dennis Pince
Larry Suchor

Advisor Attendance:
Patrick Kent, Attorney General's Office
Greg Kerr, University of Wyoming

4. **Election of Officers**
A motion was made by Commissioner Liisa Anselmi-Dalton to nominate Commissioner Ron Kailey as Chairman; seconded by Commissioner Larry Suchor; motion carried unanimously. A motion was then made by Commissioner Larry Suchor to nominate Commissioner Liisa Anselmi-Dalton as Vice Chairman; seconded by Commissioner Ron Kailey. Motion carried unanimously. A final motion was made by Commissioner John Lawson to nominate Commissioner Lee Craig as Secretary; seconded by Commissioner Liisa Anselmi-Dalton. Motion carried unanimously.

5. **Approval of Minutes**
   - *December 6, 2022 WWDC Regular Meeting Minutes:* Vice-Chairman Liisa Anselmi-Dalton moved to approve the minutes of the December 6, 2022 Regular Meeting. Chairman Ron Kailey seconded the motion; Motion carried unanimously.

6. Planning Closeout Memos

- *Big Horn Regional Transmission, Level II Study*

Project Manager Jay Smith briefly reviewed the Big Horn Regional Transmission, Level II Study closeout memo.

A motion was made by Secretary Lee Craig to move acceptance of the Big Horn Regional Transmission Level II Study project report as being complete and further, the WWDC makes the following findings relative to this project:

1. That the Commission recommend:
   - Proceeding to Level III of project development upon the submittal of an appropriate funding application by the sponsor.

2. Based on the findings in the final report, the project is determined to be in the public interest.

3. The project functions and services cannot realistically be provided by any person, association or corporation engaged in private enterprise.

Commissioner John Lawson seconded the motion: motion carried unanimously.

- *Highland Irrigation District Master Plan, Level I Study*

Barry Lawrence, Deputy Director of Planning presented the closeout memo for the Highland Irrigation District Master Plan, Level I Study on behalf of Julie Gondzar, Project Manager who was unable to attend.

A motion was made by Chairman Ron Kailey to move acceptance of the Highland Irrigation District Master Plan, Level I Study project report as being complete and further, the WWDC makes the following findings relative to this project:

1. That the Commission recommend:
   - Proceeding to the next Level of project development upon the submittal of an appropriate funding application by the sponsor.

Commissioner Larry Suchor seconded the motion; motion carried unanimously.

- *Hoback River Watershed, Level I Study*

Mabel Jones, Project Manager, provided an overview and closeout memo on the Hoback River Watershed, Level I Study.

A motion was made by Vice-Chairman Liisa Anselmi-Dalton to move acceptance of the Hoback River Watershed, Level I Study project report as being complete and further, the WWDC makes the following findings relative to this project:

1. That the Commission recommend:
   - Proceeding to the next Level of project development upon the submittal of an appropriate funding application by the sponsor.

Commissioner Bob Choma seconded the motion; motion carried unanimously.

7. Planning Project Amendments

- *Alkali Creek Reservoir Final Design, Amendment Two*

  Interim Director Jason Mead provided an overview of the Alkali Creek Reservoir Final Design, Amendment Two. He proposed a one-year time extension to the existing contract with Trihydro Corporation and an increase to the total Contract dollar amount to $2,806,400.00. He stated that this is due to unforeseen challenges as well as unanticipated cost increases.

  Vice-Chairman Liisa Anselmi-Dalton moved to approve Amendment Number Two for the Alkali Creek Reservoir Final Design, extending the contract date through December 31, 2024 and to increase the total contract dollar amount to $2,806,400.00. The motion was seconded by Commissioner John Lawson; motion carried unanimously.

- *Alkali Creek Reservoir Third-Party NEPA Contractor Services, Amendment Three*

  Interim Director Jason Mead briefly summarized the Alkali Creek Reservoir Third Party NEPA Contractor Services, Amendment Three. He proposed a two-year time extension to the existing contract with SWCA, Incorporated.

  Secretary Lee Craig moved approval of Amendment Number Three to the Alkali Creek Reservoir Third Party NEPA Contractor Services to extend the term of the Contract through June 30, 2025. Commissioner Larry Suchor seconded the motion; motion carried unanimously.

- *Little Snake River Valley Water Supply, Level II, Phase II Study, Amendment One*

  Chace Tavelli, Project Manager briefly discussed the Little Snake River Valley Water Supply, Level II, Phase II Study, Amendment One. He proposed a 6-month time extension to the existing contract with Stantec Consulting Services Inc., due to data collection delays and a late discovery of a pipeline alignment issue.

  Commissioner John Lawson made a motion to approve Amendment Number One to the Little Snake River Valley Water Supply, Level II, Phase II Study to extend the contract through December 31, 2023. Vice-Chairman Liisa Anselmi-Dalton seconded the motion; motion carried unanimously.

- *New Fork Lake Dam Enlargement, Level II Study, Amendment Three*

  Interim Director Jason Mead provided information regarding the New Fork Lake Dam Enlargement Level II Study, Amendment Three. He proposed a two-year time extension to the existing contract with RJH Consultants, Inc. and added that the time extension amendment is necessary due to delays in completing the NEPA analysis and the time required to complete the remaining scope of work.

  Commissioner Clinton Glick moved approval of Amendment Number Three to the New Fork Lake Dam Enlargement, Level II Study to extend the term of the contract with RJH

Consultants, Inc. through June 30, 2025. Secretary Lee Craig seconded the motion; motion carried unanimously.

- *Silver Lake Dam Rehabilitation, Level II Study, Amendment One*
  Interim Director Jason Mead provided a brief summary of the Silver Lake Dam Rehabilitation, Level II Study, Amendment One. He proposed a two-year time extension to the existing contract with K & E Engineering, Inc., D/B/A/ Rio Verde Engineering.

  Commissioner Clinton Glick moved approval of Amendment One to the Silver Lake Dam Rehabilitation, Level II Study to extend the term of contract through June 30, 2025. Commissioner John Lawson seconded the motion; motion carried unanimously.

8. 2023 Level I and II Planning Project Contracts

Level I Projects – New Development
- Glendo Water Master Plan
- Newcastle Water Master Plan
- Orchard Valley Water Master Plan
- Ranchester Water Master Plan
- Wardwell Water Master Plan

Level II Projects – New Development
- CWRWS Well Field Study
- GR/RS/SC JPWB Eastside Zone Study

Level I Projects – Rehabilitation
- Casper Alcova ID Master Plan
- Goshen ID Master Plan
- Sidon ID Master Plan
- Tillard Canal Master Plan

Level II Projects – Rehabilitation
- Cody Canal Rehabilitation
- Greybull Valley ID Upper Sunshine Outlet Works Rehabilitation
- Lakeview ID Rehabilitation
- Shoshoni GW Supply & Transmission
- Willwood ID Rehabilitation

Interim Director Jason Mead provided a quick summary of the 2023 Level I and II Planning Contracts indicating that approval of these contracts marked the culmination of a 13-month planning project funding approval and consultant selection process.

Vice-Chairman Liisa Anselmi-Dalton moved approval of the 2023 Level I and II Planning Project Contracts. Commissioner Larry Suchor seconded the motion; motion carried unanimously.

9. Small Water Project Program – Funding Applications

Program Manager Jodie Pavlica reviewed the Account I and Account II 2023 Small Water Project Program funding applications (67 projects) submitted by the Sponsors.

Chairman Ron Kailey moved to approve the Small Water Project Program funding applications for Account I. Commissioner Clinton Glick seconded the motion; motion carried unanimously.

Commissioner Clinton Glick moved to approve the Small Water Project Program funding applications for Account II. Commissioner Larry Suchor seconded the motion; motion carried unanimously.

The Commission then went back to agenda item #8, 2023 Level I and II Planning Project Contracts and amended approval of the contracts to be contingent on SF 96 Omnibus Water Bill – Planning & Administration being signed into law by the Governor. Vice-Chairman Liisa Anselmi-Dalton made the motion and Commissioner Larry Suchor seconded; motion carried unanimously.

10. UW Water Research Program

- UW Water Research Program MOU

UW Office of Water Programs Director and Administrator of the Water Research Program, Mr. Greg Kerr, reviewed the Memorandum of Understanding (MOU) between the Water Development Commission and the University of Wyoming. He discussed the Water Research Program and the two projects contained in the MOU. The two projects include:

- "*Evaluating toxicity of harmful cyanobacterial blooms in Wyoming Lakes and Reservoirs"*
- *High resolution upland and riverbank erosion monitoring to inform best management practices that seek to reduce sediment accumulation at the Willwood Dam"*

Commissioner Clinton Glick moved approval of the UW Water Research Program MOU contingent upon SF96 being signed into law. Secretary Lee Craig seconded the motion; motion carried unanimously.

11. Colorado River Basin MOA Budget Modification

Interim Director Jason Mead explained that the Wyoming Water Development Office (WWDO) received a request from the Bureau of Reclamation (BOR) for additional funding to complete construction for the Big Sandy Reservoir Enlargement Project. The estimated increase of $1,417,000 was due to a protest that took place after the award of the project in April 2021 delaying the start of construction by 6 months. During this period, construction costs such as cement, rebar, diesel fuel, trucking and labor increased dramatically. Eric Robison from the Bureau of Reclamation further explained.

Vice-Chairman Liisa Anselmi-Dalton moved to approve the Colorado River Basin MOA Budget Modification in the amount of $1,417,000. Chairman Ron Kailey seconded the motion; motion carried unanimously.

12. 2023 Construction Project Agreements – Account I

- Happy Valley Water Transmission and Storage 2023
- Sheridan Northeast Transmission Main Extension 2023
- South End Water Users ISD Pipeline 2023

Commissioner Clinton Glick made a motion to approve the 2023 Construction Project Agreements from Account I. Commissioner Larry Suchor seconded the motion; motion carried unanimously.

13. 2023 Construction Project Agreements – Account II

- CAID Lateral 256 Drop Structure 2023
- Enterprise WID Calvert Lateral 2023
- Goshen ID 56.0 Pipeline Phase I 2023
- Heart Mountain ID Lateral R4S 2023
- Interstate I&R ID Canal Phase III 2023
- Lakeview ID Rock Creek Siphon 2023
- Midvale ID Wyoming Canal Phase I 2023

Commissioner Clinton Glick made a motion to approve the 2023 Construction Project Agreements from Account II. Commissioner Dennis Pince seconded the motion; motion carried unanimously.

14. 2023 Construction Project Amendments – Accounts I, II, & III

- Arapahoe Pipeline and Tank
- Broken Wheel Ranch Water Supply 2017 (Time Extension)
- Cottonwood Irrigation District Transmission Pipeline 2020
- Dry Creek Irrigation District Pipeline Replacement 2022 (Time Extension)
- Ethete Water Supply (Time Extension)
- Gillette Regional Extensions 2017 (Time Extension)
- Gillette Regional Extensions Phase IV – 2018 (Time Extension)
- Glenrock Transmission Pipeline 2020 (Time Extension)
- GR/RS/ SC JPWB Pump Station 2019 (Time Extension)
- Goshen ID Tunnel Rehabilitation 2022
- Lander Storage Tanks and Pump Station 2019
- Leavitt Reservoir Expansion
- Melody Ranch Water System Improvements 2018 (Time Extension)
- Middle Piney Dam Reconstruction (Time Extension)
- Riverton Valley Irrigation District Rehabilitation 2018 (Time Extension)
- Shoshone Irrigation District Rehabilitation 2019
- Shoshone Irrigation District Improvements 2021
- Sidon Irrigation District Sidon Canal 2020
- Torrington Well Connection 2021 (Time Extension)

Vice-Chairman Liisa Anselmi-Dalton moved to approve the 2023 Construction Project Amendments from Accounts I, II & III. Commissioner Todd Hoese seconded the motion; motion carried unanimously.

15. Construction Project Closeout Memos

- Dry Creek ID Rehab 2019
- Etna Tank 2019
- GR/RS/SC JPWB Raw Water Reservoir

Bill Brewer, Deputy Director of Construction provided information regarding the three Construction Project Closeout Memos.

16. Other Items Requiring Commission Action

There were no other items requiring Commission action.

17. Discussion

Commissioner Larry Suchor asked for clarification as to the approval process and roles of the Legislature, Select Water Committee (SWC), and the Wyoming Water Development Commission. (WWDC). Interim Director Jason Mead explained that the Legislature approves the funding available for individual projects. Anything over $5,000 requires review and recommendation of the Select Water Committee, with actual contract approval falling within the realm of the Wyoming Water Development Commission (WWDC).

Commissioner Mark Kot reminded the Office that there is interest in having a presentation on the Gillette wells project at a subsequent Commission meeting.

Chairman Ron Kailey expressed disappointment in some of the sponsors not coming to the meeting to support their projects, especially those locally.

Commissioner Clinton Glick asked Jodie Pavlica, Small Water Project Program Manager that she include a column on her list of Small Water Projects to include an estimate of how many individuals each project benefits. Commissioner Liisa Anselmi-Dalton echoed these sentiments. Much discussion ensued regarding “Public Benefits”. Also discussed was the need to revisit the eligibility of center pivots under the Small Water Project Program.

18. Future Meetings Schedule

May 10-11, 2023 WWDC/SWC Workshop and Joint Meeting.

19. Adjourn

Commissioner Larry Suchor motioned to adjourn the meeting of the Water Development Commission at 11:35 a.m. Commissioner Dennis Pince seconded the motion; motion carried unanimously.

Respectfully submitted,

Lee Craig, Secretary

NEW LEVEL I AND LEVEL II APPLICATIONS

Return to Agenda

LEVEL I

RECONNAISSANCE PROJECTS – NEW DEVLOPMENT

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Alpine Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Lincoln

Sponsor: Town of Alpine

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Town of Alpine has experienced significant residential and business growth within the past decade. In addition, Alpine has been absorbing neighboring subdivisions and is serving a larger geographic area, and has plans to expand within the next 10 years. The study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: George Moser

I. PROJECT DESCRIPTION

The Town of Alpine currently includes water supply from originally separate systems and provides water to the regional area surrounding the original Town. The current water system is fed from groundwater wells with storage provided by three storage tanks. This project would assemble GIS Information, create a robust and updated hydraulic model, develop recommended improvements and evaluate options to address system deficiencies.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Alpine Water Supply	III	206	1995	I	$ 700,000	1998
Alpine Raw Water	III	88	2002	I	$ 41,700	2006
Alpine Master Plan Update	II	75	2005	I	$ 75,000	2006
Alpine Wells Rehabilitation	III	105/63	2006/11	II	$ 359,790	2010/13
Alpine Water Supply	III	121	2007	I	$ 688,090	2012
Alpine Master Plan Update, Phase II	II	99	2006	I	$ 185,000	2008
Alpine Master Plan Update, Phase II	II	33/66	2008/09	I	$ 85,000	2009/10

2. Describe the location of the project:

Alpine is located in northern Lincoln County, at the confluence of the Grey's and Snake Rivers.

3. Summarize the request:

Alpine would like a comprehensive study to update their mapping, hydraulic modeling, and develop a long-term plan for system improvements. The updated plan would serve as a framework to establish project priorities and to perform the appropriate financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

Alpine would like a comprehensive study to update their mapping, hydraulic modeling, and develop a long-term plan for system improvements. An updated master plan will allow the Town to evaluate system deficiencies, ensure system viability for future growth, prioritize improvement projects, and provide a schedule for identified projects.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

    N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

    A. Number of Taps: 603

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they (RUS, SRF, other)? SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Alpine currently serves systems outside the Municipal boundary and anticipates future connections.

7. What is the monthly water bill for 5,000 gallons? $39.00

    A. 20,000 Gallons? $69.00

8. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600156

B. Groundwater

(1) Number of Wells: Three

(2) Primary Supply Aquifer(s) or Formation(s): Salt Lake Formation

(3) Total Average Production Yield of All Wells (GPM): 1,950

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 5,080,000

(2) Increased Capacity Needed (If Known) (Gallons per Day): None Known

(3) Approximate Distance from Source(s) to Distribution System: 1 Mile

(4) Transmission Pipe Diameter(s): 12-inch and 10-inch

(5) Type of Transmission Pipe Material(s): PVC most common

(6) Age of Transmission Pipeline(s): 1-50 years

(7) Condition of Transmission Pipeline(s): Variable

(8) Does the applicant possess clear title to transmission corridor easements? Unknown

G. Water Storage

(1) Raw (Volume and Tank Description): None

(2) Treated (Volume and Tank Description): 1,290,000 gallons

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Fire Protection

D. Average Day Demand Water Usage (Gallons per Capita per Day): 280 gpcd

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 635 gpcd

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 710 gpcd

G. Distribution Pipe Diameter(s): 4”, 6”, 8”, 10”, and 12”

H. Type of Distribution Pipe Material(s): PVC most common

I. Age of Distribution Pipeline(s): 1-50 years

J. Condition of Distribution Pipeline(s): Varies. Some 4-inch mains are lower quality

K. Estimated System Water Losses (Percentage): 10-20%

L. Describe any fire flow protection that the system provides:

Fire flow is provided through 4-inch water mains

M. What water conservation measures are employed?

Alpine is in the process of updating to an auto-read meter system to help monitor water use and locate leaks.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2010 Census): 828 B. Current Population Estimate: 1,262

C. Does the applicant have a comprehensive planning boundary? Under Development

(1) If so, what is the estimated additional population that may be served in the future? Unknown

D. How many taps are served within the corporate limits/JPB service area? 603

E. How many taps are served outside of the corporate limits/JPB service area? 29

F. Identify names of other water system served: North Alpine

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Town of Alpine Master Plan – Ongoing.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: 3/4" = $3,500; 1" = $5,000; 1 ½" = $6,500; 2" = $10,000

(2) Tap Fee(s) – Commercial: 3/4" = $3,500; 1" = $5,000; 1 ½" = $6,500; 2" = $10,000

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$45.00 with average usage of 8,000 gallons.

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See additional pages

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$ 470,597.87
b. Annual Revenues from Tap Fees:	$ 122,120.00
c. Annual Revenues from Other Sources:	$ 25,068.00
d. Total Annual Revenues:	$ 617,785.87

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$ 448,836.51
b. Annual Payments for Debt Retirement:	$ 29,000.00
c. Annual Payments to a Repair and Replacement Fund:	$ 0
d. Annual Payments to an Emergency Fund:	$ 0
e. Annual Payments for Other Purposes:	$ 0
f. Total Annual Payments:	$ 477,836.51

(3) Other

a. Balance in Repair and Replacement Fund:	$ 825,261.76
b. Balance in Emergency Fund:	$ 391,209.58
c. Annual Cost of Water Quality Testing:	$ 3,413.00

**Alpine does not currently have payments to a Repair and Replacement Fund nor an Emergency Fund. However, the Operating Fund ($825,261.76 above) is utilized for any necessary repairs, and the Savings Fund ($391,209.58) is available for emergency use. Alpine plans to establish more permanent funds and annual distributions to those funds in the near future.*

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

Yes

a. If not, how is the difference subsidized? N/A

WATER RATES

Residential Water

Water Connection ¾"	$ 3,500
Water Connection 1"	$ 5,000
Water Connection 1 ½"	$ 6,500
Water Connection 2"	$ 10.000
Price per 1,000 Gallons	$ 2.00

Alpine Utility District – Outside incorporated boundaries governed by the Public Service Commission.

Residential Water

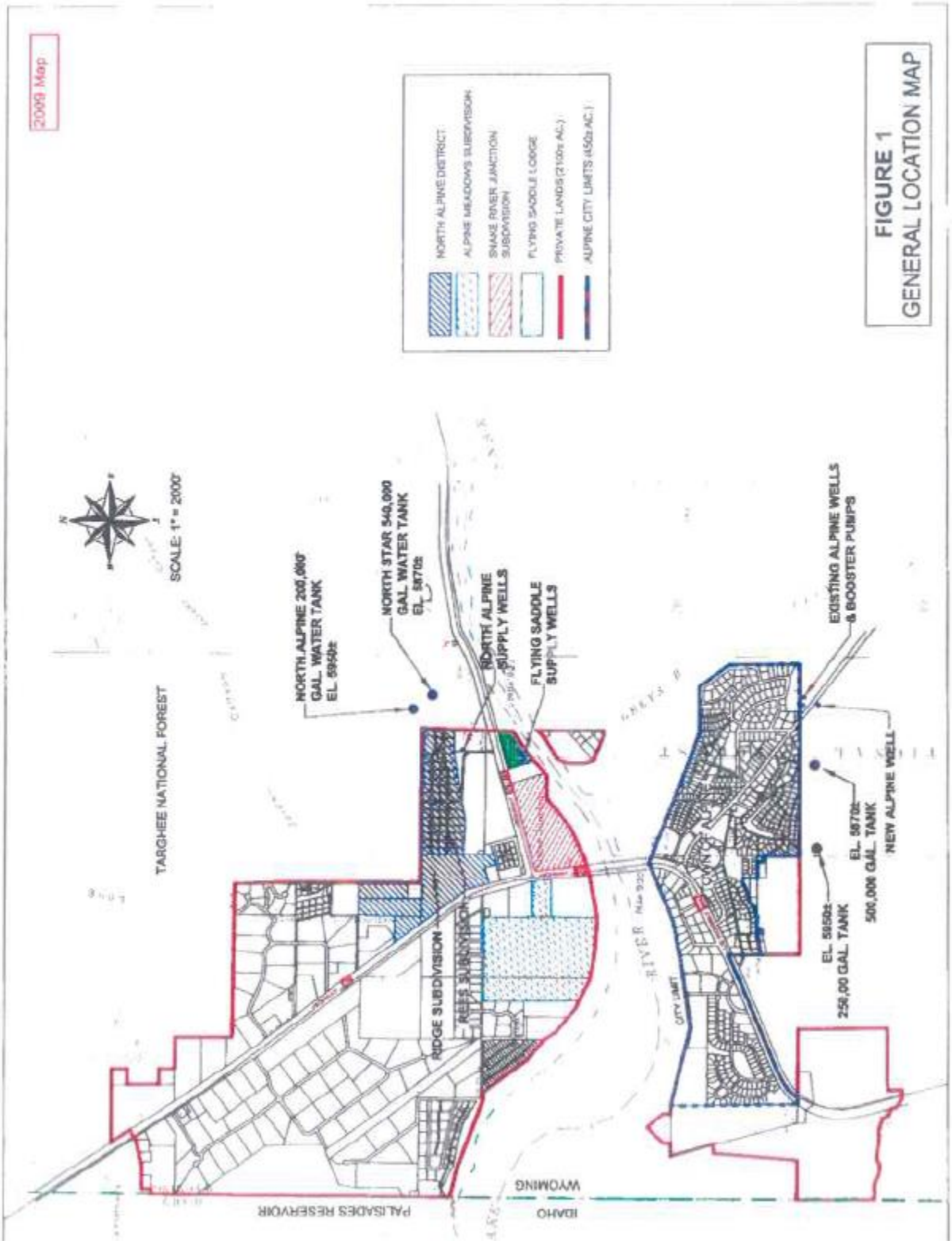
Water Connection ¾"	$ 3,000
Dry Meter Water Rate	$ 25.00
Monthly Water Rate	$ 30.00
Water Price per 1,000 Gallons	$ 2.75

Alpine Utility District

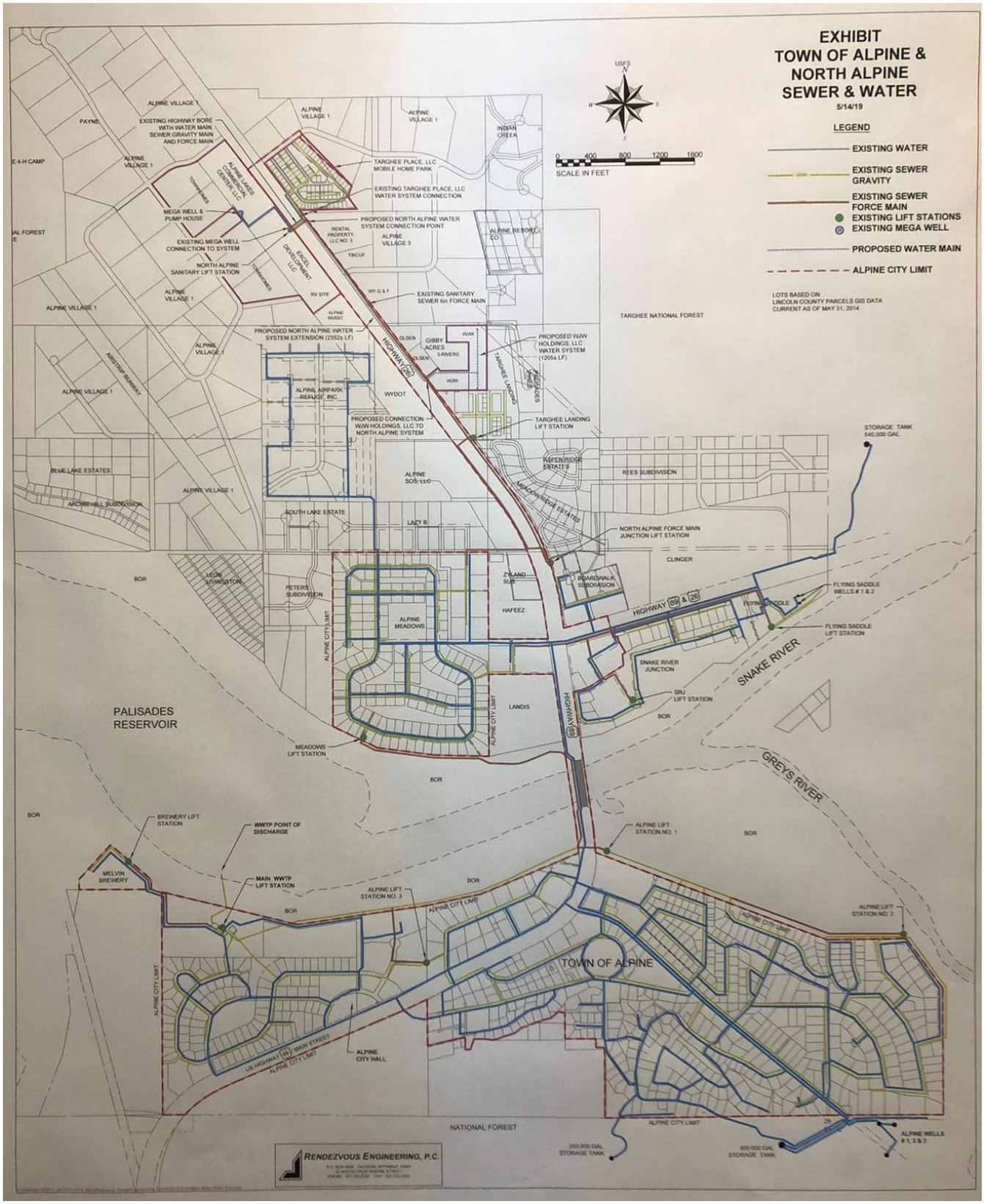
Commercial Water

Light Commercial Connection 1" – 2"	$ 11,800.00
Dry Meter Water Rate	$ 60.00
Monthly Water Rate	$ 65.00
Heavy Commercial Connection 3" – 4"	$ 19,800.00
Dry Meter Water Rate	$ 60.00
Monthly Water Rate	$ 75.00

PROJECT AREA MAPS



Return to Agenda



Return to Agenda

PHOTOS

Control Building Roof with Snow

Return to Agenda

Control House Piping Condition

SCADA and VFD Controls

RESOLUTION

Town of Alpine

505 RESOLUTION NO. 02-27-2023

A RESOLUTION COMMITTING SUPPORT ON BEHALF OF THE GOVERNING BODY OF THE TOWN OF ALPINE TO MAKE APPLICATION WITH THE WYOMING WATER DEVELOPMENT COMMISSION FOR A LEVEL 1 STUDY.

WITNESSETH

WHEREAS the Governing Body of the Town of Alpine recognizes the need for an updated planning document due to the continued growth in over the past decade, and

WHEREAS the Governing Body for the Town of Alpine desires to participate in the Wyoming Water Development Commission's (WWDC) program to seek funding for a Level I reconnaissance study.

NOW, THEREFORE BE IT RESOLVED THAT THE GOVERNING BODY OF THE TOWN OF ALPINE voted on January 17, 2023 to make application with the WWDC to seek grant funding to complete a Level 1 Study

BE IT FURTHER RESOLVED that Eric Green, Mayor of the Town of Alpine, is hereby designated as the authorized representative of the Town of Alpine on all matters relating to this project.

PASSED, APPROVED AND ADOPTED THIS 17th day of January 2023.

Vote: 5 Yes, 0 No, 0 Absent and 0 Abstain.

Eric Green, Mayor

ATTEST:

Monica I Chenault, Clerk/Treasurer

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Bairoil Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Sweetwater

Sponsor: Town of Bairoil

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Town of Bairoil is requesting WWDC funding for a 2024 Bairoil Water Master Plan, Level I Study. The study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: Keith E. Clarey, PG

I. PROJECT DESCRIPTION

The Town of Bairoil is requesting a 2024 Level I water master plan to identify the components of their existing system, to evaluate the system, and to provide a schedule for improvements. The study would serve as a framework to establish project priorities and to perform the appropriate financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Bairoil Water Supply Project	II	81	1999	I	$ 225,000	2001
Bairoil Water Supply Project, Phase 4	II	36	2000	I	$ 200,000	2003
Bairoil Water Supply Project (well)	III	96	2000	I	$ 480,000*	2005
Bairoil Water Supply Project, Phase 5	II	7	2002	I	$ 40,000	2005
Bairoil Water Supply Project	II	118	2004	I	$ N/A	2007

*60% grant

2. Describe the location of the project:

The Town of Bairoil is located in Sweetwater County and resides within the Great Divide Basin. The town has a population of 64 people and they are served through 42 taps in the corporate limits and 1 tap outside the limits. The town does not anticipate future growth. The town is supplied with Battle Springs Formation groundwater from one (1) well (60 gpm) and also from Abel Springs groundwater (several springs yielding 35-100 gpm). The transmission line runs approximately 6.5 miles and consists of 6-inch & 10-inch PVC pipe. The supplied groundwater is treated by chlorination (sodium hypochlorite) before entering the tank and stored in one (1) 350,000-gallon, covered steel storage tank. Dosing is controlled manually. There is no SCADA system. The tank has an overflow for excess water. There are many paper maps, however, it is unclear which maps are accurate because of historically poor record keeping. The system needs the development of both a hydraulic model and GIS.

The Town of Bairoil's water system is experiencing issues because the aging system is nearing the end of its design life and also faces maintenance questions and concerns regarding the current system. A master plan would help the town council evaluate and prioritize planning, rehabilitation, upgrades, and management of the system. The study would evaluate transmission and distribution lines, hydrants, valves, storage, and water sources. Additionally, the study would investigate conveyance losses, develop accurate mapping, identify improvement projects, and evaluate funding sources for capital improvement.

3. Summarize the request:

A Level I water master plan is needed by the Town of Bairoil to evaluate the current condition of their water system and to provide the tools and guidance necessary to assist in the planning, rehabilitation, upgrading, replacement, and managing of their system. The plan would serve as a framework to establish project priorities and to perform financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

The Town of Bairoil is requesting a Level I water master plan to evaluate the components of the existing system, identify system needs, and to provide a prioritized schedule for improvements.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

    N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

    A. Number of Taps: 43 taps (42 inside + 1 outside corporate limits/service area)

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they (RUS, SRF, other)? RUS, SRF, etc.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)?

There are significant deficiencies noted on the 2020 Sanitary Survey.

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Due to Bairoil's remote location, regionalization is not feasible.

7. What is monthly water bill for 5,000 gallons? $40.00

    A. 20,000 Gallons? $40.00

8. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

    A. EPA Public Water System (PWS) Identification Number: WY5600003

    B. Groundwater

        (1) Number of Wells: One

Return to Agenda

(2) Primary Supply Aquifer(s) or Formation(s): Battle Springs Formation

(3) Total Average Production Yield of All Wells (GPM): 60 gpm

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): Abel Springs

(2) Total Average Production Yield of All Springs (CFS or GPM): 35-100 gpm

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights?

Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 200,000 gpd

(2) Increased Capacity Needed (If Known) (Gallons per Day): N/A

(3) Approximate Distance from Source(s) to Distribution System: 6.5 miles

(4) Transmission Pipe Diameter(s): 6-inch & 10-inch

(5) Type of Transmission Pipe Material(s): PVC

(6) Age of Transmission Pipeline(s): 1985 (38 years old)

(7) Condition of Transmission Pipeline(s): Good

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): None

(2) Treated (Volume and Tank Description): 350,000-gallon, covered steel tank

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? No B. Are billings based on meter readings? No

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.): All

D. Average Day Demand Water Usage (Gallons per Capita per Day): 562 gpcpd

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 1,512 gpcpd

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 3,024 gpcpd

G. Distribution Pipe Diameter(s): 4-inch, 6-inch, & 8-inch

H. Type of Distribution Pipe Material(s): PVC & AC pipe, service lines are copper, galvanized, & poly

I. Age of Distribution Pipeline(s): 1950-2000 (73 to 23 years old)

J. Condition of Distribution Pipeline(s): Poor

K. Estimated System Water Losses (Percentage): Unknown, but significant.

L. Describe any fire flow protection that the system provides: Fire hydrants tested biannually.

M. What water conservation measures are employed? Public notification.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 105 B. Current Population Estimate: 64

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? Population growth is not anticipated.

D. How many taps are served within the corporate limits/JPB service area? 42 taps

E. How many taps are served outside of the corporate limits/JPB service area? 1 tap

F. Identify names of other water system served: None

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Population growth is not anticipated.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: Negotiable at time of need.

(2) Tap Fee(s) – Commercial: Negotiable at time of need.

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$60.00/month bill ($40.00 for water + $20.00 for sewer), unknown amount of water usage (not metered).

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Regular rates $40.00/month for water and $20.00/month for sewer.

Senior rates $22.00/month for water and $8.00/month for sewer.

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	23,038
b. Annual Revenues from Tap Fees:	$	0
c. Annual Revenues from Other Sources:	$	729
d. Total Annual Revenues:	$	23,767

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	24,001
b. Annual Payments for Debt Retirement:	$	none
c. Annual Payments to a Repair and Replacement Fund:	$	3,061
d. Annual Payments to an Emergency Fund:	$	Same as above
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	27,062

(3) Other

a. Balance in Repair and Replacement Fund:	$	3,824

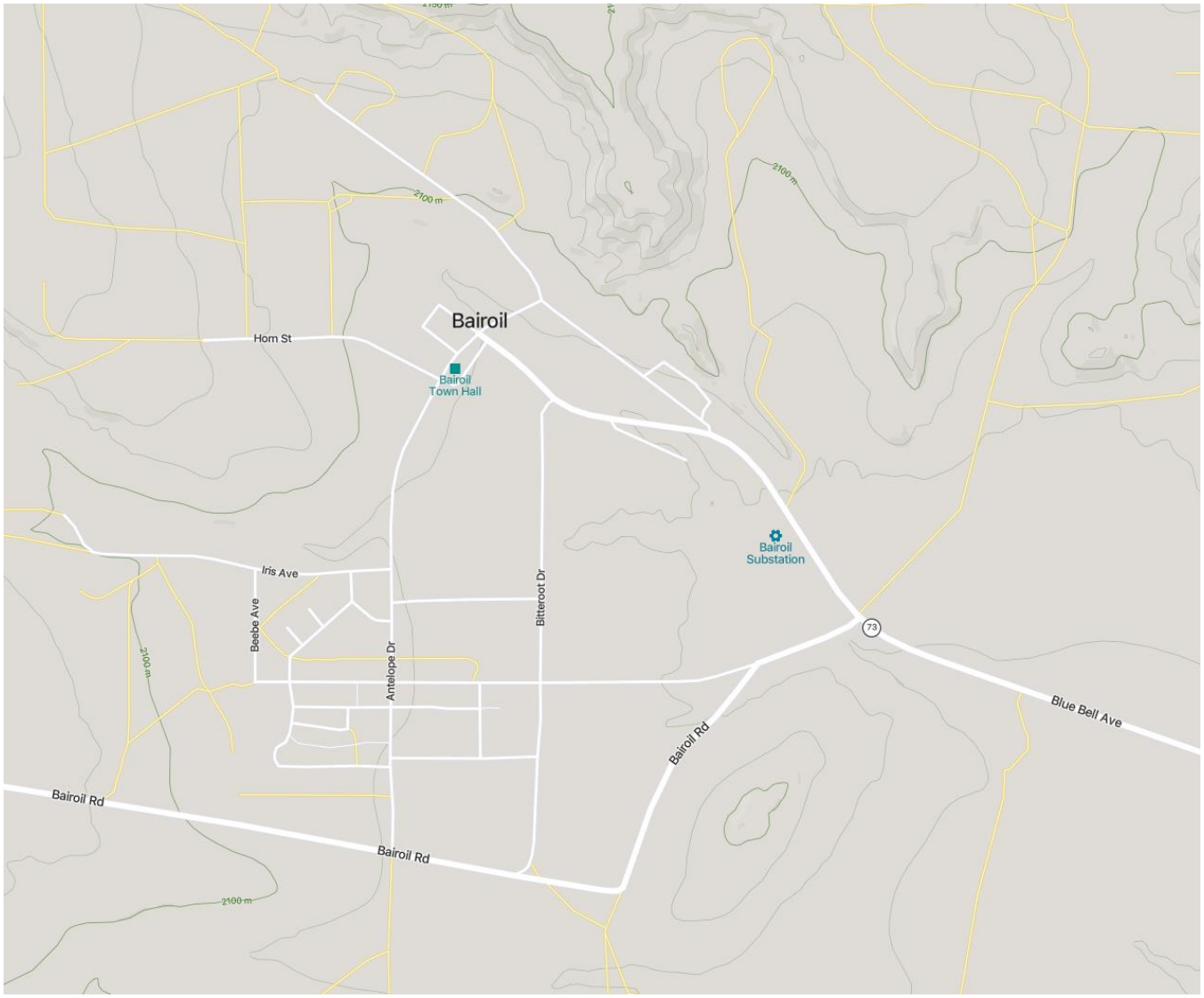
Return to Agenda

b. Balance in Emergency Fund:	$	Same as above
c. Annual Cost of Water Quality Testing:	$	1,763

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? No

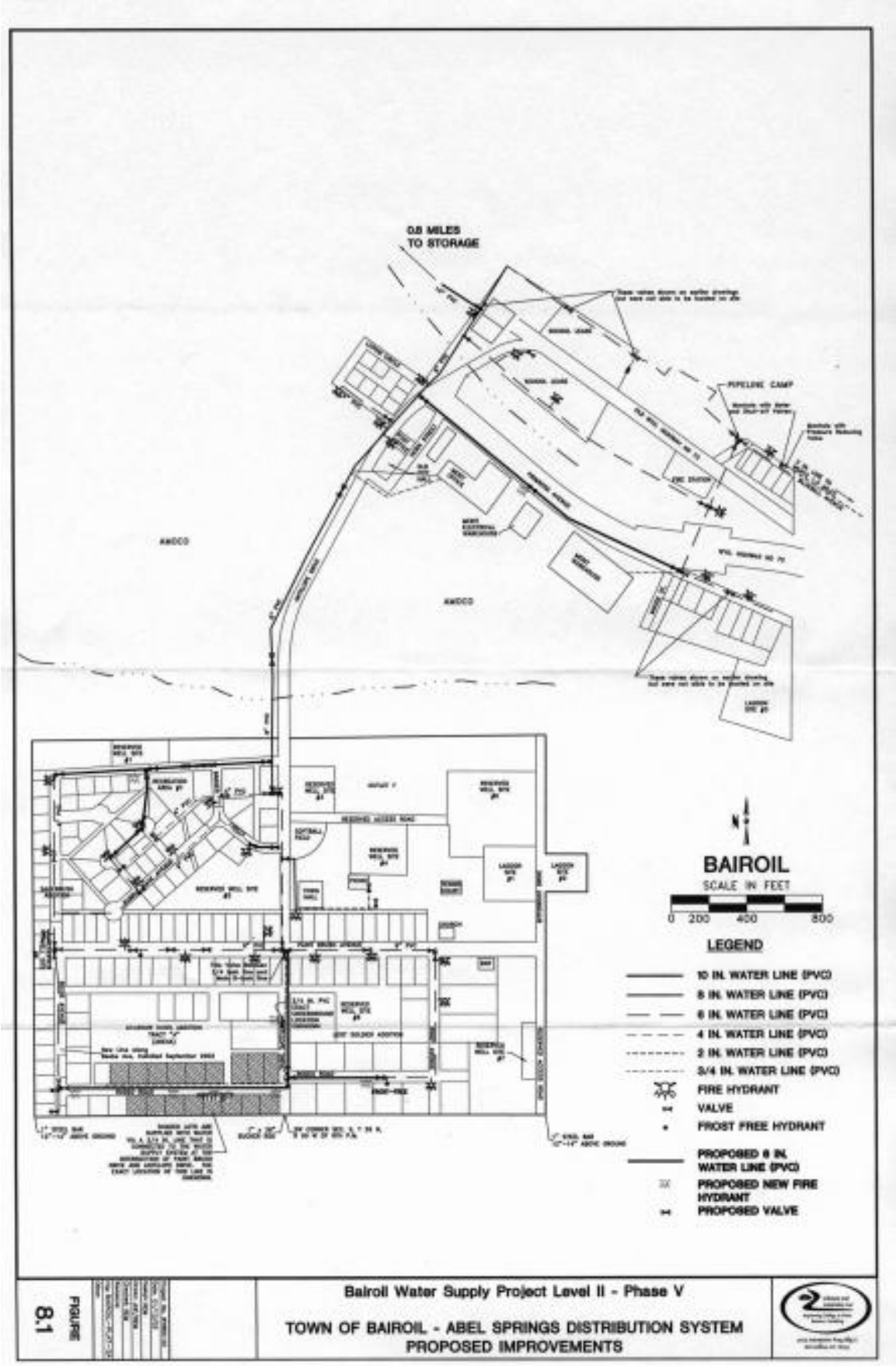
a. If not, how is the difference subsidized? Using contingency reserve.

PROJECT AREA MAPS



Map of the Town of Bairoil, Wyoming

Return to Agenda



Return to Agenda

PHOTOS

Return to Agenda

RESOLUTION

Resolution No. 2023-03

A RESOLUTION OF THE GOVERNING BODY OF THE TOWN OF BAIROIL, SWEETWATER COUNTY, WYOMING, AUTHORIZING THE SUBMISSION OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR ASSISTANCE IN DEVELOPING A WATER MASTER PLAN FOR THE TOWN OF BAIROIL

WHEREAS, the Governing Body for the Town of Bairoil, Sweetwater County, Wyoming, wishes o provide the best possible service to its residents; and

WHEREAS, the Town of Bairoil's water system is experiencing issues in regards to the end of is design life and maintenance issues; and

WHEREAS, the Town of Bairoil is in need of a master plan to ensure that in the future it can ovide an adequate municipal water supply to its residents;

NOW, THEREFORE, BET IT RESOLVED by the Governing Body of the Town of Bairoil, weetwater County, Wyoming, that submission of an application to the Wyoming Water Development ommission requesting financial assistance with its master plan to evaluate its water system is hereby uthorized.

BE IT FURTHER RESOLVED that Mayor Lowell Clawson is hereby authorized to act on ehalf of the Town of Bairoil on all matter relating to this request to the Wyoming Water Development ommission.

PASSED AND APPROVED at a regularly scheduled town council meeting of the Bairoil Town ouncil on this 15th day of March, 2023.

Lowell Clawson
Mayor

ATTEST:

Ashley Hopkins
own Clerk

TATE OF WYOMING)
ss.
OUNTY OF SWEETWATER)

This instrument was acknowledged before me on March 15th, 2023, by Lowell lawson.

Ashley Marie Hopkins
Notary Public

My commission expires: July 26, 2024

ASHLEY MARIE HOPKINS - NOTARY PUBLIC
County of Sweetwater
State of Wyoming
My Commission Expires July 26, 2024

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Chugwater Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Platte

Sponsor: Town of Chugwater

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Town of Chugwater is requesting funding for a Level I reconnaissance-level water master plan to fully evaluate the infrastructure of the Town's public water system. The study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: Keith E. Clarey, PG

I. PROJECT DESCRIPTION

The Town of Chugwater is seeking WWDC funding to complete a Level I water master plan for the municipal water utility. This study will include a review of the entire water system to include water source supply reliability, water storage capacity, water transmission pipeline capacity, distribution pipeline network functionality, and SCADA. Of particular interest is a possible problem with Tank No.1 not being able to maintain capacity and draining a portion of the north part of the system. This potential water system imbalance has already impacted service to residences in this area. It has been almost 30 years since the last master plan study was completed on the Chugwater system.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Chugwater Water Supply	I	15	1996	I	$ 75,000	1998
Chugwater Water Supply	II	46	1997	I	$ 100,000	1998
Chugwater Water Supply	III	45	1997	II	$ 103,500*	2000
Chugwater Water Supply	III	16	1999	I	$ 967,800**	2003****
Chugwater Water Supply	III	69	2003	I	$ 240,000**	2005****
Chugwater Water Supply	III	147	2005	I	$ 0	2007****
Chugwater Water Supply	III	105	2006	I	$ 134,000***	2010

*50% grant
**60% grant
***67% grant
****This reversion date was extended to 2010.

2. Describe the location of the project:

The Town of Chugwater is located in Platte County and resides within the North Platte River Basin. The town has a population of approximately 163 people and they are served through 174 taps within the corporate limits. The town is supplied with Brule Formation groundwater from three (3) wells and the wells have a total combined yield of 475 gpm. Two of the wells are located in the center of town and one well is remote. The wells supply groundwater via transmission pipelines to the two (2) 190,000-gallon, underground concrete storage tanks, which are located

Return to Agenda

north and west of town, and the distribution system. The supplied water is treated by chlorination and stored in the tanks. The water system is operated using a SCADA system.

3. Summarize the request:

A Level I water master plan is requested by the Town of Chugwater to evaluate the current condition of their water system and to provide the tools and guidance necessary to assist in the planning, rehabilitation, upgrading, and managing of their system. The Town of Chugwater is especially concerned with fully evaluating wells 3 and 4 and investigating the need for an additional well or wells; looking into the condition of the storage tanks (sp01 & sp02); recommending SCADA upgrades; investigating water loss accountability including leak testing of transmission lines; looking into installing flow meters at the pump; and the need for backup power and redundancy. The plan would serve as a framework to establish project priorities and to perform financial planning necessary to meet those priorities. The plan would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

The Town of Chugwater is requesting a Level I water master plan to evaluate the components of the existing system and to provide a schedule for improvements. The plan will also identify system needs and develop a plan for future growth.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project? N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

    A. Number of Taps: 174 taps

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they (RUS, SRF, other)? RUS, SRF, etc.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? No

7. What is monthly water bill for 5,000 gallons? $31.75

    A. 20,000 Gallons? $65.00

8. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600200

B. Groundwater

(1) Number of Wells: 3

(2) Primary Supply Aquifer(s) or Formation(s): Brule Formation (located between the overlying Arikaree Formation and the underlying Chadron Formation)

(3) Total Average Production Yield of All Wells (GPM): 475 gpm

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 3,525,000 gpd

(2) Increased Capacity Needed (If Known) (Gallons per Day): None

(3) Approximate Distance from Source(s) to Distribution System: Distance varies (see attached map).

(4) Transmission Pipe Diameter(s): 6-inch, 8-inch, & 10-inch PVC from storage tanks to distribution system & sources

(5) Type of Transmission Pipe Material(s): PVC and HDPE

(6) Age of Transmission Pipeline(s): 20 years old to the new tank & 24 years to the old tank

(7) Condition of Transmission Pipeline(s): Good

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): 190,000 gallons, underground concrete storage tanks

(2) Treated (Volume and Tank Description): 190,000 gallons

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Unmetered includes pipeline flushing & city tree drip system.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 190 gpcpd

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 708 gpcpd

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): Unknown at this time.

G. Distribution Pipe Diameter(s): 6-inch & 8-inch distribution pipeline sizes.

H. Type of Distribution Pipe Material(s): PVC

I. Age of Distribution Pipeline(s): They date back to the late 1980s.

J. Condition of Distribution Pipeline(s): Fair?

K. Estimated System Water Losses (Percentage): 8%

L. Describe any fire flow protection that the system provides:

The Town of Chugwater provides fire protection through a series of fire hydrants located throughout the distribution system network with water supplied from the aggregate 190,000-gallon storage tank.

M. What water conservation measures are employed?

The town seeks to address water conservation through the annually increasing water utility tiered rates.

N. Is there an independent raw water irrigation system? N/A

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 175 B. Current Population Estimate: 163

C. Does the applicant have a comprehensive planning boundary? No

(1) If so, what is the estimated additional population that may be served in the future? N/A

D. How many taps are served within the corporate limits/JPB service area? 174 taps

E. How many taps are served outside of the corporate limits/JPB service area? 0

F. Identify names of other water system served: N/A

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

The town is unaware of any existing reports addressing growth management across the Chugwater's corporate limits and planning service area.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $1,000.00 for a single residential connection not exceeding 1"

(2) Tap Fee(s) – Commercial: $2,000.00 for commercial business connection not exceeding 1"

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

For 5,000 gallons $31.75; For 10,000 gallons $42.50/month; For $20,000 gallons $65.00/month

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Residential Rate – Base: $22.25 for first 1,000 gallons. $2.25 per additional 1,000 gals.

Small Business Rate – Base: $32.00 for first 1,000 gallons. $2.50 per additional 1,000 gals.

Large Business Rate – Base: $65.00 for first 1,000 gallons. $2.50 per additional 1,000 gals.

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

None, N/A

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	38,706
b. Annual Revenues from Tap Fees: None last year, collected at the time of tap installation	$	0
c. Annual Revenues from Other Sources: From bulk water sales	$	765
d. Total Annual Revenues:	$	39,471

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	$16,752
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	N/A
d. Annual Payments to an Emergency Fund:	$	Interest collected from CDs
e. Annual Payments for Other Purposes:	$	N/A

Return to Agenda

f. Total Annual Payments:	$	$16,752

(3) Other

a. Balance in Repair and Replacement Fund:	$	N/A
b. Balance in Emergency Fund:	$	$182,202
c. Annual Cost of Water Quality Testing:	$	2,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

PROJECT AREA MAP

Town of Chugwater, WY

Return to Agenda

PHOTOS

Return to Agenda

RESOLUTION

Resolution 2023-03

A RESOLUTION AUTHORIZING SUBMISSION OF A WATER DEVELOPMENT PROGRAM APPLICATION TO THE WATER DEVELPOMENT COMMISSION ON BEHALF OF THE GOVERNING BODY FOR THE TOWN OF CHUGWATER

FOR THE PURPOSE OF a Water Master Plan Study

WITNESSETH

WHEREAS, the Governing Body for the TOWN OF CHUGWATER desires to participate in the Water Development program: and

WHEREAS, the Governing Body for the TOWN OF CHUGWATER

recognizes the need for the project: and

WHEREAS, the Water Development Commission requires that certain criteria be met, as described in the Water Development Program Application, and to the best of our knowledge this request meets those criteria; and

WHEREAS, the Governing Body of the TOWN OF CHUGWATER plans to provide $2,000 for the application fee, from the town general contingency water fund with the submission of the project application; and

WHEREAS, the Governing Body of the TOWN OF CHUGWATER understands that if denied, 75% of this application fee will be refunded: and

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE TOWN OF CHUGWATER

that a Water Development Program Application with an application fee of $2,000 be submitted to the Water Development Commission for consideration.

BE IT FURTHER RESOLVED, that Mayor Carol Ash is hereby designated as the authorized representative of the TOWN OF CHUGWATER to act on behalf of the Governing Body on all matters relating to this request.

PASSED, APPROVED AND ADOPTED this 24th day of February, 2023

Carol Ash

Mayor

Linda Webster

Attest

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Douglas Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Converse

Sponsor: City of Douglas

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The City of Douglas is requesting a Level I water master plan study to fully evaluate the infrastructure of the City's water supply system. The study will evaluate the current condition of their water system, structures, and provide tools and guidance needed to assist in the planning, rehabilitating, upgrading, managing of the system, water storage and planning for future growth. This study will also be an update to the previous Level I master plan, completed in 2010.

Project Manager: Julie Gondzar

I. PROJECT DESCRIPTION

The City of Douglas is proposing to sponsor a Level I Water Master Plan update, to reflect the current needs and issues with their water system. The City of Douglas' last water master plan was completed in 2010. The requested project would analyze the current condition of the water system, evaluate the ability of the system to efficiently provide water to the growing population, and guidance for managing the system.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Douglas Water Master Plan	I	46	1997	I	$ 100,000	1998
Douglas Water Supply Project	III	16	1999	I	$ 1,995,000	2002
Douglas Water Supply Rehabilitation	II	81	1999	II	$ 60,000	2000
Douglas Water Master Plan	I	66	2009	I	$ 200,000	2010
Douglas Box Elder Spring	III	63/55	2011/16	I	$ 9,447,000	2019
Douglas Test Well Study	II	65	2017/23	I	$ 1,655,000	2020/26

2. Describe the location of the project:

The City of Douglas, Wyoming, is located in Converse County, with a population of approximately 6,120 residents. The City's water system has three water sources to meet its potable water demands, including two groundwater sources (Sheep Mountain Well and Little Box Elder Spring) and one surface water source (North Platte River), with four water storage tanks (total capacity of 6,000,000 gallons). Groundwater supplies are from the Casper Sandstone and Madison Limestone formations. A Level II test well study is currently underway through the Wyoming Water Development Commission. This test well study will help to provide the City with better long-term water source sustainability.

3. Summarize the request:

The City of Douglas has requested an updated Level I water master plan to address aging infrastructure, assessing the surface water facility (sand filter plant), implementation of a successful raw water system, adapting to potential growth and how it affects water supply and water rights, implementing redundancy on the east side of the City, and the long-term sustainability of the water system in relation to the boundaries of the North Platte water cap. The master plan will provide an inventory and evaluation of the entire water system and will provide the tools and guidance necessary to assist in the planning, rehabilitation, upgrading, and managing of their system. It will also provide updated GIS mapping, an updated hydraulic model analysis of their entire system, improvement projects and their priorities, water supply in pressure zones, an evaluation of their current SCADA system, and an evaluation of their current rate system. The updated plan would serve as a framework to establish project priorities and to perform financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

There are several specific concerns that the City of Douglas would like addressed in the updated water master plan. Aging infrastructure primarily consists of aging water storage tanks, and the ability to take the tanks offline for purposes of rehabilitation. Leak detection and evaluating areas of water loss will be crucial for this master plan to address for the City. The City's surface water facility (sand filter plant) does not allow enough flexibility or capacity for water quality changes that occur. A raw water system is needed and there are concerns about how to implement that. The City has a high potential of growth in certain areas, and assessments are needed to address concerns about water supply and water rights. With all the water coming into Douglas through transmission lines from the west side of the City, there is concern about the lack of redundancy for the east side of the City. Finally, the City of Douglas would like to have a higher confidence in the long-term sustainability of their water system as it relates directly to the institutional limitations and boundaries.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: 2,687

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? RUS, SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

The City of Douglas is part of a regionalized system, as it supplies and treats water that serves several districts (Ridgewater Estates, Sundance Meadows and Lonetree Trailer Park).

7. What is monthly water bill for 5,000 gallons? $47.30

   A. 20,000 Gallons? $89.60

8. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY 5600137

B. Groundwater

(1) Number of Wells: 1

(2) Primary Supply Aquifer(s) or Formation(s): Casper Sandstone, Madison Limestone

(3) Total Average Production Yield of All Wells (GPM): 1100 GPM (May to October)

C. Surface Water

(1) Source Name(s): North Platte River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Intake structure on river flows to slow sand water treatment plant

(3) Total Average Diversion Yield (CFS of GPM): 550 GPM (May to September)

D. Springs

(1) Name of Spring(s): Little Box Elder Spring

(2) Total Average Production Yield of All Springs (CFS or GPM): 1180 GPM (annual average)

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Little Box Elder Spring: 2.3 million GPD, and Sheep Mountain Well 1.8 million GPD

(2) Increased Capacity Needed (If Known) (Gallons per Day): Little Box Elder Spring: 0 GPD, Sheep Mountain Well: 1.8 million GPD

(3) Approximate Distance from Source(s) to Distribution System: Little Box Elder Spring: 16 miles, Sheep Mountain Well: 5.5 miles

(4) Transmission Pipe Diameter(s): Little Box Elder Spring: 16”, Sheep Mountain Well: 12”

(5) Type of Transmission Pipe Material(s): Little Box Elder Spring: PVC, Sheep Mountain Well: PVC, ductile iron creek crossings

(6) Age of Transmission Pipeline(s): Little Box Elder Spring: 3 years, Sheep Mountain Well: 29 years

(7) Condition of Transmission Pipeline(s): Good to fair

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): 6,000,000 gallons (four water storage tanks)

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination, and filtration/chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Water from fire hydrants during flushing, flow testing and emergency use is not metered. Fire protection lines in commercial buildings are also not metered.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 237 G/PC/D

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 554 G/PC/D

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 948 G/PC/D

G. Distribution Pipe Diameter(s): 4" to 16"

H. Type of Distribution Pipe Material(s): Asbestos cement, cast iron, ductile iron, PVC

I. Age of Distribution Pipeline(s): 75 years old to new

J. Condition of Distribution Pipeline(s): Poor to new

K. Estimated System Water Losses (Percentage): 15% estimate

L. Describe any fire flow protection that the system provides:

Fire hydrants are spread out through the water distribution system and several buildings have fire suppression systems. The water storage tanks are designed with three storage components: equalization storage, emergency storage, and fire protection storage. Fire hydrants are flow tested on a five-year cycle.

M. What water conservation measures are employed? N/A

N. Is there an independent raw water irrigation system? Yes

(1) Raw Water System Capacity (Gallons per Day): 907,000 GPD, water right

(2) Average Annual Raw Water Usage (Gallons per Year): 67,700,000 G/Y

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 6,120 B. Current Population Estimate: 6,400

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 4,200

D. How many taps are served within the corporate limits/JPB service area? 2,687

E. How many taps are served outside of the corporate limits/JPB service area? 61

F. Identify names of other water system served:

Lonetree Trailer Park, Ridgewater Estates, Sundance Meadows

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Douglas Master Plan, completed in 2010

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: ¾ to 1": $2,750; 1½": $5,500; 2": $8,800; 3": $16,500; 4":$30,250

(2) Tap Fee(s) – Commercial: ¾ to 1": $2,750; 1½": $5,500; 2": $8,800; 3": $16,500; 4":$30,250

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$44.48, 4,000 gallons

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Customer Service Charge: $5.00, Demand Charge: $28.20

Commodity Charge: 1,000 gallons thru 30,000 gallons: $2.82 per 1,000 gallons
31,000 gallons and over: $3.63 per 1,000 gallons

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

N/A

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	2,800,000
b. Annual Revenues from Tap Fees:	$	38,000
c. Annual Revenues from Other Sources:	$	373,000
d. Total Annual Revenues:	$	3,211,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	2,383,212
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	1,120,000
d. Annual Payments to an Emergency Fund:	$	Combined in reserve acct.
e. Annual Payments for Other Purposes:	$	Combined in reserve acct.
f. Total Annual Payments:	$	3,503,212

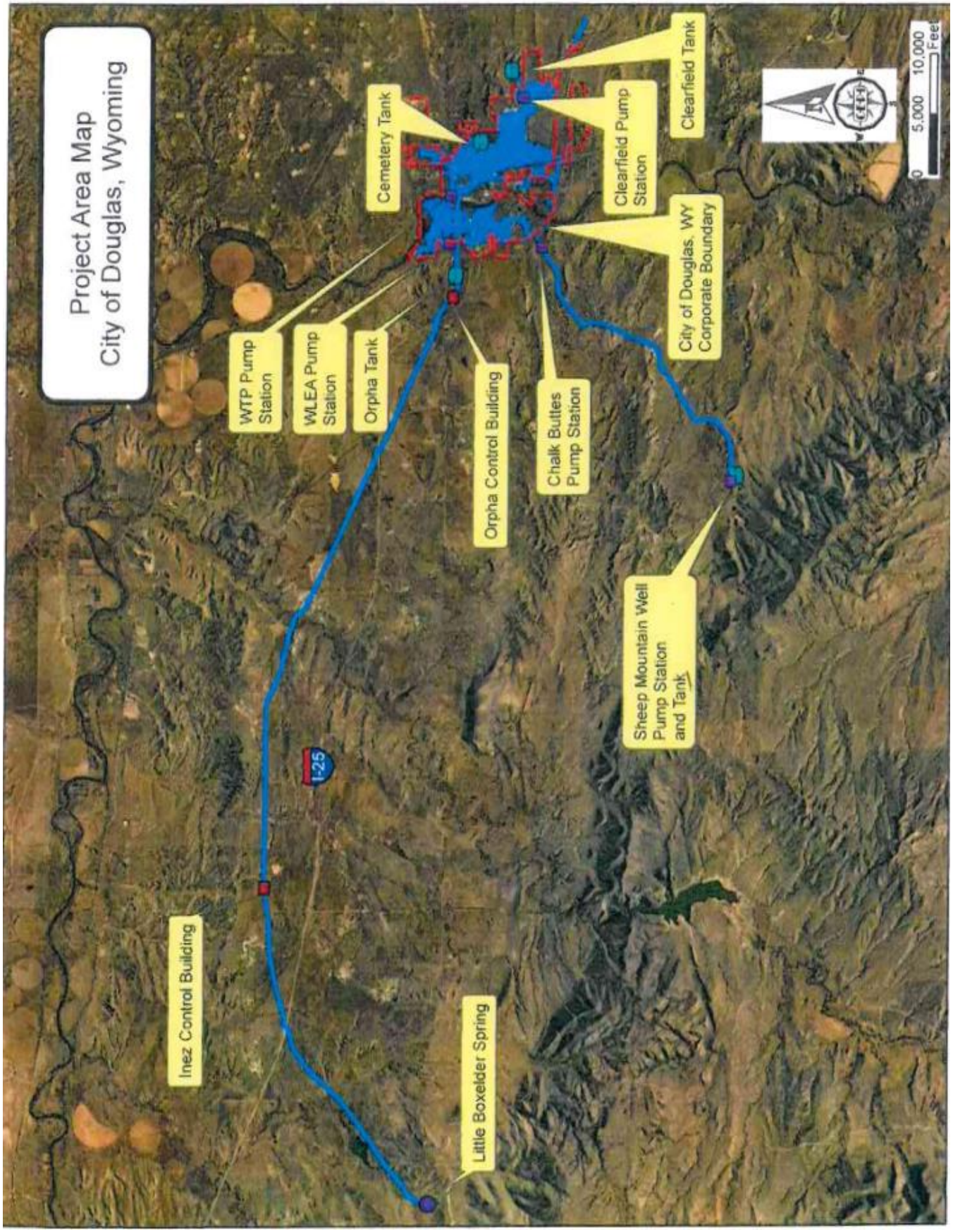
(3) Other

a. Balance in Repair and Replacement Fund:	$	4,697,147
b. Balance in Emergency Fund:	$	Combined in reserve acct.
c. Annual Cost of Water Quality Testing:	$	10,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

Return to Agenda

PROJECT AREA MAP



Return to Agenda

PHOTOS

One of the two river water main line crossings on the North Platte River, west side of the City of Douglas.

City of Douglas water storage tanks

RESOLUTION

STATE OF WYOMING | CITY OF DOUGLAS | CONVERSE COUNTY

RESOLUTION NO. 2023-04

A RESOLUTION AUTHORIZING THE SUBMITTAL OF A WATER SYSTEM MASTER PLAN LEVEL I STUDY APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR THE PURPOSE OF CONDUCTING AN IN-DEPTH RECONNAISSANCE OF THE CITY OF DOUGLAS WATER SYSTEM

WHEREAS, the Governing Body for the City of Douglas desires to participate in a Wyoming Water Development Commission Water System Master Plan Level I study

WHEREAS, the water demand during summer months is approaching the limits of supply production, treatment and water storage

WHEREAS, the City of Douglas continues to experience steady growth; and

WHEREAS, the City of Douglas desires to have both redundancy of water supply and redundancy within the water distribution system

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DOUGLAS, WYOMING, that the City of Douglas is authorized to apply for a Level I Wyoming Water Development Commission study to provide an in-depth reconnaissance of the City of Douglas Water System

BE IT FURTHER RESOLVED, that City Administrator, J.D. Cox, is authorized to act on behalf of the City of Douglas on all matters relating to this grant request.

PASSED, APPROVED, AND ADOPTED this 23rd day of January, 2023.

René S. Kemper, Mayor Pro-Tem
Kim Pexton

Attest:

Chaz Kokesh, City Clerk

State of Wyoming
County of Converse

On this 23rd day of January, A.D. 2023, before me, a notary public in and for said county and state, personally appeared Kim Pexton, known to me to be the Mayor Pro-Tem of the City of Douglas, executed the within instrument and executed the same as Mayor Pro-Tem of said City of Douglas, Wyoming, and caused the corporate seal of the City of Douglas to be affixed thereto, pursuant to authority given by the Governing Body of the City of Douglas by ordinance approved January 5, 1903. Given under my hand and notarial seal the day and year first above written.

My Commission Expires: 2/11/2023

Notary Public

CHAZ SCHUMACHER NOTARY PUBLIC My Commission Expires February 11, 2023 CONVERSE COUNTY, WYOMING

Res. No. 2023-04
Page 1 of 1

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: GR-RS-SC JPWB Regional Water Master Plan **Program:** New Development

Project Type: Joint Powers Water Board Water System **County:** Sweetwater

Sponsor: Green River-Rock Springs-Sweetwater County (GR-RS-SC) Joint Powers Water Broad (JPWB)

WWDO Recommendation: Level I **Proposed Budget:** $TBD

Basis for the Funding Recommendation:

The GR-RS-SC JPWB is requesting a 2024 WWDC regional water master plan, Level I study update to the previous 2009 master plan to evaluate current needs and future planning for the regional water system. The study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: Keith Clarey, PG

I. PROJECT DESCRIPTION

The GR-RS-SC JPWB is seeking funding for a Level I reconnaisance study to conduct a updated regional water master plan of the water system. The requested project would analyze the current condition of the regional water system, evaluate the ability of the system to efficiently provide water to the growing population, and provide guidance for managing the system.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
GR-RS-SC Master Plan, Phase 1	I	75	2005	I	$ 225,000	2008
GR-RS-SC Master Plan, Phase 2	I	85	2007	I	$ 220,000	2010
GR-RS-SC Water Supply Study	II	66	2009	I	$ 350,000	2012
GR-RS-SC Raw Water Reservoir	III	63	2011	I	$ 900,000	2016
GR-RS-SC Raw Water Reservoir	III	14	2012	I	$ 8,282,000	2017
GR-RS-SC Pipeline Feasibility Study	II	168	2015	I	$ 125,000	2018
GR-RS-SC Wind River Zone Study	II	65	2017	I	$ 180,000	2020
GR-RS-SC Pump Station & Transmission Study	II	94	2018	I	$ 180,000	2021
GR-RS-SC Eastside Zone Study	II	186	2023	I	$ 228,000	2026

2. Describe the location of the project:

The GR-RS-SC JPWB regional water system is comprised of a 32 MGD surface Water Treatment Plant (WTP) in Green River serving the distribution systems in the City of Green River, City of Rock Springs, four (4) outlying districts, and one (1) industrial customer. The Board is a political subdivision with members appointed by the cities and county. The JPWB owns the systems in the two cities. Each city maintains and operates their respective

Return to Agenda

distribution systems. A previous WWDC Level I water master plan was completed in 2007-2009 (2 phases). This previous plan has been invaluable to the JPWB and the two cities. The project recommendations for the 2007-2009 plan have been completed and an updated study is needed to project the needs of the future. The hydraulic model of the system is the core tool used. The model needs to updated and the calibration verified.

The JPWB utilizes computer hydraulic modeling software to perform system analysis and future planning. The mapping of each distribution system is the responsibility of each respective city or district. The mapping is maintained in various formats utilizing GIS, AutoCAD, as-builts, and paper system maps.

3. Summarize the request:

The JPWB is seeking funding for a new Level I regional water master plan to assess the current and future needs of the water system. They are very interested in a full evaluation of previous studies including the master plan (Phase I and II), all Level II reports, Sweetwater County planning for the South Baxter Basin, water rights and water resource studies, transient analysis (verify), and the finished water backup generator. The JPWB wants to include planning for growth in the GR-south side/Jamestown/I-80 and in the RS-Summit Pump Station/South Baxter/Eastside Zone. Also, the Board would like comprehensive planning for water conservation (including quantification of reductions in consumptive water use), existing and future system capacity, component life cycle analysis, and an evaluation of future regulatory demands. This JPWB regional water system is large and complex and the updated plan would serve as a framework to establish project priorities and to perform the appropriate financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

The JPWB is requesting a 2024 Level I reconnaissance study to evaluate the current and future needs of the regional water system. An updated master plan will allow the JPWB to evaluate system deficiencies, ensure system viability for future growth, prioritize improvement projects, and provide a schedule for identified projects

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: GR, RS, + Districts = 14,150 taps total

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? RUS, SRF, and others.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

The GR-RS-SC JPWB is the regional wholesale treated surface water provider for Green River, Rock Springs, four outlying districts, and one industrial customer. The JPWB is the sponsor for this project.

7. What is monthly water bill for 5,000 gallons? N/A (wholesale water sales only)

   A. 20,000 Gallons? N/A (wholesale water sales only)

8. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600050

B. Groundwater

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): Green River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Cut-Off Wall/Wet Wall with Vertical Turbine Pumps.

(3) Total Average Diversion Yield (CFS of GPM): Average 6,700 gpm, Capacity 22,000 gpm

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 19,400,000 gpd to RS

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: WTP to RS is approximately 14 miles.

(4) Transmission Pipe Diameter(s): 30-inch Steel & 20-inch AC (Asbestos Cement)

(5) Type of Transmission Pipe Material(s): Mortar-Lined Steel & Asbestos Cement (AC)

(6) Age of Transmission Pipeline(s): 29 Years & 53 years

(7) Condition of Transmission Pipeline(s): 30-inch is average & 20-inch is over-pressured in sections

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): 330-Acre-Foot, Lined Reservoir

(2) Treated (Volume and Tank Description): Total Storage GR & RS = 21 MG. Buried Concrete & Steel Tanks.

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Conventional – Ozone, Filtration, Chlorination.

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

No Unmetered Usage

D. Average Day Demand Water Usage (Gallons per Capita per Day): 200 gpcpd

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 400 gpcpd

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 625 gpcpd

G. Distribution Pipe Diameter(s): 6-inch Minimum up to 14-inch Distribution

H. Type of Distribution Pipe Material(s): DI/CI/AC/PVC

I. Age of Distribution Pipeline(s): Varies, Some New Installation/Replacement to 50+ Years.

J. Condition of Distribution Pipeline(s): New to Poor

K. Estimated System Water Losses (Percentage): Average 12% to 15%

L. Describe any fire flow protection that the system provides:

Fire Storage Volume is calculated into the tank storage requirements and tank cycling is maintained above those levels. Standard fire hydrant placement throughout the city.

M. What water conservation measures are employed?

Responsible water use is encouraged though out the city.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 39,500 total GR+RS+Districts B. Current Population Estimate: 38,900 total GR+RS+Districts

GR 11,825
RS 23,526
SC 42,272

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? Demand = 37.8 MGD

D. How many taps are served within the corporate limits/JPB service area? 14,150 taps (total taps in GR+RS+Districts)

E. How many taps are served outside of the corporate limits/JPB service area? None

F. Identify names of other water system served:

City of Green River, City of Rock Springs, Jamestown-Rio Vista Water & Sewer District, Clearview Service District, White Mountain Water & Sewer District, Ten Mile Water & Sewer District, Simplot Phosphates

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

The Sweetwater County Growth Management Plan can be obtained at the Sweetwater County Planning Department in Green River or at www.sweetwatercountywy.gov

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: The JPWB does not serve residential customers directly, wholesale water only.

(2) Tap Fee(s) – Commercial: The JPWB does not serve commercial customers directly, wholesale water only.

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

See above.

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Wholesale water rates from JPWB to:

City of Green River and Jamestown-Rio Vista = $1.2905 per hundred cubic feet; and

City of Rock Springs, Districts near RS, Simplot = $1.4717 per hundred cubic feet.

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

Wholesale rates are established by the JPWB to cover the cost of treatment, O&M, debt service, and to fund reserves associated with treatment plant.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	6,529,000
b. Annual Revenues from Tap Fees:	$	N/A
c. Annual Revenues from Other Sources:	$	827,000
d. Total Annual Revenues:	$	7,356,000

(2) Expenditures

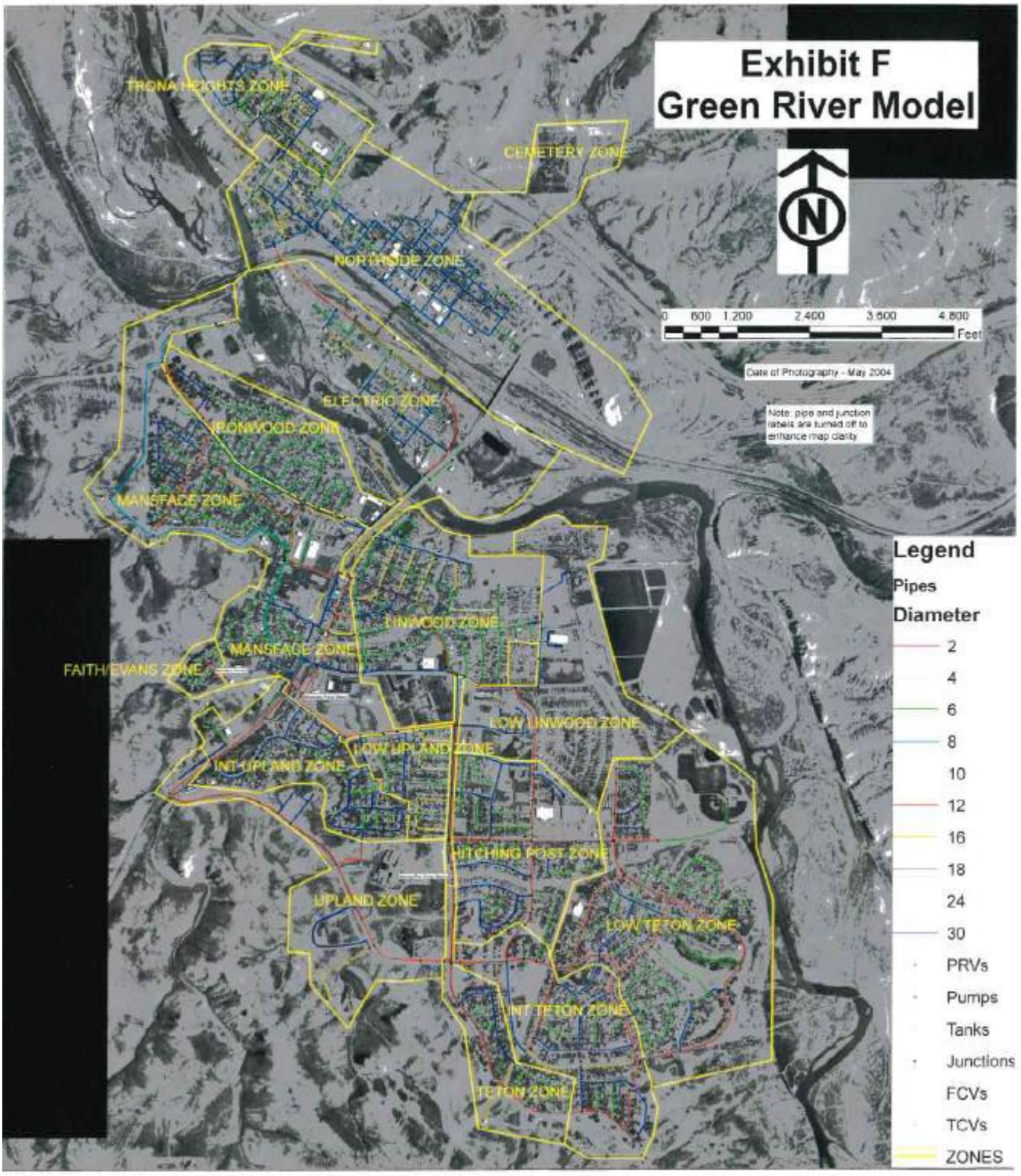
a. Annual Budget for Operation and Maintenance Expenses:	$	4,665,000
b. Annual Payments for Debt Retirement:	$	1,916,000
c. Annual Payments to a Repair and Replacement Fund:	$	775,000
d. Annual Payments to an Emergency Fund:	$	Reserves on hand
e. Annual Payments for Other Purposes:	$	N/A
f. Total Annual Payments:	$	7,356,000

(3) Other

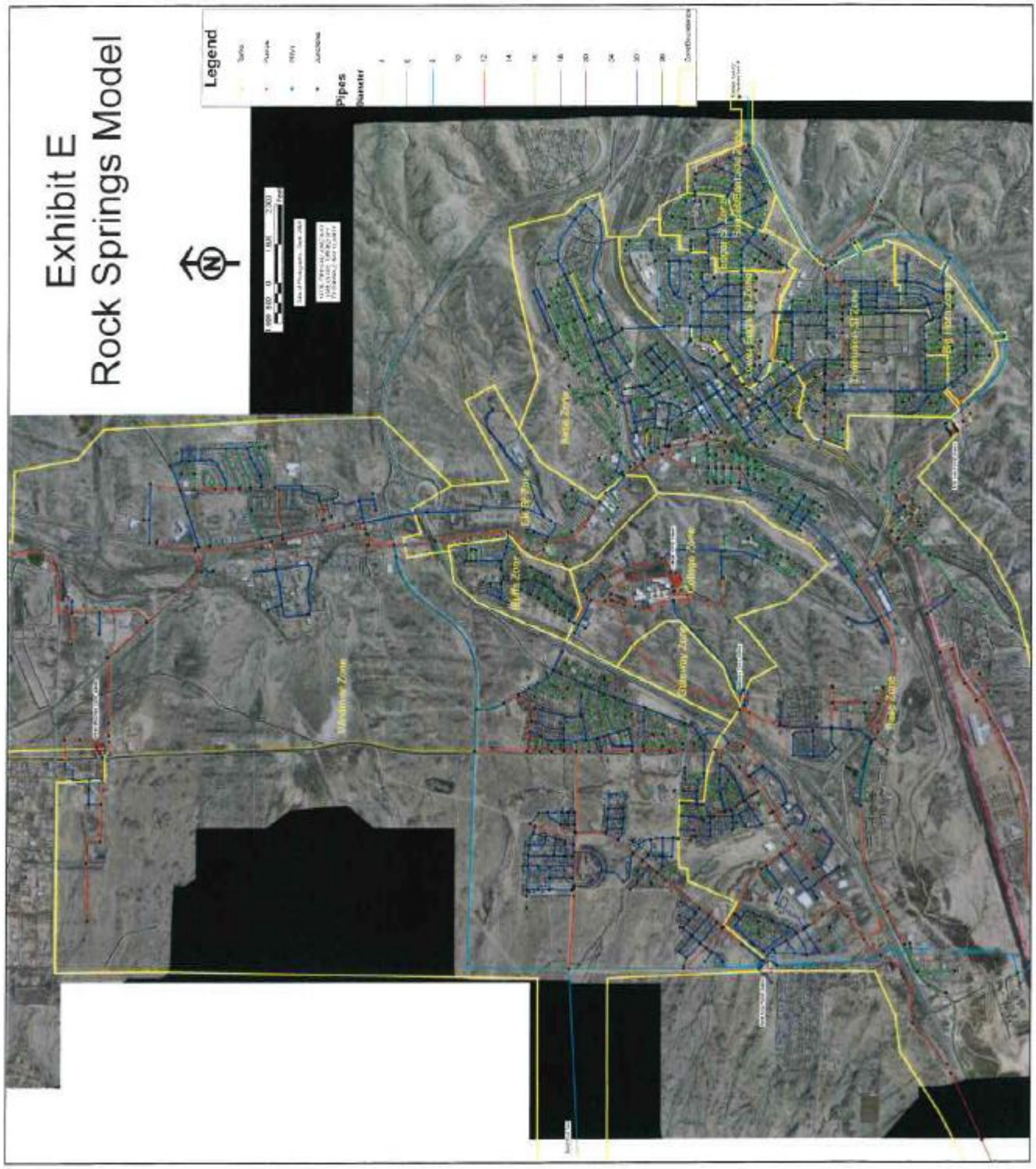
a. Balance in Repair and Replacement Fund:	$	3,781,000
b. Balance in Emergency Fund:	$	2,304,000
c. Annual Cost of Water Quality Testing:	$	14,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

PROJECT AREA MAPS



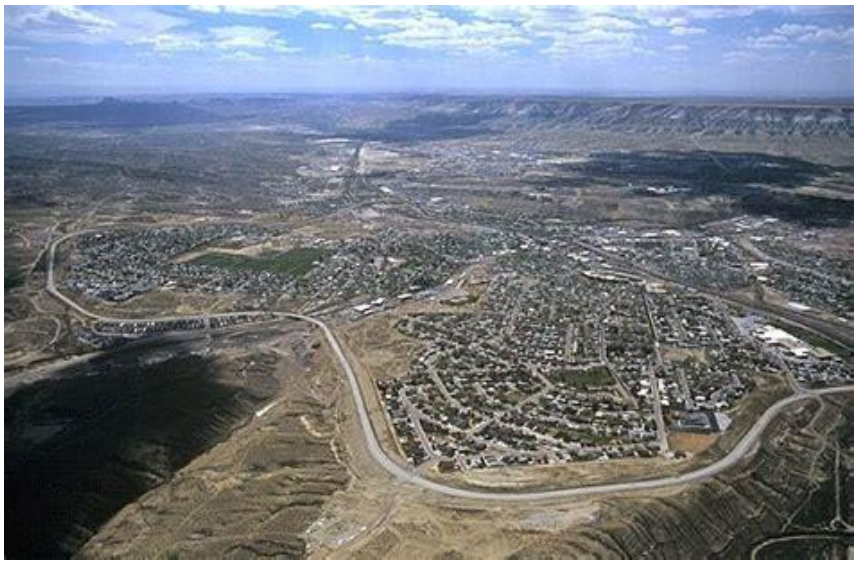
Return to Agenda



Return to Agenda

PHOTOS

Aerial view of Green River, Wyoming



Aerial view of Rock Springs, Wyoming

Return to Agenda

RESOLUTION

RESOLUTION 23-05

GREEN RIVER•ROCK SPRINGS•SWEETWATER COUNTY JOINT POWERS WATER BOARD

A RESOLUTION AUTHORIZING SUBMISSION OF A REQUST FOR A LEVEL I STUDY FOR AN UPDATED WATER SYSTEM MASTER PLAN TO THE WYOMING WATER DEVELOPMENT COMMISSION, ON BEHALF OF THE GOVERNING BODY FOR THE CITY OF GREEN RIVER, WYOMING, CITY OF ROCK SPRINGS, WYOMING, SWEETWATER COUNTY, WYOMING, JOINT POWERS WATER BOARD (JPWB) FOR THE PURPOSE OF PERFORMING A STUDY THAT EVALUATES THE JPWB'S WATER SYSTEM IN ITS ENTIRETY

WHEREAS, the Governing Body for the JPWB was the sponsor of a Wyoming Water Development Commission Level I, Water System Master Plan Phase I dated January 2007, and Water System Master Plan Phase II dated January 2009; and

WHEREAS, the Governing Body for the JPWB desires to update these studies to provide a thorough review of the JPWB's current system and provide updated system recommendations; and

WHEREAS, the Governing Body for the JPWB recognizes the need for the project; and

WHEREAS, the Wyoming Water Development Commission requires that certain criteria be met, as described in the "Operating Criteria of the Wyoming Water Development Program",

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF GREEN RIVER, WYOMING, CITY OF ROCK SPRINGS, WYOMING, SWEETWATER COUNTY, WYOMING, JOINT POWERS WATER BOARD that a Level I Study request be submitted to the Wyoming Water Development Commission on or before March 1, 2023.

BE IT FURTHER RESOLVED, that the General Manager is hereby designated as the authorized representative of the JPWB to act on behalf of the JPWB Governing Body on matters relating to this application and is the designated signatory for the application.

PASSED, APPROVED, AND ADOPTED THIS 23rd DAY OF February 2023:

B. Terry Leigh
Terry Leigh, Chairman

ATTEST: Hilady Huckfeldt
Hilady Huckfeldt
Secretary/Treasurer

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Hudson Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Fremont

Sponsor: Town of Hudson

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

A WWDC Master Plan was previously completed in 2009 and the Town is in need of an updated master plan. The updated study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: George Moser

I. PROJECT DESCRIPTION

Hudson sources potable water from an alluvial wellfield combined with a water treatment plant. The Town has a separate system for high-demand landscape watering areas and some residents use surface water for lawn watering. Hudson does not currently utilize any GIS system and does not possess a calibrated hydraulic model. In addition to updated mapping and modeling, this project will develop system improvement recommendations and a plan to address those improvements.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Hudson Water System	II	99	2006	I	$ 575,000	2009
Hudson Water Supply	III	38	2009	I	$ 1,520,000	2014

2. Describe the location of the project:

Hudson is located near the confluence of the Little Popo Agie and the Popo Agie Rivers in Fremont County.

3. Summarize the request:

Hudson desires a Reconnaissance Study of the water system to include GIS work, hydraulic modeling, and evaluation of alternate water sources. The updated plan would serve as a framework to establish project priorities and to perform the appropriate financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

Components of a Water Master Plan were developed as part of the 2007 Level II Study. The Town needs an updated Water Master Plan to identify and prioritize deficiencies and assist with future water system enhancements.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

Return to Agenda

A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

A. Number of Taps: 250

4. Is the sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they (RUS, SRF, other)? RUS, SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Hudson is not currently served by a regional system, but is strongly in favor of being served by [a regional system]. *From application received February 28, 2023.*

7. What is the monthly water bill for 5,000 gallons? $ 55.50

A. 20,000 Gallons? Summer = $89.60; Winter = $80.30

8. Can the project be delayed or staged? Yes

A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: 5600183

B. Groundwater

(1) Number of Wells: 11

(2) Primary Supply Aquifer(s) or Formation(s): Little Popo Agie Alluvium

(3) Total Average Production Yield of All Wells (GPM): 250 gpm

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Unknown

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: Less than ¼ mile.

(4) Transmission Pipe Diameter(s): 8 to 12 - inch

(5) Type of Transmission Pipe Material(s): Ductile Iron, PVC, Others

(6) Age of Transmission Pipeline(s): Varies

(7) Condition of Transmission Pipeline(s): Unknown

(8) Does the applicant possess clear title to transmission corridor easements? As far as is known

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): 350,000 gallons, Steel

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Low Pressure Membranes, Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Areas of landscaping which are on dedicated separate systems are not metered. Fire protection is unmetered.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 357

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 428

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): Not Known

G. Distribution Pipe Diameter(s): 4", 6", and 8"

H. Type of Distribution Pipe Material(s): Mostly PVC, some ductile iron

I. Age of Distribution Pipeline(s): Varies. Some of the system was replaced 10-15 years ago; however, the extent is unknown.

J. Condition of Distribution Pipeline(s): Fair

K. Estimated System Water Losses (Percentage): 20%

L. Describe any fire flow protection that the system provides:

Fire hydrants with storage in tanks. Approximately 50% of the hydrants are not functional.

M. What water conservation measures are employed?

Billing based on water use.

N. Is there an independent raw water irrigation system? Yes. Much of the town uses surface water appropriations for lawn watering.

(1) Raw Water System Capacity (Gallons per Day): Unknown

(2) Average Annual Raw Water Usage (Gallons per Year): Unknown

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 417 B. Current Population Estimate: 420

C. Does the applicant have a comprehensive planning boundary? No

(1) If so, what is the estimated additional population that may be served in the future? Unknown

D. How many taps are served within the corporate limits/JPB service area? 250

E. How many taps are served outside of the corporate limits/JPB service area? None

F. Identify names of other water system served: N/A

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained: None known.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $500.00

(2) Tap Fee(s) – Commercial: $500.00

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$55.50 for 9,000 gallons in the Summer and 12,000 gallons in the Winter

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Residential: $55.50; School: $62.50; Commercial 5/8” tap: $56.75; Commercial 3/4" tap: $68.70; Commercial 1” tap: $80.70

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

Flow-through for frost prevention in the winter.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	169,000
b. Annual Revenues from Tap Fees:	$	0
c. Annual Revenues from Other Sources:	$	3,600
d. Total Annual Revenues:	$	172,600

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	99,350
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	20,000
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes (SLIB Loan):	$	17,000
f. Total Annual Payments:	$	136,350

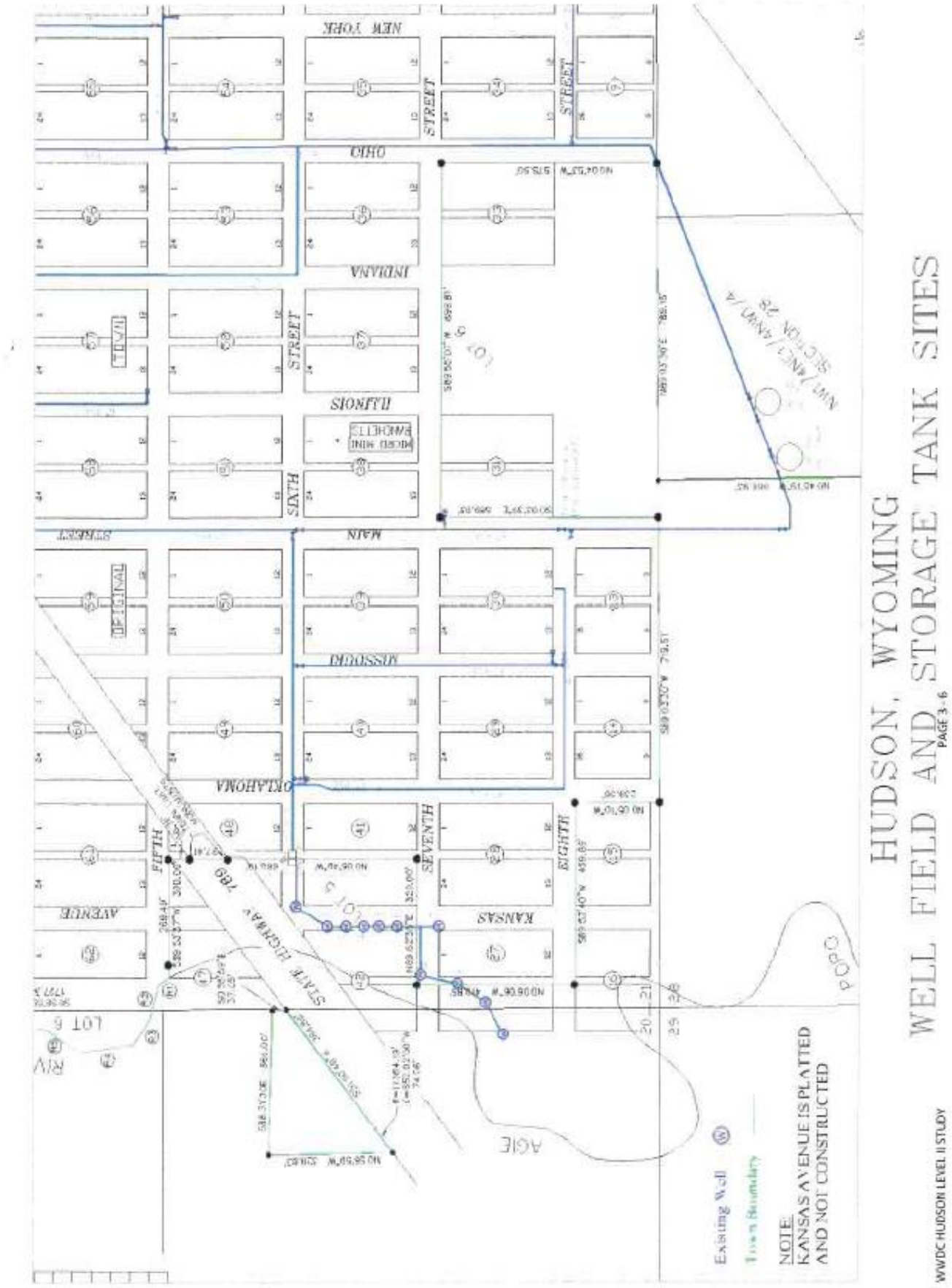
(3) Other

a. Balance in Repair and Replacement Fund:	$	181,350
b. Balance in Emergency Fund:	$	0
c. Annual Cost of Water Quality Testing:	$	3,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

Return to Agenda

PROJECT AREA MAPS



Return to Agenda

Map Depicting Fire Hydrant Locations

PHOTOS

Storage Tanks for Potable System and Cemetery Landscaping

Cemetery Watering Spigot

Treatment Plant Controls

Return to Agenda

Alluvial Wellfield and Treatment Plant

WATER RATES

Date	Table Rate #	Description	Base Rate	Base Usage	Formula	Date	Winter Base	Formula
7/1/2022	101	Water-Residential	$ 55.50	9,000	0.006166		12,000	
	102	Water-Resid/Apart.	$ 55.50	9,000	0.006166		12,000	
	103	Water-Resid. Flat Rate	$ 55.50					
	104	Water-Multi-Resid.	$ 111.00	18,000	0.06166		24,000	
	105	Water-Duplex	$ 55.50	18,000	0.003083		24,000	
	106	Water-No Bill						
	110	Water-Comm 5/8	$ 56.75	9,000	0.006305		12,000	
	111	Water-Comm 3/4	$ 68.70	9,000	0.007633		12,000	
	112	Water-Comm 1"	$ 80.70	9,000	0.008966		12,000	
	113	Water-Comm 1.5"	$ 92.70	9,000	0.013242		12,000	
	120	Water-School	$ 62.50	9,000	0.006944		12,000	
	301	Sewer-Residential	$ 22.00					
	302	Sewer- Resid Apart.	$ 79.00					
	310	Sewer-Commercial	$ 31.50					
	311	Sewer-Comm/Grease Trap	$ 36.00					
	320	Sewer-School	$ 33.75					
		$3.10 per 1,000 gallons over base rate for all rates						
	501	Turn On Fee	$ 40.00					
	901	Non-Access Meter Fee		Water Tap Fees in town			$ 500.00	
	1301	NSF Fee	$ 40.00	Water tap fees out of town			$ 1,000.00	
	1401	Bank Charge		Sewer Tap Fees in town			$ 500.00	
	1801	Miscellaneous		Sewer Tap Fees out of town			$ 1,000.00	
	1901	Late Fee - Water	10%					
	2001	Late Fee - Sewer	10%					

RESOLUTION

RESOLUTION OF THE
TOWN OF HUDSON TOWN COUNCIL
HUDSON, WYOMING

RESOLUTION NO. 23-01_

A RESOLUTION TO REQUEST THAT THE
WYOMING WATER DEVELOPMENT COMMISSION CONDUCT
A LEVEL I RECONNAISANCE STUDY FOR
THE TOWN OF HUDSON POTABLE WATER SYSTEM.

WHEREAS, the Town of Hudson Town Council ("Council") term 2023-2025, is the duly elected governing body of the Town of Hudson; and

WHEREAS, the Council recognizes that there are numerous deficiencies with the Town's potable water system that need to be identified, prioritized, and addressed; and

WHEREAS, the Council recognizes that a Level I Reconnaissance Study conducted by the Wyoming Water Development Commission will provide the Town with a list of deficiencies along with prioritized recommendations on how to address their deficiencies; and

NOW, THEREFORE, BE IT RESOLVED, that the Mayor of Hudson, Wyoming by this resolution is directed and authorized to request that the Wyoming Water Development Commission conduct a Level I Reconnaissance Study of the Town of Hudson's Potable Water System.

CERTIFICATION

The undersigned, as Mayor of the Town of Hudson, Wyoming, hereby certifies that the Town of Hudson Town Council consists of four (4) council members and the mayor and that four (4) council members and the mayor were present constituting a quorum, at a duly called meeting of the Town of Hudson Town Council held on February 22, 2023, and that the foregoing resolution was adopted by a vote of five (5) members FOR, zero (0) members AGAINST, Mayor voting, and that the foregoing resolution has not been rescinded or amended in any way.

DONE AT HUDSON, WYOMING, THIS _22___DAY OF FEBRUARY, 2023.

Sherry Oler

Sherry Oler, Mayor
Town of Hudson, Wyoming

ATTEST:

Kathy Shoopman

Name: Kathy Shoopman
Title: Clerk-Treasurer
Town of Hudson, Wyoming

State of Wyoming
County of Fremont
Subscribed sworn to and
Acknowledged before me
this 22 day of February
2023 by Sherry Oler.

KATHLEEN COLE-SHOOPMAN - NOTARY PUBLIC
COUNTY OF FREMONT
STATE OF WYOMING
MY COMMISSION EXPIRES JULY 25, 2023

Kathleen Cole Shoopman
Notary Public

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Laramie Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Albany

Sponsor: City of Laramie

WWDO Recommendation: Do Not Fund

Proposed Budget: $0

Basis for the Funding Recommendation:

The City of Laramie is requesting a Level I water master plan study to fully evaluate the infrastructure of the City's water supply system. The study will evaluate the current condition of their water system, structures, and provide tools and guidance needed to assist in the planning, rehabilitating, upgrading, managing of the system, water storage and planning for future growth. This study would be an update to the previous Level I water master plan, completed in 2015. **Given Water Development Program funding constraints coupled with the fact that the most recent water master plan was completed for the City of Laramie less than 10 years ago, the Office does not recommend funding for this project at this time.**

Project Manager: Julie Gondzar

I. PROJECT DESCRIPTION

The City of Laramie is proposing to sponsor a Level I Water Master Plan update, to reflect the current needs and issues with their water system. The City of Laramie's last water master plan was completed in 2015.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Laramie Water Management Study, Phase I	II	75	2005	I	$ 330,000	2008
Laramie Water Management Project (meters)	III	105	2006	II	$ 97,150	2011
Laramie Water Management Study, Phase II	II	75/66	2007/09	I	$ 360,000	2010/12
Laramie Transmission Pipeline	III	75/38	2008/09	I	$ 7,730,000	2013/14
South Laramie Water Supply	III	68/14	2010/12	I	$ 2,638,170	2015/17
Laramie Transmission Pipeline	III	14	2012	I	$ 3,120,000	2017
Laramie Water Master Plan	I	74	2014	I	$ 250,000	2017

2. Describe the location of the project:

The City of Laramie, Wyoming, is located in Albany County, with a population of approximately 30,925 residents and 9,700 taps. There is significant growth expected in northern areas. The City's water system consists of four treated water sources (ground water and surface water). Three groundwater well fields are managed to maintain aquifer level, balance system demands and reserve water for drought ride-through, and include three disinfection/fluoridation treatment facilities for the nine groundwater wells. Surface water is drawn in through the City's conventional water treatment plant (located 17 miles to the west) from the Big Laramie River and is optimized

Return to Agenda

during times of highest demand (mostly in the summer). The City has six pressure zones controlled by pump stations and a total of five water storage tanks.

3. Summarize the request:

The City of Laramie has requested an updated Level I water master plan to address water system transmission and capacity concerns, water storage and fire flow evaluation, and an assessment of aging infrastructure. The master plan will provide an inventory and evaluation of the entire water system and will provide the tools and guidance necessary to assist in the planning, rehabilitation, upgrading, and managing of their system. It will also provide updated GIS mapping, an updated hydraulic model analysis of their entire system, improvement projects and their priorities, water supply by pressure zones, an evaluation of their current SCADA system, and an evaluation of their current rate system. The updated plan would serve as a framework to establish project priorities and to perform financial planning necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

4. Summarize the reasons for the request:

There are several main concerns and reasons the City of Laramie is requesting an updated master plan. Water supply is limited by north-south transmission capacity with growth pressure on the north and south borders. An upgrade is needed in order to improve transmission line size and capacity of water in the north-south critical areas. The underground tank in Zone 1 is vital for water storage, and it is significantly aging. This tank acts as the "central hub" for water coming in and going out of the system. An updated master plan could evaluate siting and implementing a new Zone 1 tank so the current Zone 1 tank can be taken offline for rehabilitation. The City's current water model is in need of updates in order to reflect improved and recently updated mapping, and more data may also be needed for this effort. There are aging infrastructure concerns of the City's water treatment plant, which was built in the 1960's. An updated master plan is also needed to address areas where water transmission lines and fire flow lines are undersized.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: 9700

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? RUS, SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? The City of Laramie is self-reliant for their water supply system and also serves the South Laramie Water & Sewer District, 7 Mile Water & Sewer District, and the 9 Mile Water & Sewer District.

7. What is monthly water bill for 5,000 gallons? $47.29 (based on a ¾" meter)

   A. 20,000 Gallons? $141.11 (based on a ¾" meter)

8. Can the project be delayed or staged? Yes

A. Should it be? **Yes. Given Water Development Program funding constraints coupled with the fact that the most recent water master plan was completed for the City of Laramie less than 10 years ago, the Office does not recommend funding for this project at this time.**

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600029

B. Groundwater

(1) Number of Wells: 9

(2) Primary Supply Aquifer(s) or Formation(s): Casper Aquifer

(3) Total Average Production Yield of All Wells (GPM): 1866 GPM Years 2013-2022

C. Surface Water

(1) Source Name(s): Big Laramie River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Headgate with bar screens

(3) Total Average Diversion Yield (CFS of GPM): 1470 GPM Years 2013-2022

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 16 million

(2) Increased Capacity Needed (If Known) (Gallons per Day): 2.751 million

(3) Approximate Distance from Source(s) to Distribution System: Water treatment plant: 17 miles, Spur Well Field: 6 miles, Soldier Well Field: 5 miles

(4) Transmission Pipe Diameter(s): Water treatment plant: 18” and 24”, Spur Well Field: 18”, Soldier Well Field: 16”

(5) Type of Transmission Pipe Material(s): Water treatment plant: HDPE and ductile, Spur Well Field: PVC, Soldier Well Field: Cast

(6) Age of Transmission Pipeline(s): Water treatment plant: 2018 and 1963, Spur Well Field: 1999, Solider Well Field: 1920’s

(7) Condition of Transmission Pipeline(s): Water treatment plant: Good, Spur Well Field: Good, Solider Well Field: Good (pressure limited)

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): None

(2) Treated (Volume and Tank Description): Zone 1 buried concrete (8.5 million gallons), Zone 6 Welded Steel (1 million gallons), Small Zone 2 Welded steel (1.5 million gallons), Large Zone 2 Welded steel (2.1 million gallons), Zone 4 Bolted steel (1 million gallons).

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Coagulation, flocculation, ozonation, filtration, chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Fire protection

D. Average Day Demand Water Usage (Gallons per Capita per Day): 137

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 302.4

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 345.6

G. Distribution Pipe Diameter(s): 4-30 inches

H. Type of Distribution Pipe Material(s): Cast, ductile, steel, HDPE, PVC

I. Age of Distribution Pipeline(s): 1890 - 2022

J. Condition of Distribution Pipeline(s): Poor to new

K. Estimated System Water Losses (Percentage): 11%

L. Describe any fire flow protection that the system provides:

Residential: 1500 GPM for 2 hours, Commercial: 3,000 GPM for 4 hours, Industrial: 4,000 GPM for 4 hours

M. What water conservation measures are employed?

Tiered rate structure. Outreach through city's Water Resource Specialist on conservation strategies such as water-wise landscaping, rain barrel installation, etc.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 30,925 B. Current Population Estimate: 33,008

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 38,943

D. How many taps are served within the corporate limits/JPB service area? 9,700

E. How many taps are served outside of the corporate limits/JPB service area? 17

F. Identify names of other water system served:

South Laramie Water and Sewer District, 7 Mile Water and Sewer District, 9 Mile Water and Sewer District

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Laramie 2007 Comprehensive Plan, Cirrus Sky Technology Park Development Plan

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: See attached Rate Schedule, "Plant Investment Fee" (page 8)

(2) Tap Fee(s) – Commercial: See attached Rate Schedule, "Plant Investment Fee" (page 8)

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$52.35 for ¾" meter. 6,000 gallons or 6 units of consumption

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See attached Rate Schedule on page 7 & 8

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

The primary issues that affect rates include age, condition and size that result in infrastructure replacement costs. While unaccounted for, water loss has been improved, these costs still must be passed on to customers.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$ 9,582,658.46
b. Annual Revenues from Tap Fees:	$ 314,234.00
c. Annual Revenues from Other Sources:	$ 6,163,856.47
d. Total Annual Revenues:	$16,060,748.93

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$ 5,160,060.00
b. Annual Payments for Debt Retirement:	$ 627,877.48
c. Annual Payments to a Repair and Replacement Fund:	$ 2,804,224.38
d. Annual Payments to an Emergency Fund:	$ 7,468,587.07
e. Annual Payments for Other Purposes:	$ 0
f. Total Annual Payments:	$16,060,748.93

(3) Other

a. Balance in Repair and Replacement Fund:	$20,277,739.00
b. Balance in Emergency Fund:	$ 4,509,072.00
c. Annual Cost of Water Quality Testing:	$ 16,738 (average)

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

Yes

a. If not, how is the difference subsidized?

The City's water system is self-supporting; however, the City supplements capital projects with grants, loans, special purpose taxes, etc. to offset some of the financial burden from their customers.

CITY OF LARAMIE
PO BOX C
Laramie, Wyoming 82073

UTILITY BILLING PHONE: (307) 721-5222
UTILITY BILLING PHONE: (307) 721-5324
SOLID WASTE PHONE: (307) 721-5279
WATER DEPARTMENT PHONE: (307) 721-5280

Rate Schedule for Municipal Services

Water Base Fees- Water base fees are based on the size of the meter that services your residence.

Meter Sizes	Fee Per Month
3/4"	$24.99
1"	$41.55
1 1/2"	$71.79
2"	$108.75
3"	$235.42
4"	$383.95
6"	$677.20
8"	$960.07

Metered Water Fees- Metered water is the charge for actual water usage. The fee is per unit (1,000 gallons). Outside city limits is 125% of in city rates.

Inside City Limits Rates:

Single Family Residence	First 3 Units	$4.06
	Next 3 Units	$5.06
	Next 18 Units	$6.34
	Over 24 Units	$9.52
Multifamily		$3.98
Commercial & Hydrant		$4.28
University		$4.37
Irrigation		$8.37
Wholesale		$5.23

Outside City Limits Rates:

Single Family Residence	First 3 Units	$5.07
	Next 3 Units	$6.32
	Next 18 Units	$7.92
	Over 24 Units	$11.90
Multifamily		$4.97
Commercial & Hydrant		$5.35
University		$5.46
Irrigation		$10.46
Wholesale		$6.53

City of Laramie
Code Administration Division
INFORMATIONAL BULLETIN #26

Water Meter and Plant Investment Fees

September 25, 2017

WATER METERS

Residential

¾"	Radio Read Meter	$280.00
	Meter Hanger and Hardware	153.00
	Sales Tax	25.98
	Total Cost	**$458.98**
1"	Radio Read Meter	$475.00
	Meter Hanger and Hardware	261.00
	Sales Tax	44.16
	Total Cost	**$780.16**

Commercial

¾"		
	Radio Read Meter	$280.00
	Hardware and Valves	150.00
	Sales Tax	25.80
	Total Cost	**$455.80**
1"		
	Radio Read Meter	$475.00
	Hardware and Valves	200.00
	Sales Tax	40.50
	Total Cost	**$715.50**
1 ½"		
	Radio Read Meter	$775.00
	Hardware and Valves	230.00
	Sales Tax	60.30
	Total Cost	**$1065.30**
2"		
	Radio Read Meter	$1,150.00
	Hardware and Valves	399.00
	Sales Tax	92.94
	Total Cost	**$1641.94**
3"		
	Radio Read Meter	$2,575.00
	Hardware and Valves	500.00
	Sales Tax	184.50
	Total Cost	**$3259.50**
4"	Radio Read Meter	$3500.00
	Hardware and Valves	550.00
	Sales Tax	243.00
	Total Cost	**$4293.00**
6"	Radio Read Meter	$6000.00
	Hardware and Valves	600.00
	Sales Tax	396.00
	Total Cost	**$6996.00**

PLANT INVESTMENT FEES

Based on the water meter size required to provide non-fire service.

Size	Water	Sewer
¾"	$3,021.00	$2,811.00
1"	$5,045.00	$4,694.00
1½"	$10,070.00	$9,370.00
2"	$16,112.00	$14,992.00
3"	$30,210.00	$28,110.00
4"	$50,350.00	$46,850.00
6"	$75,525.00	$70,275.00

1. Residential water meter fees include installation by the city of Laramie Water Dept.

2. Commercial meters will be installed by contractor/owner.

3. Commercial backflows will be ASSE certified and will be provided and installed by owner/contractor. Backflow installation is required on all commercial sets.

4. Water and sewer connections extended beyond the corporate boundaries of the city – 125% of the fees shown above.

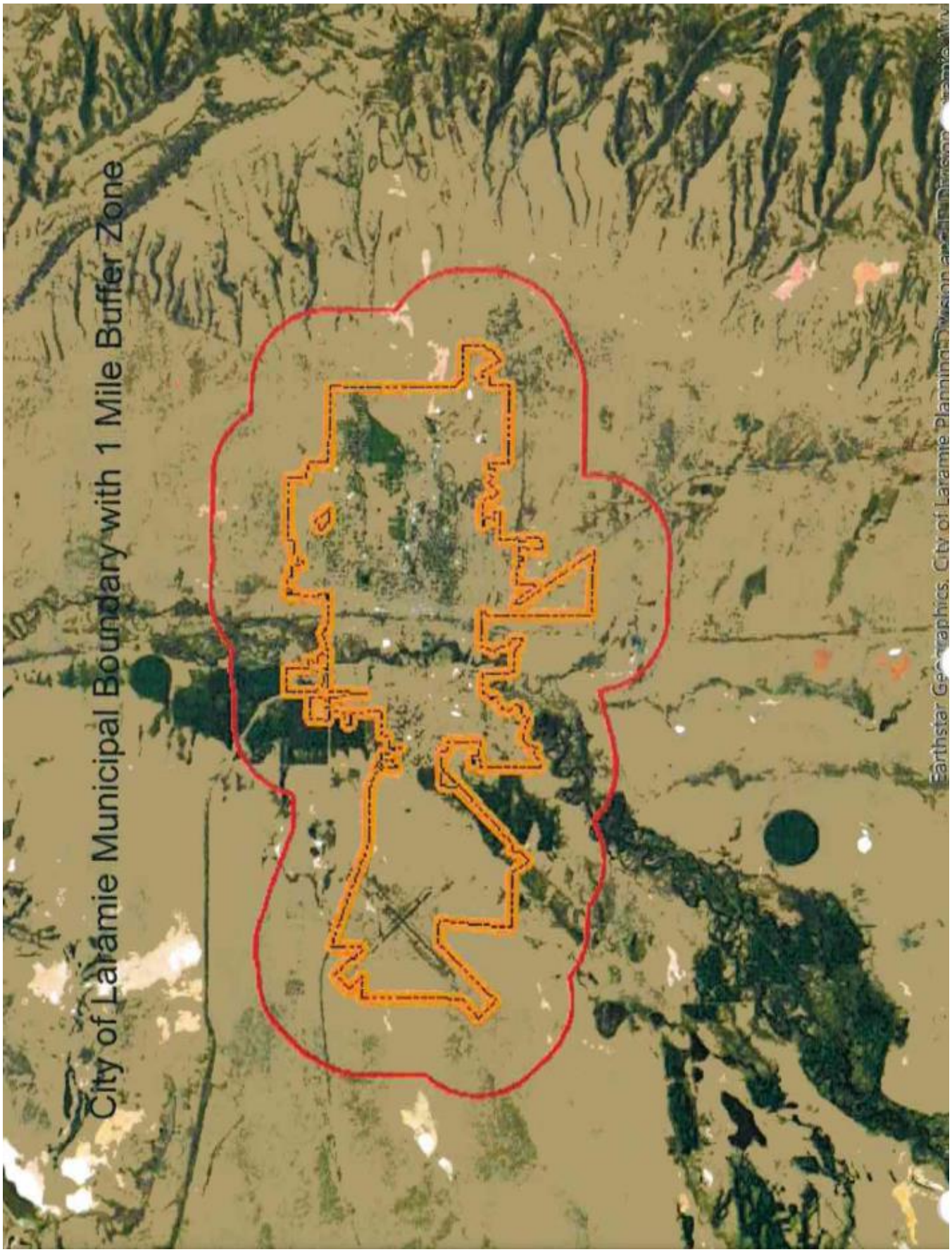
5. Exterior water meters will be considered on a case by case basis.

6. Subtract meters are not allowed in the City of Laramie.

7. Water meter prices can change without notice. Call to verify current pricing.

Return to Agenda

PROJECT AREA MAP



Return to Agenda

PHOTOS

Zone 1 underground concrete water storage tank (8.5 million-gallon capacity) with significantly aging infrastructure concerns.

Zone 2 water storage tanks (capacity: 2.1 million gallons and 1.5 million gallons)

RESOLUTION

CITY OF LARAMIE, WYOMING
RESOLUTION 2023-19

RESOLUTION SUPPORTING THE FILING OF A GRANT APPLICATION WITH THE WYOMING WATER DEVELOPMENT COMMISSION TO UPDATE THE WATER MASTER PLAN

WHEREAS, the Governing Body of the City of Laramie desires to participate in the WWDC's Level 1 grant program to assist in funding the development of an updated Water Master Plan and Treatment Plant Evaluation; and

WHEREAS, the last Water Master Plan, while started in 2013, was not completed until 2015; and

WHEREAS, the Utilities Division budget cycle includes a 10-year capital plan of which the Water Master Plan may identify areas of concern that are not yet identified; and

WHEREAS, there have been both significant changes and proposed changes in the community and to the water system that necessitate an updated plan; and

WHEREAS, an updated Water Master Plan will provide the most current guidance to assist in decision making processes to include the comprehensive water system needs, including water supply development to meet demand and future growth, to correct distribution system deficiencies, and to improve operational performance.

NOW THEREFORE THE CITY COUNCIL OF LARAMIE, WYOMING, RESOLVES:

Section 1. That the forgoing recitals are incorporated in and made a part of this resolution by this reference.

Section 2. That City Council supports the filing of an application by the City with WWDC for a Level 1 award in an amount not to exceed $1,000,000.00 and include a $1,000.00 application fee and a $3,000.00 reimbursement fee to accompany the application.

PASSED, APPROVED AND ADOPTED the 21st day of February 2023.

Brian Harrington, Mayor and
President of the City Council

ATTEST:

Nancy Bartholomew, CMC,
City Clerk

Return to Agenda

ACKNOWLEDGEMENT

STATE OF WYOMING)
) SS
COUNTY OF ALBANY)

The foregoing instrument was acknowledged before me by Brian K. Farrington this 21st day of February, 2023.

Witness my hand and official seal.

NANCY A. OAKLAND-POTTER
Notary Public - State of Wyoming
Commission ID # 161479
My Commission Expires
May 29, 2028

Notary Public

My Commission expires May 29, 2028.

ACKNOWLEDGEMENT

STATE OF WYOMING)
) SS
COUNTY OF ALBANY)

The foregoing instrument was acknowledged before me by (Mary Bartholomew), this 21st day of February, 2023.

Witness my hand and official seal.

NANCY A. OAKLAND-POTTER
Notary Public - State of Wyoming
Commission ID # 161479
My Commission Expires
May 29, 2028

Notary Public

My Commission expires May 29, 2028.

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

WATERSHED STUDIES

Project Name: Salt River Watershed Study

Program: New Development

Project Type: Multipurpose

County: Lincoln

Sponsor: Star Valley Conservation District (District)

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The District will benefit from comprehensive watershed information and the development of rehabilitation plans for the study area drainages and water supply (irrigation and domestic) systems. This information will put the District in a position where they can leverage the Small Water Project Program, other WWDC programs, and partnerships with other entities to address specific issues.

Project Manager: Mabel Jones

Project Description:
The Star Valley Conservation District requests a watershed study to evaluate current watershed function, irrigation diversion/conveyance systems, stream health, vulnerability of water systems to wildfire and upland livestock/wildlife water management and rehabilitation opportunities. Surface water storage including enlargement and/or rehabilitation of existing water storage facilities, current condition of wetlands and riparian areas within the drainage, and geomorphic classification are also of interest. This information would provide baseline information from which the District can pursue implementation of management practices that address the natural resource issues within the drainage.

The Salt River watershed, located primarily in Lincoln County, covers approximately 570,000 acres. The watershed includes approximately 220 miles of the mainstem of the Salt River and its major tributaries. Tributaries from the mountains of Wyoming and Idaho include Jackknife Creek, Tincup Creek, Strawberry Creek, Willow Creek, Stump Creek, Swift Creek, Dry Creek, Cottonwood Creek. Spring Creek, Crow Creek and numerous spring creeks which originate in the valley bottom. Reservoirs include Strawberry Creek Reservoir and Upper and Lower Swift Creek Reservoirs.

PROJECT INFORMATION:

A. EXISTING WATER SUPPLY SYSTEM

What is the extent of the stream system? Approximately 220 miles including the Salt River and its' tributaries

Has DEQ classified this stream or segment as impaired? Stump Creek (full extent in Wyoming) and Salt River (downstream of Tincup Creek) are 303(d) listed streams.

Are there any DEQ Watershed based plans being conducted or in place? Yes; Completed-Salt River Watershed Phase I Implementation 319 Report

Is there a TMDL being prepared or in place? Yes

Is there a NRCS watershed assessment being prepared or in place? No

Are there any instream flow segments in this watershed? Yes; 2.6 miles of the lower Salt River

Any instream flow segments petitioned? No

Is there a soil survey completed for this area? Yes, Digital mapping available.

B. FINANCIAL INFORMATION

If the entity is a conservation district, what is the status of their local revenue funding? The Conservation District is funded by the Lincoln County Commission and through grants.

C. COMPARISON WITH OPERATING CRITERIA

What is the entity status of the sponsor? Conservation District

Project Priority according to the Criteria? Priority 7, Watershed Studies

If the entity is a conservation district, what is the status of a legal entity developing within the district? Several Irrigation Companies (Canal and Sprinkler) are actively considering forming as Irrigation Districts or another public entity. In addition, several rural domestic water districts exist in the watershed.

How many acres are irrigated? 65,000 acres

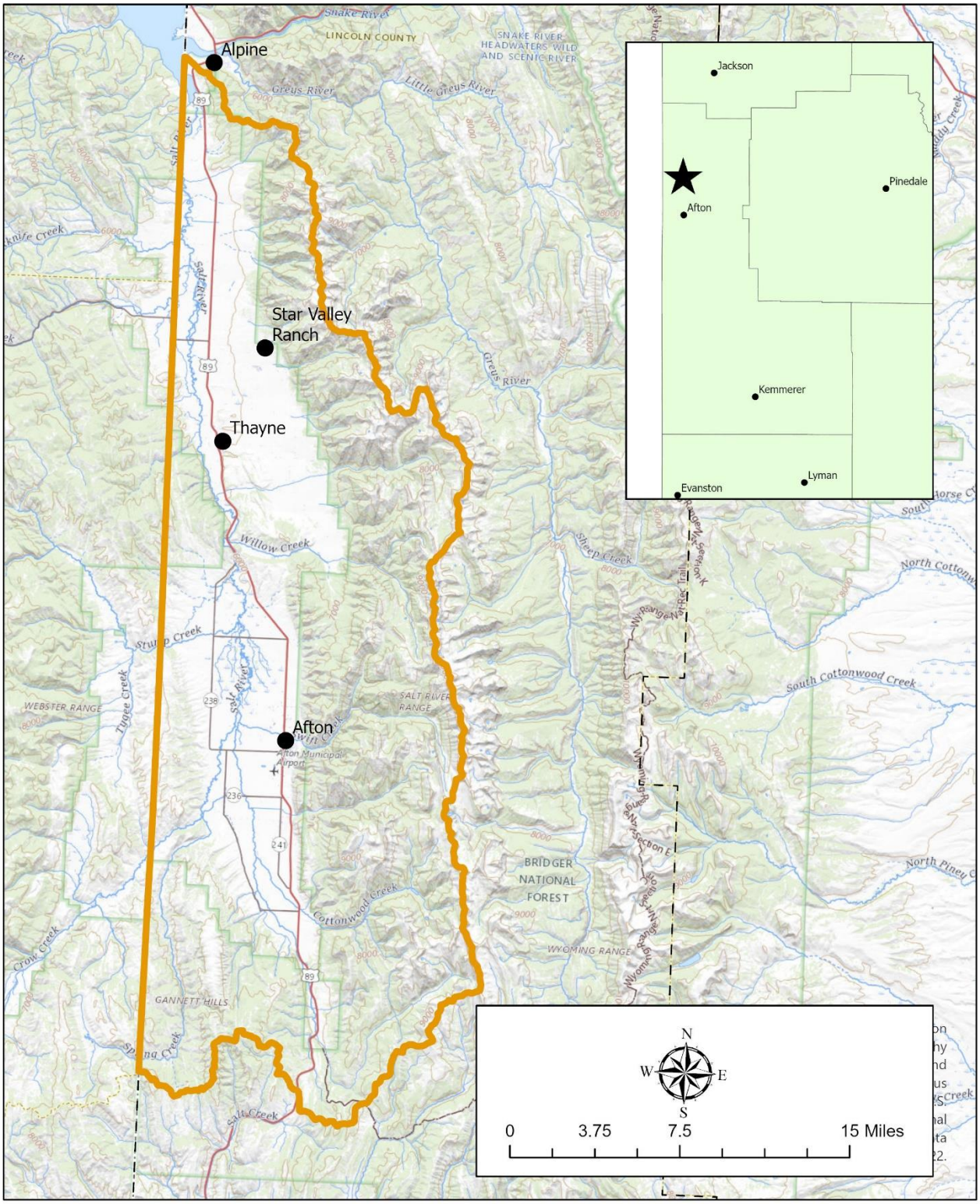
How many individual landowners in the watershed? Unknown

Will the project consider regional solutions? Yes

Can the project be postponed or staged? Yes. However, given the current momentum and support from groups including the Salt River Watershed Group, Greys River Forest Collaborative. Lincoln County Planning Office, Lincoln County Commissioners along with development pressure in the watershed postponing the project is not recommended.

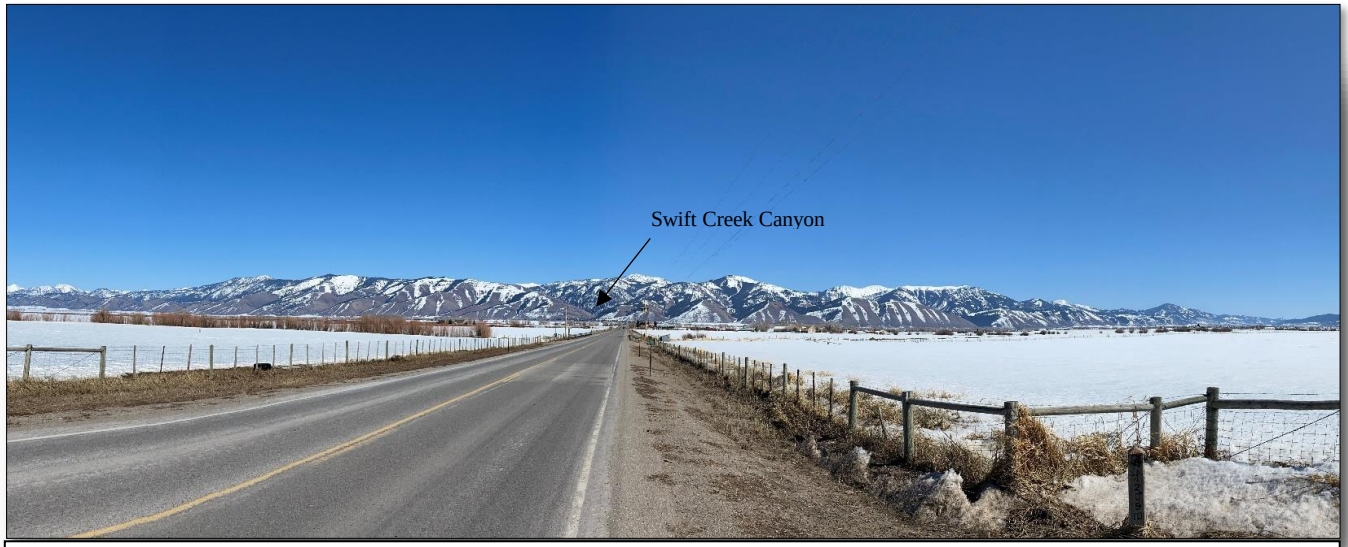
PROJECT AREA MAP

Salt River Watershed LI Study Boundary



Return to Agenda

SALT RIVER WATERSHED STUDY PROJECT AREA



Salt River Range. Swift Creek Canyon is at the center of the image. Swift Creek is a tributary to the Salt River and serves as a water source for both Municipal and Agricultural uses.

Caribou Range. The north-south trending watershed is bound on the west by the Caribou Range in Idaho and on the east by the Salt River Range.

Salt River Watershed. Photo taken east of Bedford (Courtesy of Strawberry Canal Company).

Salt River Watershed. Photo taken near Bedford looking to the northwest (Courtesy of Strawberry Canal Company).

Return to Agenda

RESOLUTION/MEETING MINUTES

Minutes of Board January 23, 2023
7:00 pm
Star Valley Conservation District Office
61 E. 5th Ave, Afton, WY 83110

Regular Meeting

Rollin Gardner called the meeting to order at 7:05p.m. In attendance were Rollin Gardner, Harv Erickson, Jeff Johnson, Shane Crook, Cole Helm via Zoom, Kay Lynn Nield, and Patricia Smith.

Minutes: Harv motioned to approve the minutes from the last meeting. Jeff Johnson seconded; motion was passed unanimously.

Financials: Bank statements and credit card statements were reviewed. Motion to approve the financials made by Shane Crook, seconded by Jeff Johnson; motion passed unanimously.

Agency Updates: NRCS- Adam Clark gave an update on irrigation, fencing projects, updated the Board on the new IRA funds coming available for climate smart projects.

Lower Valley Irrigation Issues: Jake Long and Darcel Hulse gave information regarding the issues the water right holders along the Highway 89 project are facing in regards to the State of Wyoming DOT not following the laws regarding the irrigation districts. The two men do not think that they will ever be reimbursed for the monies they have already spent, and are worried about losing their water and also worried that the irrigators along the future highway 89 corridor will be facing the same issues. The two men informed the Board that they were meeting with representatives from WYDOT, and state elected officials, including Senator Dan Dockstader, next week to see what can be done regarding the issues. The Board discussed possibly using the Coalition of Local Governments for legal representation for this matter. It was decided to see the results of the meeting before going to legal counsel. The Board asked the men to come back and report on the results of the meeting.

Salt River Watershed Group update: Tanner Belknap from Trout Unlimited updated the Board on the completed Swift Creek repair project. Tanner then gave a presentation on future projects along the Salt River that he has applied for grants to begin. Tanner let the Board know that there is a Ponds/Planning meeting on February 22, 2023 with the Lincoln County Planning and Zoning office to see what can be done to mitigate pond building in the future planning. Tanner also informed the Board that there is a Snake/Salt multiagency meeting at the Teton County Library on February 23, 2023 and Kay Lynn asked if any of the supervisors on the Board would be willing to attend.

Bridger Teton National Forest: Kay Lynn informed the Board that we would be receiving reimbursement for the RHAP Blind Trail-Stewart, and the RHAP Bling Bull-Grizzly Basin. She also informed the Board that she would be able to soon receive payment for the ESD. Kay Lynn informed the Board that she had spoken with Commissioner Connelly and Commissioner Bowers regarding additional money for 2023/2024. Commissioner Connelly told her that the Lincoln County has $23 million in reserves and to ask for it. The county commissioner meeting will be held February8, 2023.

Return to Agenda

No Till Drill: Kay Lynn gave a report on the funds we have collected for a new No Till Drill. Jeff Johnson suggested that we ask the Lincoln County Commissioners for additional funding for this.

Greys River Forest Collaborative:

1. Kay Lynn informed the Board that the at the Lincoln County Commissioners meeting on February 8, 2023, the commissioners will be discussing whether to fund this project and if they choose to do so they will be focusing funds on Grover Park and timber sales with an emphasis on municipal watersheds.
2. Good Neighbor Authority/County Forester
3. Scott Dayton: would like a grazing fence to be allowed up Grover Park. Harve reminded the Board that Mr. Dayton would be better served to take his request to the Collaborative because they oversee this. The Board decided to send a letter to Mr. Dayton regarding the upcoming Grover Park planning and informing him that this would be the best place for him to accomplish what he feels he needs.

Water Quality Grant: Final report has been submitted and we should be reimbursed in a couple of weeks.

Level 1 Watershed Study-Greys River/Hoback River- Kay Lynn informed the Board that this was completed.

Level 1 Watershed Study- Salt River- Kay Lynn informed the Board of the intention of doing a Level 1 Watershed Study on the Salt River. She informed the Board that we would be asking the Lincoln County Commissioners for additional funding as well as needing a letter of support, and an approval for the study. There is an $1000 application fee.

Jeff Johnson brought a motion to approve the $1000 application fee and to proceed with the Level 1 Watershed Study on the Salt River. Harve Erickson approved the motion. The motion carried unanimously.

New Business:

1. **Updating Irrigation users-** Kay Lynn informed the Board that we are trying to update our outdated list of irrigation companies, water master, etc.…
2. **RHAP is Due March 15, 2023-**
   Kay Lynn informed the Board that she would like to have the RHAP either on the Selman or Kunzler leases because we have no baselines for sheep allotments.
3. **Water Quality is due March 8, 2023.** Kay Lynn will coordinate with SRWG to get this done on time.
4. **Producer Meeting with Lincoln County Weed and Pest-** Kay Lynn informed the Board that this annual meeting would be held on March 22, 2023 at the Afton Civic Center and is still in the planning phase.
5. **Small acreage workshop with LC Weed and Pest and the Extension will be held April 22, 2023 at the civic center.**

5. **Small acreage workshop with LC Weed and Pest and the Extension will be held April 22, 2023 at the civic center.**
6. **County Commission Meeting Feb 8, 2023, where they will discuss the Collaborative, the Level 1 money and the ESD money.**
7. **Amended Budget will be brought forward at the February Board meeting.**
8. **MOU with BLM-** Kay Lynn informed the Board that she would like to send a MOU allowing cooperation and input with the BLM regarding Sage Grouse and Grazing Regulation Revisions.
   Jeff Johnson brought forth motion to approve the MOU with the BLM, Harve Erickson seconded the motion. Motion passed unanimously.

Shane Crook moved to adjourn the meeting at 9:45, Harv Erickson seconded the motion. Motion passed unanimously.

X _____ / 2/2/2023

Rollin Gardner — Date
Chairman

Return to Agenda

State of Wyoming

County of Lincoln

This instrument entitled Minutes of the Board, January 23, 2023, was acknowledged before me on February 2, 2023 (date) by Rollin Gardner as Chairman of the Board of Supervisors of the Star Valley Conservation District.

MICHELE HAMMOND - NOTARY PUBLIC
County of Lincoln
State of Wyoming
My Commission Expires: September 13, 2024
(SEAL)

X Michele Hammond
Signature of Notorial Officer

Bank New Accounts
Title

My Commission Expires on 9-13-2024

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Shoshone Municipal Pipeline Regional Water Master Plan **Program:** New Development

Project Type: Joint Powers Water Board Water System **County:** Park

Sponsor: Shoshone Municipal Water JPB

WWDO Recommendation: Level I **Proposed Budget:** $TBD

Basis for the Funding Recommendation:

In 1983, original planning for the Shoshone Municipal Pipeline (SMP) was completed. The Joint Powers Board and executive staff believes it would be in the best interests of the water users, member entities, Joint Powers Board and future managers to update the planning documents and have an updated plan for the future.

Project Manager: Chace Tavelli

I. PROJECT DESCRIPTION

This project will be a Level I Master Plan investigating the entire SMP system. A typical Master Plan includes growth and demand projections; inventory and evaluation of the system; GIS and hydraulic modeling; and recommendations and cost estimates for needed improvements. This Level I Study will assist SMP with the preparation of a plan that will be their road map for the future. SMP started to deliver water in October 1991 and continues to deliver water to the seven-member entities (Cody, Powell, Byron, Lovell, Deaver, Frannie, Northwest Rural Water District). At this time the system is running at 31% average day (61% peak day) capacity.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Shoshone Municipal Pipeline 2009	III	38	2009	I	$ 2,428,800*	2014
Shoshone Transmission Pipeline 2016	III	55	2016	I	$ 2,227,500*	2021

* 33% grant

2. Describe the location of the project:

The Shoshone Municipal Pipeline serves communities and users in Park, and Big Horn counties.

3. Summarize the request:

The request is for a Level I, master plan. This regional study will evaluate the current condition of their water system, structures, and provide tools and guidance needed to assist in the planning, rehabilitating, upgrading, managing of the system, water storage and planning for future growth.

4. Summarize the reasons for the request:

Since the initial planning and feasibility report in 1983, and subsequent Level II and III reports in 1986, no other planning reports have been prepared to assist the Joint Powers Board or staff in operational and future planning efforts. The updated plan would serve as a framework to establish project priorities and to perform financial planning

necessary to meet those priorities. It would also provide reconnaissance-level information regarding costs and scheduling.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: 12,002

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? RUS, SRF, WaterSmart

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

The Shoshone Municipal Pipeline is a regional system, serving the municipalities of Cody, Powell, Byron, Lovell, Deaver, Frannie, and the Northwest Rural Water District.

7. What is monthly water bill for 5,000 gallons? $17.70 – wholesale value (see attached rates)

   A. 20,000 Gallons? $37.80 – wholesale value (see attached rates)

8. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5601198

B. Groundwater

(1) Number of Wells: 0

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): Buffalo Bill Reservoir (main source); Shoshone River (emergency)

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Direct connection to the reservoir. Pump station in the Shoshone River for emergency use.

(3) Total Average Diversion Yield (CFS of GPM): 2,650gmp

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 22 MGD

(2) Increased Capacity Needed (If Known) (Gallons per Day): N/A

(3) Approximate Distance from Source(s) to Distribution System: 4 miles

(4) Transmission Pipe Diameter(s): 36" to 8"

(5) Type of Transmission Pipe Material(s): Steel and PVC

(6) Age of Transmission Pipeline(s): 35 years

(7) Condition of Transmission Pipeline(s): Excellent

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): 6,000,000 gallons of total storage in 4 locations

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Conventional treatment – coagulation, sedimentation, filtration, and disinfection

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.): None

D. Average Day Demand Water Usage (Gallons per Capita per Day): 125

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 259

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 326

G. Distribution Pipe Diameter(s): N/A – The Shoshone Municipal Pipelines has no distribution lines

H. Type of Distribution Pipe Material(s): N/A

I. Age of Distribution Pipeline(s): N/A

J. Condition of Distribution Pipeline(s): N/A

K. Estimated System Water Losses (Percentage): 2.75%

L. Describe any fire flow protection that the system provides:

The current treated water storage provides or supplements fire flows for the participating municipalities except for Northwest Rural Water District (NRWD). NRWD doesn't provide fire flows.

M. What water conservation measures are employed?

None – Shoshone Municipal Pipeline is a wholesale water provider to a regional system.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 23,822 B. Current Population Estimate: 26,250 (EPA estimate)

C. Does the applicant have a comprehensive planning boundary? No

(1) If so, what is the estimated additional population that may be served in the future? N/A

D. How many taps are served within the corporate limits/JPB service area? 12,2002

E. How many taps are served outside of the corporate limits/JPB service area? None

F. Identify names of other water system served:

Cody, Powell, Byron, Lovell, Deaver, Frannie, and Northwest Rural Water District

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Park County Land Use Plan, September 1988, available on the Park County website; City of Cody Water Master Plan, available on the WWDC website; City of Powell Water Master Plan, available on the WWDC website; Northwest Rural Water District Master Plan, available on the WWDC website.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $11 per tap equivalent charged to member entity

(2) Tap Fee(s) – Commercial: $11 per tap equivalent charged to member entity

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$11.00 per tap, and $1.34 per 1,000 gallons. This is the wholesale water rate SMP charges to the entities that purchase water from the system. Each system has their own established rates. See attached.

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See attached

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.): N/A

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	1,575,000
b. Annual Revenues from Tap Fees:	$	0
c. Annual Revenues from Other Sources:	$	0
d. Total Annual Revenues:	$	1,575,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	2,050,000
b. Annual Payments for Debt Retirement:	$	1,227,000
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	100,000
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	3,377,000

(3) Other

a. Balance in Repair and Replacement Fund:	$	4,478,721
b. Balance in Emergency Fund:	$	682,621
c. Annual Cost of Water Quality Testing:	$	20,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

Exhibit III.4.A.(4) - Water Rates

Water Rates for FY-2023

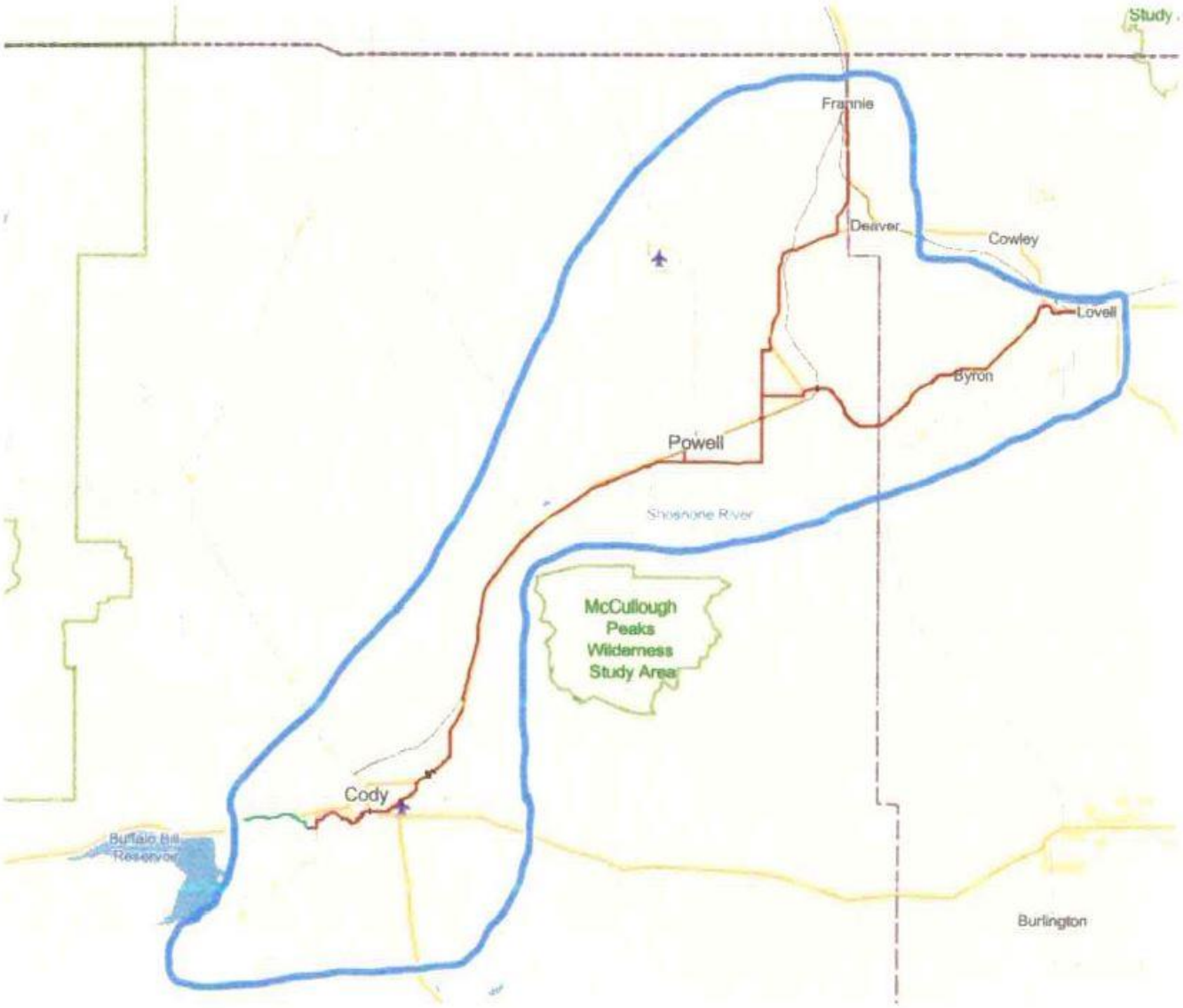
	SMP (wholesale)	Cody	Powell	Byron	Lovell	Deaver	Frannie	NRWD
Monthly Water Rate (3/4")		14.05	34.44	9.95	18.32	45.78	54.50	43.50
Tap equivalent fee	11.00	11.00		11.00	11.00			11.00
Total customer charge	**11.00**	**25.05**	**34.44**	**20.95**	**29.32**	**45.78**	**54.50**	**54.50**
Charge per 1,000 gallons	**1.34**	2.81	2.97	1.50	5.25	3.50	2.80	2.50
over 10,000 gallons							(Apr-Sep: 2.40)	3.50
over 20,000 gallons								4.50
Typical charge for x gallons								
4,000	**16.36**	36.29	46.32	26.95	50.32	59.78	65.70	64.50
8,000	**21.72**	47.53	58.20	32.95	71.32	73.78	76.90	74.50
12,000	**27.08**	58.77	70.08	38.95	92.32	87.78	88.10	84.50

Return to Agenda

PROJECT AREA MAP

Shoshone Municipal Pipeline Service Area

All 10 Northwest Rural Water District Service Areas are located within Shoshone Municipal Pipeline's Service Area



Return to Agenda

PHOTOS

Booster Pump Station

Pressure Control #1

SMP Water Treatment Plant

RESOLUTION

SHOSHONE MUNICIPAL WATER JOINT POWERS BOARD RESOLUTION

No. 2023-01

BE IT RESOLVED, by the Board of the Shoshone Municipal Water Joint Powers Board, d/b/a Shoshone Municipal Pipeline (hereinafter SMP), that the Board supports and authorizes the Board Chairman to execute any and all documents necessary to make application to the Wyoming Water Development Commission for Level I Master Plan Study funded by the Wyoming Water Development Commission. The Chairman is expressly authorized to approve and execute all documents associated with this application.

WHERE AS, the governing body for the SMP owns and operates a regional water system that serves the cities of Cody and Powell, the towns of Byron, Lovell, Deaver, and Frannie, and the Northwest Rural Water District; and

WHERE AS, over the past 32 years since the inception of the SMP regional water system many changes have occurred, federal drinking water standards have become more stringent, and many components of the water system have exceeded their useful lives; and

WHERE AS, the SMP desires to have the Wyoming Water Development Commission fund a Level I Master Plan Study in order to determine the best, most cost-effective way to continue providing its customers with safe, reliable drinking water at a reasonable price.

This Resolution was expressly approved and authorized at the meeting of the Board held on the 13 day of February, 2023, at which meeting a quorum was present and the resolution was approved by a majority of those in attendance.

DATED: February 13, 2023

Jim Mentock
Board Chairman

STATE OF WYOMING)
) ss.
COUNTY OF PARK)

The foregoing Resolution was acknowledged before me on February 13, 2023 by Jim Mentock, being Chairman of the Board of Shoshone Municipal Water Joint Powers Board.

WITNESS my hand and official seal.

LYNN FOOTE
Notary Public - State of Wyoming
Commission ID 159493
My Commission Expires Dec. 9, 2027

(SEAL)

Lynn Foote
Notary Public

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Sinclair Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Carbon

Sponsor: Town of Sinclair

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Town of Sinclair is requesting 2024 WWDC funding for a water master plan, Level I reconnaissance study. The study would evaluate the current condition of their water system and provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

Project Manager: Keith E. Clarey, PG

I. PROJECT DESCRIPTION

The Town of Sinclair is requesting a 2024 Level I water master plan to update previous WWDC studies, to identify the components of their existing system, to evaluate the system, to provide a schedule for improvements, and to conduct the planning necessary to identify consistent and reliable water supplies into the future.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Sinclair Master Plan	I	10	1994	I	$ 250,000	1997
Sinclair Water Supply	II	81	1999	I	$ 50,000	2002
Sinclair Water Supply	III	88	2002	I	$ 672,500	2007

2. Describe the location of the project:

The Town of Sinclair is located in Carbon County and lies within the North Platte River Basin. The town has a population of approximately 400 people and they are served through 231 taps. The town is supplied with North Platte River surface water (up to 11.41 cfs), pipelined to Rawlins, treated by the City of Rawlins, and returned through 12-inch PVC transmission line to the town. The Town of Sinclair has an existing SCADA system that provides the water level at the their 500,000-gallon water storage tank. The town does not have the ability to operate any controls with the SCADA system nor do they have either a hydraulic model or a GIS of the water system. The town has a paper map inventory system that is used by the public works department, which is based off the 'as-built' information for completed projects.

The Town of Sinclair and the City of Rawlins entered into a municipal water supply joint powers agreement in October 2002 for a term of 50 years. The current arrangement is that each municipality operates their own water system, however, the City of Rawlins is responsible for supplying all water to the point of delivery for the distribution system at the Town of Sinclair's water storage tank. The Town of Sinclair is then responsible for getting the water from the storage tank into the Town of Sinclair's water distribution system. In exchange for the Town of Sinclair receiving treated water from the City of Rawlins, the City of Rawlins diverts Town of Sinclair-owned water rights for use to be supplied to the Town of Sinclair and to be also used by the City of Rawlins.

3. Summarize the request:

A Level I water master plan is requested by the Town of Sinclair to evaluate the current condition of their water system and to provide the tools and guidance necessary to assist in the planning, rehabilitation, upgrading, and managing of their system. The plan would serve as a framework to establish project priorities and to perform the financial planning necessary to meet those priorities. The plan would also provide reconnaissance-level information regarding costs and scheduling. The last WWDC Level I and Level II studies were completed in 1996 and 2001, respectively.

4. Summarize the reasons for the request:

Issues surrounding the City of Rawlins' water system infrastructure have led to concerns by the Town of Sinclair as to the stability of their water supplies prompting the town to pursue a Level I study. The study will evaluate the current agreement with the City of Rawlins and identify long-term options and determine the best solution for when the agreement is no longer in effect. The agreement between the two municipalities is for fifty years, twenty years have passed since it went into effect and the Town of Sinclair wants to be prepared for what comes next. The Town of Sinclair would like to explore all available options to provide a more consistent and reliable water system for their residents.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project? N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

    A. Number of Taps: 231 taps

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they (RUS, SRF, other)? RUS, SRF, etc.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Yes, the Town of Sinclair is supplied with treated water from the City of Rawlins. There is a 50-year agreement between the two entities with 30 years left of operating under this agreement. The likely scenario will be to continue with this agreement.

7. What is monthly water bill for 5,000 gallons? $17.50

    A. 20,000 Gallons? $49.00

8. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600054

B. Groundwater

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): North Platte River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Headgate

(3) Total Average Diversion Yield (CFS or GPM): 47.25 gpm

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights?

Yes, the Town of Sinclair has eight water rights with a combined amount of 11.41 cfs ranging from territorial priorities to a priority of 4/9/1926.

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Unknown

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: Unknown

(4) Transmission Pipe Diameter(s): 12-inch

(5) Type of Transmission Pipe Material(s): PVC

(6) Age of Transmission Pipeline(s): 20 years old

(7) Condition of Transmission Pipeline(s): Good

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): 500,000-gallon water storage tank

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Treated by the City of Rawlins

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

None other than fire protection.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 170 gpcpd

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 340 gpcpd

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 590 gpcpd (estimated to be 175% of max. daily demand)

G. Distribution Pipe Diameter(s): 6-inch to 10-inch

H. Type of Distribution Pipe Material(s): CIP, AC, and PVC

I. Age of Distribution Pipeline(s): Installed from the 1960s (approximately) to 2020.

J. Condition of Distribution Pipeline(s): Poor to Good

K. Estimated System Water Losses (Percentage): 12%

L. Describe any fire flow protection that the system provides:

The Town of Sinclair provides fire-flow protection within the town limits.

M. What water conservation measures are employed? None

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 433 B. Current Population Estimate: 400

C. Does the applicant have a comprehensive planning boundary? Yes, town limits.

(1) If so, what is the estimated additional population that may be served in the future? Unknown

D. How many taps are served within the corporate limits/JPB service area? 231

E. How many taps are served outside of the corporate limits/JPB service area? 0

F. Identify names of other water system served: None

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained: None

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $1,000

(2) Tap Fee(s) – Commercial: $1,250 - $1,500

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$17.50 for 5,000 gallons ($7.00 flat rate, plus $2.10 per 1,000 gallons)

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Residential: $7.00 + $2.10 per 1,000 gallons; Commercial: $8.00 + $2.60 per 1,000 gallons

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

Water drip program – average October and November bills and use average for December, January, and February bills.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	68,224
b. Annual Revenues from Tap Fees:	$	0
c. Annual Revenues from Other Sources:	$	351,434
d. Total Annual Revenues:	$	419,658

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	277,315
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	142,343
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	419,658

(3) Other

a. Balance in Repair and Replacement Fund:	$	3,873,436
b. Balance in Emergency Fund:	$	0

c. Annual Cost of Water Quality Testing: $ 4,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

Return to Agenda

PROJECT AREA MAP

Return to Agenda

PHOTOS

Sinclair Town Hall

Return to Agenda

RESOLUTION

RESOLUTION OF SUPPORT

RESOLUTION NO. 2023-01

A RESOLUTION AUTHORIZING SUPPORT FOR THE TOWN OF SINCLAIR'S APPLICATION TO THE WYOMING WATER DEVELOPMENT PROGRAM

WITNESSETH

WHEREAS, the Governing Body of the Town of Sinclair has considered the benefits the State of Wyoming Water Development Program provides and supports the Town of Sinclair's application to the Water Development Program; and

WHEREAS, the Town's water supply and water supply system are of utmost importance to the health and safety of the residents of the Town of Sinclair; and

WHEREAS, the Wyoming Water Development Program's approval of the Town of Sinclair's application for Level I reconnaissance study would enable the Town of Sinclair to improve its water supply system; and

NOW, THEREFORE, BE IT RESOLVED by the Governing Body of the Town of Sinclair, Wyoming, that the Town of Sinclair endorses the Town of Sinclair's application to the Wyoming Water Development Program.

SO RESOLVED this 2nd day of February, 2023.

TOWN OF SINCLAIR

By: _____

Mayor, Town of Sinclair

ATTEST:

_____

CERTIFICATION

I, ASHLEY MASSELINK, the Town Clerk for the Town of Sinclair, Wyoming, do hereby certify that the above resolution was duly and properly adopted by the Governing Body in the manner required by law.

_____

TOWN CLERK

STATE OF WYOMING)
:ss
COUNTY OF CARBON)

The above and foregoing instrument was sworn to and acknowledged before me by Cullen Meek, this 2 day of February, 2023.

Witness my hand and official seal.

ASHLEY MASSELINK
NOTARY PUBLIC - WYOMING
Carbon County
My Commission Expires July 26, 2024

_____
Notary Public

My commission expires: July 26, 2024

LEVEL II

FEASIBILITY PROJECTS – NEW DEVLOPMENT

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Burns Groundwater Supply

Program: New Development

Project Type: Municipal Water System

County: Laramie

Sponsor: Town of Burns

WWDO Recommendation: Level II

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Sponsor is an eligible entity and desires a study to evaluate the feasibility of developing deep aquifer supplies to augment their existing wells.

Project Manager: George Moser

I. PROJECT DESCRIPTION

This project will evaluate the Lance Formation and Fox Hills Sandstone, combined with the Town's existing infrastructure and wells, to evaluate the feasibility of adding additional groundwater supply to their system.

The Town of Burns is a growing community with several new subdivision applications submitted within the last two years. The Town currently utilizes six wells, completed in the High Plains Aquifer System for its supply. Well water is delivered by dedicated transmission lines to two storage tanks in town before delivery to residents. Based on recent exploration efforts by Pine Bluffs and the U.S. Geological Survey, it would appear that water is available in horizons below the High Plains Aquifer, and of sufficient quality to blend with existing supplies in order to develop additional capacity. This study will involve the siting, and drilling of test holes, monitoring wells, and potentially a production-sized hole. If the test holes demonstrate promise, long-term aquifer testing will be performed to assess aquifer parameters, and evaluate local hydrogeologic conditions.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Burns Water Supply	I	66	2009	I	$ 85,000	2012
Burns Storage Tank	III	68	2010	I	$ 930,000	2015
Burns Well	II	1	2011	I	$ 350,000	2014
Burns Well Connection	III	141	2013	I	$ 1,214,000	2018

2. Describe the location of the project:

The Town of Burns is in Laramie County. Burns is within the State Engineer's Office, Laramie County Control Area, with new Water Rights activity subject to the Laramie County Control Area Order. Units comprising the Lance Formation and the Fox Hills Sandstone are defined as "Underlying Units" within that Order, and have spacing restrictions from other Underlying Unit wells.

3. Summarize the request:

The Town of Burns is seeking assistance to site, drill, test, and evaluate the feasibility of adding deep aquifer water to their system.

4. Summarize the reasons for the request:

The Sponsor's current wells are completed in the High Plains Aquifer system. Depending on neighboring agricultural operations, these wells occasionally have elevated nitrate/nitrite levels. While these detections are within acceptable limits for now, they have prompted the Sponsor to evaluate additional and alternate sources of supply. In addition, the regional population is increasing, and the Sponsor anticipates serving additional customers in the near future.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

A. Number of Taps: 180

4. Is the sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they (RUS, SRF, other)? SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

The Town of Burns does not currently serve any users outside the Municipal boundary; however, they do anticipate this in the future and (with the appropriate capacity) would be supportive of those efforts.

7. What is the monthly water bill for 5,000 gallons? $27

A. 20,000 Gallons? $27

8. Can the project be delayed or staged? Yes

A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY-5600188

B. Groundwater

(1) Number of Wells: 6

(2) Primary Supply Aquifer(s) or Formation(s): High Plains Aquifer System

(3) Total Average Production Yield of All Wells (GPM): 660 gpm

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Transmission Pipeline Capacity is limited by well production

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: 100 feet to ¼-mile to manifold for chlorination point.

(4) Transmission Pipe Diameter(s): 6-, 8-, and 10-inch

(5) Type of Transmission Pipe Material(s): PVC

(6) Age of Transmission Pipeline(s): 10 years

(7) Condition of Transmission Pipeline(s): good

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): 0

(2) Treated (Volume and Tank Description): 2 – 200,000 gallon, above ground tanks

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Fire Protection

D. Average Day Demand Water Usage (Gallons per Capita per Day): 292

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 688

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 2,736

G. Distribution Pipe Diameter(s): 6- and 8-inch

H. Type of Distribution Pipe Material(s): PVC

I. Age of Distribution Pipeline(s): 10+ years

J. Condition of Distribution Pipeline(s): Good

K. Estimated System Water Losses (Percentage): <5%

L. Describe any fire flow protection that the system provides:

Hydrants, schools, some municipal buildings

M. What water conservation measures are employed?

Metered billing and town ordinance re: watering hours

N. Is there an independent raw water irrigation system? no

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 301 B. Current Population Estimate: 356, but over 700 with School

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 60 houses

D. How many taps are served within the corporate limits/JPB service area? 180

E. How many taps are served outside of the corporate limits/JPB service area? 0

F. Identify names of other water system served: N/A

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Town of Burns Development Standards – in process

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $1,000

(2) Tap Fee(s) – Commercial: $1,000

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$27 for first 20,000 gallons

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

$27 for first 20,000 gallons per meter. $0.50 per each additional 1,000 gallons. Bulk sales rate is $25 per 1,000 gallons

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

N/A

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	157,508
b. Annual Revenues from Tap Fees:	$	4,000
c. Annual Revenues from Other Sources:	$	97,076
d. Total Annual Revenues:	$	258,584

(2) Expenditures

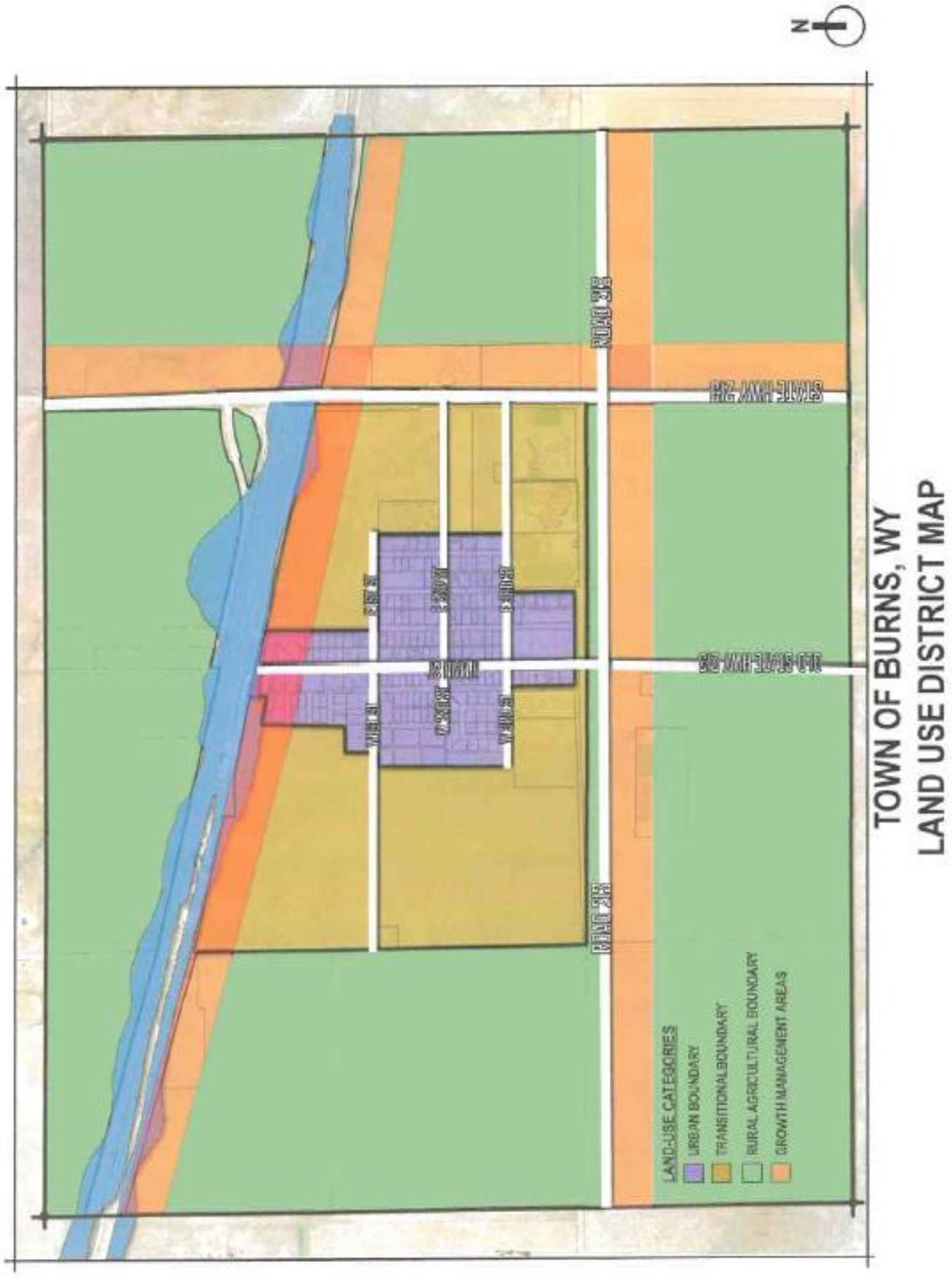
a. Annual Budget for Operation and Maintenance Expenses:	$	155,067
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	40,000
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	10,000
f. Total Annual Payments:	$	205,067

(3) Other

a. Balance in Repair and Replacement Fund:	$	312,977
b. Balance in Emergency Fund:	$	146,571
c. Annual Cost of Water Quality Testing:	$	4,900

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

PROJECT AREA MAP



Return to Agenda

PHOTOS

NORTH STORAGE TANK

Return to Agenda

SOUTH STORAGE TANK AND MANUFACTURER'S PLATE

Return to Agenda

GROUNDWATER WELLS

A2

A3

A4

A5

A6

A7

Return to Agenda

RESOLUTION

RESOLUTION No: 02-13-2023-01

A RESOLUTION AUTHORIZING THE SUBMISSION OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR ASSISTANCE IN DEVELOPING A DEEP WELL TO SERVE THE TOWN OF BURNS.

WHEREAS, the Council of the Town of Burns wishes to provide the best possible service to our residents, and

WHEREAS, continued water testing shows a steady increase in the nitrate/nitrite levels in our water supply, and

WHEREAS, a well to be developed in a different aquifer will allow the Town to mix water supplies, thus reducing the levels of undesired contaminants,

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE TOWN OF BURNS, LARAMIE COUNTY, WYOMING, THAT SUBMISSION OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION REQUESTING ASSISTANCE WITH DEVELOPMENT OF A DEEP WELL IS HEREBY AUTHORIZED.

ADOPTED by the Burns Town Council this 13TH day of February, 2023.

James F Clark, Mayor

Richard Lakin, Council Member

Ralph Bartels, Council Member

Joseph Nicholson, Council Member

Judith Johnstone, Council Member

Attest:

Toni Shery, Town Clerk/Treasurer

DEBBI A. WILSHUSEN - NOTARY PUBLIC
COUNTY OF LARAMIE
STATE OF WYOMING
MY COMMISSION EXPIRES 5/7/23

Notary Public

Date: May 7, 2023

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Cody Area Evaluations 2024

Program: New Development

Project Type: Municipal Water System

County: Park

Sponsor: City of Cody

WWDO Recommendation: Level II

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The sponsor is the City of Cody and a 2021 Water Master Plan was recently completed identifying the need for a Level II study to evaluate potential expansion areas of City water service.

Project Manager: Chace Tavelli

I. PROJECT DESCRIPTION

A WWDC Master Plan was completed in 2021 for the City of Cody. In that study, seven areas were identified where water service could be expanded in the future. This project will be to evaluate three of the seven areas for potential expansion. The City of Cody staff believe the three areas in question present the greatest level of opportunity to expand the City's treated water system and provide expansion to their water service area. The study will include an evaluation of the necessary infrastructure to accommodate the future service areas. This could include but not be limited to pumping, transmission, and storage.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Cody Area Water Supply	II	8	1995	I	$ 75,000	1998
Cody Area Water Supply (Valley View)	III	59	1996	I	$ 785,000	2001
Cody Raw Water	III	45	1997	II	$ 850,000	2002
Cody Master Plan	I	33	2008	I	$ 100,000	2011
Cody West Transmission Pipeline	III	14	2012	I	$ 408,700	2017
Cody Tank 2017	III	75	2017	I	$ 2,412,000	2022
Cody Water Master Plan	I	150	2020	I	$ 205,000	2023

2. Describe the location of the project:

The project is located in the City of Cody, Park County, in northwestern Wyoming, Yellowstone River Basin.

3. Summarize the request:

Cody is requesting a Level II Feasibility study for potential expansion of City water services into three specific areas identified by the City. The goals of the study are to evaluate the specific water system pumping, storage, and transmission infrastructure needed to serve these areas, and to identify the most cost-effective alternatives for phasing of construction projects in the future.

4. Summarize the reasons for the request:

The three growth areas were identified in the 2021 Water Master Plan. The City of Cody feels it is necessary to evaluate the feasibility of expanding to these three areas as they present the greatest level of opportunity to expand the City's treated water system and provide expansion of the water service area.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

A. Number of Taps: 5,173

4. Is the sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they (RUS, SRF, other)? RUS, SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? Yes

7. What is monthly water bill for 5,000 gallons? $41.30 for ¾" water meter size

A. 20,000 Gallons? $86.75 for ¾" water meter size

8. Can the project be delayed or staged? Yes

A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600207

B. Groundwater

(1) Number of Wells: 0

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): Buffalo Bill Reservoir

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Reservoir intake via Shoshone Municipal Pipeline

(3) Total Average Diversion Yield (CFS of GPM): Unknown. Cody is a supplied by Shoshone Municipal Pipeline (SMP)

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights?

Water rights are held by the Shoshone Municipal Pipeline (SMP)

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 22 MGD (SMP)

(2) Increased Capacity Needed (If Known) (Gallons per Day): N/A

(3) Approximate Distance from Source(s) to Distribution System: SMP is Directly adjacent to the City

(4) Transmission Pipe Diameter(s): SMP ranges from 36" to 8"

(5) Type of Transmission Pipe Material(s): SMP is steel and PVC

(6) Age of Transmission Pipeline(s): SMP – 35 years

(7) Condition of Transmission Pipeline(s): SMP - excellent

(8) Does the applicant possess clear title to transmission corridor easements? N/A

G. Water Storage

(1) Raw (Volume and Tank Description): 0.85 MG steel tank

(2) Treated (Volume and Tank Description): 0.25 to 2.0 MG (1 steel and 3 concrete)

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): SMP filtration, chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Fire protection are not metered (fire hydrants and building sprinklers)

D. Average Day Demand Water Usage (Gallons per Capita per Day): 133

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 279

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 398

G. Distribution Pipe Diameter(s): 2" up to 12"

H. Type of Distribution Pipe Material(s): PVC, CIP, DIP, ACP

I. Age of Distribution Pipeline(s): Significantly varies from new to 60+ years

J. Condition of Distribution Pipeline(s): Excellent to poor

K. Estimated System Water Losses (Percentage): 15% to 18%

L. Describe any fire flow protection that the system provides:

Provided by the treated water distribution and storage system.

M. What water conservation measures are employed?

Alternate day / 3 days per week lawn watering; public outreach and education about water use and conservation; water leak detection on approximately 33% to 50% of the distribution system each year.

N. Is there an independent raw water irrigation system? Yes

(1) Raw Water System Capacity (Gallons per Day): Approximately 9 MGD

(2) Average Annual Raw Water Usage (Gallons per Year): Approximately 700 million gallons per season (May through September)

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 10,028 B. Current Population Estimate: 10,174

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? Unknown

D. How many taps are served within the corporate limits/JPB service area? 5,173

E. How many taps are served outside of the corporate limits/JPB service area? 9

F. Identify names of other water systems served:

Parkway Trailer Park, Buffalo Bill Visitor's Center, Wild West Partners, Pioneer Properties LLC, and Juby's Mobile Home Court.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

City of Cody Master Plan (2014); https://www.codywy.gov/DocumentCenter/View/945/Cody-Master-Plan-Final

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: ¾" = $1,600 ($1,000 tap fee and $600 system investment fee)

(2) Tap Fee(s) – Commercial: varies by meter size and is calculated per individual tap

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

¾" tap = $41.30 for 5,000 gallons

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See attached rate sheet

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.): None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	3,799,000
b. Annual Revenues from Tap Fees:	$	47,000
c. Annual Revenues from Other Sources:	$	4,500
d. Total Annual Revenues:	$	3,850,500

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	4,133,000
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	557,000
f. Total Annual Payments:	$	4,690,000

(3) Other

a. Balance in Repair and Replacement Fund:	$	2,176,000
b. Balance in Emergency Fund:	$	2,082,000
c. Annual Cost of Water Quality Testing:	$	5,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

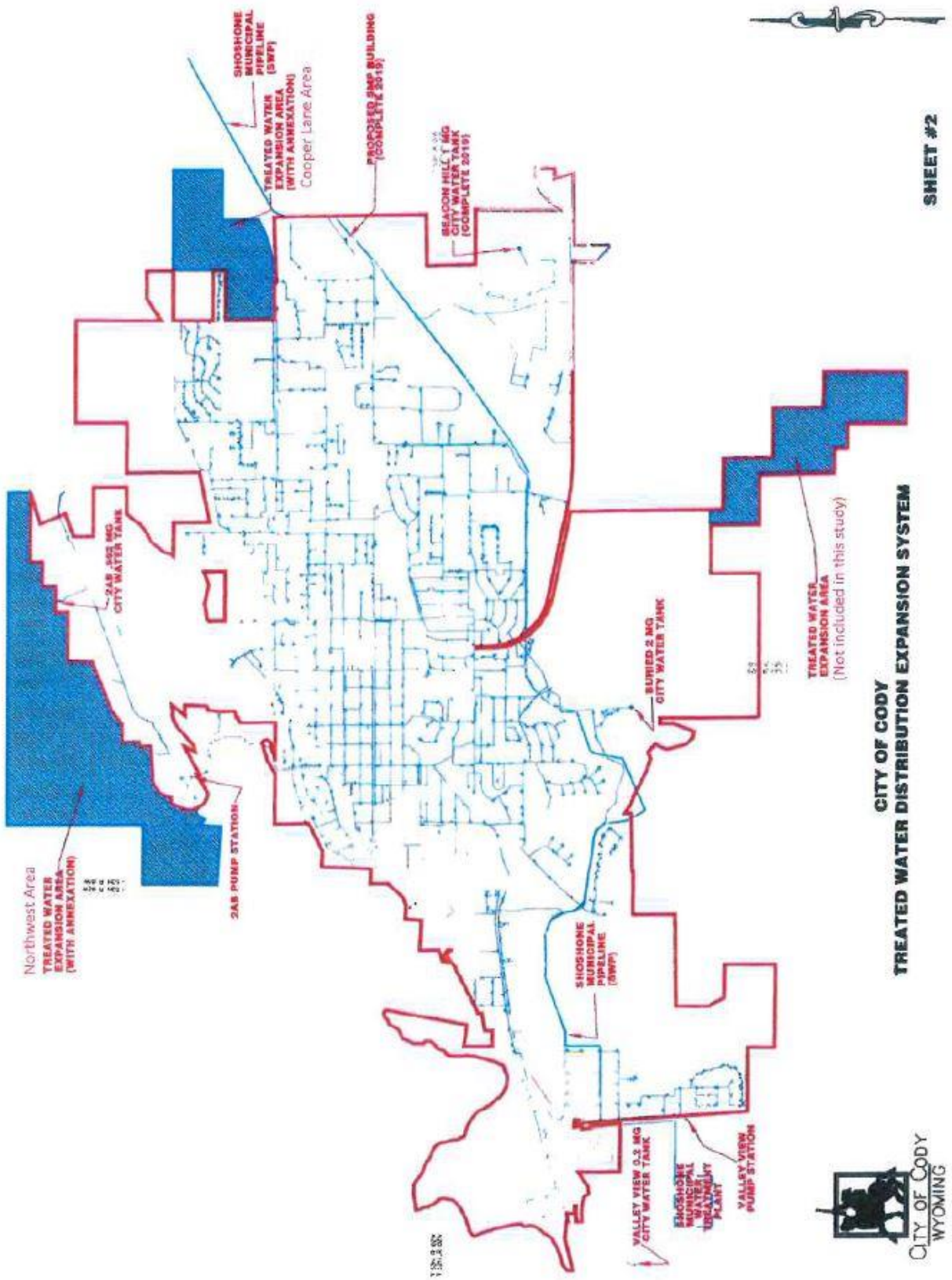
a. If not, how is the difference subsidized?

The Water Enterprise Fund is not subsidized by the General Fund or any other sources. The difference of Revenues vs. Expenses (approximately $867,000) includes non-cash depreciation of approximately $557,000 and use of the Fund's Available Reserves for the remainder of the shortfall.

WATER RATES

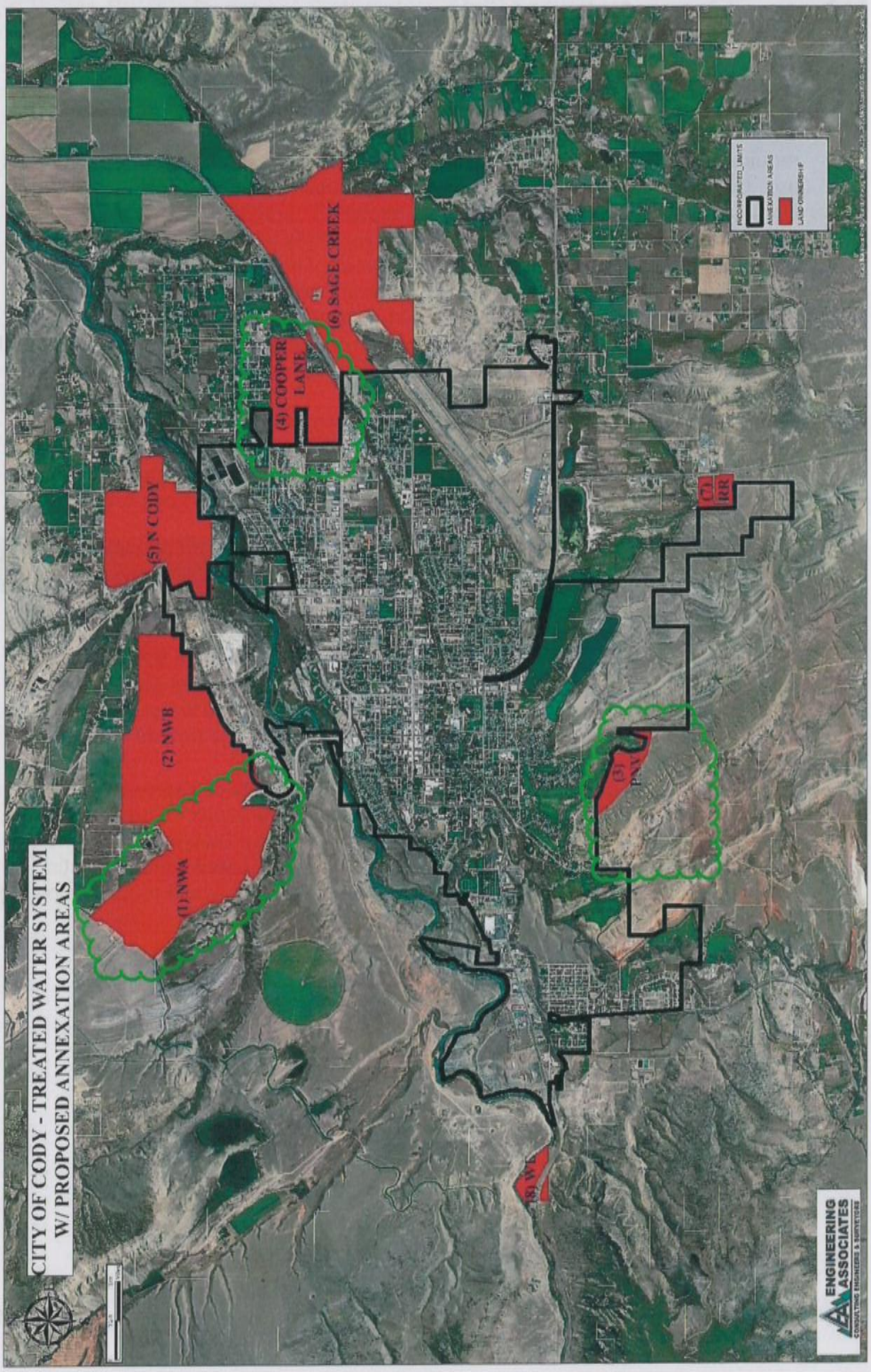
Treated Water			
All treated water delivered to any water user by means of the City's water system shall be measured by a water meter. Charges for such water use are as listed below.			
Water Meter Size	SMP Pass-Through Charge	Monthly Base Rate	Monthly Charge per Each 1,000 Gallons of Usage
3/4 "	$11.00	$15.15	$3.03
1"	$22.00	$30.30	$3.03
1 1/2"	$44.00	$60.60	$3.03
2"	$77.00	$106.05	$3.03
3"	$176.00	$242.40	$3.03
4"	$308.00	$424.20	$3.03
6"	$704.00	$969.60	$3.03
The SMP charge is a pass-through fee from Shoshone Municipal Pipeline. The monthly base rate is collected to offset system operation and maintenance costs.			

PROJECT AREA MAPS



Return to Agenda

Diagram 4.1 – Proposed Annexation Areas



Return to Agenda

PHOTOS

Potential Expansion Area

Potential Expansion Area

Potential Expansion Area

Return to Agenda

RESOLUTION

RESOLUTION 2023 – 03

A RESOLUTION AUTHORIZING SUBMISSION OF A FUNDING APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION ON BEHALF OF THE CITY OF CODY FOR THE PURPOSE OF COMPLETING THE EAST AND NORTHWEST GROWTH AREAS FEASIBILITY EVALUATION - LEVEL II STUDY

WHEREAS, the City Council for the City of Cody recognizes the importance to perform long-term planning and project prioritization for infrastructure investment and upgrades in the City's treated water system to ensure that cost effective water service is provided to its customers; and

WHEREAS, the City of Cody worked in cooperation with the Wyoming Water Development Commission to complete the "City of Cody Master Plan – Level 1 Study" in October 2021 which provides an existing conditions and future conditions analysis of the treated water and raw water distribution systems, identifies specific projects and priorities for capital investment over a twenty-year planning horizon, and recognizes potential areas of growth around the existing incorporated city limits; and

WHEREAS, the City of Cody will utilize funds from the Water Fund Enterprise Account to provide the City-match amount required if funding is obtained through an application to the Wyoming Water Development Commission; and

WHEREAS, the Wyoming Water Development Commission has outlined specific requirements be met for submission of a funding application, and to the best of our knowledge those requirements have been met.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Cody, Wyoming, that a funding application be submitted to the Wyoming Water Development Commission for the purpose of completing the "East and Northwest Growth Areas Feasibility Evaluation – Level II Study." Furthermore, be it resolved that Matt Hall, Mayor, is hereby designated as the authorized representative to act on behalf of the City's governing body on all matters relating to this grant application.

PASSED, APPROVED AND ADOPTED this 28th day of February, 2023.

Matt Hall, Mayor,

ATTEST:

Cindy Baker, Administrative Services Director

STATE OF WYOMING)
) SS.
COUNTY OF PARK)

The foregoing instrument was subscribed and sworn to before me by Matt Hall this 1st day of March, 2023.

WITNESS my hand and official seal.

Notary Public

GAEL L SOSA NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID# 88830
MY COMMISSION EXPIRES: JULY 18, 2026

(S E A L)
My Commission Expires: 7/18/2026

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Greybull Water System Improvements

Program: New Development

Project Type: Municipal Water System

County: Big Horn

Sponsor: Town of Greybull

WWDO Recommendation: Level II

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Town of Greybull is an eligible entity for WWDC funding and desires a study of the feasibility of repair and/or replacement for their primary water transmission line and storage tank.

Project Manager: George Moser

I. PROJECT DESCRIPTION

This project will evaluate the feasibility of repairing and/or replacing the primary transmission line and replacing the east-side storage tank. The project will consist of a condition assessment, hydraulic modeling, rights-of-way and easement evaluation, repair and replacement options, funding options, and recommendations.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Greybull Crossing and Tank Project	III	96	2000	I	$ 1,850,000	2005
Greybull Raw Water	II	7	2002	I	$ 50,000	2005
Greybull Highway 14 Crossing Project	III	69	2003	II	$ 240,000	2008
Greybull Wells Rehabilitation	II	34	2004	II	$ 475,000	2007
Greybull Pipeline and Well Improvements	III	75	2008	I	$ 1,470,000	2013
Greybull Tank and Master Plan	I	74	2014	I	$ 200,000	2017
Greybull Transmission Pipeline	III	55	2016	I	$ 824,100	2021

2. Describe the location of the project:

Greybull is located on the banks of the Bighorn River, within Big Horn County. The “Shell Wells” are located near Shell. Shell is about 15-miles east of Greybull, along Shell Creek, at the base of the Bighorn Mountains. The project is located within the Bighorn Basin, an intermontane basin in north-central Wyoming. The Shell Wells primarily source water from the Madison Limestone, with contributions from the Bighorn Dolomite.

3. Summarize the request:

The Town of Greybull is requesting funding to complete system improvements on their water system. The system is predominantly supplied from three groundwater wells, with approximately 20 miles of transmission line conveying water to a one-million gallon storage tank. The transmission line was installed in the 1970s and the tank was built in the 1960s, and the town would like to evaluate options to ensure long-term reliability and operation of this system.

4. Summarize the reasons for the request:

In 2006, a Level II Study provided results for the testing and evaluation of the Greybull Water Transmission Pipeline. This study evaluated the 16.5-mile transmission pipeline, which consists of 12- and 14-inch diameter asbestos cement (AC) pipe. Portions of the pipeline were installed in the 1960s, with the final replacement in 1973. The 2006 study evaluated pipe flow conditions, performed leak detection testing, performed hydraulic modeling, and inspected, tested, and evaluated the physical condition of the pipe. At that time, generally the pipeline was a viable component of the Greybull water system. More recently, maintenance staff have been reporting increased leak and repair frequency, leading to questions regarding the long-term viability of the transmission line to supply water.

In 2015, a Level I Study provided an evaluation of Greybull's water storage, including the East Side 1.0 MG tank. The study concluded the tank was leaking, more than 50 years old, and had probably reached the end of its regular life cycle. The Study recommended replacing the tank at that time. In addition, a 2018 tank inspection report noted light staining and blistering throughout all wall quadrants, heavy surface corrosion and staining along roof panels and supports, and small isolated areas of corrosion and blistering throughout all floor quadrants.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

    N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

    A. Number of Taps: 941

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they (RUS, SRF, other)? SRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Yes, Greybull is part of the Big Horn Regional Joint Powers Board.

7. What is the monthly water bill for 5,000 gallons? $42.01 for in-town, ¾" taps (See attached rate sheet)

    A. 20,000 Gallons? $53.41 for in-town, ¾" taps (See attached rate sheet)

8. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600022

B. Groundwater

(1) Number of Wells: 3

(2) Primary Supply Aquifer(s) or Formation(s): Madison Formation and Bighorn Dolomite

(3) Total Average Production Yield of All Wells (GPM): 1,560

Return to Agenda

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS or GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 3.46 mgpd

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: Approximately 20 miles

(4) Transmission Pipe Diameter(s): 12" and 14"

(5) Type of Transmission Pipe Material(s): Asbestos Cement with PVC Components

(6) Age of Transmission Pipeline(s): AC – 50+ years, PVC – 15+ years

(7) Condition of Transmission Pipeline(s): fair

(8) Does the applicant possess clear title to transmission corridor easements? yes

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): 1-million gallon, round, above ground, welded steel

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Fire Hydrants, city parks

D. Average Day Demand Water Usage (Gallons per Capita per Day): 371

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 1,114

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 1,597

G. Distribution Pipe Diameter(s): 6"-14"

H. Type of Distribution Pipe Material(s): AC, PVC, Cast Iron

I. Age of Distribution Pipeline(s): Varies from 7 to over 50 years

J. Condition of Distribution Pipeline(s): Good

K. Estimated System Water Losses (Percentage): 10%

L. Describe any fire flow protection that the system provides:

Fire Hydrants and fire flow systems to buildings

M. What water conservation measures are employed?

Public Works actively locates and repairs leaks. During peak season, morning and evening use is encouraged. Greybull uses tiered rates to charge more for increased water consumption.

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 1,847 B. Current Population Estimate: 1,800

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 3,616

D. How many taps are served within the corporate limits/JPB service area? 941

E. How many taps are served outside of the corporate limits/JPB service area? 339

F. Identify names of other water system served:

Airport Bench, Greybull Heights, Scharen Subdivision, Shell Valley West, Town of Shell, and Shell Town users.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

South Big Horn County Airport Master Plan, 2014 – Available from Big Horn County Land Planning Office, 307-568-2424; Town of Greybull Housing Study and Master Plan, CTA Architects & Engineers 307-765-9431.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $1,500

(2) Tap Fee(s) – Commercial: $1,500

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$45.00 for approximately 5,000 gallons

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See Attached Rate Sheet

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	864,000
b. Annual Revenues from Tap Fees:	$	16,500
c. Annual Revenues from Other Sources:	$	12,500
d. Total Annual Revenues:	$	893,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	463,750
b. Annual Payments for Debt Retirement:	$	*338,000
c. Annual Payments to a Repair and Replacement Fund:	$	3,750
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	805,500

*$218,000 of Debt Retirement payments are for Big Horn Regional

(3) Other

a. Balance in Repair and Replacement Fund:	$	34,300

b. Balance in Emergency Fund: $ $172,600

c. Annual Cost of Water Quality Testing: $ $5,000

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

WATER RATES

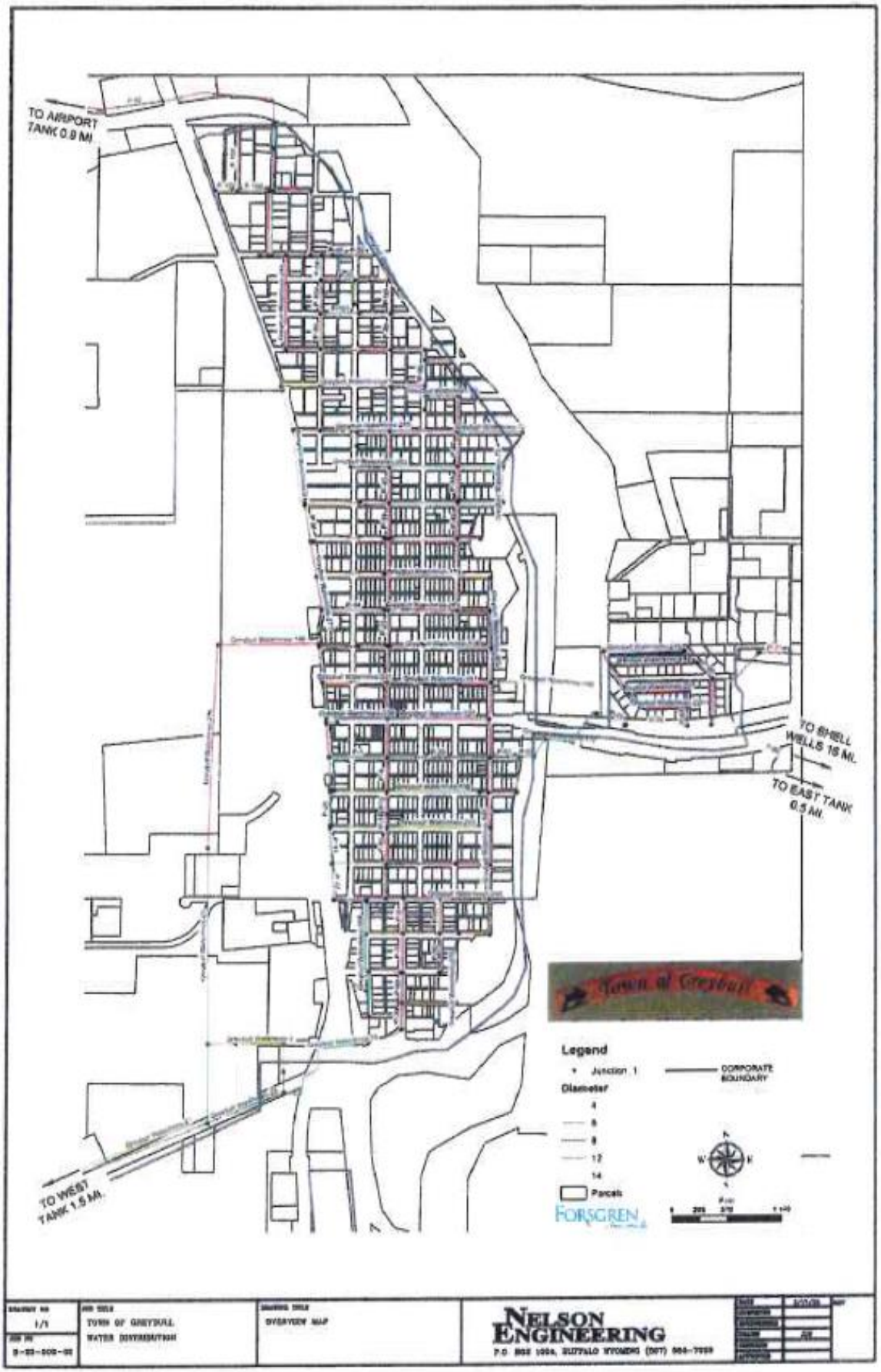
IN TOWN RATES

CONNECTION	BASE RATE	RATE PER 1K GALS 0-10k	RATE OVER 10K GALS PER 1K GALS 10-40K	RATE OVER 40K GALS PER 1K GALS
3/4"	$ 37.46	$ 0.91	$ 1.14	$ 1.43
1"	$ 47.34	$ 0.91	$ 1.14	$ 1.43
1 1/2"	$ 63.81	$ 0.91	$ 1.14	$ 1.43
2'	$ 136.26	$ 0.91	$ 1.14	$ 1.43
3"	$ 317.39	$ 0.91	$ 1.14	$ 1.43

OUT OF TOWN RATES

CONNECTION	BASE RATE	RATE PER 1K GALS 0-10k	RATE OVER 10K GALS PER 1K GALS 10-40K	RATE OVER 40K GALS PER 1K GALS
3/4"	$ 46.83	$ 0.91	$ 1.14	$ 1.43
1"	$ 59.18	$ 0.91	$ 1.14	$ 1.43
1 1/2"	$ 79.76	$ 0.91	$ 1.14	$ 1.43
2'	$ 170.33	$ 0.91	$ 1.14	$ 1.43
3"	$ 396.74	$ 0.91	$ 1.14	$ 1.43

PROJECT AREA MAP



Return to Agenda

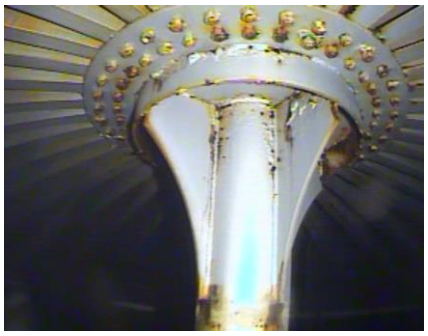
PHOTOS

Bighorn River and Town of Greybull

Return to Agenda

One Million Gallon Storage Tank

Interior Floor Patching



Center Support Column Corrosion

Roof and Support Beam Corrosion

Clockwise from top left:

Tank Foundation;
Exterior Rust At Welded Seam; and
Tank Inlet

Return to Agenda

RESOLUTION

Resolution 488

A RESOLUTION AUTHORIZING THE SUBMISSION OF A REQUEST FOR A LEVEL II STUDY FOR THE TOWN OF GREYBULL SYSTEM IMPROVEMENTS TO WATER SYSTEM, ON BEHALF OF THE GOVERNING BODY FOR THE TOWN OF GREYBULL, WYOMING.

WITNESSETH:

WHEREAS, the governing body for the Town of Greybull desires to participate in the Wyoming Water Development Commission program to assist in financing this project, and

WHEREAS, the Governing Body of the Town of Greybull recognizes the need for the project; and

WHEREAS, the Wyoming Water Development Commission requires that certain criteria be met, and to the best of our knowledge this application meets those criteria.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE TOWN OF GREYBULL, that an application for consideration of a Level II feasibility study of the Town of Greybull's system improvements on the water system and the estimated costs for improvements..

BE IT FURTHER RESOLVED that Myles Foley, Mayor, and Carrie Hunt, Administrator, are hereby designated as authorized representatives of the Town of Greybull to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED, AND ADOPTED THIS 13TH DAY OF FEBRUARY 2023

Myles Foley, Mayor

ATTEST: Carrie Hunt

Carrie Hunt, Town Administrator

JESSICA FINK NOTARY PUBLIC
COUNTY OF BIG HORN STATE OF WYOMING
MY COMMISSION EXPIRES JUNE 2, 2025

State of Wyoming

County of Big Horn

The above document was acknowledged before me, Jessica Fink, this 14th day of February 2023, by Myles Foley, Mayor. Witness my hand and official seal.

Notary Public

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Hot Springs County Test Well

Program: New Development

Project Type: Joint Powers Water Board Water System

County: Hot Springs

Sponsor: Hot Springs County Rural Water Joint Powers Board

WWDO Recommendation: Level II

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Sponsor is an eligible entity that is attempting to locate groundwater sources to use for regionalization efforts in Hot Springs County.

Project Manager: George Moser, P.G.

I. PROJECT DESCRIPTION

The Sponsor applied for a Level II project to drill at a test-well location identified during previous WWDC Planning Studies. Previous well-siting studies were performed under the goal of identifying and developing a southern source of supply for the Big Horn Regional Water System Joint Powers Board. As the Sponsor proposes, the well construction and transmission-line costs are estimated at nearly $39 million (Dowl, 2022; Appendix C Pp. 25-26). According to DOWL (2022), combining a 67% WWDC Grant, RD/RUS grants, and financing 18% of project costs through RD/RUS, the drilling and similar piping costs for the Lysite Mountain project would equate to $4.69 per month, per tap, if the costs were spread over all 7,267 equivalent dwelling units of the Big Horn Regional System. The Sponsor currently has approximately 320 taps on their system (with the potential of adding approximately 1,200 taps from Thermopolis).

A Phase I Project would consist of a well-siting study (to include review of previous information and studies), recommendations for test-well locations, ranking and recommendations of locations, community meetings to solicit input on recommendations, identification of easement and access concerns, and securing of easements and access (including eventual pipeline alignments). In addition, Phase I would develop general cost estimates, and include breakdown of costs, based on potential taps to be served. Finally, Phase I would allow time for the Sponsor to evaluate their membership and consequent financial impacts to feasibility.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
*Big Horn Regional Groundwater	II	75/66	2005/09	I	$ 2,350,000	2012
*Owl Creek Rural Water Supply	II	33	2008	I	$ 75,000	2010
*South Thermopolis Water Supply	II	33	2008	I	$ 75,000	2010
*Thermopolis Master Plan	I	74	2014	I	$ 135,000	2017
*Big Horn Regional Southern Supply	II	65	2017	I	$ 180,000	2020
*Big Horn Regional Transmission	II	11	2021	1	$ 146,000	2024

**The Sponsor (HSCRWJPB) has never applied for WWDC assistance. The above projects are provided as background information regarding projects which may provide useful information for the contemplated project.*

2. Describe the location of the project:

Hot Springs County Rural Water JPB encompasses water districts surrounding the Town of Thermopolis. In addition, Red Lane is beginning the process of forming a Water District and joining the HSCRWJPB. Furthermore, Thermopolis has expressed interest in joining the HSCRWJPB if adequate groundwater supplies can be located and developed.

3. Summarize the request:

HSCRWJPB desires a study to drill and test groundwater sources which might be used to provide water supplies to the southern area of the Bighorn Basin.

4. Summarize the reasons for the request:

Multiple efforts over time have attempted to identify regional water-supply sources for the Hot Springs area. These efforts have not yet identified an all-encompassing solution for the region. Several of the Districts within HSCRWJPB are supplied by the Town of Thermopolis; however, several of these districts struggle with high disinfection byproducts. The Owl Creek Water District has been under EPA Administrative Order for these challenges, and other districts have reported issues with disinfection byproducts.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: Thermopolis – 1208, South Thermopolis – 154, Owl Creek – 43, East Thermopolis – 155, Red Lane Water System – 68.

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? SRF, Other.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)?

Owl Creek Water District has been under Administrative Order for Total Trihalomethanes.

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Lucerne Water District is currently supplied by the Big Horn Regional water system. The Sponsor exists to explore opportunities for regional water supply.

7. What is the monthly water bill for 5,000 gallons? See Attached sheet of water rates for various entities.

A. 20,000 Gallons? See Attached sheet of water rates for various entities.

8. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

   A. EPA Public Water System (PWS) Identification Number:

South Thermopolis Water & Sewer District: 56001053C, Owl Creek Water District: 5601673C, Red Lane: 5600232C, Lucerne Water & Sewer District: 5600935C, Town of Thermopolis: 5600056C

B. Groundwater

(1) Number of Wells: 3 (Thermopolis)

(2) Primary Supply Aquifer(s) or Formation(s): Alluvium

(3) Total Average Production Yield of All Wells (GPM): 450

C. Surface Water

(1) Source Name(s): Bighorn River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Pump

(3) Total Average Diversion Yield (CFS of GPM): 1,100 gpm

D. Springs

(1) Name of Spring(s): None

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Varies

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: Varies

(4) Transmission Pipe Diameter(s): 2-inch to 24-inch

(5) Type of Transmission Pipe Material(s): PVC, AC, Fiberglass, Cast Iron

(6) Age of Transmission Pipeline(s): from pre-1950s to present

(7) Condition of Transmission Pipeline(s): Fair

(8) Does the applicant possess clear title to transmission corridor easements? Yes, for existing.

G. Water Storage

(1) Raw (Volume and Tank Description): 216,142 gallons for existing clearwell at the water treatment plant.

(2) Treated (Volume and Tank Description):

State Park Tank-264,000 gallons; Airport Tank-250,000 gallons; New Arapahoe Tank-1,000,000 gallons, Cedar Ridge Tank-50,000 gallons, Roundtop Tanks (2 tanks)-512,000 gallons, Owl Creek 20,000 gallons.

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Conventional Lime/Soda plant for Thermopolis. BHR water requires chlorination.

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Unknown

D. Average Day Demand Water Usage (Gallons per Capita per Day): Thermopolis: 230; South Thermopolis: 141; Owl Creek: 184; East Thermopolis: 79; Red Lane: 119

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): Thermopolis: 800; South

Thermopolis: 373; Owl Creek: 488; East Thermopolis: 210; Red Lane: 316

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): Thermopolis: 923; South Thermopolis: 592; Owl Creek: 772; East Thermopolis: 333; Red Lane: 500

G. Distribution Pipe Diameter(s): 2",4", 6", 8", 10", 12", 16"

H. Type of Distribution Pipe Material(s): Asbestos Cement, PVC, Cast Iron

I. Age of Distribution Pipeline(s): Asbestos Cement-Pre 1950. Cast Iron-1950 - 1970. PVC 1970 to present

J. Condition of Distribution Pipeline(s): Numerous leaks, undersized, etc.

K. Estimated System Water Losses (Percentage): Town of Thermopolis - 20%, BHR -5%

L. Describe any fire flow protection that the system provides:

Town of Thermopolis provides fire flow throughout their system. BHR does not provide fire flow.

M. What water conservation measures are employed?

Tiered water rates.

N. Is there an independent raw water irrigation system? Yes, for Thermopolis

(1) Raw Water System Capacity (Gallons per Day): 1MG (estimated)

(2) Average Annual Raw Water Usage (Gallons per Year): 1MG (estimated)

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 3,020 for Thermopolis B. Current Population Estimate: 4,200 (JPB Entities)

C. Does the applicant have a comprehensive planning boundary? No

(1) If so, what is the estimated additional population that may be served in the future? Unknown

D. How many taps are served within the corporate limits/JPB service area? Thermopolis – 1208, South Thermopolis – 154, Owl Creek – 43, East Thermopolis – 155, Red Lane Water System – 68

E. How many taps are served outside of the corporate limits/JPB service area? None currently, but potentially 60 additional taps along Black Willow and Black Mountain Road.

F. Identify names of other water system served:

Lucerne Water & Sewer District has the capability to receive water from the Town of Thermopolis but currently receives water from Big Horn Regional System. Town of Kirby has the capability to receive water from the Town of Thermopolis but currently receives water from Biq Horn Regional System.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

WWDC 2015 Town of Thermopolis Level I Master Plan

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: Varies based on District

(2) Tap Fee(s) – Commercial: Varies based on District

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

Varies based on District

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Varies based on District

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

Owl Creek must flush excess water to improve quality.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	0
b. Annual Revenues from Tap Fees:	$	0
c. Annual Revenues from Other Sources:	$	0
d. Total Annual Revenues:	$	0

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	0
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	0

(3) Other

a. Balance in Repair and Replacement Fund:	$	0
b. Balance in Emergency Fund:	$	0
c. Annual Cost of Water Quality Testing:	$	0

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

There is a plan to be self-supporting, once the HSCRWJPB develops a source.

a. If not, how is the difference subsidized?

N/A

COMPARISON OF WATER RATES

6.2.2 Monthly Water Bill for BHRWS Supplied Entities

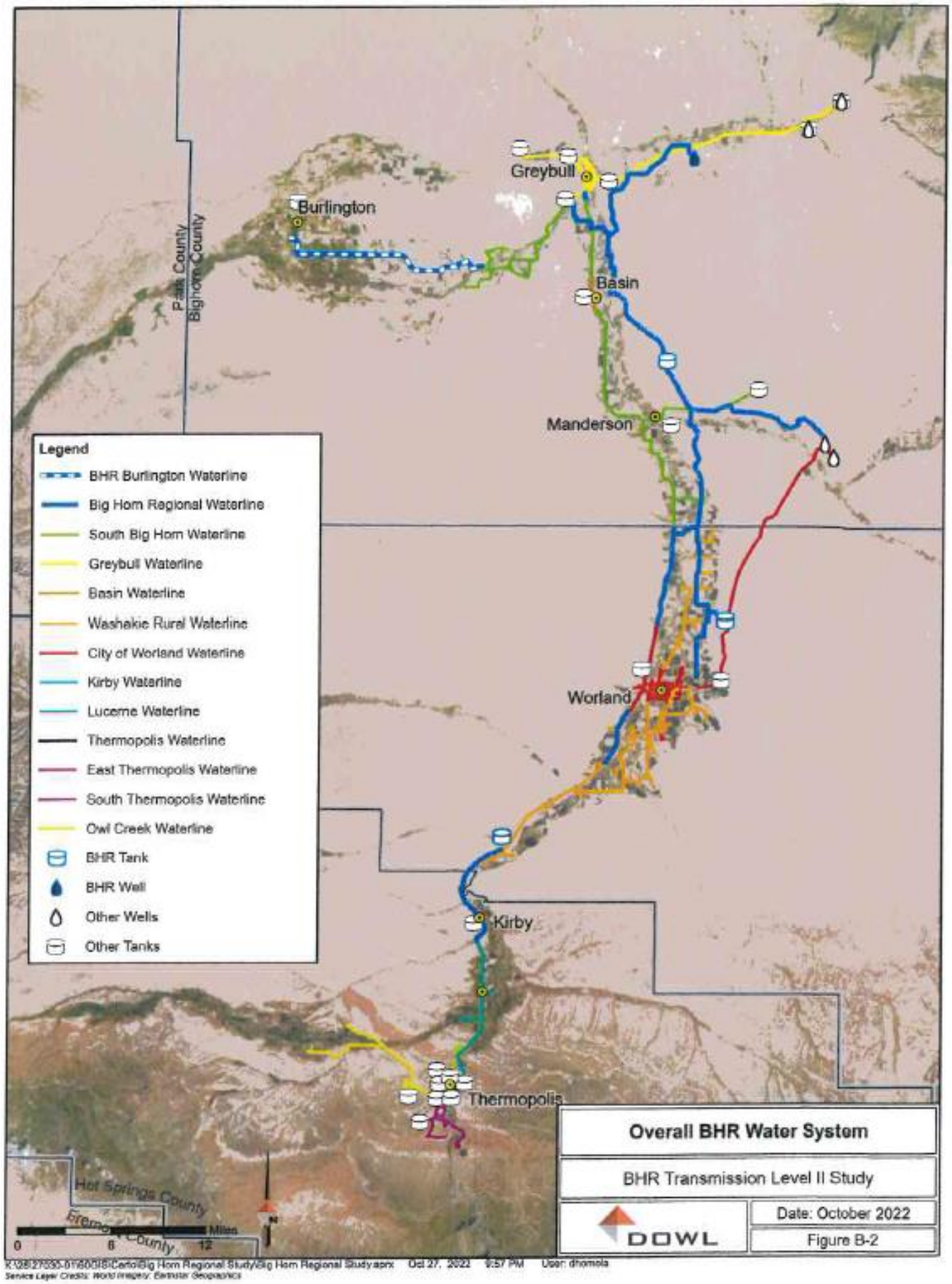
The following table shows a sample of monthly water bills from a few of the systems that receive water from the BHRWS as well as the Owl Creek Water District for comparison and to see the breakdown of the various rates.

Table 6.1 Comparison of Water Bills

	SBHCRWD	SBH Greybull River service area	Washakie Rural I&SD	Lucerne W&SD	Owl Creek Water District
Base charged by district	$ 53.50	$ 63.50	$ 52.50	$ 43.00	$ 98.20
Wholesale EDU Base rate	$ 11.50	$ 11.50	$ 11.50	$ 11.50	$ 23.80
Total Base Rate	**$ 65.00**	**$ 75.00**	**$ 64.00**	**$ 54.50**	**$ 122.00**
Quantity in Base (gallons)	4000	4000	3000	3000	1000
Cost per 1000 gallons	$ 1.50	$ 1.50	$ 1.50	$ 3.75	$ 4.00
Incremental above the base rate			Every 5,000 gal above 10,000 gal increases $0.50/1000 gallons		
Example water bill amounts:					
For 7000 gallons per month	$ 69.50	$ 79.50	$ 70.00	$ 69.50	$ 146.00
For 10,000 gallons per month	$ 74.00	$ 84.00	$ 74.50	$ 80.75	$ 158.00
For 15,000 gallons per month	$ 81.50	$ 91.50	$ 82.00	$ 99.50	$ 178.00

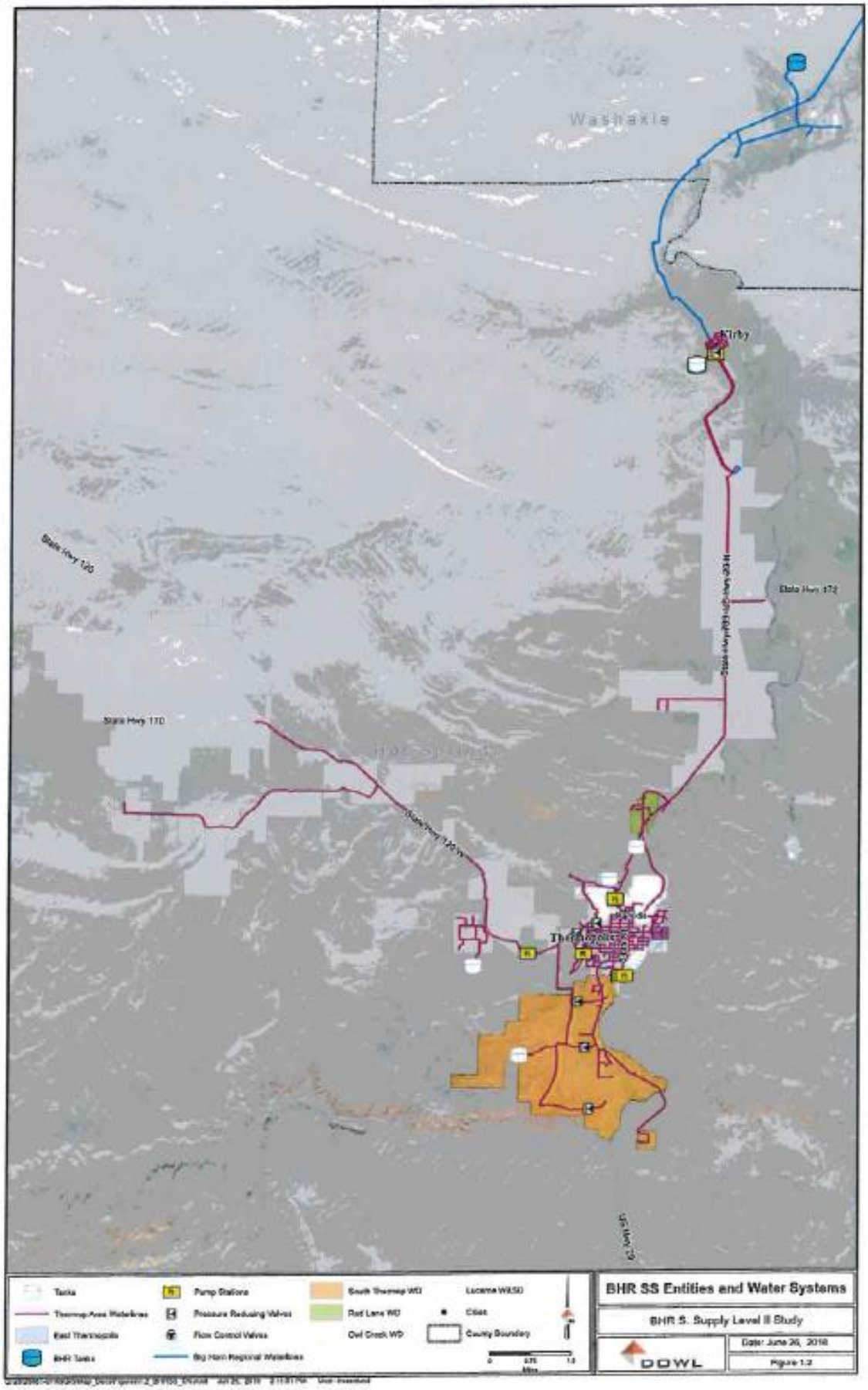
Return to Agenda

MAP OF WATERLINES



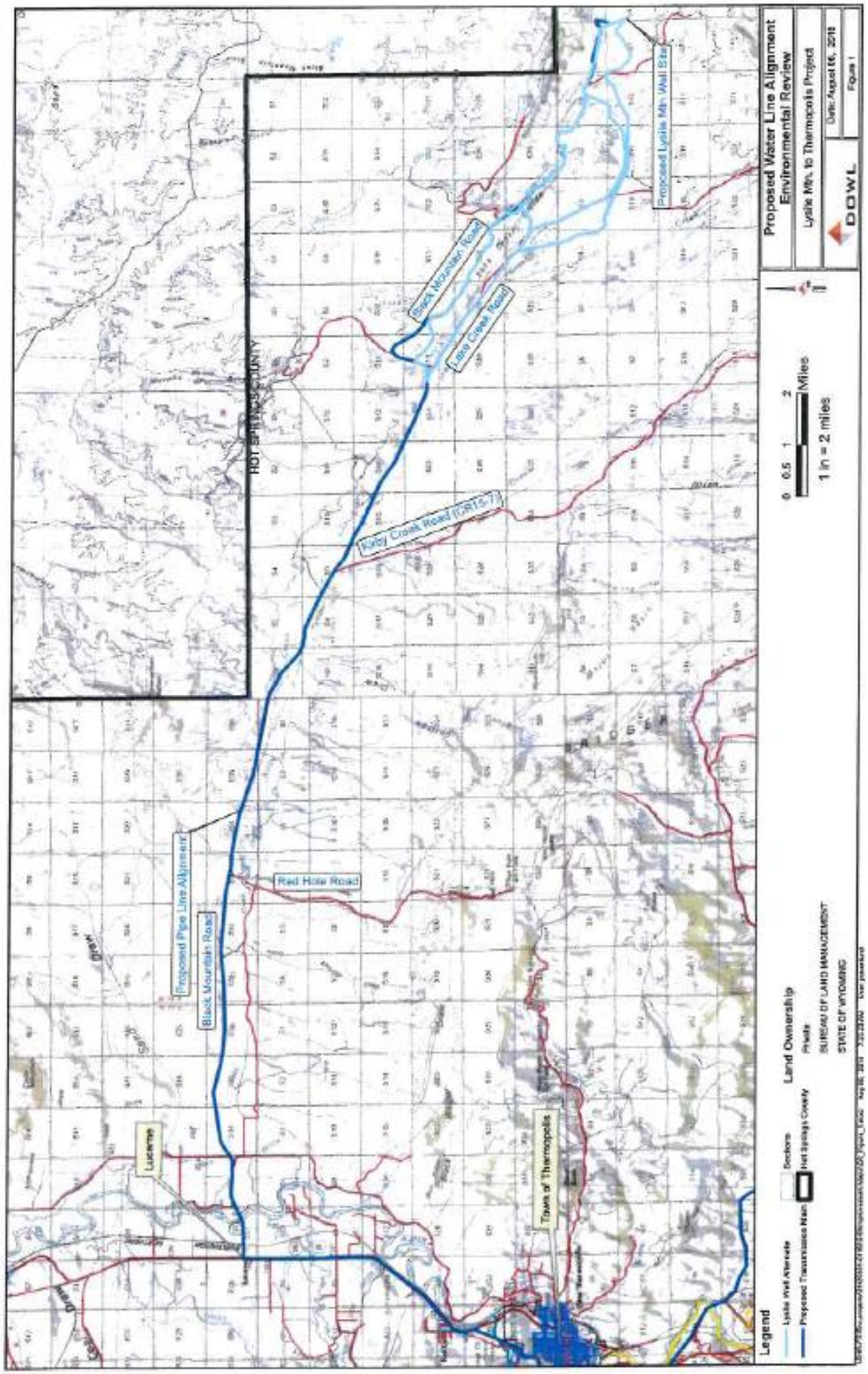
Return to Agenda

MAP OF SOUTHERN BIGHORN BASIN ENTITES AND WATER SYSTEMS



Return to Agenda

POTENTIAL TEST WELL LOCATION MAP



Return to Agenda

POTENTIAL WELL SITE ACCESS

VIEW TO NORTH OF POTENTIAL WELL SITE

Return to Agenda

RESOLUTION

Resolution No. 23-1

A RESOLUTION AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR THE FUNDING OF A LEVEL II WELL PROJECT

WITNESSETH

WHEREAS, the Wyoming Water Development Commission (WWDC) has completed a Level II Big Horn Regional Southern Water Supply study (Contract No. 05SC0298334), which evaluated the water systems in and around the Town of Thermopolis providing recommended alternative water sources and methods of supply for needs into the future; and more recently completed a Level II Big Horn Regional Transmission Study (Contract No. 029CM0090098) which further evaluated the ability to supply water from the Big Horn Regional Joint Powers Board Water System to entities in Hot Springs County; and

WHEREAS, Hot Springs County Rural Water Joint Powers Board (JPB) has multiple member entities in need of a new water supply. South Thermopolis Water and Sewer District, East Thermopolis Water District, Red Lane, and Owl Creek Water District are supplied water by the Town of Thermopolis. Each of these water systems has concerns regarding dependability and affordability of their water supply into the future, such that a recommendation by both prior Level II studies was to drill a new well at Lysite Mountain for the JPB; and

WHEREAS, the JPB supports this Level II recommendation to have the new well and wishes to have the new well drilled and tested; and

WHEREAS, WWDC's Level II program provides a means for the drilling and testing of this well, and there are currently funds in this program, and JPB wishes to take advantage of this funding; and

WHEREAS, the WWDC has a process for applying for these funds and this resolution and accompanying application are part of that process; and

WHEREAS, the governing body of the JPB recognizes and supports the need for this project and the submittal of this funding application.

NOW, THEREFORE, BE IT RESOLVED BY THE HOT SPRINGS COUNTY RURAL WATER JOINT POWERS BOARD, that a Level II funding application be submitted to the WWDC for the above described project.

BE IT FURTHER RESOLVED, that Chairman Thomas Ryan is hereby designated as the authorized representative of the JPB, to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED AND ADOPTED THIS 16th day of February, 2023.

Thomas J. Ryan, Chairman

Attest:
Anthony Basko, Secretary/Treasurer

Return to Agenda

SUPPORTING RESOLUTION FROM THERMOPOLIS

RESOLUTION 573

A RESOLUTION TO SUPPORT THE HOT SPRINGS COUNTY WATER SUPPLY JOINT POWERS BOARD'S FUNDING APPLICATION AND EFFORTS FOR A GROUND WATER PROGRAM TEST WELL.

WITNESSETH

WHEREAS, the Town of Thermopolis expects the need to upgrade the current drinking water system or secure another source of drinking water in five (5) to ten (10) years, and

WHEREAS, currently the water districts of Hot Springs County are seeking a solution; and

WHEREAS, collaboration increases purchasing power and regional self-reliance; and

WHEREAS, the Hot Springs County Water Supply Joint Powers Board is applying for an application with the Wyoming Water Development Office for a ground water test well to locate a ground water supply for the County; and

WHEREAS, Red Lane is creating a water district to help support the Hot Springs County Water Supply Joint Powers Board.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF THERMOPOLIS THAT:

The Town of Thermopolis supports the Hot Springs County Water Supply Joint Powers Board's application to the Wyoming Water Development Office.

FURTHERMORE, The Town of Thermopolis intends to join the Hot Springs County Water Supply Joint Powers Board after Red Lane creates a water district,

FURTHERMORE, the Town of Thermopolis will provide a share of financial support for a ground water test well to determine if a sufficient amount of drinking water is available for future use.

PASSED, APPROVED AND ADOPTED, this 4th day of April, 2023, at Thermopolis, Hot Springs County, Wyoming.

TOWN OF THERMOPOLIS, WYOMING
A Municipal Corporation

By: A. L. Estenson
Adam R. Estenson, Mayor

ATTEST:

Tracey Van Heule
Tracey Van Heule, Town Clerk

SUPPORTING LETTER FROM BIG HORN REGIONAL JOINT POWERS BOARD

DIRECTOR
John Joyce
Mobile: 307-272-4860
Phone/Fax: 307-568-2514
jnjoyce56@gmail.com

BIG HORN REGIONAL
JOINT POWERS BOARD

OFFICE LOCATION
P.O. Box 346
1100 North 10th Str
Worland WY 82401
Phone – 307-347-4042
Fax – 307-347-4277
bhrjpb@rtconnect.net

Jason Mead, Director
Wyoming Water Development Office
6920 Yellowtail Road
Cheyenne, WY 82002

RECEIVED
FEB 21 2023
WY WATER DEVELOPMENT OFFICE

February 14, 2023

Dear Mr. Mead,

The Big Horn Regional Joint Powers Board (BHR) has been working with the Hot Springs County Water Supply Joint Powers Board (HSCWS) to provide a long term, reliable and safe drinking water source and transmission infrastructure for all of the residents of Hot Springs County including the Town of Thermopolis.

HSCWS has reviewed the WWDC Level II studies that have previously been completed for BHR covering Hot Springs County. HSCWS would like to move ahead with an application to WWDO for a ground water program test well to locate a ground water supply for the county.

BHR presently serves the Lucerne Water Improvement District and the Town of Kirby at the southern end of the regional system. If a ground water source was developed in Hot Springs County it would benefit those systems. If the new well field has adequate capacity it could also serve as a redundant emergency supply for the City of Worland.

BHR would like to support the application by HSWS to WWDO and offer any assistance we could provide in the effort to find a Hot Springs County municipal ground water source.

Sincerely,

Don Russell, Chairman

Cc: Jay Smith, WWDO
Tom Ryan, HSC Commission, Chairman

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

RURAL DOMESTIC WATER SYSTEMS

Project Name: Owl Creek Test Well

Program: New Development

Project Type: Other (Rural Water Supply)

County: Hot Springs

Sponsor: Owl Creek Water District

WWDO Recommendation: Do Not Fund

Proposed Budget: $0

Basis for the Funding Recommendation:

Owl Creek Water District is an eligible entity under the WWDC program. Owl Creek is a member of the Hot Springs County Rural Water Joint Powers Board (HSCRWJPB). The HSCRWJBP also submitted an application to explore options for obtaining groundwater supplies within the southern Bighorn basin, for its members, and potentially other entities which could join in the future.

Project Manager: George Moser

I. PROJECT DESCRIPTION

Owl Creek Water District would like to explore the Yankee Dome well site to include drilling, testing, and evaluating options for obtaining groundwater supply for the Owl Creek system.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Owl Creek Rural Water Supply	I	99	2006	I	$ 75,000	2009
Owl Creek Rural Water Supply	II	33	2008	I	$ 75,000	2010
Owl Creek Water Supply	III	68	2010	I	$ 3,182,500	2015

2. Describe the location of the project:

Owl Creek Water District is located west of Thermopolis in Hot Springs County.

3. Summarize the request:

Owl Creek would like to drill and test the Madison Formation for suitability as a source of supply for them, as well as potentially other users that are part of the HSCRWJPB.

4. Summarize the reasons for the request:

Owl Creek is a consecutive system and purchases water from Thermopolis. There are approximately 25 miles of transmission line with only 53 active customers which creates a problem of aging water and requires regular flushing. Owl Creek hopes to obtain water of better quality and consistency through a groundwater well.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Does an entity of local government exist? Yes

A. If an entity of local government exists, provide the following:

(1) Type of Entity (Water District, Water & Sewer District, Improvement & Service District, etc.):

Water District

(2) Date of Formation: 2007

B. If no entity exists, provide the following:

(1) Is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

N/A

(2) Has district formation started? N/A

(3) Has a petition been submitted to the City Council or County Commission? N/A

(4) Has the district formation hearing been held? N/A

(5) Has the district formation election been held or scheduled? N/A

2. Is the area made up a subdivision, subdivisions, or un-platted development? Subdivisions and un-platted development

3. Provide the date or dates that the subdivision or subdivisions were approved by the City or County:

Sage Valley Subdivision – 1980; Hanging Horse Subdivision – 2007; Hammond Subdivision – 2008; Ross Subdivision - 2016

4. Is the project supported by the City Council or County Commission which has jurisdiction over the project area?

The Hot Springs County Commissioners have not issued a letter of support for the application.

A. Provide any comments from City Council or County Commission: N/A

5. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies
(Use Attachment III of the operating criteria.)

6. Will the project serve at least 15 water taps? Yes

A. Number of Taps: 58

7. Is the Sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they (RUS, SRF, other)? RUS, SRF, other

8. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)?

None currently; however, there have been Administrative Orders in the past related to disinfection by-products.

9. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Sponsor currently receives water from Thermopolis. Sponsor is part of the HSCRWJPB, and the Sponsor is supportive of regional solutions.

10. What is monthly water bill for 5,000 gallons? $141.60 – Residential

A. 20,000 Gallons? $255.60 – Residential

11. Can the project be delayed or staged? Yes

A. Should it be? **Yes. Owl Creek Water District is an eligible entity under the WWDC program. Owl Creek is a member of the Hot Springs County Rural Water Joint Powers Board (HSCRWJPB). The HSCRWJBP also submitted an application to explore options for obtaining groundwater supplies within the southern Bighorn basin, for its members, and potentially other entities which could join in the future.**

Return to Agenda

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5601673

B. Groundwater

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): N/A

(3) Total Average Diversion Yield (CFS of GPM): N/A

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights?

N/A

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 257,760

(2) Increased Capacity Needed (If Known) (Gallons per Day): Unknown

(3) Approximate Distance from Source(s) to Distribution System: 2 miles

(4) Transmission Pipe Diameter(s): 6-inch

(5) Type of Transmission Pipe Material(s): PVC

(6) Age of Transmission Pipeline(s): 8 years

(7) Condition of Transmission Pipeline(s): Excellent

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): N/A

(2) Treated (Volume and Tank Description): Two 10,000-gallon tanks

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

Flushing to maintain chlorine residuals and disinfection by-product levels

D. Average Day Demand Water Usage (Gallons per Capita per Day): 159

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 422

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 669

G. Distribution Pipe Diameter(s): 2-, 3-, 4-, and 6-inch

H. Type of Distribution Pipe Material(s): HDPE and PVC

I. Age of Distribution Pipeline(s): 7 years

J. Condition of Distribution Pipeline(s): Excellent

K. Estimated System Water Losses (Percentage): 9% - mostly due to flushing

L. Describe any fire flow protection that the system provides: None

M. What water conservation measures are employed? Tiered rates

N. Is there an independent raw water irrigation system? No

(1) Raw Water System Capacity (Gallons per Day): N/A

(2) Average Annual Raw Water Usage (Gallons per Year): N/A

3. Demographic Information and Existing Water Service Area

A. Population (2020 Census): 145 B. Current Population Estimate: 145

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 100

D. How many taps are served within the corporate limits/JPB service area? 58

E. How many taps are served outside of the corporate limits/JPB service area? 0

F. Identify names of other water system served: N/A

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

County Planning documents at: hscounty.com/departments/planner

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $3,360

(2) Tap Fee(s) – Commercial: $7,500

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

$141.60 for 4,280 gallons

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

See Attached

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

flushing water.

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$	102,319
b. Annual Revenues from Tap Fees:	$	16,600
c. Annual Revenues from Other Sources:	$	4,572
d. Total Annual Revenues:	$	123,491

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	97,823
b. Annual Payments for Debt Retirement:	$	6,176
c. Annual Payments to a Repair and Replacement Fund:	$	13,492

d. Annual Payments to an Emergency Fund:	$	6,000
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	123,491

(3) Other

a. Balance in Repair and Replacement Fund:	$	28,428
b. Balance in Emergency Fund:	$	45,470
c. Annual Cost of Water Quality Testing:	$	3,471

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

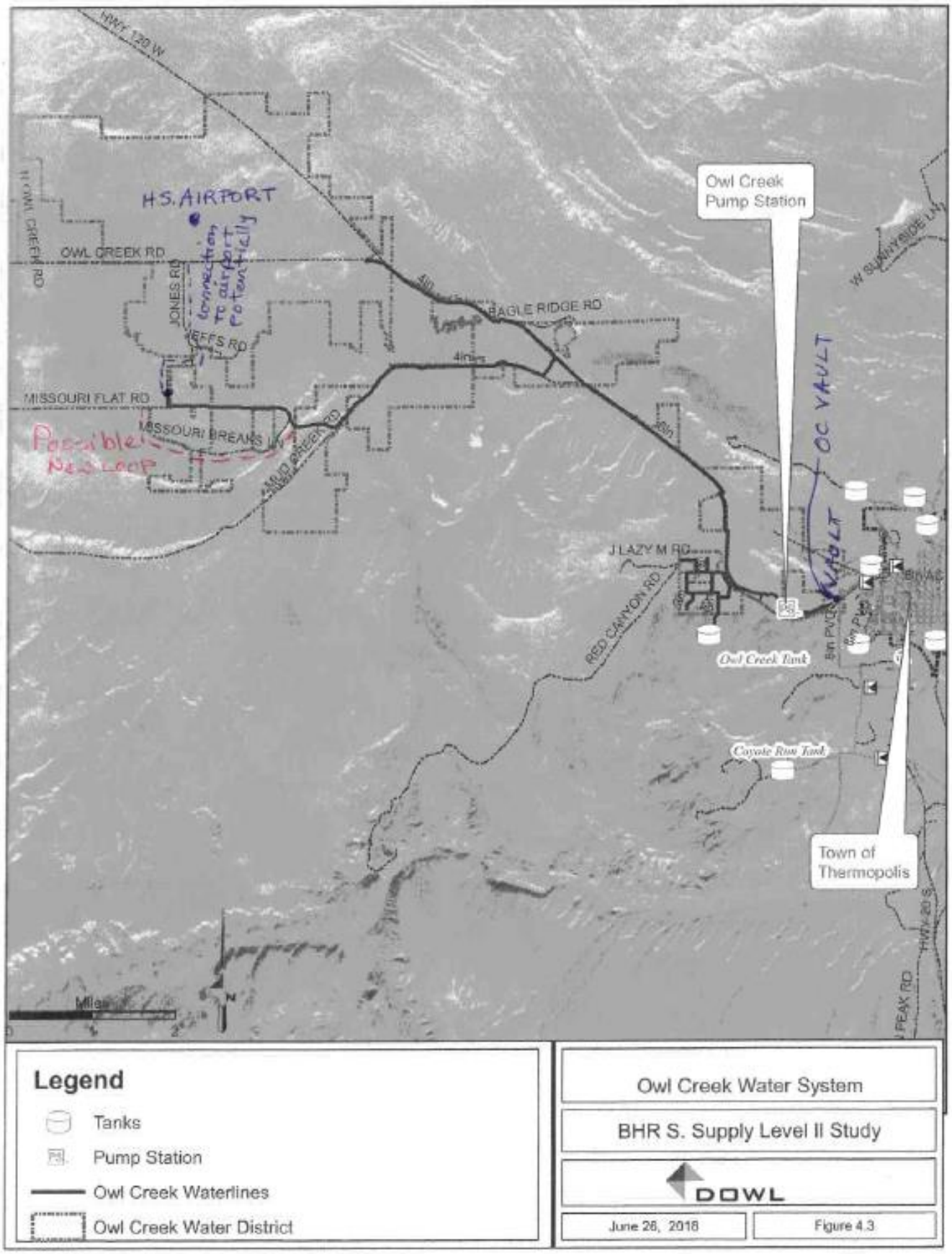
WATER RATES

1. **Residential** (3/4" meter)
   a. $130 per month active users up to 3,00O gallons.
   b. $5.80/month/1,000 gallons additional use between 3,001 - 5,000 gallons
   c, $6.80/month/1,000 gallons additional use between 5,001 - 10,000 gallons
   d. $8.00/month/1,000 gallons for all additional metered use.
2. **Commercial** (1" meter)
   e. $150 per month active users - up to 7,000 gallons.
   f. $5.80/month/1,000 gallons additional use between 7,001 -9,000 gallons
   g. $6.80/month/ 1,000 gallons additional use between 9,001 - 14,000 gallons
   h. $8.00/month/1 ,000 gallons for all additional metered use.

$55 minimum monthly service charge for taps purchased after l2/1/15.

Return to Agenda

PROJECT AREA MAP



Return to Agenda

PHOTOS

View of Owl Creek from Storage Tanks

Booster Station

Return to Agenda

POTENTIAL WELL SITE

Return to Agenda

RESOLUTION

RESOLUTION 2023-02

RESOLUTION TO APPLY FOR LEVEL II STUDY

WHEREAS, Owl Creek Water District (the "District"), is a water district duly formed and organized under the Water and Sewer District Law, Chapter 10, Title 41, Wyoming Statutes and the District's Board of Directors (the "Board") have been elected and qualified; and

WHEREAS, the District has been under EPA Administrative Order for Disinfection By-product violations in the past and continues to have difficulties with maintaining compliance; and

WHEREAS, control of compliance is greatly affected by the water delivered from the Town; and

WHEREAS, the time period it will take for a southern regional water supply to become reality would present greater challenges if no action is taken presently to maintain compliance; and

WHEREAS, there is no guarantee that the proposed Lysite Well for the southern regional water supply would be of acceptable quality and quantity; and

WHEREAS, the Yankee Dome Well situated within 3,000' of the District's existing line would provide immediate relief if acceptable in quality and quantity; and

WHEREAS, the Yankee Dome Well can also provide backup for the southern supply; and

WHEREAS, the funding situation for the District is presently favorable but may not be at the time the southern regional supply is completed;

BE IT THEREFORE RESOLVED that the Board of Directors has decided to apply for a Level II study to the Wyoming Development Commission for the purpose of drilling the Yankee Dome test well in the Madison formation to explore the viability of water quality and quantity. The Directors hereby approve the application and reimbursement fees of $2,000, of which 75% of the application fee and 100% of the reimbursement fee will be refunded if the application is denied.

RESOLUTION 2023-02 applying for a Level II Study was PASSED, ADOPTED and APPROVED as of this 16th day of February, 2023.

OWL CREEK WATER DISTRICT

Bob Anderson, Chairman

ATTEST

Rose Basko

On this 16th day of February, 2023, subscribed and sworn to before me personally appeared Robert Anderson and Rose Basko, to me personally known, who have read the foregoing Statement and know the contents thereof and the facts are true to the best of their knowledge.

LARA SHOOK - NOTARY PUBLIC
COUNTY OF HOT SPRINGS
STATE OF WYOMING
My Commission Expires July 9, 2024

Witness my hand and official seal.

Lara Shook

Notarial officer

My Commission Expires:

July 9, 2024

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Sheridan Lake DeSmet Water Supply

Program: New Development

Project Type: Municipal Water System

County: Sheridan

Sponsor: City of Sheridan

WWDO Recommendation: Do Not Fund

Proposed Budget: $0

Basis for the Funding Recommendation:

Past studies have stated that as the Buffalo and Sheridan areas continue to grow and for the long term, Lake DeSmet very likely will come into play as an important water source for this two-county area. Recently, a focus group has been formed in Johnson County to discuss various topics, one being future water supply. If there are water needs for municipal and domestic purposes in the areas north and south of Lake DeSmet, it may make sense to address them concurrently with a Level II Study in lieu of addressing them independently and, by so doing, potentially creating a situation where two separate projects are being implemented for needs within the same geographic area. Additional water supply is not needed for the City of Sheridan or the Sheridan Area Water System (SAWS) JPB systems until 2050 or later. Therefore, the regional interest in Lake DeSmet as a water source into the future should be discussed and understood between area municipal and domestic system managers before continuing forward.

Project Manager: Jason Mead

I. PROJECT DESCRIPTION

The request for a Level II Study is for additional long-term water supply for the Sheridan Water System. The need for and the source for Sheridan's additional long-term water supply has been covered in previous WWDC funded studies. Specifically, this Level II application follows the 2019 Level I Sheridan Water System Master Plan, which recommended it. The requested Level II would build on these previous studies to provide detail on the diversion point for this new water source, determine the water quantity required, analyze the associated water rights, consider water quality, consider the extent of any new service area, and then evaluate the infrastructure required to treat and deliver the water supply to the Sheridan water system. Preliminary designs, along with cost estimates and a required funding plan would be included in the study. All aspects of the Level II Study will be coordinated with the SAWS JPB water system, which with the City water system, operates as a single regional water system. The Level II Study would also need to consider a schedule with a funding and phasing plan in order to make this additional long-term water supply a reality. The factor that presently limits the existing water supply capacity for this water system into the future is the total water supply available within the Big Goose Creek watershed.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Buffalo - Sheridan Area Water System - Lake DeSmet Level I Study	I	99	2006	II	$ 600,000	2008
Sheridan Supplemental Supply Study Level II, Phase I	II	66	2009	III	$ 350,000	2010
Sheridan Supplemental Storage Level II, Phase II Study	II	57	2012	III	$ 250,000	2015

Sheridan Supplemental Storage Level III – Park Reservoir	III	23/113	2015/ 2020	III	$ 5,628,000	2020/2025
Sheridan Water System Master Plan Level I Study	I	94	2018	I	$ 250,000	2021
Lake DeSmet/Healy Reservoir Utilization Level II Study	II	105	2019	I	$ 268,000	2022

2. Describe the location of the project:

The project is located in the City of Sheridan and the Sheridan area in Sheridan County. Lake DeSmet is located north of Buffalo, WY in Johnson County.

3. Summarize the request:

The request for a Level II Study is for additional long-term water supply for the Sheridan Water System.

4. Summarize the reasons for the request:

The 2019 Sheridan Water System Master Plan concludes the major additional long-term water supply for the Sheridan Water System is believed to be Lake DeSmet and the process of planning this acquisition and the infrastructure should begin well before the water is needed (which could be taken as about 2050 or later as currently estimated).

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct I - Priority 6: LII Feasibility Studies

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: 10,200

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they (RUS, SRF, other)? DWSRF

5. Is the Sponsor under any federal (EPA) mandates to improve its system? (e.g., Administrative Orders, violations, actions taken, etc.)?

No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

Yes. the Sheridan Water System is a Regional Water System. Both the City portion of this water system and the SAWS JPB portion of the system would benefit from the study. The Sponsors' plan is to continue to expand and enhance this single regional water system to satisfy the water needs of the area.

7. What is monthly water bill for 5,000 gallons? $26.61

   A. 20,000 Gallons? $64.29

8. Can the project be delayed or staged? Yes

   A. Should it be? Yes, additional water supply is not needed for the City of Sheridan or the SAWS JPB systems until 2050 or later. Therefore, the regional interest in Lake DeSmet as a water source into the future should be discussed and understood between area municipal and domestic system managers before continuing forward.

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600052C

B. Groundwater

(1) Number of Wells: None – No groundwater

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

C. Surface Water

(1) Source Name(s): Big Goose Creek and Reservoirs within the Big Goose Watershed

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Diversion dam in Big Goose Creek and then gravity flow through the pretreatment facilities

(3) Total Average Diversion Yield (CFS of GPM): The capacity of the raw water diversion, intake and pretreatment facilities is approximately 25 MGD (~39 cfs).

D. Springs

(1) Name of Spring(s): None

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights?

The City and the Regional System have extensive water rights from Big Goose Creek and three reservoirs in the Big Horn Mountains within this watershed. The water rights are sufficient for current and near future needs. The water rights are described in the 2019 Level I Master Plan.

F. Transmission Pipeline

There are many miles of transmission mains in the water system. A few key lines are summarized here. Much more information on these lines is included in the 2019 Level I Study. Complete lengths, sizes, and locations are available from the GIS developed under the 2019 Level I.
Raw water transmission mains: Intake to Big Goose WTP: 1 mile. Intake to Sheridan WTP: 12 miles. Treated water transmission mains: from Big Goose WTP to connection at airport - 12 miles, from Sheridan WTP to connections to system - 2 miles. From the airport to the Big Horn service area - 7.5 miles. Numerous other transmission mains are located throughout the regional water system.

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): Approximately 20 MGD

(2) Increased Capacity Needed (If Known) (Gallons per Day): Additional transmission mains and capacity will be needed from the new water source when it is developed.

(3) Approximate Distance from Source(s) to Distribution System: 12 miles from the existing diversion point to the City's distribution system. The entire distribution system covers an extensive area.

(4) Transmission Pipe Diameter(s): Many transmission mains, ranging from 12-inch to 30-inch

(5) Type of Transmission Pipe Material(s): Many materials - steel, cast iron, ductile iron, PVC and

one PCCP line.

(6) Age of Transmission Pipeline(s): From about 5 years to >75 years

(7) Condition of Transmission Pipeline(s): Existing pipelines are generally in satisfactory to good condition. One exception is the Airport Transmission Main which was funded for replacement in the 2019 Level III application. Other lines in need of future upgrading/replacement are summarized in the City's 2019 Capital Improvements Plan as future projects.

(8) Does the applicant possess clear title to transmission corridor easements? Yes

G. Water Storage

(1) Raw (Volume and Tank Description): In reservoirs in the Big Horn Mountains: Twin Lakes = 3400 ac-ft; Park and Dome Lake Reservoirs = 1089 ac-ft.

(2) Treated (Volume and Tank Description): See table below

Tank Name	Size	Description
Big Goose WTP Clearwell	0.5MG+1.5MG	Buried concrete
Sheridan WTP Clearwell	4MG	Buried concrete
North Low	2.08 MG	Buried concrete
South Low	2.04 MG	Buried concrete
Southeast	1.25MG	Buried concrete
Northwest	1.0 MG	Buried concrete
Big Horn	1.0 MG	Buried concrete
Bradford Brinton	0.5 MG	Buried concrete

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): Two water treatment plants provide complete water treatment – sedimentation, coagulation, flocculation, filtration, chlorination, corrosion control, and disinfectant contact time. WTP capacities are adequate at this time. The two WTPs have a combined capacity of up to 18 MGD.

2. Existing Water Distribution System

A. Is the water use metered? Yes B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

City parks, the cemetery, and the golf course are metered. Unmetered usage includes routine flushing, flushing after repairs, street cleaning, firefighting, and other minor uses.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 4.0 MGD

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): about 11 MGD

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): about 0.52 gpm/capita at peak hour, or at a rate of about 475 gallons per capita per day during peak hour demand.

G. Distribution Pipe Diameter(s): Distribution lines vary from 4-inch to 12-inch. These are inventoried in the existing GIS.

H. Type of Distribution Pipe Material(s): Distribution lines are mostly cast iron and PVC, some ductile.

I. Age of Distribution Pipeline(s): from new to >100 years

J. Condition of Distribution Pipeline(s): From very good to some of the older cast and ductile iron lines needing replacement.

K. Estimated System Water Losses (Percentage): estimated at 10-15% in the 2019 Master Plan

L. Describe any fire flow protection that the system provides:

This City water system provides fire flow protection. Portions of the rural (regional or SAWS JPB system) also provide fire flows. Most of the water for fire protection is held in the gravity storage tanks. The fire flow available in most areas with fire protection is 1500 qpm. Most commercial, industrial, and school areas within the City have flows available of 2500 gpm.

M. What water conservation measures are employed?

A tiered rate water system, with higher rates applied to greater water usage quantities, is the primary conservation measure. Metering the watering of green areas has also helped with conservation. The careful management of water flows through the entire system - the releases from the reservoirs, diversions to comply with water rights and to match needs, the operation of the WTPs, and the monitoring of tank levels - has helped conserve water. Other measures include using raw water for irrigation of some larger green areas.

N. Is there an independent raw water irrigation system? Yes, for some larger green areas such as the golf course and cemetery.

(1) Raw Water System Capacity (Gallons per Day): about 2 MGD

(2) Average Annual Raw Water Usage (Gallons per Year): about 1.25 MGD or about 150 MG for a 120-day irrigation season.

3. Demographic Information and Existing Water Service Area (the combined City and SAWS service areas)

A. Population (2020 Census): about 21,500 B. Current Population Estimate: about 23,500

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? By 2050 the estimated population to be served within the current water service area, as presented in the 2019 Master Plan, was about 39,000.

D. How many taps are served within the corporate limits/JPB service area? About 8100 taps within the City service area and about 2100 taps within the SAWS JPB service area.

E. How many taps are served outside of the corporate limits/JPB service area? About 2100 taps outside the City in the SAWS JPB service area.

F. Identify names of other water system served:

In addition to the SAWS JPB, the Downer Neighborhood Improvement and Service District.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained: 2017 City of Sheridan Land Use Plan and 2017 Sheridan Joint Planning Area Land Use Plan: the 2020 Sheridan County Comprehensive Plan. These plans are available on the respective web sites.

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $3000 for a 1-inch x 3/4-inch meter

(2) Tap Fee(s) – Commercial: $5010 for a 1" x 1" meter. Larger sizes are more.

(3) Average Residential Monthly Water Bill and Corresponding Gallons Used:

About $32.75 for an average usage of about 8000 gallons/month

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages as needed.):

Base rate varies by meter size. For a 3/4" residential meter, the base rate is $19.89 which includes 1500 gallons, and then $1.92/1000 gallons for the next 6000 gallons, and $2.63/1000 gallons above 6000 gallons. The attached rate schedule provides addition detail and rates for larger meter sizes.

(5) Identify any local conditions that affect water rates (e.g., flow-through for frost prevention, etc.):

None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$ 3,860,000
b. Annual Revenues from Tap Fees:	$ 425,000
c. Annual Revenues from Other Sources:	$ 1,200,000
d. Total Annual Revenues:	$ 5,485,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$ 3,200,000
b. Annual Payments for Debt Retirement:	$ 982,000
c. Annual Payments to a Repair and Replacement Fund:	$ 544,000

d. Annual Payments to an Emergency Fund:	$	17,000
e. Annual Payments for Other Purposes:	$	500,000
f. Total Annual Payments:	$	5,243,000

(3) Other

a. Balance in Repair and Replacement Fund:	$	3,000,000
b. Balance in Emergency Fund:	$	615,000
c. Annual Cost of Water Quality Testing:	$	48,500

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

WATER RATES

CITY OF SHERIDAN
RESOLUTION 23-22

UTILITY RATES FOR WATER SERVICE

A Resolution establishing a 5-year rate plan directing the levy, charge and collection of connection charges, plant investment fees, and utility rates for water service as defined and authorized by Sections 28-1, 4.5 and 35 of the Sheridan City Code. This Resolution supersedes previous Resolutions 18-21, 33-19 and 45-07 and amends the Master Fee Schedule when in conflict.

WHEREAS, Resolution 18-21 established connection charges, plant investment fees and utility rates for City water service; and

WHEREAS, Resolution 23-22 shall supersede Resolution 18-21 and establish the City of Sheridan's connection charges, plant investment fees, and utility rates for water service; and

WHEREAS, The City Council desires to approve a 5-year rate plan to be reviewed annually by the Utilities Director and confirmed with City Council during the City's annual budgeting process; and

WHEREAS, the water utility rates will automatically adjust in accordance with the approved 5-year rate plan, unless otherwise amended through resolution, to be effective July 1st of each corresponding year.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SHERIDAN HEREBY ESTABLISH:

Water utility fees and charges in Section(s) 1, 2, and 5 will remain as represented until changed through resolution.

Unless otherwise amended by resolution, water utility rates, fees and charges in Section(s) 3 and 4 will be adjusted annually based on a rate plan approved as follows:

July 1, 2022	July 1, 2023	July 1, 2024	July 1, 2025	July 1, 2026
0%	0%	0%	0%	0%

Section 1.

All consumer connections to the City water main and all water meters shall hereafter be made, at the expense of the consumer, in accordance with the following schedule of service charges according to the circumstances for the connection:

Line & Meter Size	Meter Fee (1)	RDM* Meter Fee	Tapping Fee (2)	Radio Read (3)	Total	RDM Total
1" line with 3/4" meter	$ 180.00	$355.35	$190.00	$200.00	$ 570.00	$745.35
1" line with 1" meter	$ 240.00	N/A	$190.00	$200.00	$ 630.00	N/A
1-1/2" line with 1-1/2" meter	$ 460.00	N/A	$245.00	$200.00	$ 905.00	N/A
2" line with 2" meter	$ 585.00	N/A	$313.00	$200.00	$1,098.00	N/A
3" meter	$2,100.00	N/A	N/A	$200.00	$2,300.00	N/A
4" meter	$3,250.00	N/A	N/A	$200.00	$3,450.00	N/A

Return to Agenda

6" meter	$5,800.00	N/A	N/A	$200.00	$6,000.00	N/A
8" meter	$9,950.00	N/A	N/A	$200.00	$10,150.00	N/A

*RDM = Remote Disconnect Meter

(1) The water department of the City shall supply all water meters. When the developer has stubbed out a water service line to the lot as part of the water main infrastructure installation, the tapping fee shall be waived.
(2) For water services 2" or smaller, connection to the City water main shall be made by the water department of the City. All connections larger than 2" shall be made by a licensed utility contractor at the expense of the consumer.
(3) Purchase and installation of radio read units is required on all new meter installations.

Charges for other installations or changes in installation shall be by agreement between the consumer and the water department.

Meter fee service charges shall include the furnishing of the water meter, installation and inspection thereof and necessary maintenance, repair or replacement of the meter resulting from ordinary wear and tear. All excavation and backfilling shall be furnished by the consumer, including charges for paving cuts.

Tapping fee service charges shall include furnishing the corporation cock, tapping saddle, installation and inspection thereof. All excavation and backfilling shall be furnished by the consumer, including charges for paving cuts.

Section 2.

Plant Investment Fee for Connection to the Municipal Water System

All persons hereinafter applying for permission to connect to the municipal water system or to increase the size or number of connections thereto, shall first pay to the city a water plant investment fee for each premises to be served, based on the size and number of water meters to be installed upon the premises to be served, in accordance with the amount(s) set forth in the following schedule:

Water Pipe x Water Meter Size	*Customer Class*	*AWWA M22 Max Flow Rates (gpm)*	*3/4" equivalency ratio*	*Water Plant Investment Fee*	
				Inside City	*Outside City*
1" x 3/4"	Small Commercial Base Fee	30	0.41	$1,230.00	$1,537.50
1" x 3/4"	Small Multi-Family Base Fee	30	0.66	$1,980.00	$ 2,475.00
1" x 3/4"	Single-Family Residential & All Other Base Fee (1)	30	1.00	$3,000.00	$3,750.00
1" x 1"	All	50	1.67	$5,010.00	$ 6,262.50
1½" x 1½"	All	100	3.33	$9,990.00	$12,487.50
2" x 2"	All	160	5.33	$15,990.00	$19,987.50
3" x 3"	All	350	11.67	$35,010.00	$43,762.50
4" x 4"	All	630	21.00	$ 63,000.00	$78,750.00
6" x 6"	All	1,300	43.33	$129,990.00	$162,487.50
8" x 8"	All	2,400	80.00	$ 240,000.00	$300,000.00

Provided where the "small multi-family" customer class is defined as duplexes, mixed use developments (like commercial businesses that possess residential apartments), mobile home parks, trailer courts, motels, hotels and all other multi-family apartment units that share a single tap and service line from the City's water main.

Provided where the "small commercial" customer class is defined as office buildings that do not possess an irrigation system served by a single 3/4 inch tap and service line.

Section 3.

The following rates and minimum charges are established and shall be charged and paid on a monthly basis for all metered water service from the municipal water system. *The indicated minimum water use is included in the minimum charge, applied based upon meter size:*

WATER UTILITY RATES

Meter Size (Inches)	*Minimum Water Use Gallons*	*Monthly Minimum Charge*	
		Inside City	*Outside City*
≤¾	1,500	$19.89	$24.86
1	3,000	$23.45	$29.32
1½	6,000	$29.14	$36.40
2	9,000	$34.81	$43.50
3	22,000	$58.33	$72.93
4	37,000	$86.89	$108.62
6	75,000	$158.29	$198.86
8	150,000	$318.16	$397.71

(a) *Excess Water Charges.* For water use in excess of the minimum water use included in the minimum charge, charges shall be assessed based upon two tiers as follows:

Tier 1 - Water use above the minimum allowance identified in (a) shall be charged the following Tier 1 rate per 1,000 gallons up to Tier 1 water use allowance for each meter size as identified below.

Charge Per 1,000 Gallons	
Inside City	*Outside City*
$1.92	$2.43

Meter Size (inches)	*Tier 1 Water Use (Gallons)*
≤¾	6,000
1	11,000
1½	22,000
2	34,000
3	85,000
4	141,000
6	281,000
8	561,000

Tier 2 – the following water use charge shall be applied for each 1,000 gallons of water use in excess of the minimum allowance and the Tier 1 water allowance identified above.

Inside City	*Outside City*
$2.63	$3.29

A statement for charges for sewer service shall be dated and sent out to users at regular intervals. Such statements shall be added to and made a part of the water bill, if customers receive water service from the City or by separate billing if water service is from other than the City. Provisions of this code relative to the payment of delinquent water bills shall also apply to delinquent sewer bills in all aspects, including the discontinuance of water service for nonpayment of sewer charges. Any payment received for combined water and sewer bills which are for less than the sum of the water and sewer bills shall be first applied to the sewer charge, and any remainder to the water charge.

Owners or agents in charge of business blocks or other buildings occupied by more than one tenant using water through a single meter shall be required to pay one corresponding water charge for the whole of such building, unless a separate water meter is installed for each tenant to where they may assume responsibility to pay individual water charges.

If the City executed all agreements with the owner or developer of property, wherein utility facilities are installed with sufficient excess capacities in order to serve other properties, the City shall be entitled to collect from the owners or developer of such other properties served, amounts proportional to the service rendered. Such collection shall be for the benefit of the party contracting for, and installing, the oversized facility.

Such agreements shall be for a fixed period of time and may include interest or other charges above the amount expended.

Section 4.

Bulk Water Sales Use
The City of Sheridan offers potable water for purchase at bulk water facilities located on KROE Lane and Washington Park, or through hydrant meters issued by the City.

Charges and payments
Charge accounts with PIN number access are available to Sheridan area consumers and are billed on a monthly basis for consumption. A $100 deposit is required to establish an account and is refunded or applied to the last balance upon cancellation of the account.

In limited cases, the City may issue a hydrant meter and bill based upon metered use. A $600 deposit is required before the meter is issued and is refunded or applied to the balance upon cancellation of the account.

If an account is delinquent, the City reserves the right to rescind permission to use the bulk water facilities or hydrant meters. All past due balances must be paid in full prior to service being reinstated.

The following use fee shall be charged and collected for water purchased from any bulk water facility or hydrant meter:

$20.50 per 1,000 gallons

Special Conditions

(a) Any misuse of the water facility or hydrant meter, including wasting water, tampering with or failing to provide adequate protection for a meter, will result in termination of access privileges.

(b) The City Governing Body may, at its discretion, waive water use fees for City sponsored construction projects that need access to potable water.

(c) The City of Sheridan reserves the right to modify the water rates and fees identified above. Rates and fees shall be reviewed annually.

Section 5.

Service Charges.
A service charge of $40.00 shall be assessed for each account that requires termination of

water service. An additional service charge of $40.00 shall be assessed for re-activation of water service that was previously turned-off. These service charges shall be assessed each time service is terminated or re-activated either at the customer's request, or for other reasons as identified within Chapter 28 of Sheridan City Code. Non-emergency services requested after standard business hours (Monday - Friday, 8:00 a.m. – 5:00 p.m.) will be assessed a fee of twice the current rate."

Late Fees for non-payment.
A late fee shall be applied to the unpaid balance of the utility bill for each account that is not paid within five (5) calendar days of the due date. Late fees will be assessed at a rate not to exceed 1.5% per billing cycle (9% per annum). Late fees will accumulate and be assessed on a monthly basis until the account balance is paid, or until such time payment is tendered by a collection agency, under contract with the City.

PASSED, APPROVED AND ADOPTED this 20th day of June, 2022.

CITY OF SHERIDAN, WYOMING

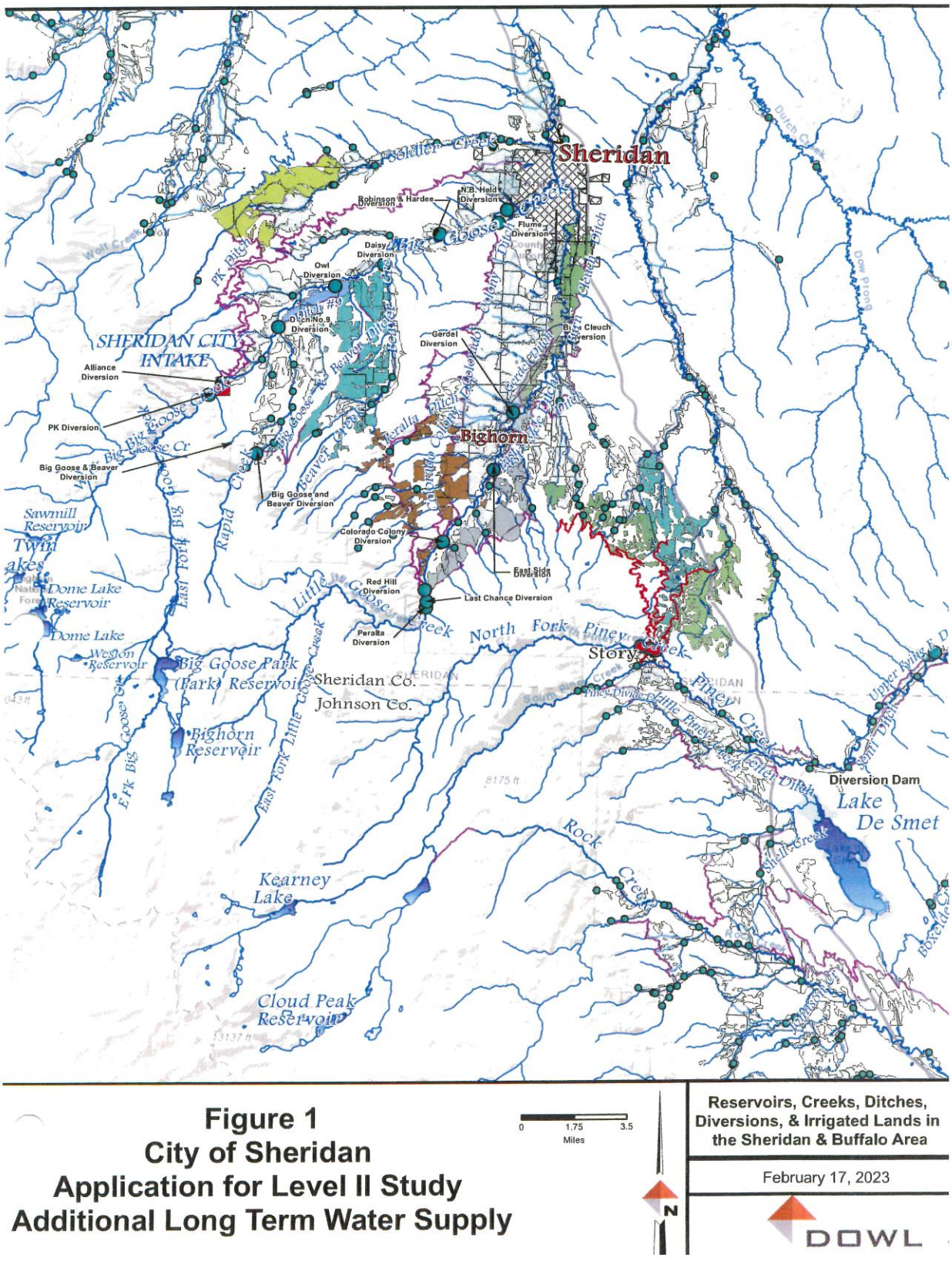
Richard Bridger, Mayor

ATTEST:

Cecilia Good, City Clerk

CITY OF SHERIDAN MUNICIPAL SEAL SHERIDAN COUNTY, WYOMING

PROJECT AREA MAP



Return to Agenda

RESOLUTION

CITY OF SHERIDAN
RESOLUTION 11-23

A RESOLUTION AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR LEVEL II FEASIBILITY STUDY FUNDING FOR THE SHERIDAN LAKE DeSMET WATER SUPPLY STUDY.

WHEREAS, the Wyoming Water Development Commission (WWDC) has provided funding for several Level I, II and III water system projects for the City of Sheridan and Sheridan Area Water Supply Joint Powers Board (SAWS) over the years including planning projects such as the Sheridan Water System Master Plan (Master Plan) funded by the WWDC and completed in 2019; and

WHEREAS, the previous Level I and II feasibility studies considered several possible future additional water supply sources and options, and determined the most favorable water source is Lake DeSmet and possibly the water sources for Lake DeSmet; and

WHEREAS, the 2019 Sheridan Water System Master Plan, Level I study identified Lake DeSmet as the most favorable water source to be considered for the Sheridan Water System's long term water supply needs; and

WHEREAS, the Governing Body of the City of Sheridan wishes to further explore, in more detail, the viability of acquiring and delivering drinking water from Lake DeSmet to the Sheridan water system; and

WHEREAS, an application to the WWDC requesting Level II feasibility study funding to conduct a more detailed evaluation of the ability to obtain and deliver water supply from Lake DeSmet to the Sheridan Water System is the next step forward in this process; and

WHEREAS, a Level II feasibility study of a Sheridan Lake DeSmet Water Supply is necessary in order to effectively define and support any subsequent WWDC Level III construction funding requests that may result.

BE IT RESOLVED BY THE CITY GOVERNING BODY OF THE CITY OF SHERIDAN:

(1) That a Level II funding application be submitted to the WWDC for the above described study.

(2) That Dan Roberts, Utilities Director, is hereby designated as the authorized representative of the City of Sheridan, to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED AND ADOPTED this 6th day of March, 2023.

City of Sheridan

Richard Bridger, Mayor

ATTEST:

Cecilia Good, City Clerk

CITY OF SHERIDAN MUNICIPAL SEAL SHERIDAN COUNTY, WYOMING

LEVEL I

RECONNAISSANCE PROJECTS – REHABILITATION

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Big Horn Canal Irrigation District Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Big Horn

Sponsor: Big Horn Canal Irrigation District

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Big Horn Canal Irrigation District is requesting a master plan to evaluate infrastructure and system operations. The study would inventory and assess their canal system, investigate potential efficiencies, and identify and prioritize capital improvement projects for financial planning. Cost estimates will be produced to include both a total and phased approach to construction and replacement according to a recommended rehabilitation schedule. The ability to pay for the improvements to the system and needed adjusted rate assessments are included as part of the study.

Project Manager: Jay Smith

I. PROJECT DESCRIPTION

The Big Horn Canal Irrigation District was formed in 1993 and the Big Horn Canal was constructed in the early 1900's. The main stem of the Big Horn Canal is over 60 miles long and extends from south of Worland to Greybull. The District has completed numerous projects since the last level II study and new issues have been identified. The most limiting factor currently in the system is inefficient water deliveries.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Big Horn Canal Rehabilitation Study	II	75	2005	II	$ 150,000	2006
Big Horn Canal Lining	III	75	2008	II	$ 500,000	2013
Big Horn Canal Rehabilitation 2009	III	38/68	2009/10	II	$ 1,180,000	2014
Big Horn Canal Rehabilitation 2012	III	14	2012	II	$ 1,440,000	2017
Big Horn Canal Wasteway Rehabilitation 2019	III	55	2019	II	$ 960,000	2024

2. Describe the location of the project:

The Big Horn Canal Irrigation District is located in and around the Town of Basin and Big Horn County, Wyoming within the Big Horn River Basin. The Big Horn Canal Irrigation District serves roughly 23,800 acres within its boundaries.

Return to Agenda

3. Summarize the request:

The Big Horn Canal Irrigation District is requesting funding for a new Level I study to perform condition assessments on major infrastructure throughout the District. The Big Horn Canal is over 100 years old and also supplies water to the Town of Basin. The study will evaluate existing infrastructure, prioritizing repair and replacement needs, and will include a determination of cost estimates to assist in evaluating financing options and budgets accordingly. The study will also recommend any needed operational changes.

4. Summarize the reasons for the request:

The Big Horn Canal was built in the early 1900's and requires a reconnaissance level study to assess the condition of the canal, similarly aged infrastructure, analysis of operations, efficiency investigations, and financial analysis. This study would evaluate the current condition of infrastructure and provide a plan for the future.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

    N/A

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 1,000 water righted acres? Yes

    A. Number of Acres: 23,800

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they? BOR, NRCS

5. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? N/A

6. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 340

(2) Direct Flow Source (Name of River, Stream, etc.): Big Horn River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canal

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): Boysen Reservoir

(2) Location: Fremont County, Wyoming

(3) Amount of Stored Water Right (Acre-Feet): 3000

(4) Is any of the stored supply obtained from a federal facility? Yes

a. Percent of Total Supply from Federal Facility: 2%

b. Amount of Stored Supply from Federal Facility (Acre-Feet): 3000

c. Name(s) of Federal Facility: Boysen Reservoir

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): 550 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): 50 CFS

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 150,000 AF

(2) Average Day Demand (Acre-Feet per Day or CFS): 379 CFS

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 500 CFS

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 23,800

(2) How many acres are assessed? 23,800

(3) How many acres are irrigated? 23,800

(4) What is the annual water delivery assessed (acre-feet per acre)? 6

(5) How many individual land owners receive water? 350

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? April 10-October 10

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Center pivot, gravity flood, side roll

(3) Briefly describe the main crops and cropping patterns:

Sugar beets, malt barley, corn, beans, alfalfa seed, alfalfa hay, irrigated pasture

(4) Describe the water measuring devices currently in use:

Rated gauging stations on main canal, Rubicon flume gates, instantaneous flow measurements on turnouts

(5) Percentage of Farm Turnouts with Measuring Devices: 100%

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): 40%

(8) What water conservation measures are employed by the Sponsor?

Encourage pivot/sprinkler irrigation, surge irrigation

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Number of acres

(3) What is the per-unit amount of the current assessment? $16.75/acre

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount:

Minimum assessment of $100

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	390,000
b. Annual Revenues from Other Sources:	$	7,000
c. Total Annual Revenues:	$	397,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	367,265
b. Annual Payments for Debt Retirement:	$	158,000*
c. Annual Payments to a Repair and Replacement Fund:	$	3,000
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	528,265

(3) Other

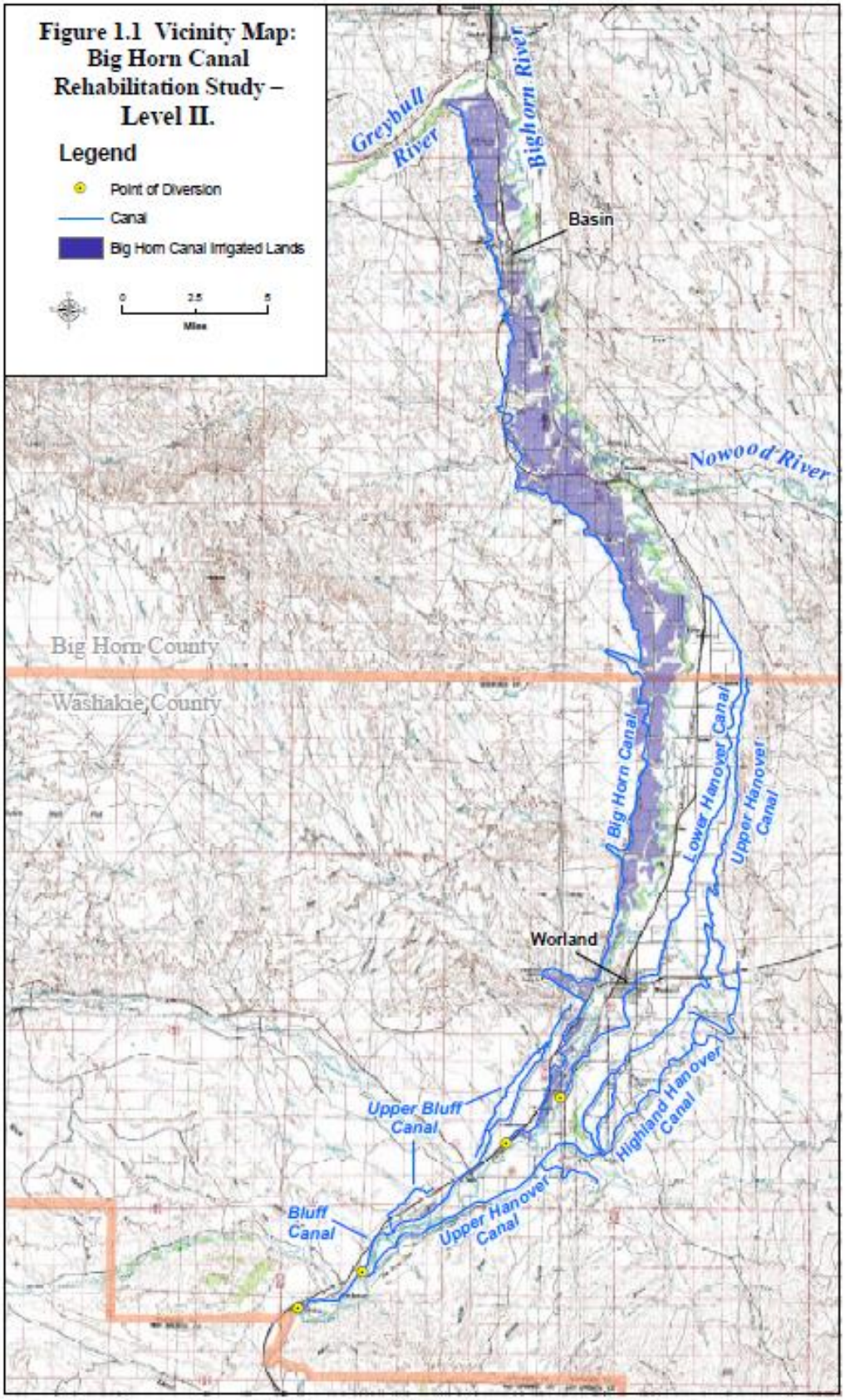
a. Balance in Repair and Replacement Fund:	$	79,578.19
b. Balance in Emergency Fund:	$	894,102.60

c. Explanation (If Needed):

*Current debt retirement budget is in excess of annual requirements.

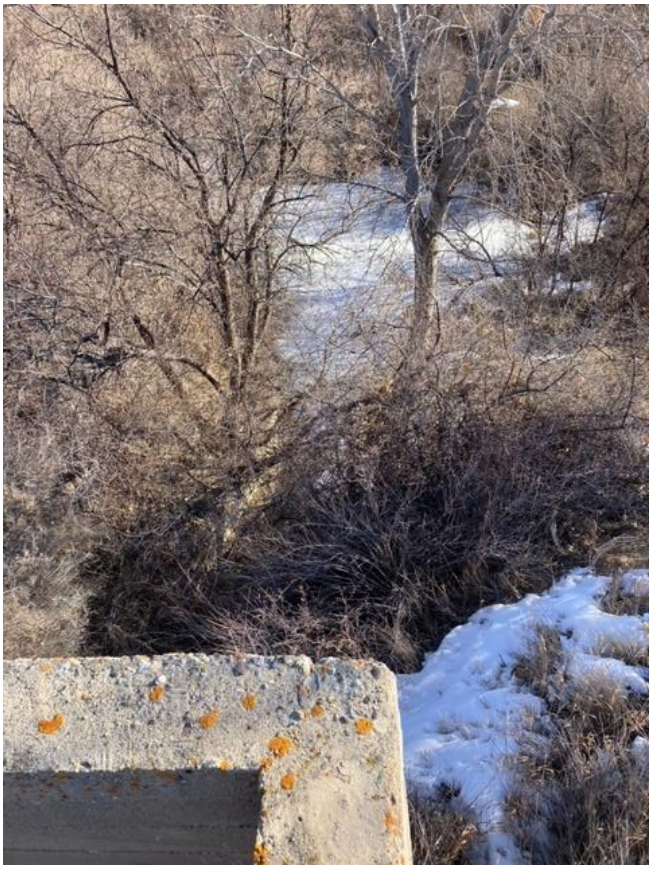
(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

PROJECT AREA MAP



Return to Agenda

PHOTOS



RESOLUTION

As per motion and unanimous vote by the Board of Commissioners of the Big Horn Canal Irrigation District at the regular Board Meeting of the Board of Commissioners of the Big Horn Canal Irrigation District held on January 19, 2023, the Board of Commissioners by formal resolution, does hereby apply for funding of a Level 1 Reconnaissance Study.

Big Horn Canal Irrigation District

Richard Russell, President

State of Wyoming)
)
County of Big Horn)

Sworn before me this 13th day of January, 2023

Notary
My Comm. Exp: November 13, 2024

JUSTINE PAXTON - NOTARY PUBLIC
COUNTY OF BIG HORN
STATE OF WYOMING
My Commission Expires 11/13/24

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Elk Canal Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Park

Sponsor: Elk Water Users Association

WWDO Recommendation: Level I

Proposed Budget: $TBD

Recommend waiving, for this Level only, the requirement that the Sponsor be a public entity.

Basis for the Funding Recommendation:

The Elk Water Users Association is requesting a master plan to evaluate infrastructure and system operations. The study would inventory and assess the canal system, investigate opportunities to convert open ditch to pipe, and identify and prioritize capital improvement projects for financial planning. Cost estimates will be produced to include both a total and phased approach to construction and replacement according to a recommended rehabilitation schedule. The ability to pay for the improvements to the system and needed adjusted rate assessments are included as part of the study.

Project Manager: Jay Smith

I. PROJECT DESCRIPTION

The Elk Water Users Association is currently in the process of forming the Elk Water Users Irrigation District. The Elk Canal is shared between the Elk Water Users Association and Lovell Irrigation District. The upper 12 miles is utilized by the Elk Water Users Association while the lower 26 miles is utilized by the Lovell Irrigation District. The Elk Canal services approximately 3800 acres of Elk Water Users Association lands. The Association is interested in an assessment of operations, infrastructure, and an analysis of open ditch converted to pipe.

1. Existing and Prior Legislation:

No existing or prior legislation related to the Elk Water Users Association.

2. Describe the location of the project:

The Elk Canal is located in and around the Town of Powell and Park County, Wyoming within the Shoshone River Basin.

3. Summarize the request:

The Elk Water Users Association is requesting funding for a new Level I study to analyze operations, assess infrastructure, and determine the feasibility of open ditch converted to pipe. The study will also identify cost estimates, ability to pay, GIS updates, and recommend operational changes. The Study will provide a blueprint for the Association in the prioritization of system rehabilitation needs.

4. Summarize the reasons for the request:

The Elk Water Users Association requires a reconnaissance level study for the entire system. This includes an analysis of operations, condition assessments, open canal conversion to pipeline, and a financial analysis.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? No

A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

Yes, Level I study

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 1,000 water righted acres? Yes

A. Number of Acres: 3,800

4. Is the sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they? BOR, NRCS

5. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

The Elk Canal provides water for the Elk Water Users Association and the Lovell Irrigation District.

6. Can the project be delayed or staged? Yes

A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 304

(2) Direct Flow Source (Name of River, Stream, etc.): Shoshone River

(3) Type of Diversion (Headgate, Pump, etc.): Diversion dam

(4) Water Transmission System (Canal, Pipeline, etc.): Canal

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): N/A

(2) Location: N/A

(3) Amount of Stored Water Right (Acre-Feet): N/A

(4) Is any of the stored supply obtained from a federal facility? N/A

a. Percent of Total Supply from Federal Facility: N/A

b. Amount of Stored Supply from Federal Facility (Acre-Feet): N/A

c. Name(s) of Federal Facility: N/A

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): 350 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): N/A

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 140,000

(2) Average Day Demand (Acre-Feet per Day or CFS): 300 CFS

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 350 CFS

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 4,138

(2) How many acres are assessed? 3,800

(3) How many acres are irrigated? 3,800

(4) What is the annual water delivery assessed (acre-feet per acre)? 2

(5) How many individual land owners receive water? 27

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? April 15-October 15

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Center pivot, side rolls, gated pipe, and cement ditches

(3) Briefly describe the main crops and cropping patterns:

Sugar beets, malt barley, dry beans, seed crops, and 15% irrigated pasture.

(4) Describe the water measuring devices currently in use:

Weir on main canal

(5) Percentage of Farm Turnouts with Measuring Devices: 0%

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): 20%

(8) What water conservation measures are employed by the Sponsor?

Large sections of the canal have been lined.

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Number of acres

(3) What is the per-unit amount of the current assessment? $6.00

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount:

$40.00

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	25,712
b. Annual Revenues from Other Sources:	$	1,000

c. Total Annual Revenues:	$	26,712

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	10,000
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	5,000
d. Annual Payments to an Emergency Fund:	$	5,000
e. Annual Payments for Other Purposes:	$	5,000
f. Total Annual Payments:	$	25,000

(3) Other

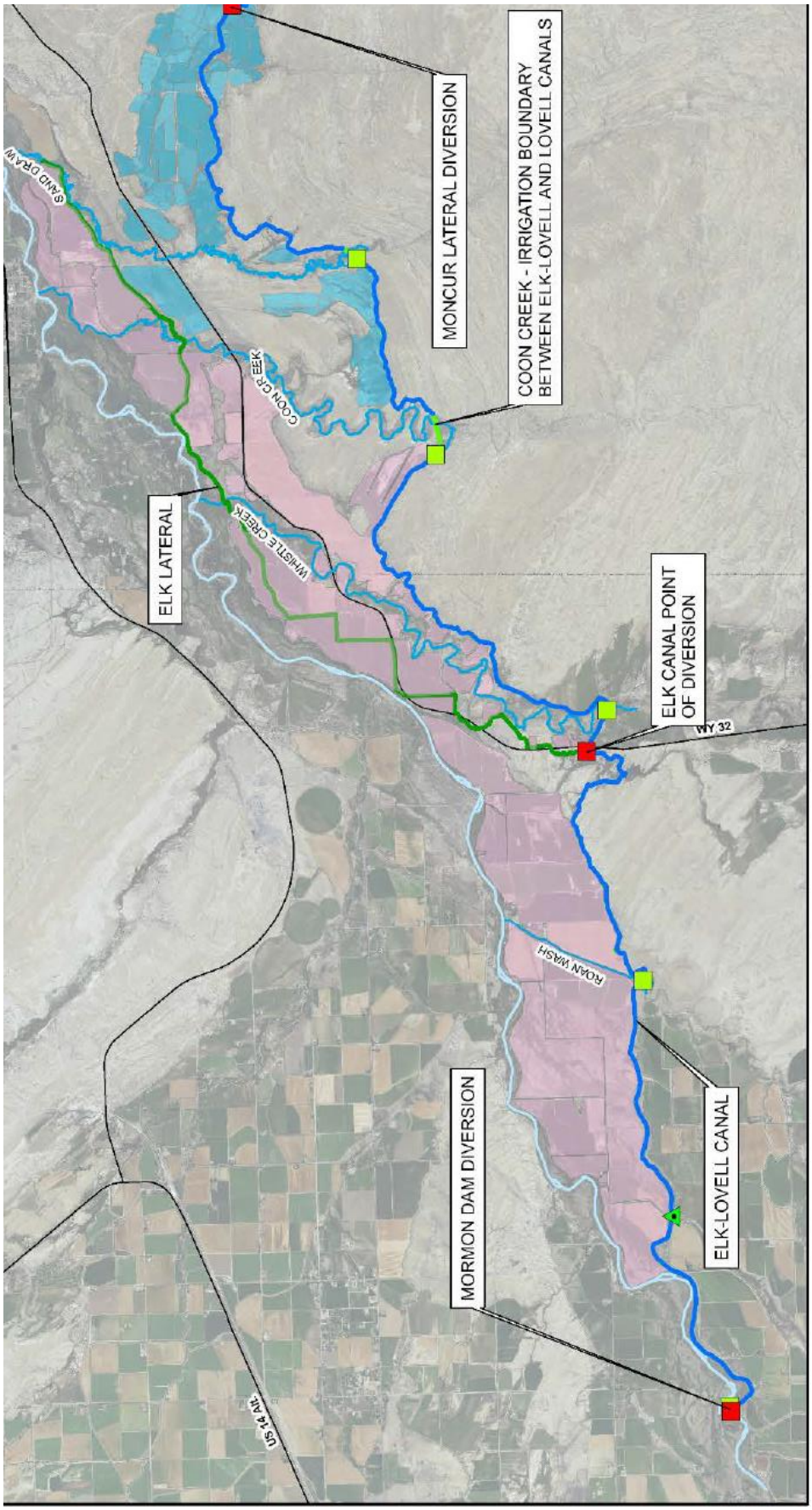
a. Balance in Repair and Replacement Fund:	$	25,000
b. Balance in Emergency Fund:	$	50,000

c. Explanation (If Needed):

N/A

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

PROJECT AREA MAP



Return to Agenda

PHOTOS

RESOLUTION

BOARD RESOLUTION

We the undersigned members of the board of directors of the Elk Water Users Association, having met and approved the following resolution: do resolve to apply to the Wyoming Water Development Commission for approval of a Level 1 Reconnaissance Study immediately, and do further resolve to apply for future studies and funding from the Wyoming Water Development Commission.

Marcia Walker
President of the Association

Herman Stutzman
Vice President of the Association

Fred W Hopkin
Secretary/Treasurer of the Association

NOTARY PUBLIC
HOLLY COLE
COUNTY OF PARK
STATE OF WYOMING
MY COMMISSION EXPIRES DECEMBER 26, 2023

State of Wyoming
County of Park
The foregoing instrument was acknowledged before me by Marcia Walker, Herman Stutzman, Fred Hopkin this 10 day of March 2023
Notary Public
My commission expires: 12/26/23

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Horse Creek Conservation District Master Plan **Program:** Rehabilitation

Project Type: Agricultural Irrigation Supply **County:** Goshen

Sponsor: Horse Creek Conservation District

WWDO Recommendation: Level I **Proposed Budget:** $TBD

Basis for the Funding Recommendation:

The Horse Creek Conservation District is requesting a master plan to evaluate infrastructure and system operations. The study would inventory and assess their canal system and identify and prioritize capital improvement projects for financial planning. Cost estimates will be produced to include both a total and phased approach to construction and replacement according to a recommended rehabilitation schedule. The ability to pay for the improvements to the system and needed adjusted rate assessments are included as part of the study. The District is also requesting an evaluation of the feasibility of replacing the Malcolm Pipeline, as described in the Wyoming Water Development Commission's 1998 Improvement Project for the Horse Creek Conservation District. Since the pipeline was constructed, there have been multiple repairs and the pipeline has become "egg shaped". If this pipeline fails a portion of the system would be inoperable.

Project Manager: Jay Smith

I. PROJECT DESCRIPTION

The Horse Creek Conservation District was formed in 1927 and serves 10,544 acres of irrigated ground. This Level I study will evaluate the canal system, aging infrastructure, the feasibility of replacing the Malcolm Pipeline, and an analysis of operations. This study will include cost estimates and conceptual drawings sufficient to determine feasibility of rehabilitation of the Malcom Pipeline project.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Horse Creek Conservation District Improvements Project	II	82	1998	II	$ 30,000	2000
Horse Creek Conservation District Rehabilitation	III	38/16	1998/99	II	$ 246,600	2002

2. Describe the location of the project:

The Horse Creek Conservation District is located in and around the Town of Hawk Springs and Goshen County, Wyoming, within the Platte River Basin.

3. Summarize the request:

The Horse Creek Conservation District is requesting funding for a Level I Study to perform condition assessments on major infrastructure throughout the District and the feasibility of replacing or rehabilitating the Malcolmb Pipeline. This would include analysis of alternative construction methods and materials. The Study will also identify cost estimates, an ability to pay, GIS updates, and recommend operational changes along with providing the District with a blueprint for the prioritization of system rehabilitation needs.

4. Summarize the reasons for the request:

The District's system requires a reconnaissance level study to assess the condition of the canal, similarly aged infrastructure, analysis of operations, and financial analysis. This study would evaluate the current condition of infrastructure and provide a plan for the future. Specifically, the Malcolmb Pipeline was completed in 2001 and the condition of this pipeline has deteriorated in the last two decades. The shape of the pipeline has been distorted over this time frame and requires attention. Multiple repairs have been performed but the District believes replacement or rehabilitation is the most efficient option moving forward.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

    A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

    N/A

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 1,000 water righted acres? Yes

    A. Number of Acres: 10,544

4. Is the sponsor eligible for funding from other state or federal programs? Yes

    A. If so, what are they? Federal programs – NRCS, etc.

5. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system?

No and yes, the sponsor is open to regionalization.

6. Can the project be delayed or staged? Yes

    A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): N/A

(2) Direct Flow Source (Name of River, Stream, etc.): N/A

(3) Type of Diversion (Headgate, Pump, etc.): N/A

(4) Water Transmission System (Canal, Pipeline, etc.): N/A

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): Hawk Springs Reservoir and Sinnard Reservoir

(2) Location: Goshen County

(3) Amount of Stored Water Right (Acre-Feet): Hawk Springs: 16,735 Sinnard: 1,359

(4) Is any of the stored supply obtained from a federal facility? No

a. Percent of Total Supply from Federal Facility: N/A

b. Amount of Stored Supply from Federal Facility (Acre-Feet): N/A

c. Name(s) of Federal Facility: N/A

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): 80 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): N/A

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 9,500

(2) Average Day Demand (Acre-Feet per Day or CFS): 62 CFS

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 75 CFS

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 22,000

(2) How many acres are assessed? 10,544

(3) How many acres are irrigated? 10,544

(4) What is the annual water delivery assessed (acre-feet per acre)? 1

(5) How many individual land owners receive water? 84

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? June 1 to September 30

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Center pivot, side roll, gated pipe, and flood irrigation.

(3) Briefly describe the main crops and cropping patterns:

Small grains, alfalfa, and corn

(4) Describe the water measuring devices currently in use:

Flow Meters, rectangular contracted weirs, Cipolletti weirs, and Parshall flumes

(5) Percentage of Farm Turnouts with Measuring Devices: 100%

(6) Are water deliveries recorded? Yes

(7) Estimated System Water Losses (Percentage): 23%

(8) What water conservation measures are employed by the Sponsor?

Maintenance on delivery ditches

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Shares

(3) What is the per-unit amount of the current assessment? $29.00

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount:

No

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$ 305,779.77
b. Annual Revenues from Other Sources:	$ 12,000.00
c. Total Annual Revenues:	$ 317,779.77

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$ 154,538.88
b. Annual Payments for Debt Retirement:	$ 131,434.52
c. Annual Payments to a Repair and Replacement Fund:	$ 0
d. Annual Payments to an Emergency Fund:	$ 0
e. Annual Payments for Other Purposes:	$ 31,632.39
f. Total Annual Payments:	$ 317,605.79

(3) Other

a. Balance in Repair and Replacement Fund:	$ 136,556.43
b. Balance in Emergency Fund:	$ 9,745.20

c. Explanation (If Needed):

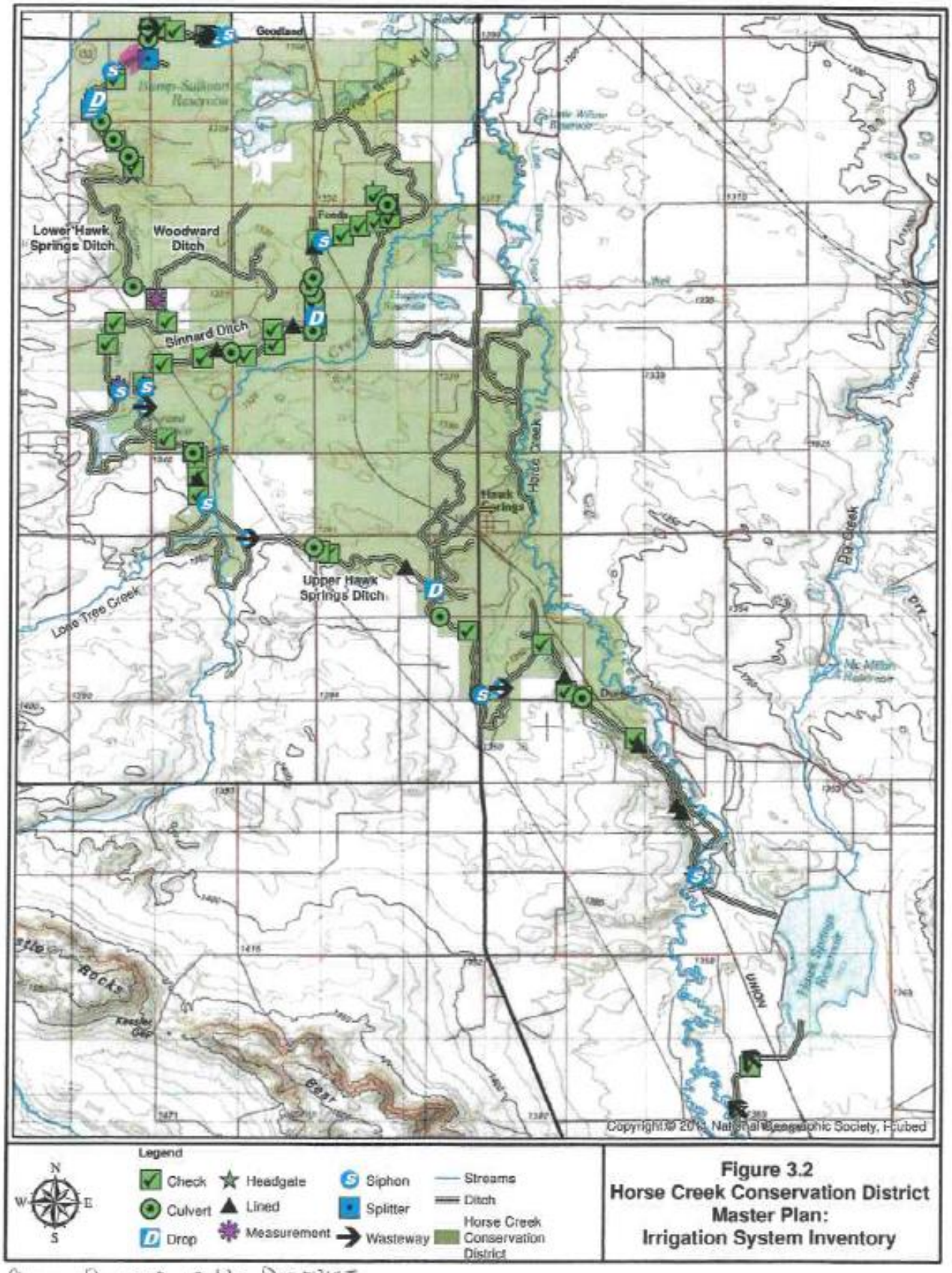
N/A

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes*

a. If not, how is the difference subsidized?

*A revolving operating loan is necessary because of the unknown cashflow caused by assessment payment timing.

PROJECT AREA MAP



GREEN SHADED IS THE DISTRICT
PINK SHAPED IS Pipeline location

Return to Agenda

PHOTOS

RESOLUTION

HORSE CREEK
CONSERVATION DISTRICT

P.O. BOX 68
HAWK SPRINGS, WY 82217

Telephone
(307)532-2540

RESOLUTION

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE HORSE CREEK CONSERVATION DISTRICT, HAWK SPRINGS, GOSHEN COUNTY, WYOMING THAT:

AN APPLICATION FOR WYOMIG WATER DEVELOPMENT COMMISION AGRICULTURAL WATER PROJECTS SHALL BE COMPLETED AND SUBMITTED REQUESTING FUNDING TO REPLACE THE MALCOLM PIPELINE.

L Eisenbarth President HCCD
Lon Eisenbarth, Horse Creek Conservation District President

State of Wyoming
County of Goshen

Signed before me on February 14, 2025 by Lon Eisenbarth

Notary

DIANA GUEST
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 87522
MY COMMISSION EXPIRES: 09/02/2027

My Commission Expires Sept 2 - 2027

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Midvale Irrigation District Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Fremont

Sponsor: Midvale Irrigation District

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Midvale Irrigation District is requesting a master plan to fully evaluate the infrastructure of the District's irrigation system. The study would inventory and assess their canal system, investigate conveyance losses, and identify and prioritize capital improvement projects for financial planning. Cost estimates will be produced to include both a total and phased approach to construction and replacement according to a recommended rehabilitation schedule. The ability to pay for the improvements to the system and needed adjusted rate assessments are included as part of the study.

Project Manager: Jay Smith

I. PROJECT DESCRIPTION

Midvale Irrigation District has completed a multitude of projects since the Midvale Conservation Program Level II study (2007) was completed. This master plan would evaluate existing infrastructure, prioritizing repair and replacement needs, and determination of cost estimates to assist in evaluating financing options and budget accordingly.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Midvale Rehabilitation 2013	III	141/23	2013/15	II	$ 381,000	2016/18
Midvale Irrigation District Hydropower	II	74	2014	I	$ 150,000	2017
Midvale Bull Lake Rehabilitation 2015	III	23	2015	II	$ 2,653,200	2020
Midvale Sand Butte 2 Lateral	III	55	2016	II	$ 770,000	2021
Midvale Pilot 27.0 A Lateral 2017	III	75	2017	II	$ 355,000	2022
Midvale ID Wyoming Canal Phase I 2023	III	180	2023	II	$ 2,250,000	2028

2. Describe the location of the project:

Midvale Irrigation District is located in and around the Town of Pavillion and Fremont County, Wyoming within the Wind River Basin.

3. Summarize the request:

Midvale Irrigation District is requesting funding for a new Level I study to perform condition assessments on major infrastructure throughout the District. The District is looking to have a complete inventory and assessment on all

Return to Agenda

major infrastructure within the District. The study will also prioritize identified projects and analyze possible funding mechanisms. Ultimately the study will provide the tools and guidance needed to assist in the planning, rehabilitating, upgrading, and managing of their system.

4. Summarize the reasons for the request:

Midvale Irrigation District's infrastructure is approximately 100 years old and requires a reconnaissance level study to assess the condition of the canal, similarly aged infrastructure, and financial analysis. This study would evaluate the current condition of infrastructure and provide a prioritized plan for the future.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 1,000 water righted acres? Yes

   A. Number of Acres: 74,000

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they? Federal Programs – BOR, NRCS, etc.

5. Is the Sponsor currently served by a regionalized water supply system (specify)? Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? N/A

6. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 2100

(2) Direct Flow Source (Name of River, Stream, etc.): Wind River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canal and pipeline

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): Bull Lake

(2) Location: Fremont County

(3) Amount of Stored Water Right (Acre-Feet): 152,000

(4) Is any of the stored supply obtained from a federal facility? Yes

a. Percent of Total Supply from Federal Facility: 100%

b. Amount of Stored Supply from Federal Facility (Acre-Feet): 152,000

c. Name(s) of Federal Facility: Bull Lake

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): 2200 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): N/A

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 370 KAF

(2) Average Day Demand (Acre-Feet per Day or CFS): 2057 AF

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 3635 AF

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 258,000

(2) How many acres are assessed? 74,000

(3) How many acres are irrigated? 74,000

(4) What is the annual water delivery assessed (acre-feet per acre)? 3

(5) How many individual land owners receive water? 930

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? April 15 - October 15

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Flood, center pivots, side rolls, and gated pipe

(3) Briefly describe the main crops and cropping patterns:

Alfalfa hay, corn, grains, sugar beets, beans, and irrigated pasture

(4) Describe the water measuring devices currently in use:

Cipolletti weirs, CHO boxes, measured PTO's and flow meters

(5) Percentage of Farm Turnouts with Measuring Devices: 90%

(6) Are water deliveries recorded? Yes

(7) Estimated System Water Losses (Percentage): 35%

(8) What water conservation measures are employed by the Sponsor?

Canal lining, pipelines, pressurized conveyance systems, sprinkler configuration, and on farm center pivots

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Number of acres

(3) What is the per-unit amount of the current assessment? $21.75

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount: $425.00

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	2,003,054
b. Annual Revenues from Other Sources:	$	660,686
c. Total Annual Revenues:	$	2,663,740

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	2,310,040
b. Annual Payments for Debt Retirement:	$	83,690
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	270,010
f. Total Annual Payments:	$	2,663,740

(3) Other

a. Balance in Repair and Replacement Fund:	$	200,000
b. Balance in Emergency Fund:	$	800,000

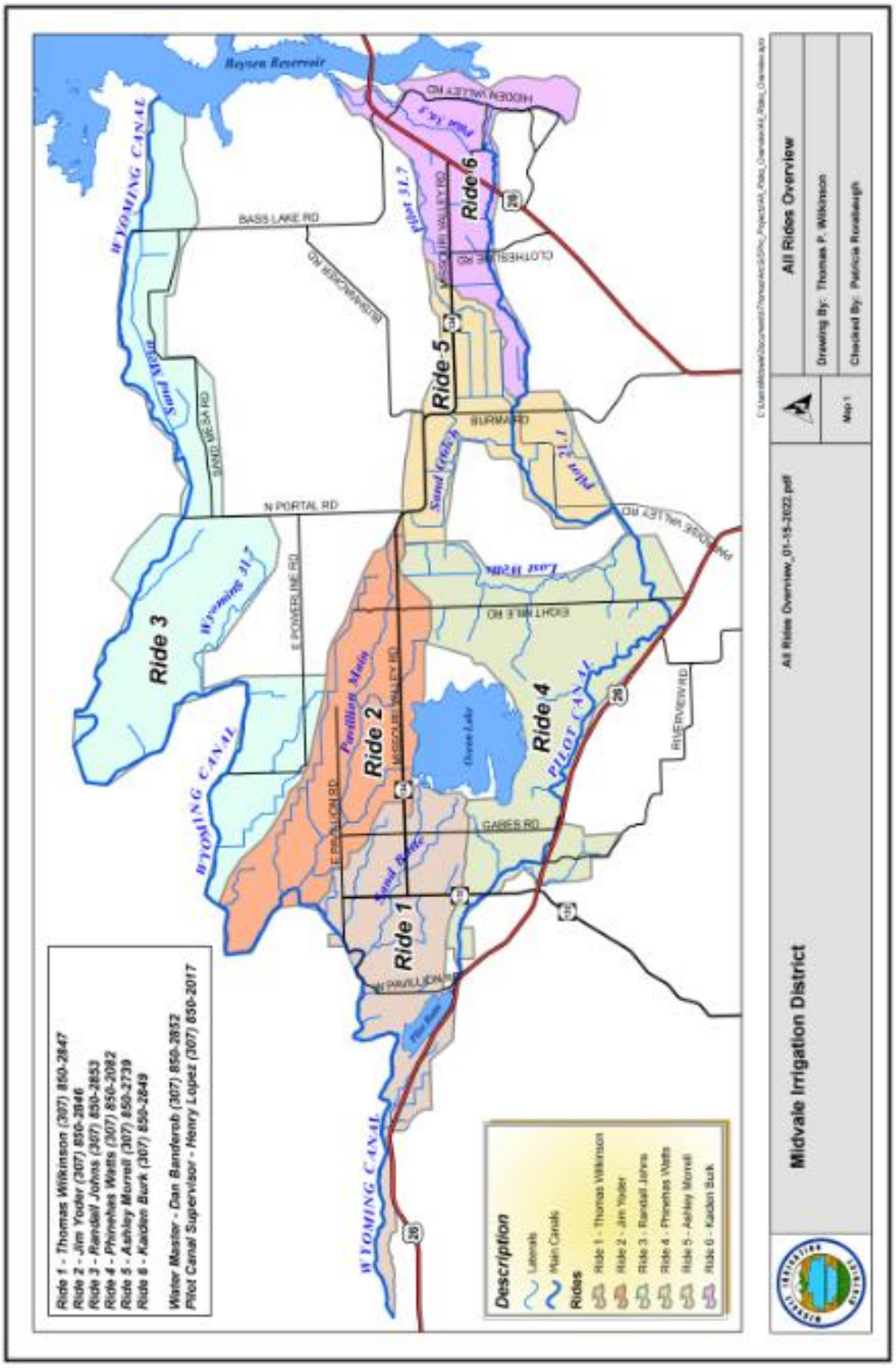
c. Explanation (If Needed):

N/A

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

Return to Agenda

PROJECT AREA MAP



Return to Agenda

PHOTOS

Return to Agenda

RESOLUTION

RESOLUTION OF THE BOARD OF COMMISSIONERS
MIDVALE IRRIGATION DISTRICT

RE: WWDC GRANT FOR MASTER PLAN OF MIDVALE REHABILIATION

The following resolution of the Board of Commissioners of Midvale Irrigation District ("Midvale") was adopted at a regular meeting the Board on December 8, 2022.

WHEREAS, the Board of Commissioners determined that it is necessary and appropriate for Midvale to apply for a grant from the Wyoming Water Development Commission ("WWDC"), for the cost of preparation of a Level I Master Plan, for the gradual repair and rehabilitation of the irrigation facilities managed by Midvale; and,

WHEREAS, the Board of Commissioners' wish to apply to WWDC for funding necessary to prepare a Level I Master Plan, and concurrently pay the associated application fee of $1,000.00 and a refundable fee of $3,000.00, to WWDC, in consideration of all the benefits that would inure to Midvale from completion of the Master Plan;

BE IT RESOLVED: Upon motion duly made and seconded, the Board of Commissioners of Midvale Irrigation District, unanimously approved submission of an application to WWDC for the funding necessary to prepare a Level I Master Plan for the repair and rehabilitation of the irrigation facilities managed by Midvale, together with payment of an application fee of $1,000.00 and a refundable fee of $3,000.00 to the WWDC.

RESPECTFULLY SUBMITTED,

Garrett Klein, Secretary

READ & APPROVED:

Rich Pingetzer, President

Return to Agenda

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Powder River Irrigation District Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Johnson

Sponsor: Powder River Irrigation District

WWDO Recommendation: Level I

Proposed Budget: $TBD

Basis for the Funding Recommendation:

The Powder River Irrigation District is a WWDC eligible public entity and is requesting funding to develop a Level I Master Plan. A previous inventory of the Sahara Ditch, within the District, was completed over 20 years ago and the District followed up on completing many of the recommended projects. The District is in need of a current, comprehensive inventory of the system, assessment of condition of components and prioritized options for keeping the system operational. This study will include GIS mapping and provide guidance for the District to apply for additional planning and construction funding through WWDC and other programs.

Project Manager: Mabel Jones

I. PROJECT DESCRIPTION

Powder River Irrigation District (District) is proposing to sponsor a Level I Master Plan to evaluate irrigation infrastructure and provide a schedule for improvements with cost estimates.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Sahara Canal Improvements	II	43	1992	II	$ 75,000	1993
Sahara Diversion Structure	III	28	1992	II	$ 340,000	1995
Sahara Rehabilitation	III	89	1993	II	$ 560,000	1996

2. Describe the location of the project:

This project area is within the Powder River Irrigation District and includes agricultural land east of the town of Kaycee, Wyoming extending to the town of Sussex, Wyoming. State Highway 1002 provides access to the area. The District is located in Johnson County, Wyoming. The District provides water for 28 landowners who are irrigating approximately 5300 acres of grass hay, alfalfa, small grains, and pasture.

3. Summarize the request:

The District is requesting a reconnaissance study to determine the current condition and future needs for agricultural water delivery to 28 landowners. The water is supplied via the Sussex Irrigation Canal (also known as the Sahara Ditch) which was constructed starting in 1902. The canal originates at a diversion dam on the Middle Fork Powder River and extends for approximately 15 miles until it pours into Fourmile Creek near Sussex. The Level I study will examine the condition of the irrigation conveyances, siphons, turnouts, and other structures to provide the District with guidance for planning and phasing future rehabilitation and upgrades.

4. Summarize the reasons for the request:

The ditch infrastructure was constructed in the early 1900s and has not had a planning study completed since 1992. The District has been operating under a “repair only when needed” philosophy with little formal maintenance or replacement programs in place. Dedicated funds for these programs do not exist. The District needs itemization and prioritization of actionable projects along with cost estimates to evaluate financing options. This study will provide the District with GIS mapping, assessment of infrastructure condition, and prioritized projects to address water use efficiency and infrastructure repair or replacement. Specific areas of concern include siphons which are reaching the end of their life and challenges with water delivery due to seepage from the canal.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   N/A

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies

3. Will the project serve at least 1,000 water righted acres? Yes

   A. Number of Acres: 5116

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they? Potentially NRCS, Bureau of Reclamation

5. Is the Sponsor currently served by a regionalized water supply system (specify)? No Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? The District would consider regional solutions to meet the purpose and need of the water supply system.

6. Can the project be delayed or staged? Yes

   A. Should it be? No

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 73 cfs

(2) Direct Flow Source (Name of River, Stream, etc.): Middle Fork Powder River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canal

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): N/A

(2) Location: N/A

(3) Amount of Stored Water Right (Acre-Feet): N/A

(4) Is any of the stored supply obtained from a federal facility? N/A

a. Percent of Total Supply from Federal Facility: N/A

b. Amount of Stored Supply from Federal Facility (Acre-Feet): N/A

c. Name(s) of Federal Facility: N/A

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): 76 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): Unknown

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 22,606 Acre-Feet

(2) Average Day Demand (Acre-Feet per Day or CFS): unknown

(3) Maximum Day Demand (Acre-Feet per Day or CFS): unkown

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 5,650

(2) How many acres are assessed? 5,116

(3) How many acres are irrigated? 5,346

(4) What is the annual water delivery assessed (acre-feet per acre)? $6.50 Per Acre

(5) How many individual land owners receive water? 28

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? April 15 to October 15

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Flood, Center Pivot, Side Roll, Gated Pipe

(3) Briefly describe the main crops and cropping patterns:

Alfalfa, grass and grain crops

(4) Describe the water measuring devices currently in use:

Rectangular weir at the diversion structure

(5) Percentage of Farm Turnouts with Measuring Devices: 0%

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): 20-30%

(8) What water conservation measures are employed by the Sponsor? Water is regulated by the District during low flow periods. The District has an ongoing project in cooperation with Johnson County Weed & Pest to remove Russian olive along the canal. An additional conservation project, in cooperation with NRCS, is hardening the 15 Mile Draw overflow to reduce erosion.

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Number of Acres

(3) What is the per-unit amount of the current assessment? $6.50 per acre

(4) Is there a basic service charge or first acre assessment in addition to assessments? No If so, specify amount: N/A

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	33,253.22
b. Annual Revenues from Other Sources:	$	0
c. Total Annual Revenues:	$	33,253.22

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	Varies*
b. Annual Payments for Debt Retirement:	$	22,735.57
c. Annual Payments to a Repair and Replacement Fund:	$	N/A
d. Annual Payments to an Emergency Fund:	$	None
e. Annual Payments for Other Purposes:	$	N/A
f. Total Annual Payments:	$	Varies*

(3) Other

a. Balance in Repair and Replacement Fund:	$	N/A
b. Balance in Emergency Fund:	$	N/A

c. Explanation (If Needed): *The annual budget for Operations and Maintenance is up to $23,600. On an annual basis the district does not generally spend this amount unless there are emergencies.

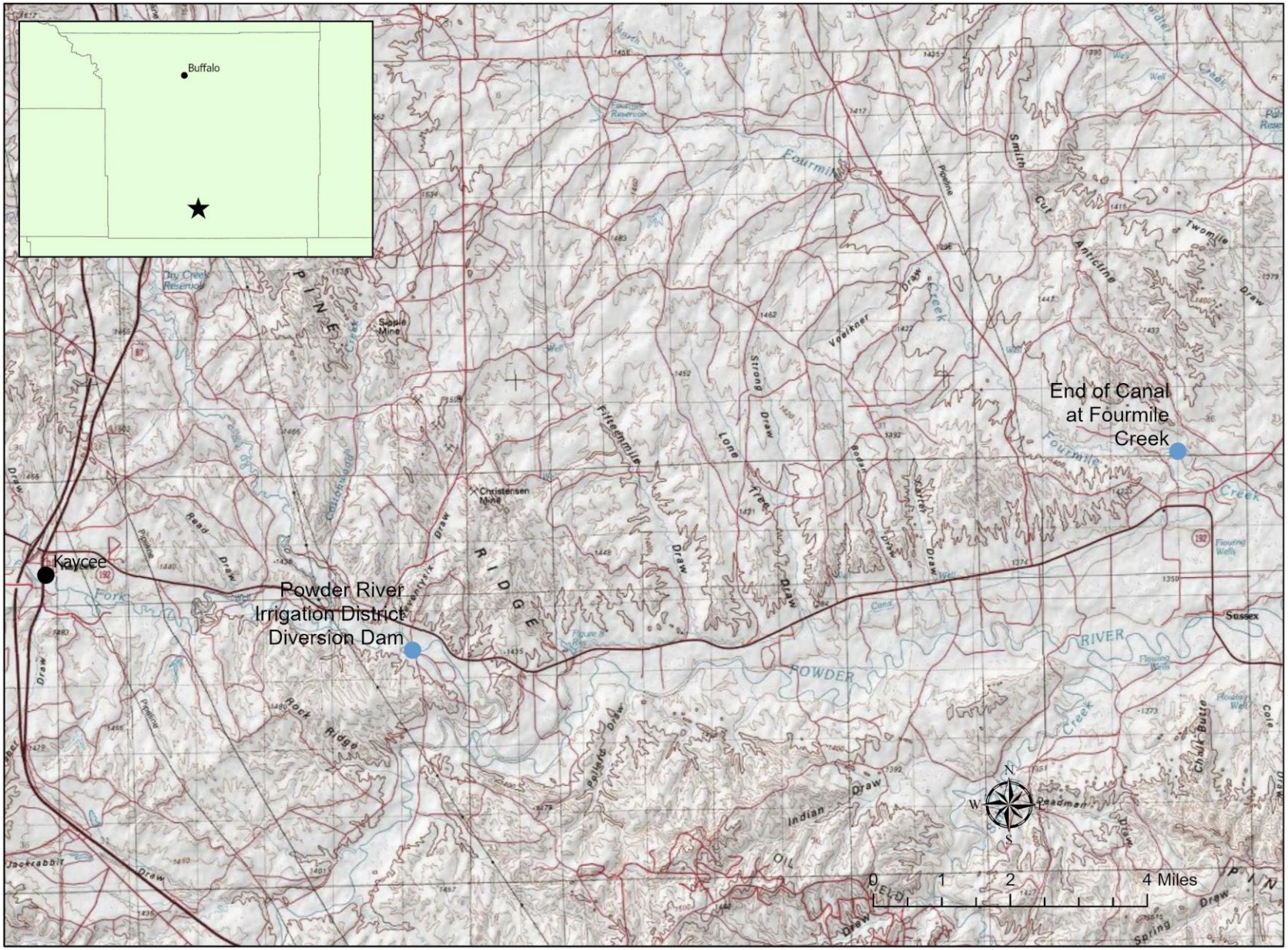
(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? No

a. If not, how is the difference subsidized?

The District is self-supporting for everything but replacement/emergency funds which are supplemented with grants and loans.

Return to Agenda

Powder River Irrigation District Level I Study Project Area



Powder River Irrigation District LI Study-Site Visit Photos

Middle Fork Powder River diversion dam and headgate (left) to Sussex Irrigation Canal. These structures were constructed in 1994 and are reported by the District be in good condition.

Siphon extending canal under South Fork Powder River was also constructed in 1994 and is reported to be in good condition. The Sussex Irrigation Canal has four siphons.

Seepage is common along the canal and water loss is estimated to be significant. Getting water to the end of the canal, where some of the larger irrigated lands are present, is challenging.

Fifteen Mile Draw Siphon is a welded steel siphon which was likely constructed in 1962 to replace a flume crossing the draw. This siphon was identified by the District as being in poor condition with the steel being paper thin in places. The siphon inlet structures are shown **below**.

RESOLUTION

POWDER RIVER IRRIGATION DISTRICT

MAY 23, 2022

The Powder River Irrigation District Board members met at the home of Jane Carr on May 23, 2022.
President Dale Koch called the meeting to order at 7:05 PM. Members present were Pete Meike, Fred and Jane Carr, John Kinchen and Dick Gould, and Talbot Koch. Also present was Don Meike, and Kevin Lund, Joe Kinchen, Markus Koch, Ben and Nancy Schiffer.

The minutes from the last annual meeting on May 20, 2021 was read. Pete Meike moved to accept the minutes as read. John Kinchen seconded. As there were no corrections, the minutes stand approved as read.

Dick Gould gave a Treasurer report. As of April 30, 2022 we had $35,619.84 in the checking account and as of June 30, 2021 we had $62,823.16 in the WYO-STAR account. Dick Gould said that the Powder River Irrigation District only had to pay the Powder River Conservation District $851.95 for phase one at 15 mile. Pete Meike moved to accept the Treasurer report as read. John Kinchen seconded. As there were no corrections, the Treasurer's report stands approved as read.

John Kinchen made a motion to keep the assessments the same as last year, $6.50 per acre with $2.00 of the $6.50 going to the sinking fund. Dick Gould seconded. All in favor. Motion carried.

Dale Koch called for nominations for President. Fred Carr nominated Talbot Koch. Talbot Koch nominated Fred Carr for Vice Presidents. Dick Gould seconded. Nominations ceased. Dick Gould will remain as Treasurer and Jane Carr as Secretary. All in favor. Motion carried.

Kevin Lund gave a report on 15 mile and phase two plans are done. We are still looking for funding.

Ben Schiffer gave a report to do a level one master study on the Sussex Irrigation Ditch. We can apply for a grant from the Wyoming Water Development Commission in Cheyenne that would pay 2/3rd and we could get a loan for the other 1/3rd. Applications for this master study is due March 1, 2023. This study would cover everything from seeps in the ditch to repairs. The application fee would be $3000.00. After the study then we can do level two as the next step. Which is to make plans and level three would be the construction part.
Dick Gould moved to file and submit the application for a Master Study on the Sussex Irrigation Ditch. Kevin Seconded. Ben will start the process of filling out the application and present it to everyone before the annual meeting of the Sussex Irrigation Company in December 2022.

As there was no further business, the meeting adjourned at 7:45 PM.

Dale Koch, President

Jane Carr, Secretary

Return to Agenda

State of Wyoming
County of Johnson

This instrument was acknowledged before me on January 10, 2023 by Dale Koch and Jane Carr as
officers of the Powder River Irrigation District.

JODY G. TELKAMP
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 90814
MY COMMISSION EXPIRES: 12/21/2027

Jody G. Telkamp
Notary

My commission expires: 12.21.27

2024 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Strawberry Canal Master Plan

Program: New Development

Project Type: Agricultural Irrigation Supply

County: Lincoln

Sponsor: Strawberry Canal Company

WWDO Recommendation: Level I

Proposed Budget: $TBD

Recommend waiving, for this Level only, the requirement that the Sponsor be a public entity.

Basis for the Funding Recommendation:

The Sponsor is eligible for a Planning Program irrigation system master plan based on the WWDC Operating Criteria allowing the requirement to be a public entity to be waived for Level I studies. The Sponsor has initiated the process to become an Irrigation District (see Page 9 of recommendation for meeting minutes related to District formation). This study will inventory and evaluate the current condition of the irrigation system and identify deficiencies and provide a schedule for improvements with cost estimates.

Project Manager: Mabel Jones

I. PROJECT DESCRIPTION

The Strawberry Canal Company (Company) is proposing to sponsor a Level I Master Plan to evaluate irrigation infrastructure, identify deficiencies and provide a schedule for improvements with cost estimates.

1. Existing and Prior Legislation:

The project Sponsor has not received funding for prior WWDO projects.

2. Describe the location of the project:

The project area encompasses approximately 6000 acres in the Middle Star Valley adjacent to and encompassing the towns of Thayne and Bedford respectively. The project area includes two pipeline companies and ditch networks providing water to approximately 372 landowners. State Highway 89 provides access to the area. The source streams are Strawberry Creek and Willow Creek.

3. Summarize the request:

The Strawberry Canal Company is requesting funding to develop a Level I Master Plan. This plan will include options for the Company to pursue to become a public entity. A comprehensive inventory of the system, assessment of condition of components and prioritized options are needed to keep the system operational. This study will include GIS mapping, water rights research and provide guidance to apply for additional planning and construction funding through WWDC and other programs.

4. Summarize the reasons for the request:

The area represented by the Company is served by infrastructure which is decaying. Accessibility to water varies greatly throughout the system due to headgate and pipeline condition. New housing construction in the area is also presenting challenges for water delivery. The Company has concerns that the lack of long-term rehabilitation

planning in combination with the loss of local institutional knowledge will impact access to water and agricultural production in the area.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? No

   A. If not, is the recommendation for a Level I study or Level I or II study for a dam and reservoir project?

   No

2. Project Priority According to WWDO Criteria: Acct II - Priority 8: LI Reconnaissance Studies
(Use Attachment III of the operating criteria.)

3. Will the project serve at least 1,000 water righted acres? Yes

   A. Number of Acres: Unsure; water rights assessment will be part of this study.

4. Is the sponsor eligible for funding from other state or federal programs? Yes

   A. If so, what are they? Some landowners have received NRCS funds.

5. Is the Sponsor currently served by a regionalized water supply system (specify)? No Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? Possibly

6. Can the project be delayed or staged? Yes

   A. Should it be? It is not recommended that the project be delayed or staged. Star Valley is currently undergoing change and experiencing pressure due to growth and land sales given the desirability of the area. A timely study identifying rehabilitation needs is important to maintain current agricultural operations and to respond to growth.

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): Unknown, this will be included in work tasks.

(2) Direct Flow Source (Name of River, Stream, etc.): Strawberry and Willow Creeks

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canal, pipelines, ditches

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): N/A

(2) Location: N/A

(3) Amount of Stored Water Right (Acre-Feet): N/A

(4) Is any of the stored supply obtained from a federal facility? No

a. Percent of Total Supply from Federal Facility: N/A

b. Amount of Stored Supply from Federal Facility (Acre-Feet): N/A

c. Name(s) of Federal Facility: N/A

C. Description of Groundwater Supply

(1) Number of Wells: N/A

(2) Primary Supply Aquifer(s) or Formation(s): N/A

(3) Total Average Production Yield of All Wells (GPM): N/A

D. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

E. System Capacity

(1) Maximum Capacity of the Water Supply System (Acre-Feet per Day or CFS): Unknown

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): Unknown

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): Unknown

(2) Average Day Demand (Acre-Feet per Day or CFS): Unknown

(3) Maximum Day Demand (Acre-Feet per Day or CFS): Unknown

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 6280

(2) How many acres are assessed? 5945

(3) How many acres are irrigated? Unsure

4) What is the annual water delivery assessed (acre-feet per acre)? Per acre

(5) How many individual land owners receive water? 372

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? May 1-September 30

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Pivots, wheel lines, handlines, flood irrigation

(3) Briefly describe the main crops and cropping patterns:

Alfalfa, grass, barley, oats

(4) Describe the water measuring devices currently in use: N/A

(5) Percentage of Farm Turnouts with Measuring Devices: 0

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): Unknown

(8) What water conservation measures are employed by the Sponsor? Monitoring use and repairing conveyance leaks

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Acres

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)? Number of Acres

(3) What is the per-unit amount of the current assessment?

Assessment zone	Pipeline Assessment/Acre	General Ditch Assessment/Acre	Total Assessment/Acre
Zero Assessment zone (no water)	N/A	N/A	$0.00
General ditch assessment	na	$1.50	$1.50
Miller Pipeline company	$10.00	$1.50	$11.50
Upper Strawberry Canal Company (under 10 acres)	$7.25	$1.50	$8.75
Upper Strawberry Canal Company (over 10 acres)	$14.50	$1.50	$16.00

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount:

Assessment zone	Service Charge
Zero Assessment zone (no water)	N/A
General ditch assessment	$25.00
Miller Pipeline company	$100.00
Upper Strawberry Canal Company (under 10 acres)	$25.00
Upper Strawberry Canal Company (over 10 acres)	$25.00

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	33,042.28
b. Annual Revenues from Other Sources:	$	0
c. Total Annual Revenues:	$	33,042.28

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	11,000.00
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	11,000.00

(3) Other

a. Balance in Repair and Replacement Fund:	$	57,635.53
b. Balance in Emergency Fund:	$	*

c. Explanation (If Needed):

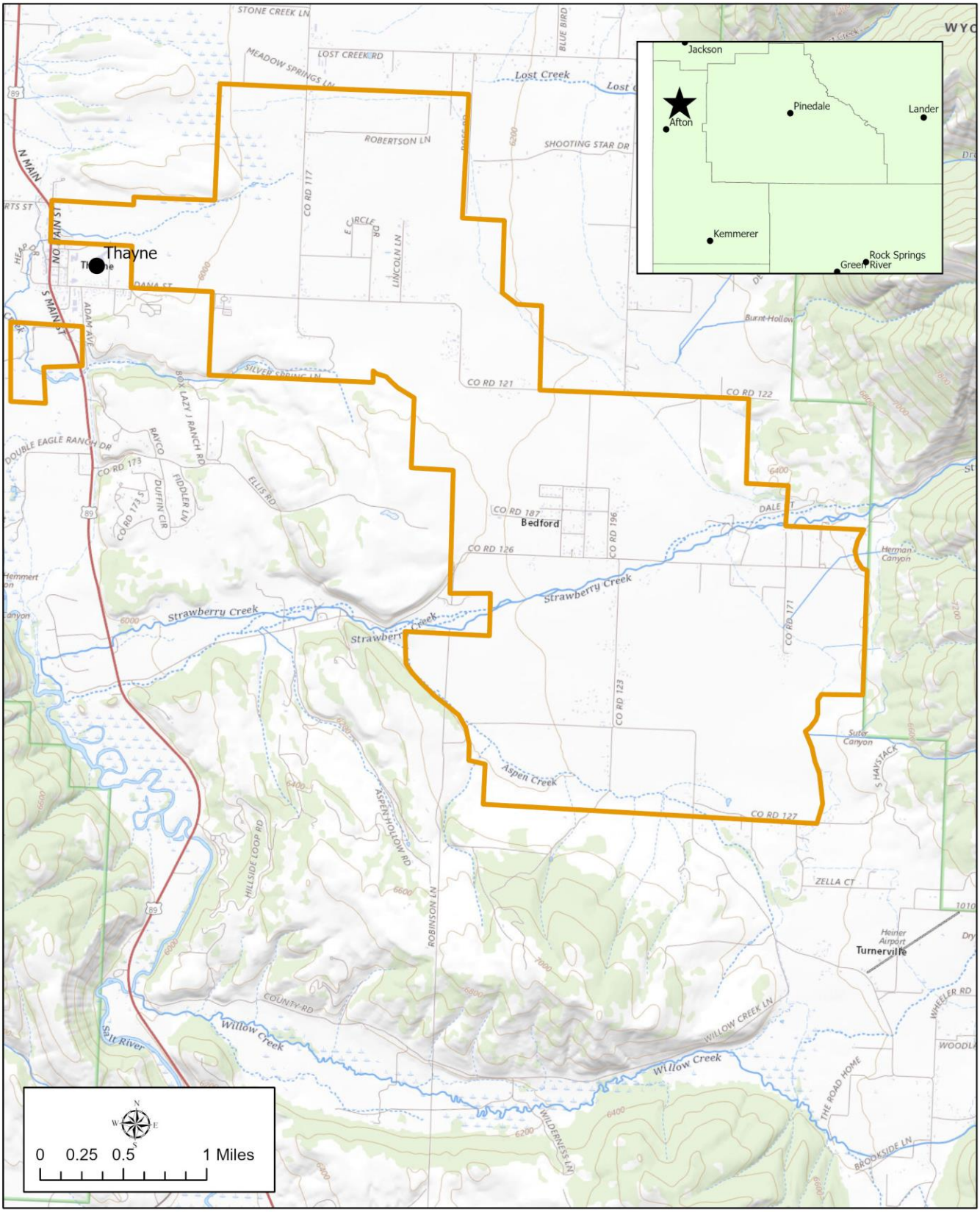
*Emergency Fund and Repair and Replacement Fund are combined.

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

Currently self-supporting but unable to support near future repairs without financial assistance.

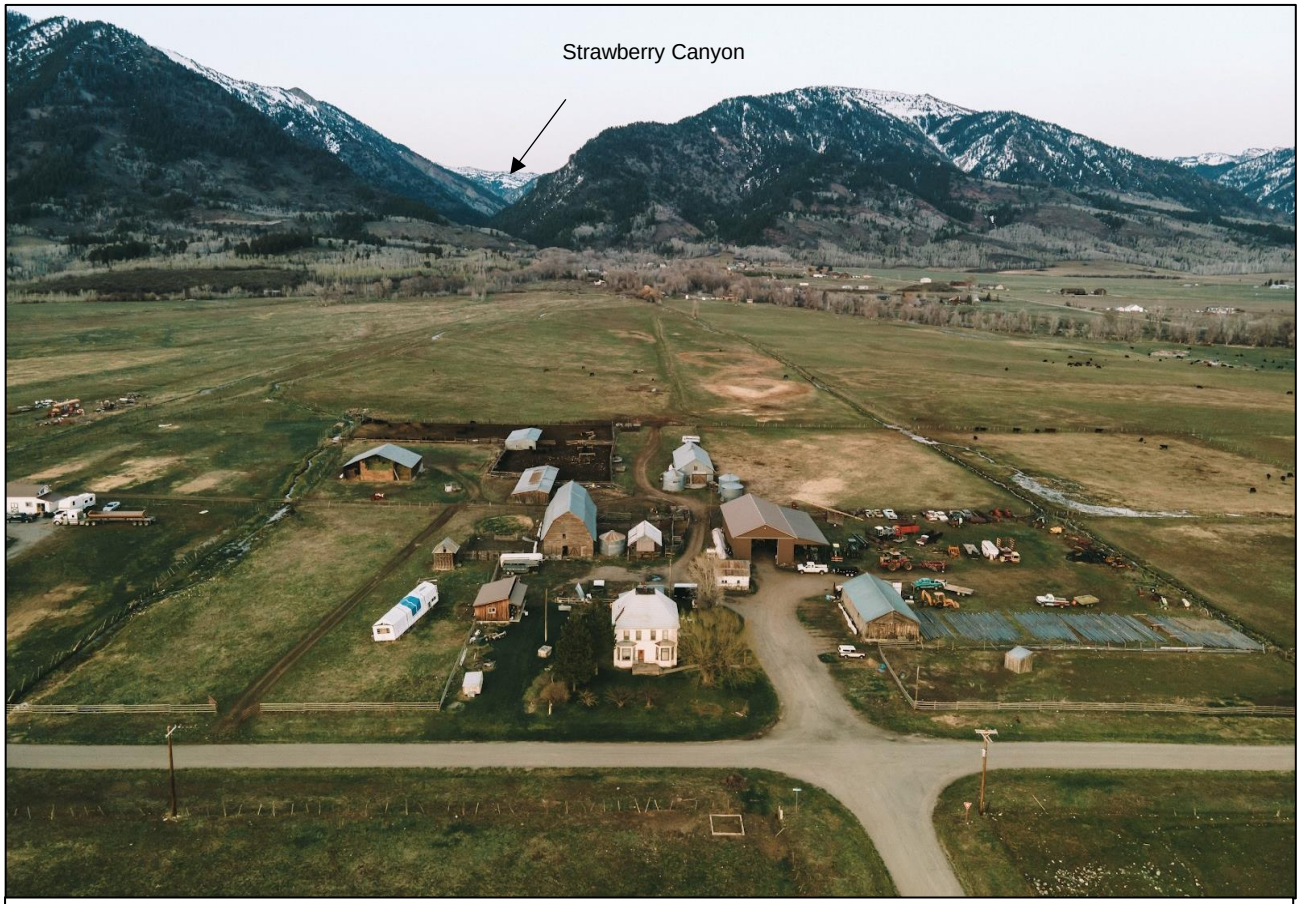
a. If not, how is the difference subsidized? N/A

Strawberry Canal Company Approximate Boundaries



Return to Agenda

PHOTOS (All photos courtesy of Strawberry Canal Company)



Central Bedford Area. Strawberry Canyon is at the center of the image. Strawberry Creek on the east side of the project area (along with Willow Creek to the south) provide source water for irrigators. .

Bedford Area. Photo taken from the east.

Examples of Leakage on Main Conveyance Pipeline. All repairs are completed by Upper Strawberry Canal Company.

RESOLUTION

Strawberry Canal Company

RESOLUTION
SUPPORT OF LEVEL I APPLICATION TO
WYOMING WATER DEVELOPMENT COMMISSION

Whereas it is the Strawberry Canal Company Board's obligation to provide irrigation water to the members of the Strawberry Canal company area; and Whereas the Strawberry Canal Company Board intends to become a district; and Whereas, the Strawberry Canal Company Board, believes time is of the essence; Therefore, be it Resolved, the Strawberry Canal Company board of directors fully supports the Level 1 Application to Wyoming Water Development Office for funding a planning study.

Signed 2·23·23 (date)

Jullie Olenslager

President Jullie Olenslager, Strawberry Canal Company

Secretary Jen Downing, Strawberry Canal Company

Mindy Lyman

MINDY LYMAN
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 101206
MY COMMISSION EXPIRES: 02/01/2029

MEETING MINUTES

Minutes for Strawberrry Canal Company meeting held on 2/22/23 at 7:00PM

Members in attendance: Jullie Olenslager, Roger Preston, Lauren Preston, Evan Heiner, Carter Downing, Jen Downing

The first order of business was that we determined that Jullie Olenslager as president has the authority to commit Upper Strawberry Canal Company to a binding contract with the Wyoming Water Development Commission to pursue Level one funding. Our hope is that level one funding will help with our long term goals of becoming a district, repairing aging infrastructure, and better understanding the existing infrastructure and water rights of our company.

The second order of business is that we decided that Jullie Olenslager and Jen Downing will have the right to sign the resolution for support of Level one application on the behalf of the entire board, as it is impractical at this time for the whole board to be present before the notary.

The third order of business is that all members were shown a copy of potential bylaws that would likely represent our structure once we become a district, and approved it as a working document with the understanding that it will take significant further adjustment, but is a fair representation of our intentions as a company which intends to become a district.

The fourth order of business is that all members were presented with maps of the company and they are correct to the best of our knowledge.

Jullie Olenslager 2/22/23.
Jullie Olenslager, President

Roger Preston 2-22-23
Roger Preston, Vice President

2/22/23
Lauren Preston, board member

Evan Heiner 2/22/23
Evan Heiner, board member

2-22-23
Carter Downing, board member

2/22/23
Jen Downing, Secretary

PLANNING PROJECT AMENDMENTS

Return to Agenda

THE STATE OF WYOMING
Water Development Office
6920 YELLOWTAIL ROAD TELEPHONE: (307) 777-7626 CHEYENNE, WY 82002

MEMORANDUM

DATE: May 11, 2023

TO: Wyoming Water Development Commission

FROM: George Moser, P.G., Project Manager

SUBJECT: Contract Amendment Four
Douglas Test Well, Level II Study

For WWDC consideration today is a planning study Contract amendment to extend the consultant services contract expiration date an additional two years and increase the budget.

The City of Douglas has three water sources to meet its potable water demands including a 2007-2008 renovation of the water treatment plant on the North Platte River. Extended periods of elevated turbidity in the North Platte River result in the inability to effectively operate the water treatment plant to meet maximum day demands, therefore a supplemental ground water supply source would provide certainty in meeting high demand periods. In order to develop system supply capacity, the City of Douglas has a WWDC Level II drilling and testing program to evaluate additional groundwater development.

The Project began in 2017, and has completed the hydrogeologic evaluation and well siting study, and has developed the well drilling and aquifer testing program. In addition, landowner access has been granted for the drilling location. During 2022, the well-drilling contract was advertised twice, with only one bid received. This bid was in excess of the original drilling budget.

The Select Water Committee sponsored Senate File 96 during the 2023 Legislative Session. This bill added additional budget to the Douglas Test Well, Level II Project and extended the reversion date for the legislative appropriation.

The current Consultant Services Contract expires on June 30, 2023. The Contract originally expired on December 31, 2019, and has been extended thrice previously. This extension is necessary to accommodate additional time for re-advertising for drilling services, drilling the test well, evaluating aquifer performance, and preparing the draft and final reports required under the Contract.

Return to Agenda

AMENDMENT FOUR TO CONSULTANT CONTRACT FOR SERVICES NO. 05SC0296967 DOUGLAS TEST WELL, LEVEL II STUDY BETWEEN WYOMING WATER DEVELOPMENT COMMISSION AND WESTON ENGINEERING, INC.

1. **Parties.** This Amendment is made and entered into by and between the Wyoming Water Development Commission [Commission], whose address is: 6920 Yellowtail Road, Cheyenne, Wyoming 82002; and Weston Engineering, Inc. [Consultant], whose address is: 1050 North 3rd Street, Suite E, Laramie, Wyoming 82072.

2. **Purpose of Amendment.** This Amendment shall constitute the fourth amendment to the Contract between the Commission and the Consultant. The purpose of this Amendment is to: a) increase the total Contract dollar amount by four hundred eighty-five thousand, five hundred dollars ($485,500.00) to one million, six hundred fifty-five thousand dollars ($1,655,000.00); and b) extend the term of the Contract through June 30, 2025:

The original Contract, dated June 13, 2017, required the Consultant to render certain technical or professional services therein described in connection with an undertaking to be financed by the Commission and administered by the Wyoming Water Development Office [Office] through its director or his designee for a total Contract amount of one million, one hundred sixty-nine thousand, five hundred dollars ($1,169,500.00) with an expiration date of December 31, 2019.

Amendment One, dated October 9, 2019, extended the term of the Contract through June 30, 2021.

Amendment Two, dated March 22, 2021, extended the term of the Contract through December 31, 2022.

Amendment Three, dated May 16, 2022, extended the term of the Contract through June 30, 2023.

3. **Term of the Amendment.** This Amendment shall commence upon the date the last required signature is affixed hereto (Effective Date), and shall remain in full force and effect through the term of the Contract, as amended, unless terminated at an earlier date pursuant to the provisions of the Contract, or pursuant to federal or state statute, rule or regulation.

4. **Amendments.**

A. The second sentence of Section 4.A. of the original Contract is hereby amended to read as follows:

"The total payment under this Contract shall not exceed one million, six hundred fifty-five thousand dollars ($1,655,000.00)."

B. **S**ection 4.B. of the original Contract is hereby amended in its entirety to read as follows:

"B. Project Budget. The Project budget for each task included in Attachment A is as follows:

Task	**Estimated Cost**
Phase I – Project Meetings, Geo-hydrologic Investigation, Well Siting	
1. Project Meetings	$ 10,000.00
2. Geo-hydrologic Investigation, Well Siting	$ 50,000.00
Phase II – Well Construction	
1. Permits, Access, Testing Program Development	$ 50,000.00
2. Environmental Report	$ 7,500.00
3. Bidding Specifications, Bidding Process	$ 22,500.00
4. Consultant Services During Well Construction/Aquifer Testing	$ 100,000.00
5. Water Quality, Water Treatment, Reclamation	$ 10,000.00
6. a. Well Construction Subcontracts	$ 1,263,000.00
b. Professional Liability Insurance Differential	$ 10,000.00
Phase III – Conceptual Design, Cost Estimates, Project Reports	
1. Geotechnical Analysis	$ 20,000.00
2. Identification of Alternatives	$ 15,000.00
3. Preparation of Preliminary Cost Estimates	$ 10,000.00
4. Selection of Preferred Alternatives	$ 5,000.00
5. Conceptual Designs and Cost Estimates	$ 21,000.00
6. Identification of Permits & ROW for Construction	$ 6,000.00
7. Water System Financing	$ 18,000.00
8. Draft Report	$ 25,000.00
9. Report Presentations	$ 2,000.00
10. Final Report and Deliverables	$ 10,000.00
PROJECT TOTAL COST	**$ 1,655,000.00**

The amounts for each task are estimates only, but are not to be exceeded unless authorized in writing by the Commission. The Contract total amount is controlling. Payment shall be made directly to the Consultant. The Consultant shall maintain hourly records of time worked by its personnel to support any audits the state or the Commission may require. Billing reports shall be submitted no more often than monthly for activities and costs accrued since the last billing report and shall be

Return to Agenda

made on forms provided by the Office. The Consultant may use alternate billing forms if approved in advance by the Office project manager. A brief project progress report summarizing project activities in the billing period must be submitted with each billing."

C. The second sentence of Section 3 of the original Contract is hereby amended to read as follows:

"The term of this Contract is from the Effective Date through June 30, 2025."

5. Amended Responsibilities of the Consultant.

Responsibilities of the Consultant have not changed.

6. Amended Responsibilities of the Commission.

Responsibilities of the Commission have not changed.

7. Special Provisions.

A. Same Terms and Conditions. With the exception of items explicitly delineated in this Amendment, all terms and conditions of the original Contract, and any previous amendments, between the Commission and the Consultant, including but not limited to sovereign immunity, shall remain unchanged and in full force and effect.

B. Counterparts. This Amendment may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Amendment. Delivery by the Consultant of an originally signed counterpart of this Amendment by PDF shall be followed up immediately by delivery of the originally signed counterpart to the Commission.

8. General Provisions.

A. Entirety of Contract. The Original Contract, consisting of fourteen (14) pages; Attachment A, consisting of twenty-two (22) pages; Attachment B, consisting of one (1) page; Amendment One, consisting of three (3) pages; Amendment Two, consisting of three (3) pages; Amendment Three, consisting of three (3) pages; and this Amendment Four, consisting of four (4) pages, represent the entire and integrated Contract between the parties and supersede all prior negotiations, representations, and agreements whether written or oral.

THE REMAINDER OF THIS PAGE WAS INTENTIONALLY LEFT BLANK

9. **Signatures.** The parties to this Amendment, through their duly authorized representatives, have executed this Amendment on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Amendment.

This Amendment is not binding on either party until approved by A&I Procurement and the Governor of the State of Wyoming or his designee, if required by Wyo. Stat. § 9-2-3204(b)(iv).

WYOMING WATER DEVELOPMENT COMMISSION:

_____ _____
Ronald E. Kailey, Jr., Chairman Date

_____ _____
Lee Craig, Secretary Date

WESTON ENGINEERING, INC.:

_____ _____
Jerry Hunt, Secretary-Treasurer Date
Employer Identification Number: 83-0240969

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____
Megan Pope, Senior Assistant Attorney General Date

THE STATE OF WYOMING
Water Development Office
6920 YELLOWTAIL ROAD TELEPHONE: (307) 777-7626 CHEYENNE, WY 82002

MEMORANDUM

DATE: May 11, 2023

TO: Wyoming Water Development Commission

FROM: Chace Tavelli, Planning Division

SUBJECT: Amendment Six to LaPrele Irrigation District Rehabilitation, Level II Study Contract

This memo serves as an explanation for Amendment Six to the LaPrele Irrigation District Rehabilitation, Level II Study. Amendment Six adds Phases IV and V, amending the responsibilities of the Consultant; increases the total Contract dollar amount by $4,454,000; and extends the term of the Contract through June 30, 2025.

Phase IV completes NEPA through development of Environmental Assessment documentation and environmental permitting, picking up from the environmental investigations and field surveys that are part of an earlier phase of work. Phase V includes advanced site characterization and development of the 30% design package. The design Scope of Work will include advancement of foundation analysis, structural modeling, and hydraulic structure design for the proposed dam. The 30% design deliverables will include an updated design drawings package and a Basis of Design Report, documenting the engineering analyses and basic location and configuration of features through 30% design.

Phases IV and V will be funded by a $5 million, Bureau of Reclamation (BOR), financial assistance agreement. This funding is part of the Infrastructure Investment and Jobs Act (IIJA), Section 40901(2)(B) which makes available $100,000,000 "for the rehabilitation, reconstruction, or replacement of a dam in accordance with section 40904(b). Section 40904(b) designates the $100,000,000 for Carey Act Projects with specific requirements which LaPrele Dam has proven to meet, and is the only project in the Country meeting these specifications. The Office anticipates amending the current financial assistance agreement to complete pre-construction work, and to submit a new application for dam construction funding this year. The preliminary BOR 2024 Fiscal Year spending plan is estimating $30 million of funding for 40904(b).

Return to Agenda

AMENDMENT SIX TO
CONSULTANT CONTRACT FOR SERVICES NO. 05SC0297839
LAPRELE IRRIGATION DISTRICT REHABILITATION LEVEL II STUDY
BETWEEN
WYOMING WATER DEVELOPMENT COMMISSION
AND
RESPEC COMPANY, LLC

1. **Parties.** This Amendment is made and entered into by and between the Wyoming Water Development Commission [Commission], whose address is: 6920 Yellowtail Road, Cheyenne, Wyoming 82002; and RESPEC Company, LLC formerly Re/Spec Inc. [Consultant], whose address is: 3824 Jet Drive, Rapid City, SD 57703.

2. **Purpose of Amendment.** This Amendment shall constitute the sixth amendment to the Contract between the Commission and the Consultant. The purpose of this Amendment is to: a) replace Attachment A6 with a new Attachment A7; b) amend the responsibilities of the Consultant; c) increase the total Contract dollar amount by four million, four hundred fifty-four thousand dollars ($4,454,000.00) to nine million, seven hundred fifty-two thousand, two hundred dollars ($9,752,200.00); and d) extend the term of the Contract through June 30, 2025.

The original Contract, dated March 22, 2019, required the Consultant to perform a Level II rehabilitation study for the LaPrele Irrigation District for a total Contract amount of two hundred ninety thousand dollars ($290,000.00) with an expiration date of June 30, 2021.

Amendment One, dated November 19, 2019, amended the original Contract to: a) replace Attachment A with Attachment A2; and b) amend the responsibilities of the Consultant.

Amendment Two, dated June 19, 2020, amended the original Contract to: a) replace Attachment A2 with a new Attachment A3; b) amend the responsibilities of the Consultant; c) increase the total Contract dollar amount by seven hundred eight thousand, two hundred dollars ($708,200.00) to nine hundred ninety-eight thousand, two hundred dollars ($998,200.00); and d) extend the term of the Contract through June 30, 2022.

Amendment Three, dated April 2, 2021, amended the original Contract to: a) replace Attachment A3 with a new Attachment A4; b) amend the responsibilities of the Consultant; c) increase the total Contract dollar amount by one hundred ninety-four thousand, four hundred dollars ($194,400.00) to one million, one hundred ninety-two thousand, six hundred dollars ($1,192,600.00); and d) to acknowledge the restructuring of Re/Spec Inc. to its corporate organization with RESPEC COMPANY, LLC as the new and surviving entity.

Amendment Four, dated May 18, 2021, amended the Contract to: a) replace Attachment A4 with a new Attachment A5; b) amend the responsibilities of the Consultant; c) increase the total Contract dollar amount by one million, seven hundred ten thousand dollars ($1,710,000.00) to two million, nine hundred two thousand, six hundred dollars

($2,902,600.00); and d) extend the term of the Contract through June 30, 2023.

Amendment five, dated May 19, 2022, amended the Contract to: a) replace Attachment A5 with a new Attachment A6; b) amend the responsibilities of the Consultant; c) increase the total Contract dollar amount by two million, three hundred ninety-five thousand, six hundred dollars ($2,395,600.00) to five million, two hundred ninety eight thousand, two hundred dollars ($5,298,200.00); d) extend the term of the Contract through June 30, 2024; e) replace Attachment B with a new Attachment B2; and f) accept the Consultant's new rate sheet for subsequent billings.

3. **Term of the Amendment.** This Amendment shall commence upon the date the last required signature is affixed hereto (Effective Date), and shall remain in full force and effect through the term of the Contract, as amended, unless terminated at an earlier date pursuant to the provisions of the Contract, or pursuant to federal or state statute, rule or regulation.

4. **Amendments.**

A. Section 4.A. of the original Contract is hereby amended to read as follows:

"**A. Reimbursement of Expenses.** The Commission agrees to pay the Consultant an amount based on the approved hourly rate and reimbursable expenses price schedules depicted in Attachment B2 (2022 rate sheet), attached to this Contract and incorporated by reference as part of this Contract, for the services described in Attachment A7, attached to this Contract and incorporated by reference as part of this Contract. The total payment under this Contract shall not exceed nine million, seven hundred fifty-two thousand, two hundred dollars ($9,752,200.00)."

B. **S**ection 4.B. of the original Contract is hereby amended in its entirety to read as follows:

"B. Project Budget. The Project budget for each task included in Attachment A7 is as follows:

Task		Estimated Cost
Phase I		
1.	Project Meetings	$ 28,100.00
2.	Information Review	$ 10,300.00
3.	Rockfall Hazard Analysis, Dam Structural Assessment	$ 299,533.00
4.	Economic Analysis and Project Financing	$ 1,064.00
5.	Discretionary Task	$ 8,000.00
6.	Draft Report	$ 1,203.00
	Phase I Total	$ 348,200.00

Phase II

1.	Project Management, Meetings, Quality Assurance	$ 381,900.00
2.	Information Review and Supporting Analysis	$ 33,650.76
3.	Alternatives Development	$ 511,665.54
4.	Alternative Cost and Constructability	$ 73,683.70
5.	Site Characterization	$ 871,000.00
6.	Design Advancement	$ 505,000.00
7.	Discretionary Task	$ 150,000.00
8.	Conceptual Design Report	$ 27,500.00
	Phase II Total	$ 2,554,400.00

Phase III

1.	Project Management	$ 200,000.00
2.	Site Characterization	$1,250,000.00
3.	Design Analysis	$ 665,000.00
4.	Environmental Investigations	$ 200,000.00
5.	Discretionary Task	$ 50,600.00
6.	Phase III Report	$ 30,000.00
	Phase III Total	$2,395,600.00

Phase IV

1.	NEPA Documentation and Environmental Permitting	$ 400,000.00
	Phase IV Total	$ 400,000.00

Phase V

1.	Project Management	$ 376,000.00
2.	Pre-Construction Planning	$ 297,000.00
3.	Site Characterization	$2,043,000.00
4.	Design Advancement	$1,255,000.00
5.	30% Design Reports	$ 83,000.00
	Phase V Total	$4,054,000.00

PROJECT TOTAL COST **$9,752,200.00**

The amounts for each task are estimates only, but are not to be exceeded unless authorized in writing by the Commission. The Contract total amount is controlling. Payment shall be made directly to the Consultant. The Consultant shall maintain hourly records of time worked by its personnel to support any audits the state or the Commission may require. Billing reports shall be submitted no more often than monthly for activities and costs accrued since the last billing report and shall be made on forms provided by the Office. The Consultant may use alternate billing forms if approved in advance by the Office project manager. A brief project

Return to Agenda

progress report summarizing project activities in the billing period must be submitted with each billing."

C. The second sentence of Section 3 of the original Contract is hereby amended to read as follows:

"The term of this Contract is from the Effective Date through June 30,2025."

5. Amended Responsibilities of the Consultant.

Responsibilities of the Consultant are hereby amended as follows:

A. As of the Effective Date of this Amendment, Attachment A6, Fifth Revised Scope of Services, which was attached to the original Contract, is superseded and replaced by Attachment A7, Sixth Revised Scope of Services, which is attached to this Amendment and incorporated into the original Contract by this reference. All references to "Attachment A6" in the original Contract, and in any amendments thereto, are amended to read: "Attachment A7".

6. Amended Responsibilities of the Commission.

Responsibilities of the Commission have not changed.

7. Special Provisions.

A. Same Terms and Conditions. With the exception of items explicitly delineated in this Amendment, all terms and conditions of the original Contract, and any previous amendments, between the Commission and the Consultant, including but not limited to sovereign immunity, shall remain unchanged and in full force and effect.

B. Counterparts. This Amendment may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Amendment. Delivery by the Consultant of an originally signed counterpart of this Amendment by PDF shall be followed up immediately by delivery of the originally signed counterpart to the Commission.

8. General Provisions.

A. Entirety of Contract. The Original Contract, consisting of fourteen (14) pages; Attachment A, Scope of Services, consisting of thirteen (13) pages; Attachment B, consisting of two (2) pages; Amendment One, consisting of four (4) pages; Attachment A2, Revised Scope of Services, consisting of eleven (11) pages; Amendment Two, consisting of four (4) pages; Attachment A3, Second Revised Scope of Services, consisting of twenty-two (22) pages; Amendment Three,

consisting of four (4) pages; Attachment A4, Third Revised Scope of Services, consisting of twenty-three (23) pages; Amendment Four, consisting of five (5) pages; Attachment A5, Fourth Revised Scope of Services, consisting of twenty-nine (29) pages; Amendment Five, consisting of five (5) pages; Attachment A6, Fifth Revised Scope of Services, consisting of thirty-four (34) pages; Amendment Six, consisting of six (6) pages; Attachment A7, Sixth Revised Scope of services, consisting of forty-three (43) pages; and Attachment B2, consisting of two (2) pages represent the entire and integrated Contract between the parties and supersede all prior negotiations, representations, and agreements whether written or oral.

THE REMAINDER OF THIS PAGE WAS INTENTIONALLY LEFT BLANK

9. **Signatures.** The parties to this Amendment, through their duly authorized representatives, have executed this Amendment on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Amendment.

This Amendment is not binding on either party until approved by A&I Procurement and the Governor of the State of Wyoming or his designee, if required by Wyo. Stat. § 9-2-3204(b)(iv).

WYOMING WATER DEVELOPMENT COMMISSION:

_____ _____
Ronald E. Kailey, Jr., Chairman Date

_____ _____
Lee Craig, Secretary Date

RESPEC COMPANY, LLC:

_____ _____
Jason Love, President Date
Employer Identification Number: 83-2898293

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____
Megan Pope, Senior Assistant Attorney General Date

Return to Agenda

ATTACHMENT A7
SIXTH REVISED SCOPE OF SERVICES

A. AUTHORIZATION

The Wyoming Legislature has authorized the Commission to conduct the study described herein. The Consultant will complete the tasks and requirements outlined in Section D. Scope of Services in this Attachment. The Commission, at its sole discretion and through duly authorized contract amendments, may request the Consultant to complete additional work phases beyond the following scope of services.

B. PROJECT DESCRIPTION

1. Location: The LaPrele Irrigation District is located west and south of Douglas, Wyoming, along Interstate 25 in Converse County, and lies within the North Platte River Basin.

2. Purpose: To perform a Level II rehabilitation study for the LaPrele Irrigation District to include looking at design and permitting for LaPrele Dam rehabilitation and/or replacement options.

3. History: The LaPrele Irrigation District supply system is made up of 3 reservoirs, siphons, tunnels, and open ditch canals. The District requested a Level II study to analyze the potential for rock falling from the canyon and striking the dam. During the study, some cracking in buttress number 17 was identified which led to further analysis of the entire structure. The analysis concluded that there is significant cracking throughout the dam, concrete strengths are less than ideal, and the dam has reached its life expectancy. Following this assessment, an alternatives analysis was conducted to consider options for infilling the existing dam or replacement with downstream alternatives. Five alternatives were identified, including infilling the existing structure. A preferred alternative, roller compacted concrete, was identified. Initial geotechnical work was conducted as well as appraisal level design and cost estimates. Further geotechnical, design, and permitting work has moved forward. A 30% design package is anticipated.

   Previous Reports:
   - LaPrele Irrigation Project: Section I, Soils and Drainage, Section II, Seepage and Water Loss Study, Section III, Hydrologic study
   - LaPrele Level III Development Plan, Interim Report
   - Priority Improvements of the LaPrele Irrigation Project: Estimates of Increased Returns to Irrigators
   - LaPrele Irrigation District Master Plan, Level I Study

   Additional information may be found at the Water Resources Data System, located at the University of Wyoming.

C. PROJECT REQUIREMENTS

1. Monthly Progress Reports and Billing Statements

The Consultant shall submit a brief monthly progress report outlining the study status, progress, and results to date, regardless of whether or not a billing statement is submitted, on or before the last working day of the month.

Each billing statement must include a task-by-task report justifying the cost items contained in the billing statement. The monthly progress report may be used as the justification for the billing statement as long as all cost items covered in the billing statement are addressed in the progress report.

2. Computer Models, Geographic Information System (GIS), Statement of Assumptions, Project Work File

a. If the Consultant writes or uses a computer program or spreadsheet as a part of this project, the Consultant shall submit to the Commission for approval all proposed program names and data formats prior to beginning work on that task. All data shall be submitted to the Commission in written and digital forms with the final report. Digital media shall be labeled by the Consultant to provide sufficient detail to access the information on the media. User manuals shall be submitted by the Consultant to the Commission providing complete documentation of computer programs developed under this project. The user manuals shall also contain the source code language and the type of computer equipment necessary to operate the program(s). The computer programs and spreadsheets (written and digital forms) are due on the same date as the final report, which contains the information generated by the programs.

b. If the Consultant develops, collects, and/or uses GIS data as a part of this project, the Consultant shall do so in accordance with the WWDC GIS Standards Technical Memorandum utilizing provided Geodatabase Templates. Links to GIS Standards Technical Memorandum are available at http://water.geospatialhub.org/pages/wwdc-gis-standards. A webinar on required GIS Standards, hosted by WWDC and WRDS, will be available following consultant selection and is strongly recommended.

The Consultant shall adhere to the following GIS standards:

(i) FEATURE MAPPING. The Consultant shall acquire the appropriate Geodatabase Template for feature mapping from http://water.geospatialhub.org/search?groupIds=3e77928b1d0d49858b8916ca63ca5ca4 prior to any GIS work. Five Geodatabase

Templates are available and are specific to project type. These templates define the organization and naming requirements for feature classes, tables, and the required attributes within the feature classes. Data needed for the project and described in this contract may include core data or auxiliary data. Core data includes features which fit within one of the feature classes in the Geodatabase Template, whether newly created or acquired from another source. All core data shall be loaded into the Geodatabase Template and attributed according to the GIS data schema described in the GIS Standards Technical Memorandum. This shall include field attributes that indicate contract number, primary consultant, date modified, and accuracy. Auxiliary data sets, include features which do not fit within one of the feature classes in the Geodatabase Templates, whether newly created or acquired from another source. The auxiliary data can be linked to the templates or managed separately as needed for project completion.

(ii) FORMATS and STANDARDS. Metadata are required for the geodatabase file, each included feature class (including those obtained from another source) and for each newly created feature. Metadata shall be completed in accordance with the GIS Standards Technical Memorandum. A detailed example for feature class metadata is provided in the GIS Standards Technical Memorandum and included in the Geodatabase Templates. This includes required information and default language, where appropriate, for each of the five metadata sections. Feature-level metadata requirements are also described in the Memorandum. Codes or values used in attribute fields, which are not included as part of the core data templates, shall be defined in the metadata. GIS data shall be saved in a Decimal Degree Coordinate system with a NAD83 datum, specifically "GCS_North_American_1983," as indicated in the GIS Standards Technical Memorandum. In addition to the Project geodatabase(s) and map file(s), GIS deliverables may also include linked nonspatial data/databases (.accdb, .xlsx), rasters (various formats), photographs (.jpg), maps (.pdf), and file integrated metadata references (.xml, .txt). Core data shall be delivered within the Geodatabase Template. Auxiliary data can be provided as .shp files and metadata are required.

(iii) MAPS. Project GIS deliverables shall be organized in such a way as to allow easy replication of the maps found in the final project report. The GIS project files should be provided as ESRI ArcGIS mxd files saved with relative path names to data sources.

c. To facilitate the Commission's accurate evaluation of the Consultant's work product, computations, conclusions and recommendations, the Consultant shall:

(i) Include in the final report a section describing the assumptions and methodology used by the Consultant in generating the data and conclusions contained in that chapter.

(ii) Maintain a project work file containing the materials used in project analysis. This file will be available for review by the Commission and should be organized in such a way as to allow replication of the steps and procedures used by the Consultant to reach the conclusions described in the study.

(iii) Prepare a project notebook containing a description of the assumptions and methodologies used in the project analysis. The notebook shall be organized in such a way as to allow replication of the steps, calculations, and procedures used by the Consultant to reach conclusions, described in the draft final report. The project notebook shall be submitted with the draft final report.

3. Cost Estimates

The Consultant shall use the following guidelines in calculating Level III cost estimates.

WWDC ELIGIBLE PROJECT COSTS

CONSTRUCTION COSTS	
Itemized Cost of Each Project Component	$_____
	$_____
	$_____
Cost of Project Components TOTAL	$_____ (subtotal #1)
Construction Engineering Cost (subtotal #1 x 10%)	$_____
Components + Construction Engineering Costs	$_____ (subtotal #2)
Contingency (subtotal #2 x 15%)	$_____
Construction Cost Total (subtotal #2 + Contingency)	$_____ (subtotal #3)
PRE-CONSTRUCTION COSTS	
Preparation of Final Designs & Specifications (subtotal #1 x 10%)	$_____
Site Access Permit Fees (BOR, USFS, etc.)	$_____
Title Opinion	$_____
Acquisition of Access and Rights of Way	$_____
Pre-construction Costs Total	$_____ (subtotal #4)

TOTAL WWDC ELIGIBLE PROJECT COST

Total WWDC Eligible Project Cost (subtotal #3 + subtotal #4) $_____ (subtotal #5)

WWDC INELIGIBLE PROJECT COSTS

Itemized Costs of Ineligible Project Components	$_____
	$_____
	$_____
	$_____
Additional Cost for Construction Engineering	$_____
Additional Cost for Preparation of Final Designs & Specifications	$_____
Total WWDC Ineligible Project Costs Total	$_____ (subtotal #6)

TOTAL PROJECT COST

Total Project Cost (subtotal #5 + subtotal #6) $_____

MATERIALS ONLY TOTAL

Materials Only Total Project Cost (Subtotal #1) $_____

Note: Any inflation costs, as determined by the Office project manager, will be applied to the Total Project Cost during the recommendation work.

4. Final Report

The Consultant shall use the Contract Scope of Services as the outline for draft and final reports so that Consultant compliance with Contract provisions can be verified. If the final report contains information of an engineering nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by a Professional Engineer licensed in the State of Wyoming. If the final report contains information of a geologic nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by a Professional Geologist licensed in the State of Wyoming. If the final report contains information of both an engineering and geologic nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by both a Professional Engineer and a Professional Geologist licensed in the State of Wyoming.

5. Final Report - Digital Format

In addition to the paper submittal described in Section C.4 above, the Consultant shall also provide the final documents and related materials in a digital format. This digital report shall be contained on CD/DVD(s), USB drive(s), or other media as approved by the Office project manager, and shall be in Searchable Image Adobe Acrobat format.

6. Anticipated Project Funding Assistance

The Consultant shall clearly identify project components eligible for Commission funding, both in cost estimates and in project mapping. The Consultant shall verify project component funding eligibility with the Office project manager prior to commencing any economic analysis. Unless otherwise directed by the Office project manager, the Consultant shall assume that projects will be funded with a 67% grant. The remaining 33% shall be acquired from external sources (for municipal projects); or from external sources and/or a loan from the WWDC (for agricultural projects). The Commission loan will be financed at an interest rate of four percent (4%) with a term to be specified by the Office project manager. If funding is anticipated from another agency, such as the Office of State Lands and Investments or the USDA Rural Utilities Service (RUS), the Consultant shall prepare cost estimates for system components not eligible for Commission assistance in a format and level of detail acceptable to the potential funding agency.

If required in the Contract Scope of Services, the Consultant shall provide the information necessary to complete applications to RUS, the Office of State Lands and Investments, and any other identified funding sources.

7. Project Access

The Consultant shall be responsible for obtaining access as required for project tasks.

8. Stand-By Time

The Commission will not reimburse the Consultant for stand-by time charges for the Consultant's supervisory personnel.

9. Well Permitting

All wells developed under this program shall list the State of Wyoming, Water Development Office as the permittee. The Consultant shall be responsible for obtaining the permit.

10. Verification Log

After all casing has been installed in the well, the Office may require that a geophysical log be performed on the well to verify casing placement. A copy of this log shall be included in the final report.

D. SCOPE OF SERVICES

PHASE I

Task 1. Project Meetings

A scoping meeting shall be held as early in the project schedule as possible in the project area to familiarize the Sponsor with the scope of the project as well as obtain and provide input and information to and from all affected parties. The Consultant shall prepare all presentation material, including maps and other visual aids as necessary, to explain the project. The scoping meeting location and time shall be coordinated with the Sponsor and Office project manager and should be held after the Consultant has reviewed all background information as described in Task 2.

Additional public project meetings shall be conducted to facilitate project activity coordination and to keep the Sponsor and all affected parties informed of progress. The Consultant should assume a minimum of three (3) public project meetings in the study area. One (1) of these meetings will be held at the discretion of the Office project manager. The Consultant shall be responsible for setting and conducting these meetings in coordination with the Office project manager and the Sponsor. The Consultant shall prepare all notices, needed materials, and the meeting record. In addition to the public project meetings, several informal meetings with the Sponsor or Office project manager may be necessary during the course of the study. In the interest of economy, meetings will be scheduled to coincide with fieldwork. The Consultant shall notify the WWDO project manager in advance of meetings with the project sponsor.

Task 2. Information Review

The Consultant shall gather and review all existing information related to the project. This includes information available through the Sponsor, WWDO, Water Resources Data System (WRDS), Wyoming State Engineer's Office, Wyoming Department of Environmental Quality Water Quality Division (DEQ), and any other sources as appropriate. The Consultant will coordinate with the Sponsor and Office project manager to obtain all past relevant studies that need to be reviewed. The Consultant shall provide a summary of existing information in the final report.

Task 3. Rockfall Hazard Analysis, Dam Structural Assessment

The Consultant will perform a rockfall hazard analysis and shall perform the following bulleted task list:

A. Study Area Establishment

Based on cursory review, the study area shall include the dam, spillway, and tunnel and have the following extents: approximately 500 feet upstream and approximately 500 feet downstream from the dam crest along the reservoir bottom/canyon floor centerline; horizontally from this centerline perpendicular to slope direction to the canyon ridgeline on either side; vertically from observed

reservoir water surface elevation to canyon ridgeline upstream from the dam; and vertically from canyon floor to canyon ridgeline downstream from the dam. Establishment of the final study area extents shall include close coordination with the Office project manager and the LaPrele Irrigation District.

B. 3D Survey of the Study Area

Data collected with this survey shall be of sufficient resolution to aid in identifying rockblocks of significant size and fall potential, and to aid identification of rockblock movement over time when compared to future surveys. Appropriate survey technologies could include ground-based LiDAR, unmanned drone with LiDAR, or other technologies that produce a 3D point cloud such as photogrammetry. The survey shall include sufficient data for estimating volume of the debris pile below the emergency spillway discharge zone as a potential borrow source for mitigation or remediation projects. This data shall be post-processed into a format compatible with typical GIS software.

C. Hazard Inspection of the Study Area

Assisted by data from the 3D survey, a visual inspection of the study area shall be performed to identify and characterize rockfall hazards. The objective of this inspection is to prioritize rockblocks of significant size and fall potential with reasonable probability of impacting the dam. The inspection shall define the location, size, and profile of priority rockblocks and shall be performed by an experienced rock mechanics engineer.

D. Rockfall Energy Estimate and Risk of Impact to the Dam

For each priority rockblock identified within the 3D survey and hazard inspection, a probabilistic analysis shall be performed to estimate the impact energy from rockfall and likelihood of impacting the dam. This analysis shall provide quantification of dam impact risk and a range of impact energy for each priority rockblock using rockfall analysis software such as Rocscience RocFall.

E. Structural Analysis of the Dam

A structural analysis of the dam shall be performed to understand overall integrity of the dam, and to understand the potential consequence of each predicted rockfall impact. The analysis shall consider as-built dam drawings, structural updates, and concrete integrity (e.g., possibly including core strength or similar test results as applicable). Structural calculations will be used to find the potential impact of rock fall loading on the buttresses closest to the abutments. Estimated rock fall loads will be compared to the capacities calculated using American Concrete Institute code as a measure against performance. The objective is to identify the potential consequence to the dam from each predicted rockfall impact.

F. Structural Buttress Inspection

The Consultant will perform a structural inspection of the remaining buttresses, not previously inspected by the Consultant in Task 3.E., utilizing a rope access team and a drone team.

a. Inspection Plan: To prepare for the inspection, the Consultant will review background information on the dam and prepare a Rope Access Job Hazard Analysis. Typical Personal Protective Equipment (PPE) will be used in addition to the industrial rope access gear. A site-specific Safety Action Plan must be completed, kept with the work group, and given to the LaPrele Irrigation District (LID) Representative upon request. Job briefings will be completed each morning before the work begins. Structural Inspection diagrams and rope inspection templates will be created as part of the Inspection Plan.

b. Inspection: The drone will document exposed surface of buttresses 2-17 (16 buttresses total of varying height) while the industrial rope access team will focus on documenting the downstream edge of the buttresses within arms-reach looking for similar vertical cracks as found in buttress 17. The industrial rope access team will also perform several ascents on buttresses identified in the inspection plan by ascending Kevlar ropes rigged to the struts on the dam interior. This will help validate data collected by the drone while also developing the machine learning for crack image recognition. The drone images will then be run through a crack detection algorithm to look for additional cracks.

c. Core Samples: Four core samples will be collected in various locations on the buttresses to determine concrete strength. The inspection team will utilize a Schmidt hammer to correlate additional readings to the core sample cylinders. The core holes will be patched with dry pack mortar as directed by the Consultant. **The Consultant shall not begin work on this Task unless specifically authorized in writing by the Office project manager and the LaPrele Irrigation District.**

d. Laboratory Testing: The Consultant will determine concrete core strengths per ASTM C42. The Schmidt hammer readings on the cores will be compared to the additional Schmidt hammer readings once strength data is available.

The inspection team will consist of 4 SPRAT certified engineers one of which will be the industrial rope access supervisor (SPRAT III). The team will also consist of 1 drone pilot. The inspection team will be qualified for self-rigging, safety, and rescue support.

For visual inspections the inspection team is not responsible for defects that are not readily discernible by external visual inspection through reasonable efforts. This scope does not include any follow-up site visits for visual monitoring of the dam or installing gauges.

The Consultant will provide the following deliverables:

1. Structural Inspection and Safety Plan (Hard and Digital Copy)

G. Develop Probable Failure Mode Calculations for Buttress Cracking

The Consultant will perform additional potential failure mode calculations specifically looking at stresses associated with the crack locations. The goal is to both verify the finite element model of Buttress 17 previously created, and to determine if the vertical crack is a viable failure mechanism. Strength data from core samples will be incorporated into the structural analysis. The following calculations will be produced to support the existing finite element model:

a. Shear wall calculations estimating required end zone reinforcing.
b. Buckling check of the wall between struts and unsupported edges using Euler-Buckling equations.
c. Finite element model comparison with observed strain.
d. Finite element model loading and validation estimates.

The Consultant will provide the following deliverables:

1. Draft Dam Inspection, Testing, and Analysis Technical Memo (Hard and Digital Copy)
2. Final Dam Inspection, Testing, and Analysis Technical Memo (Hard and Digital Copy)

All necessary permits and clearances shall be identified for hazard mitigation alternatives, monitoring alternatives, and access to the site.

Following substantial completion of Task 3.F. and 3.G. and in coordination with the Office project manager and the LaPrele Irrigation District, the Consultant will present their findings to the District at a public meeting. This meeting is in addition to the meetings described in Task 1.

Task 4. Economic Analysis and Project Financing

All Task 4 work, not completed by October 25th, 2019, will cease for the remainder of the project or until further Amendments to the Contract affecting this task are approved by the Commission.

The Consultant shall provide an ability to pay analysis and, if necessary, recommend adjustments to the District's revenues/rates. This analysis will be used to determine if the Sponsor has the ability to pay for recommended rehabilitation projects based on their current revenue structure or if the Sponsor will need to raise their rates. The Consultant shall generate recommendations for rate structures based on annual financial commitments of the sponsor needed to cover construction costs, operation and maintenance obligations, and a repair and replacement account. The Consultant shall consider all of the District's income and expenditures. The analysis will be based on the following three (3) scenarios:

> Scenario 1: Assume there will be no state, federal, or outside funding assistance utilized, i.e.: the Consultant shall demonstrate the necessary adjustments in the District's system revenues under the assumption that the Sponsor independently finances the prioritized recommendations.
>
> Scenario 2: Excluding the WWDC, assume there will be state, federal, or outside funding assistance utilized, i.e.: the Consultant shall identify additional funding sources, excluding the WWDC, that the Sponsor can pursue to help fund the prioritized recommendations and demonstrate the necessary adjustments in the District's system revenues under the assumption that the Sponsor independently finances the costs for completion of the prioritized recommendations that are not funded by state, federal, or other sources.
>
> Scenario 3: Assume that funding for WWDC eligible components will be in the form of a 67% grant from WWDC and a 33% loan (4% interest / 30-year term) from the WWDC, and funding for WWDC non-eligible components will only be in the form of Sponsor contribution from current or proposed revenues.

The Consultant shall then identify additional funding sources outside of the WWDC that the Sponsor can pursue to obtain the 33% loan component (Scenario 3 above) and to fund potential WWDC non-eligible components that are necessary for the completion of a Level III construction project. The U.S. Department of Agriculture, U.S. Bureau of Reclamation, and other eligible state and federal funding sources shall be considered for loans, grants, and combinations thereof. For more information on project funding assistance see Section C.6, of Attachment A7.

The Consultant shall research and fully consider all eligibility requirements, application nuances, deadlines, and all logistical and timing challenges that may occur, document the amount of grant or loan funds that may be available through the additional funding sources, and analyze the probability of the Sponsor securing a grant or loan from one or more of the additional funding sources for the project(s) in question. The Consultant shall obtain and review the latest versions of relevant guidance documents, forms, bulletins, supplements, information, etc. from each agency, and contact these agencies early in the study should the possibility exist that the Sponsor may seek funding from them. The Consultant shall document all of this information in the final report including conversations held.

It should be noted that the Sponsor's ability to pay for the project in a timely manner is a key consideration in the WWDC's funding decisions. The annual requests for WWDC funding

typically exceed the available funding. There are often uncertainties and delays in acquiring loans and, particularly, grants from other funding agencies. Therefore, the WWDC may give priority in its Level III funding deliberations to the projects in which the Sponsor has been advancing on a specific financing plan and there is documented evidence that the financing will be in place within the calendar year in which the Level III project funding is approved by the Legislature. If the WWDC finds it necessary to delay Level III funding requests due to the schedule for the financing plan, the WWDC may provide assurance to the Sponsor that it will recommend Level III funding the following year if the project financing is completed. This assurance can be used to assist the Sponsors in securing financing from other entities.

Task 5. Discretionary Task

The Consultant shall place $8,000 of the proposed project budget in this discretionary task. The task is to allow changes in the scope as the project develops or as new issues are discovered. The Consultant and Office project manager will agree on any work to be accomplished under this task and the cost of the work. No work will be initiated, or funds spent for this task, without direct approval from the Office project manager.

Task 6. Draft Report

All Task 6 work, not completed by October 25th, 2019, will cease for the remainder of the project or until further Amendments to the Contract affecting this task are approved by the Commission.

The Consultant shall submit to the Office five (5) hard copies of a draft report describing the results of all work completed in this study, no later than May 1, 2020. Five (5) CD, DVD, or USB drive copies containing the draft report in a text-recognized Adobe Acrobat (pdf) format will also be provided, along with two (2) CD, DVD, USB drive, or portable hard drive copies of the draft GIS (if applicable) which comply with the standards specified in Attachment "A7", Section C Project Requirements, item #2. The PDF version will be completely assembled into one standalone file, and shall be exactly the same version as the hard copy. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only). The project Sponsor shall be provided a copy of this draft report for their review.

PHASE II

Phase I of the LaPrele Irrigation District Rehabilitation Level II Study identified rockfall hazards at the LaPrele Dam under the original project scope and evaluated the structural integrity of the dam itself under Amendment One. Based on findings of the Phase I work, a water surface elevation restriction of 5475 feet was placed on the reservoir. The engineering conclusion determined that LaPrele Dam is reaching or has reached the end of its useful life in its current condition. Phase II of the Rehabilitation Level II Study will address the Phase I recommendation to investigate options for replacing or performing major rehabilitation to the LaPrele Dam. The Phase II work is intended to develop and rank conceptual design alternatives and determine a preferred concept.

Task 1. Project Management, Meetings, and Quality Assurance

Project management, meetings, and quality assurance of the project will be tracked under this task. This will include project progress meetings with the WWDO, the project sponsor, and the Consultant team conducted as necessary for the coordination of project activities and to keep the Sponsor and all affected parties informed of project progress. Informal meetings with the Office project manager, the Consultant and the Sponsor will be necessary over the course of the study. At a minimum, a monthly progress meeting or teleconference will occur between the Consultant and Office project manager.

Outside of daily project management, the Consultant shall provide quality control of all work, including subconsultant work. This type of review will be ongoing and include oversight by company principals or senior engineers knowledgeable of the project work and scope, but not associated with the project on a daily basis. Their review will include a check to see that all work scope items have been properly addressed and completed to the intent of the work scope and contract, and that the work products are technically sound.

Project Initiation Meeting/Teleconference

Pursuant to the execution of this contract, a project initiation teleconference and/or meeting will be scheduled between the WWDO, Sponsor, and Consultant project team management. The initial project meeting/teleconference will serve to identify roles and responsibilities, review schedule, and discuss immediate scope tasks. This project initiation meeting would be held in Douglas, Wyoming or online if necessary. A site visit, which will include the Office project manager, the Sponsor, and the Consultant, will be scheduled as soon as possible. The purpose of this meeting/teleconference and site visit would be to review the scope of services and to tour the site with the conceptual design technical leads, in order to have the firsthand knowledge of the site to evaluate conditions related to the alternatives developed in Task 3 and Task 4. The Consultant shall coordinate with the Office project manager to determine agencies, such as the SEO and USACE, invited to attend the site visit as needed and allowable.

Progress Meetings

Project progress meetings (in-person, teleconference, or online) will be conducted as necessary for the coordination of project activities and to keep the Sponsor and all affected parties informed of project progress. The Consultant should assume three (3) project progress meetings to be conducted in-person, via teleconference, or online. Project progress meeting agendas will be sent prior to the meetings.

Public Meetings

The Consultant should assume a minimum of two public project meetings, as allowable, within the study area. The first of these meetings will be a scoping meeting, held after the Notice to Proceed for this contract amendment, to provide a timely update to the Sponsor and stakeholders. The second public meeting will be the Report Presentation, held after the Consultant has received

comments on the Draft Report from the Sponsor and Office and incorporated any necessary edits. The second public meeting shall also serve as a public hearing, with WWDO personnel serving as the hearing officer. The script for the hearing will be developed by the Office project manager and shall include the question as to whether there is a private entity interested in providing the proposed project functions and services in lieu of the Sponsor. The WWDO is responsible for publishing a legal notice of the meeting in a statewide newspaper, once each week for three (3) weeks prior to the hearing; and in the local publication up to three (3) times prior to the hearing. The Consultant shall also plan to attend a meeting in Casper or Cheyenne to present the results to the Commission if requested by the Office project manager.

The Consultant shall be responsible for setting up and conducting these public meetings in coordination with the WWDO project manager and the Sponsor. The Consultant shall notify the WWDO Project Manager in advance of meetings with the Project Sponsor. No meetings shall be conducted without approval in advance by the Office project manager. Information and materials to be presented at the public meeting shall be developed by the Consultant after consultation with the Office project manager. The Consultant shall be responsible for developing a record of the meeting which shall become an appendix in the final report. The record will include: any formal and/or informal notices; an affidavit of publication from the legal notice (public hearings only) as obtained from the WWDO; any materials presented or handed out at the meeting; a record of attendance; any written comments, statements, or exhibits received; recorded testimony, or a memorandum summarizing the views and comments presented at the meeting; and other pertinent data. The Consultant shall coordinate with the Office project manager in planning for the presentations to ensure adherence to WWDO established policies and guidelines.

Project Management Plan

The Consultant shall develop a program management plan (Plan). The purpose of the Plan is to provide a single document with relevant project information including scope, budget, schedule, communication and quality control requirements, and other details required to manage the execution of the planning, permitting, and final level designs, cost estimates, constructability reviews, and schedule for the project. The Plan, once completed and approved, will be accessible to all project team members. The Plan will include a detailed scope of work and schedule through 30% Design and Permitting that are on the critical path. The Plan will also include basic scope and schedule along with other management requirements for communication, documentation, and quality control through 100% Design and Permitting. The Plan will be revised and maintained over the duration of the project, especially to accommodate scope adjustments or other changes related to funding sequence/sources.

Stakeholder Engagement

The consultant shall facilitate additional meetings and stakeholder engagement efforts as directed by, and in coordination with, the Office project manager. These efforts are intended to keep stakeholders informed of project progress and to increase project awareness and understanding. Support form stakeholders will be a key component for any federal funding programs and the environmental permitting process. Stakeholder engagement activities may include the following:

- LID Board Meetings,
- Public/Stakeholder workshops,
- Site tour with Commissioners and Legislators,
- Commission Meetings,
- Other activities as requested by the Office project manager.

The Consultant shall be responsible for setting and conducting these meetings in coordination with the Office project manager and the Sponsor. The Consultant shall prepare all notices, materials, and the meeting record as needed. The Consultant shall notify the Office project manager in advance of any meetings with the Sponsor.

Agency Coordination

It is anticipated that significant coordination with other agencies will be required for this project going forward. Components of the overall LaPrele Dam project may be funded and/or led by agencies other than the Water Development Program in parallel with this Scope of Work. It will be necessary for the Consultant, in coordination with the Office project Manager, to communicate with any other agencies that get involved to develop Cooperating Agreements and/or Memorandums of Understanding, share project information, and coordinate different project tasks.

This coordination will be especially important regarding the environmental compliance process. The Consultant will develop an agency communication plan which summarizes the input needed for each regulatory agency, proposed contact point, and records documentation of decisions or direction. The communication plan will include major state and federal agencies as part of the environmental compliance efforts.

Task 2. Information Review and Supporting Analysis

Background information was reviewed in the initial stages of this project, including available bedrock and surface geology, and past reports on the dam and reservoir. This information has been summarized in previous technical memos which will be included in the final project notebook for this project. For this task the Consultant shall review, analyze, and summarize additional information not previously summarized for this project. The Consultant will also work with the Sponsor and the Office project manager to review pertinent data and information from the Level I Study and update as necessary.

Water Rights

The Consultant will review and summarize the status of the Sponsor's source and storage water rights associated with the LaPrele Dam and Reservoir. Adjudicated water rights information from the Level I Study will be reviewed, updated, and compiled using the SEO's e-Permit database and/or Tabulation of Adjudicated Water Rights book (TAB book). The Consultant will account for water rights during estimation of the basin runoff

volume production included in Task 3.4.

The Consultant will coordinate with the Office project manager and SEO to determine any necessary changes to existing water rights resulting from the preliminary alternatives such as suspended use, rehabilitation, and/or relocation under Wyoming water law. The Consultant will identify requirements of the Modified North Platte River Decree, 2001 and the Platte River Recovery Implementation Program pertaining to the identified preliminary alternatives and consult with the SEO regarding compliance.

Permitting

The Consultant shall review and describe requirements of applicable state and federal permits and clearances that may be necessary for the preliminary alternatives. Permits and clearances to review shall include, but not be limited to, those that fall within the jurisdiction of the National Environmental Policy Act (NEPA), Clean Water Act, Endangered Species Act, Historic Preservation Act, 1964 Wilderness Act, the Fish and Wildlife Coordination Act, the Wyoming State Engineer's Office, the Wyoming Department of Environmental Quality, the State Lands and Investments Board, United States Fish and Wildlife Service, and the Bureau of Land Management or any other agency with jurisdiction that may affect the construction of a project. The Consultant shall identify agency consultations, approximate timelines, and estimate the levels of effort needed to secure the permits for preliminary alternatives and future phases of this project; however, this does not include the permit preparation for any preferred alternative selected by the WWDC and the Sponsor.

Economic Analysis

The Consultant shall conduct an economic and financial analysis for the identified preliminary alternatives developed for this study. This analysis is intended to provide preliminary economic information regarding the cost and benefits to Wyoming and the Sponsor. A benefit-cost analysis would measure benefits and costs of the preliminary alternatives in terms of its equivalent money value to determine if an alternative will be economical for the Sponsor and beneficial to the public. The analysis should include an estimate of direct and indirect benefits as well as benefits to the State, the Sponsor, and to the public interest.

The Consultant will also provide an ability to pay analysis which shall determine conditions and level of funding necessary for the preliminary alternatives. The Consultant shall estimate the economic impacts to water users for preliminary alternatives identified during this study, which may include but are not limited to planning, construction, operation, maintenance, and replacement costs and other pertinent information that could be used to develop a financing plan. The Consultant shall coordinate with the Sponsor to determine anticipated revenues and expenses once an alternative is constructed. The Consultant will work with the Sponsor and the Office project manager to review the Level I Study economic data, acquire relevant data, and update as necessary. The consultant shall also

evaluate the impact of financing the priority rehabilitation projects identified in the Level I Study along with the preferred dam rehabilitation alternative.

The Consultant shall identify any potential funding sources available to the Sponsor and the specific information needed to make application to local, state, and Federal agencies including application timelines, eligibility criteria, and program requirements. The Consultant shall also identify any specific NEPA and design criteria required by potential funding partners. Potential sources to be evaluated should include, but are not limited to the WWDC, U.S. Department of Agriculture, U.S. Department of the Interior, U.S. Department of Homeland Security, U.S. Army Corps of Engineers, Wyoming DEQ-WQD Clean Water Act Section 319 and other potential state and federal funding sources. The Consultant will provide this information to the Sponsor and the Office for consideration.

The Consultant shall evaluate whether the project is in the public interest, stipulating if the proposed project functions and services can be served by any person, association or corporation engaged in private enterprise, or if private enterprise has refused to provide the functions and services identified as being required by the proposed project. This information shall be included in the draft and final reports for the project.

Task 3. Alternatives Development

The Consultant shall identify, evaluate, and rank alternative concepts in coordination with the WWDO and Sponsor to determine a preferred alternative which mitigates the risk presented by the LaPrele Dam in its current condition, protects the Sponsor's water rights, and maintains or improves operations. Early in the project, the Consultant shall coordinate with the Office project manager and the Sponsor to develop a list of reasonable alternatives with potential to meet the objectives, a set of comparative criteria, and a ranking system.

The Consultant shall perform four key technical evaluations, listed and described below, to understand the feasibility of alternatives and design options. These include:

- Geotechnical Investigation
- Foundation Evaluation
- Structural Analysis
- Hydrology and Hydraulics (H&H) Analysis

As information is gathered and analyzed, the Consultant shall eliminate infeasible or impractical alternatives from the original list to identify a maximum of two alternatives for further analysis in Task 4. Rankings and elimination of alternatives shall be documented in the Conceptual Design Report.

Geotechnical Investigation

The geotechnical investigation will include the following, each described below:

Geologic Mapping

The Consultant shall review existing data and identify gaps in geologic data pertinent to the project. Based on this information, the Consultant shall conduct an onsite investigation at the existing dam site, potential new dam site, and in the project vicinity to map geologic features where needed.

Subsurface Site Investigation

The Consultant shall investigate subsurface conditions at the existing dam site and immediately downstream. This investigation may consist of borings and geophysical surveys. The purpose of the investigation is to collect the information necessary to determine properties of subsurface rock and soil (if soil is present), identify an excavation objective for alternative dam foundations, and evaluate potential subsurface seepage to a level of detail sufficient for developing conceptual designs.

The Consultant shall assume that one or more borings with drilling depths of 50-150 feet each may be needed. If soil is encountered, soil samples will be collected at the direction of the onsite Consultant geologist. Once bedrock is encountered, borings will use appropriate coring techniques and extend to a scheduled depth or as modified by the onsite Consultant geologist.

Borings will be logged by the Consultant geologist with adequate data to evaluate recovery, rock quality designation, lithological changes, discontinuity data for rock mass rating, weathering, and strength profiles.

The Consultant shall assume that water for drilling and boring activities, including abandonment, is available on site. The Consultant shall also assume that boring locations are accessible by a tracked or ATV-type drilling rig and pickup truck with minor earthwork using a rubber tire backhoe. The Consultant shall be responsible for permitting the drilling activities and shall assume that only standard drill permitting is required. All borings will be abandoned by the Consultant according to State of Wyoming regulations.

Laboratory Testing

The Consultant shall conduct tests to evaluate properties of rock encountered during drilling operations. These tests will include density, unconfined compressive strength, tensile strength, and direct shear. If significant depth of soil is encountered during drilling, the Consultant shall evaluate water content, Atterberg limits, and provide sieve analysis. Similar tests may also be needed on potential borrow materials identified during the Construction Materials Assessment field investigation. A testing plan will be developed by the Consultant based on boring observations and samples collected.

Geotechnical Investigation Planning

The Consultant shall advance the process for procuring services for the drilling plan identified in the site characterization program. The Consultant shall develop and advertise a procurement package for the drilling work, coordinate and conduct a pre-bid site visit, and collect proposals from qualified drilling contractors.

The Consultant shall conduct initial planning and coordination for geologic mapping of the canyon wall along the anticipated west abutment of the preferred design option; mapping and initial characterization of the fault along the anticipated east abutment; and the geophysical survey plan identified in the site characterization program. This work includes planning and coordination only, not the mapping and survey work itself.

Foundation Evaluation

If deemed feasible and necessary, the Consultant will conduct geophysical surveys to evaluate the depth to bedrock and strength profile using a seismic refraction survey. The geophysical survey would need to be correlated to borings for improved data accuracy.

Based on the data gathered under previous tasks and the geophysical survey, if conducted, the Consultant will evaluate the existing dam foundation condition and risks as well as the foundation conditions for alternative concepts. Evaluations of the foundation will be based on information collected in the Geotechnical Investigation task and will include:

- Kinematic analysis of moveable blocks in the abutments of both the existing dam and the potential new dam,
- Erodibility index of bedrock beneath the channel,
- Development of geotechnical foundation properties,
- Initial identification of a suitable excavation objective (excavation surface) on which the various alternative would be built,
- Seepage analysis through open joints in the foundation, and required foundation treatments including grouting.

Structural Analysis

The Consultant shall develop basic structural designs and dimensions for alternative concepts not eliminated through the Geotechnical Investigation and Foundation Evaluation tasks. The Consultant shall evaluate structural stability of these alternative concepts, including resistance to sliding and overturning and seismic stability. The Consultant will perform other evaluations and checks, or develop other design related information as needed for the Alternative Cost and Constructability task. These evaluations will follow applicable USACE standards, and will provide the basis to estimate the required strength and other engineering properties of the structures.

The Consultant shall develop preliminary sizing of ancillary structures such as outlet works, auxiliary spillway, and stilling basin/energy dissipation structures to inform the cost and schedule.

Sizing of these structures will be guided by the Hydrology and Hydraulics Analysis task.

Hydrology and Hydraulics (H&H) Analysis

The Consultant shall characterize the catchment basin hydrology above the dam and develop design flood events. The Consultant shall use design flood events to evaluate performance of the existing dam relative to applicable requirements and to guide conceptual designs for alternatives. This work shall be subject to review and approval by the Wyoming SEO, and the Consultant shall also consider analysis and design requirements of potential funding agencies.

Hydrologic Assessment

The Consultant shall review existing hydrologic data, including past reports and historic streamflow, and evaluate the basin runoff volume production above the reservoir. The Consultant shall perform a flood hydrology study for the watershed in accordance with current Wyoming Dam Safety guidelines as deemed appropriate to determine high-frequency (up to 100-year recurrent events) hydrology and develop design flood events. The Consultant shall incorporate the State of Wyoming PMP Evaluation GIS Tool to develop the PMF.

Spillway and Outlet Works Hydraulic Analysis and Conceptual Design

The Consultant shall evaluate the flood routing performance of the existing auxiliary spillway and outlet works in accordance with current Wyoming Dam Safety guidelines. The Consultant shall estimate the potential reduction to reservoir storage due to sedimentation and update bathymetry accordingly for reservoir routing modeling. The Consultant shall identify freeboard for design flood events, the threshold flood for which overtopping of the dam initiates, and the maximum depth and duration of overtopping flows during the PMF. The Consultant shall also evaluate performance of the existing dam for irrigation operations and meeting drawdown requirements for safety. The Consultant shall identify limitations to dam operations caused by features downstream. The Consultant shall identify deficiencies of the existing auxiliary spillway and outlet works that must be overcome by any potential alternatives to rehabilitate the dam in-place.

The Consultant shall perform evaluations of flood routing, irrigation operations, and drawdown to guide development of alternative concepts in accordance with current Wyoming Dam Safety guidelines, needs of the Sponsor, and requirements of potential funding agencies.

Analysis of Construction Floods

The Consultant shall coordinate with the Office project manager, the Sponsor, and the SEO to develop the likely conditions and limitations for the existing dam and reservoir during construction, including a maintained water surface elevation (WSE) and maximum WSE. The Consultant shall evaluate high frequency floods and seasonal flows through the

reservoir during construction conditions to evaluate operational requirements. The analysis will consider construction flow diversion and bypass as well as sequencing, schedule and related construction cost and risk.

Reservoir Survey – Phase 1

The Consultant shall perform a bathymetric survey of the LaPrele Reservoir. The bathymetric survey shall be conducted using a Single Beam Echo Sounder sonar system (or equivalent method) when the reservoir is at or near its maximum water surface elevation during 2021, anticipated to occur during the month of May.

Task 4. Alternative Cost and Constructability

The Consultant shall develop cost estimates and assess constructability for the conceptual design alternatives remaining after Task 3 is completed, which shall be no more than two. Results of the cost and constructability assessment and evaluation will be included in the Conceptual Design Report to be prepared under Task 5.

The Consultant shall identify potential borrow sites near the project area based on desktop review and existing data for construction materials such as RCC and conventional concrete aggregate, filter and drain materials, rip rap and bedding, or roadway materials. The Consultant shall evaluate potential borrow sites during the site visit through the assessment of exposed quarry of other colluvial/alluvial aggregate; no test pits are included in the field investigation. The Consultant may also identify commercial sources as needed, through the evaluation of regional commercial quarries or pits that may have been used in the past.

The Consultant shall prepare preliminary construction cost estimates and life cycle cost analyses based on the conceptual design drawings for each of the remaining alternatives. This task will involve calculating material and work quantities and estimating construction costs for the proposed construction and preparing an engineer's Opinion of Probable Project Costs (OPPC) based on local material supplier price data, experienced judgment, data from R.S. Means' Heavy Construction Cost Data, other industry standard sources, and price data developed by the Consultant for previous design/construction projects. The level of accuracy of the cost estimates is expected to be in the range of an AACE Class 5 and for screening purposes only.

In addition to construction costs, the Consultant shall prepare and include a draft set of itemized project "non-contract" costs such as studies, design engineering, permitting, mitigation, land acquisition, legal, access, right of ways, operation, maintenance and replacement, and financing. In addition, the Consultant shall estimate costs for water management during and after construction. The estimate will include unit and lump sum prices of the required construction items. The cost estimate will include estimated overhead, profit, taxes, and fees for cost allowances. The Consultant shall prepare the OPPC in the WWDC Level III format found in Attachment A7, C.3.

The OPPC should be based on an estimated mid-point of construction. The Consultant will propose

and work with the Office project manager to select an appropriate inflation factor that will be applied to the project's current year total cost and projected into the future per the schedule of activities and time-lines developed herein.

The OPPC and related AACE Class 5 work will be refined for the preliminary preferred alternative by developing a Work Breakdown Structure (WBS) and taking some aspects of the estimate to a resource and productivity-based estimate. This WBS will be included in the final technical memo for this task.

Task 5. Site Characterization

In order to advance the design of the preferred design option for LaPrele Dam, a significant amount of site characterization is needed. This work is expected to be completed in multiple phases, such that the information from one may be used to inform the requirements of the next. The following subtasks identify the work to be completed for Phase 1.

A Geotechnical Data Report will be developed to present the results of this task and will include methodology, geologic cross sections, boring logs, figures, evaluation results and recommendations for subsequent phases.

Field Geologic Mapping

Geologic mapping will be completed in the field to further understand the west canyon wall downstream from LaPrele Dam, representing the potential left abutment of the preferred design option. The bedrock above the upper left abutment is not accessible by foot and will require rope access to achieve adequate detailed mapping, data collection and to scout possibilities for a needed Phase 2 boring location that would have extremely difficult access. This investigation will require a SPRAT level 3 certified person on site to complete the job hazard analysis, access plan, rescue plan and set rigging for the geologists.

There is an inactive fault running through the east canyon wall where the potential right abutment of the preferred design option would be located. Existing published maps do not provide adequate detail of this inactive fault and are incongruent with preliminary observations of the bedrock outcrops along the LaPrele Creek valley. The Consultant will investigate the fault to better locate and understand its characteristics.

The field mapping will also include investigation of potential construction material sources near the project site for use as aggregate and/or riprap. Samples will be collected for preliminary qualification and if deemed suitable, these sources may be further investigated in later phases of work.

Geophysical Survey

The consultant shall conduct geophysical surveys of the potential footprint of the preferred design option for LaPrele Dam to evaluate the depth to bedrock and strength profile using a seismic

refraction survey. The geophysical survey shall be correlated to borings when possible for improved data accuracy. The geophysical surveys will enable development of an accurate geological model of the site and advancement of the preferred design option. Up to six seismic refraction lines may be required, including within the LaPrele Creek channel. The geophysical survey must be performed when irrigation releases from the dam have been shut off.

Drilling and Downhole Surveys

The Consultant shall procure services for drilling up to nine boreholes for this phase of site characterization, including up to 1,800 feet of drilling. Up to eight boreholes will be drilled to characterize the potential foundation of the preferred design option for LaPrele Dam, and up to four of these will be located within the LaPrele Creek channel. One borehole will be drilled about a quarter mile downstream from the existing dam to evaluate the suitability of the Casper Formation sandstone as a potential aggregate material.

If soil is encountered, soil samples will be collected at the direction of the onsite Consultant geologist. Once bedrock is encountered, borings will use appropriate coring techniques and extend to a scheduled depth or as modified by the onsite Consultant geologist. Borings will be logged by the Consultant geologist with adequate data to evaluate recovery, rock quality designation, lithological changes, discontinuity data for rock mass rating, weathering, and strength profiles.

The Consultant shall assume that water for drilling and boring activities, including abandonment, is available on site. The Consultant shall also assume that boring locations are accessible by a tracked or ATV-type drilling rig, but access will require minor earthwork. The Consultant shall be responsible for permitting the drilling activities and shall assume that only standard drill permitting is required. All borings will be abandoned by the Consultant according to State of Wyoming regulations.

All of the boreholes shall be cored and logged. Up to eight of the boreholes used to characterize the potential foundation of the preferred design option will have water pressure testing conducted and will be surveyed by acoustic and/or optical televiewer, and up to seven will also be surveyed with sonic suspension logging.

Lab Testing

The Consultant shall conduct tests to evaluate properties of rock encountered during drilling operations. These tests will include density, unconfined compressive strength, tensile strength, and direct shear. If significant depth of soil is encountered during drilling, the Consultant shall evaluate water content, Atterberg limits, and provide sieve analysis. Similar tests will also be needed on potential borrow materials identified during the Field Geologic Mapping. A testing plan will be developed by the Consultant based on boring observations and samples collected.

Reservoir Survey – Phase 2

The Consultant shall perform a topographic survey around the LaPrele Reservoir to supplement

the bathymetric survey identified in Task 3. Appropriate survey technologies could include ground-based topographic surveys, unmanned drone with LiDAR, or other technologies that produce a 3D point cloud such as photogrammetry. The survey shall include sufficient data for creating a shoreline surface to combine with the bathymetric survey for use in estimating volume of the reservoir below the emergency spillway elevation. This data shall be post-processed into a format compatible with typical GIS software. The survey shall be conducted when the reservoir is at or near its minimum water surface elevation during 2021, anticipated to occur during the month of August.

Task 6. Design Advancement

The Consultant shall advance the preferred design option for LaPrele Dam using information both existing and to be collected during the Site Characterization task. This work may require early design iterations; as work progresses, the Consultant shall communicate with the Office project manager and document decisions regarding design criteria. A number of design decisions are anticipated that will be documented in a decision log. Meeting note distribution and the decision log will be used to verify that the decisions are fully understood and agreed to by all parties. The decision log will be included in the final project notebook. The Consultant shall produce design information and plan set documents on the order of a 10 percent design.

Basis of Design and Design Standards

At this point in the project, it is uncertain which federal agency will lead the project and determine the standards for design. The Consultant shall identify the design requirements of agencies that are most likely to lead the project and note significant differences between agencies. Designs may advance where different agency requirements agree, but the Consultant shall coordinate with the Office project manager regarding significant discrepancies to potentially advance using the most stringent. It will be important to identify the appropriate design criteria as early as possible to prevent backtracking once the lead federal agency is determined. Design requirements will also be determined by site conditions, and shall be updated as needed using information developed in the Site Characterization task.

Hydrologic Routing Analysis and Hydraulic Design

The Consultant shall advance the hydraulic structure designs for the preferred option. The Consultant shall 1) incorporate updated site hazards, design criteria, and site characterization information, 2) confirm spillway and outlet works capacity by routing several design flood events and typical conservation storage release schedules through the reservoir, and 3) advance the configuration optimization in order to achieve the desired level of conceptual cost estimating accuracy, provide appropriate information into the environmental compliance process, and set the configuration of these structures in a manner that is suitable for initiation of final design. The following subtasks will be completed to support advancing the design of the hydraulic structures:

Spillway

The spillway design will be updated based on reservoir routing of a PMF inflow hydrograph, and at least two additional spillway outflow events that would occur more frequently. The more frequent spillway flow events provide design parameters for a structural energy dissipation structure, while the PMF event analysis evaluates overall dam stability and integrity in an extreme event. Alternative spillway locations will be considered based on site characterization results, constructability, and construction risk considerations. Energy dissipator design analysis will include more frequent events as well as extreme events in order to determine the most economical spillway terminal structure for the anticipated flow frequency and magnitude. Tailwater levels will be determined by means of simplified one-dimensional modeling of the downstream channel and floodplain.

Outlet Works

The outlet works system for the preferred design option will include provisions for construction diversion, flood operations, normal reservoir releases for water supply and environmental purposes. The location of the outlet works system will be evaluated based on the results of site characterization work and the terminal spillway structure configuration selected. If appropriate, configurations at the base of both the right and left abutments will be developed and evaluated to identify the preferred location from a cost, accessibility, constructability and construction risk standpoint.

The Consultant shall consider the LaPrele Irrigation District's needs and capabilities in the conceptual design configurations for the outlet system. These considerations shall include the potential for remote operation, and the likely need for simplicity and long-term operational reliability without manual intervention, given the remote location of the dam.

Construction Diversion

The Consultant shall consider construction diversion of normal reservoir releases from the existing dam, and flood flows from the existing reservoir in the conceptual design of the new dam. Routing effects through the existing reservoir provide an important risk management benefit to the new dam site and limit the required construction diversion. A construction diversion capacity will be developed to provide an estimated level of protection in excess of a 50-year event with consideration for the condition of the existing dam as part of the construction risk and avoid compromising the existing water level restrictions to the extent possible.

Under this task, construction diversion requirements will be developed to a conceptual level of design and the Consultant shall include input and discussions with appropriate Regulatory personnel (e.g. SEO) to verify that such floods would meet appropriate construction risk management requirements. Once the required diversion capacity is identified, the diversion and flood control outlet configuration will be developed.

Foundation Design

Using concepts from the Preliminary Alternatives Assessment along with results from the Site Characterization task, the Consultant shall perform conceptual level analyses and update design requirements for the following components of the preferred design option for LaPrele Dam:

- Excavation Objectives
- Foundation Treatment Requirements
- Dewatering Design
- Excavation Stability and Design
- Abutment Foundation Stability

Structural Analysis Model

The Consultant shall prepare a representative 2D structural analysis model that incorporates appropriate information from the Site Characterization task. The Consultant shall develop and evaluate the model, including engineering properties for the dam and foundation to be used in structural modeling. The Consultant shall incorporate allowance for modeling non-linear material properties at the foundation and dam contact. This task includes model development only; the structural analysis for feasibility design and optimization will be completed in future project phases.

Civil Site Works

The Consultant shall develop conceptual level designs for additional infrastructure focused on the civil site works for the project area. This will include road redesign/realignment near the dam site where not previously addressed by the Sponsor. Results of the Site Characterization task will be used to refine the alignment, if needed. The bridge requirements across LaPrele Creek will also be evaluated and suitable concepts will be identified.

Plan Set – 10 Percent

The Consultant shall produce a 10 percent level plan set presenting the site layout, dam plan view, sections of the dam, spillway and outlet works concepts, road alignments, construction staging areas and other appropriate conceptual design details. These drawings will be preliminary and will be updated in the next phase of design.

Construction Materials Evaluation

The Consultant shall use information collected and developed under the Site Characterization task to conduct a construction materials source evaluation. The Consultant shall develop recommendations and conceptual design guidance for the following materials:

- Roller Compacted Concrete (RCC) aggregate
- RCC cementitious materials and additives
- RCC mix evaluation program
- Conventional concrete

Return to Agenda

- Riprap
- Roadway materials

Cost and Constructability

The Consultant shall refine previously developed cost estimates and constructability assessment for the preferred design option for LaPrele Dam, based on design and analysis performed for each of the design components in this task

Task 7. Discretionary Task

The Consultant shall place $150,000 in this discretionary task. The task is to allow for unforeseen changes in scope of work, or anticipated budget, or as new issues are discovered as the project develops. The Consultant and Office project manager will agree on any work to be accomplished under this task and the cost of the work. No work will be initiated, or funds spent for this task, without direct approval from the Office project manager.

Task 8. Conceptual Design Report

The Consultant shall prepare a draft Conceptual Design Report describing and summarizing project work. The Consultant shall include conceptual design figures to aid in describing the configuration, components of work, and the evaluation of alternative technical and financial viability. The conceptual design figures shall include development of all primary anticipated project components including existing site conditions, a plan view, section and details for the main dam, spillway, and outlet works along with other construction details (e.g. – limits of construction, staging areas, etc.). Design drawings may include details related to foundation excavation and treatment or modifications to existing facilities.

The Consultant shall submit to the Office seven (7) hard copies of a draft report describing the results of all work completed through Phase II, no later than June 1, 2022. Seven (7) CD, DVD, or USB drive copies containing the draft report in a text-recognized Adobe Acrobat (pdf) format will also be provided. The PDF version will be completely assembled into one standalone file, and shall be exactly the same version as the hard copy. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only). The project Sponsor shall be provided a copy of this draft report for their review. Further requirements for deliverables shall be found in Phase III Task 6 and will apply to this Task.

PHASE III

Phase II of the LaPrele Irrigation District Rehabilitation, Level II Study addressed the Phase I recommendation to investigate options for replacing or performing major rehabilitation to the LaPrele Dam. After developing and ranking conceptual design options, it was determined that the preferred design option is a new roller compacted concrete (RCC) dam constructed immediately downstream of the existing dam. Phase II work then shifted to further characterizing site conditions and advancing the RCC dam design to appraisal level. Phase III of the Rehabilitation, Level II

Study will continue the site characterization process and provide analysis of the appraisal level RCC dam design to facilitate design refinements in future work.

Task 1. Project Management

Project management activities include directing and managing project work and subconsultants, tracking project financials, maintaining the project schedule, and managing changes to scope, schedule, and budget as needed. The Consultant is responsible for reviewing subconsultant work to provide quality assurance and quality control. The Consultant shall continue advancing the Project Management Plan, Stakeholder Engagement, and Agency Coordination efforts defined in Phase II as needed and directed by the Office Project Manager.

Project Meetings

Project planning and update meetings between the Consultant and WWDO staff (in-person, teleconference, or online) will be conducted as necessary for the coordination of project activities and to keep the Sponsor and all affected parties informed of project progress. At a minimum, a monthly progress meeting or teleconference will occur between the Consultant and Office project manager. The Consultant shall notify the Office project manager in advance of meetings with the Project Sponsor. No meetings shall be conducted without approval in advance by the Office project manager.

Task 2. Site Characterization

This task includes the next phase of site characterization activities, which will build on the data collected and developed in the previous phase. Additional phases of site characterization may be needed beyond this scope in order to finalize the preferred design option.

A Geotechnical Data Report will be developed to present the results of this task and will include methodology, geologic cross sections, boring logs, figures, evaluation results and recommendations for subsequent phases, as needed. The Geotechnical Data Report will not include the Construction Material Testing and Mix Design work, which will be documented separately.

Geophysical Survey

The consultant shall conduct additional geophysical surveys of the potential footprint of the preferred design option for LaPrele Dam to evaluate the depth to bedrock and strength profile using a seismic refraction survey. The consultant shall also conduct geophysical surveys in the area of the proposed upper access road for the preferred design option. The geophysical survey lines shall be correlated to borings when possible for improved data accuracy. The geophysical surveys will enable refinement of the geological model developed in the previous phase and refinement of the preferred design option in future work. Multiple seismic refraction lines will be required, including within the LaPrele Creek channel.

Drilling and Downhole Surveys

The Consultant shall procure services for drilling up to thirteen boreholes for this phase of site characterization, including up to 2,350 feet of drilling. Up to eight boreholes will be focused at the dam site, including up to six boreholes to further characterize the abutments and foundation of the preferred design option for LaPrele Dam, and up to two boreholes to characterize the anticipated spillway plunge pool impact zone.

The other boreholes will be for evaluating potential aggregate material sources for construction. Up to three boreholes will be drilled about a quarter mile downstream from the existing dam to evaluate the suitability of limestone at that location, and up to two additional boreholes will be drilled at a location identified off site to evaluate the suitability of a potential gneiss aggregate source. The boreholes for potential aggregate materials will only be drilled if access permission and applicable permits can be secured. This will be coordinated with the Office project manager.

The Consultant shall assume that water for drilling and boring activities, including abandonment, is available for work at the dam site, but water will likely need to be hauled for the off-site gneiss borings. Two of the dam site boreholes will be located up on the west canyon wall and will require specialized access, likely with helicopter support. The Consultant may assume that all other borehole locations are accessible by a tracked or ATV-type drilling rig, but access up the creek channel will require minor earthwork. The Consultant shall be responsible for permitting the drilling activities and may assume that only standard drill permitting is required. All boreholes will be abandoned by the Consultant according to State of Wyoming regulations.

The Consultant shall core and log all boreholes, and all will have acoustic and/or optical televiewer surveys conducted, including the boreholes for evaluating potential aggregate materials. The six boreholes for characterizing the foundation and abutments will have sonic suspension logging conducted, and five of those, including the two on the west canyon wall, will have water pressure testing conducted.

Foundation Analysis Lab Testing

The Consultant shall conduct tests to evaluate properties of rock encountered during drilling operations for characterization of the foundation and abutments. These tests will include density, unconfined compressive strength, tensile strength, and direct shear. If significant depth of soil is encountered during drilling, the Consultant shall evaluate water content, Atterberg limits, and provide sieve analysis. A testing plan will be developed by the Consultant based on borehole observations and samples collected.

Construction Material Testing and Mix Design

A more rigorous testing program will be required for samples from the potential aggregate materials. The Consultant will qualify the aggregate material properties, then develop and test mixes with these materials to evaluate their suitability for construction, especially as roller compacted concrete aggregate. The testing data will support the Structural Modeling task and

provide the basis for refining cost estimates under future work. Testing of mix designs using commercial aggregate sources will occur under future work. The construction material testing and mix design will be documented separately from the Geotechnical Data Report with a specific technical memorandum.

Task 3. Design Analysis

Work under this task includes analysis of the Appraisal Level design developed in Phase II and will provide the basis for refinements of the design under future work.

Structural Model

The Consultant shall update the structural model developed in Phase II, incorporating data from the Phase II seismic hazard evaluation for a series of initial structural analyses of the current appraisal level dam design. The updated model will be used to evaluate earthquake loadings on the dam and identify conditions that may cause cracking. These evaluations may indicate the need for design revisions, and specific attention will be paid to the potential need to curve the RCC dam alignment. Such a configuration, similar to an arch dam, would transfer seismic loads into the dam abutments. The impact of a curved configuration on the potential for cracking in the dam under earthquake loading will be qualitatively assessed. Curving the section alignment may not only improve dam performance during large earthquakes, but also offer the opportunity for a more efficient, optimized cross section design. Results of the analysis will be documented in a technical memorandum, and any recommended design modifications must be developed to a level sufficient for incorporating into the next task, the physical scale hydraulic model.

Physical Scale Hydraulic Model

The Consultant shall construct a scale model of the appraisal level dam design developed in Phase II, incorporating any necessary modifications identified in the structural model task. The model will include the proposed dam and its hydraulic features, a portion of the surrounding topography, the reservoir upstream, and the stream channel downstream. This scale model will facilitate accurate analysis of the dam's performance under a range of flood conditions and provide a basis for refinements to the appraisal level design.

Initial testing of the physical scale model will include qualitative evaluation of the appraisal level design. If performance does not meet expectations, then the model geometry will be modified to improve performance, and testing will continue until qualitative observations are determined to be satisfactory. Analysis will then proceed with more detailed measurements made across a range of flows to document the plunge pool progression and characteristics and hydraulic loading on the structure. The physical scale hydraulic model will verify the proposed dam, spillway, and overtopping crest design and their flow characteristics; verify the plunge pool and scour limits and their effects; and accurately determine a flow rating curve for the spillway and overtopping shoulders.

The Consultant shall document the modeling results in a model study report, collated from model

data and observations and documenting model performance. Intermediate deliverables may include meeting and witness testing notes, preliminary modeling results summaries, and other material as needed to coordinate the future design refinement work related to the physical modeling and hydraulics.

The Consultant shall also evaluate the need for collecting additional lidar covering the reservoir flood pool, in coordination with the Office project manager. This may be needed to supplement the lidar collected under previous work which was focused on bathymetry of the operating pool for quantifying sedimentation. Lidar covering the flood pool, up to the peak Probable Maximum Flood water surface elevation, would provide for refinement of reservoir routing modeling. If an increase in storage volume is to be considered, the additional flood pool area may need to be included with additional lidar.

Task 4. Environmental Investigations

The Consultant shall initiate environmental investigations and field surveys that will be needed for the future NEPA process, which is not included in this scope. Before planning new work for this task, the Consultant shall coordinate with the Office project manager and the Sponsor to determine the extent of applicable environmental investigations that have already taken place at or near the project site. The Consultant shall integrate and complement previous investigations with the new work, which shall be focused on the area potentially impacted directly by the preferred design option.

The Consultant shall also communicate with appropriate agencies as needed, in coordination with the Office project manager, for guidance on likely NEPA requirements that should be addressed with these investigations. As the design and project plan develop under future work, additional impacted areas such as construction materials source areas may be identified and require expanded environmental investigations.

Biological Resources Surveys

The Consultant shall conduct a field review for habitat for threatened, endangered and candidate species. During the field review, the Consultant shall also survey for any raptor nests within one half mile of the project area. The Consultant shall document the overall habitat assessment in a technical memorandum.

Aquatic Resources Delineation

The Consultant shall conduct a field aquatic resources inventory to confirm the presence and boundaries of wetlands and other waters of the U.S within the study area. The aquatic resources inventory shall conform to the US Army Corps of Engineers (USACE) current methodology. The Consultant shall also conduct a functional assessment of the delineated wetlands and a stream assessment. The results shall be summarized in an aquatic resources inventory report.

Cultural Resources Surveys

The Consultant shall delineate an area of potential effects (APE) based on project parameters and preliminary communications with applicable agencies, generally including areas where ground disturbance or new inundation is anticipated. The Consultant shall conduct an archaeological survey meeting standards of the Wyoming State Historic Preservation Office (WY SHPO) within the APE to identify buildings, structures, and archaeological sites that are listed in or eligible for listing in the National Register of Historic Places (NRHP).

Based on preliminary research, LaPrele Dam has not been previously evaluated for potential eligibility for NRHP listing. Therefore, the Consultant shall conduct fieldwork and reporting to document the LaPrele Dam and any associated features, and provide a recommendation of NRHP eligibility for the resource(s). Additional historic buildings, structures, and archaeological sites may be identified and also require documentation and recommendations of eligibility.

The Consultant shall summarize the results of historic and archaeological surveys in a cultural resources survey report that includes recommendations of NRHP eligibility for identified cultural resources. The report shall be suitable for submittal to the WY SHPO as an attachment to the federal agency Section 106 of the National Historic Preservation Act consultation correspondence at the appropriate time.

Task 5. Discretionary Task

The Consultant shall place $50,600 in this discretionary task. The task is to allow for unforeseen changes in scope of work, or anticipated budget, or as new issues are discovered as the project develops. The Consultant and Office project manager will agree on any work to be accomplished under this task and the cost of the work. No work will be initiated, or funds spent for this task, without direct approval from the Office project manager.

Task 6. Phase III Report

All Task 6 work, not completed by the effective date of Amendment 6, will cease for the remainder of the project or until further Amendments to the Contract affecting this task are approved by the commission.

The Consultant shall submit to the Office seven (7) hard copies of a draft report describing the results of all work completed through Phase III, no later than June 1, 2023. Seven (7) CD, DVD, or USB drive copies containing the draft report in a text-recognized Adobe Acrobat (pdf) format will also be provided. The PDF version will be completely assembled into one standalone file, and shall be exactly the same version as the hard copy. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only). The project Sponsor shall be provided a copy of this draft report for their review.

After incorporation of the Office's and the Sponsor's review comments on the draft report, the Consultant shall submit one (1) final report and one (1) executive summary in hard copy along

with one (1) CD or DVD or USB drive containing the final report and executive summary in a text-recognized Adobe Acrobat (pdf) format to the Office 1 to 2 weeks prior to the final deadline for final comparison purposes. The pdf version shall be completely assembled into one stand-alone file and shall be exactly the same version as the hard copies. Any discrepancies discovered by the Office project manager between the hard copy and electronic copy during this final comparison are the responsibility of the Consultant to correct.

Upon completion of the final quality assurance process by the Office project manager, WRDS will assign an URL for the online posting of the final report and the Consultant shall submit all final documents and materials, to the Office on or before September 1, 2023. These final documents and materials, shall include:

Twelve (12) hard copies of the final report and twelve (12) hard copies of the executive summary. The executive summary shall outline the purpose, findings, recommendations and configuration of the project, and shall include detailed cost estimates. The summary should not exceed ten (10) pages. Any final reports which have been submitted in three-ring notebook format shall have spine labels clearly identifying the project, Consultant and date.

Four (4) CD, DVD, or USB drive copies containing the final report and executive summary in a text-recognized Adobe Acrobat (pdf) format will be provided. The pdf version will be completely assembled into one stand-alone file and shall be exactly the same version as the hard copy. Each CD, DVD, or USB drive shall have a hard copy table of contents attached.

Two (2) CD, DVD, or USB drive copies containing the final report and executive summary in original formats (Word, Excel, etc.) and in a text-recognized Adobe Acrobat (pdf) format. The pdf version will be completely assembled into one stand-alone file. All electronic files shall be exactly the same version as the hard copies. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only).

Three (3) CD, DVD, or USB drive copies of the hydrologic/hydraulic model(s) and all associated files shall be provided if applicable. The files shall create a working model that is fully functional and can be modified. In addition to the above, one (1) electronic copy of the hydraulic model project file and all associated files will be included in the project notebook. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only). One (1) project notebook containing the working files used in this project will be provided. The project notebook files shall include descriptions of the assumptions and methodologies used in the project analysis, and shall include the 2019 LaPrele Dam Buttress Inspection and Analysis, and any products from the LaPrele Irrigation District Rehabilitation Level II (Rockfall Hazard Analysis) that are completed and have not been documented previously in a technical memo or report. The notebook shall be organized in such a way as to allow replication of the steps, calculations, and procedures used by the Consultant to reach the conclusions described in the final report. The preferred format for the project notebook is digital, provided on a CD, DVD, or USB drive. Each CD, DVD, or USB shall be labeled with the project name, contents of the media and date (month and year only). Any project notebooks which have been submitted in three-ring notebook format shall have spine labels clearly identifying the project, Consultant and date.

If any wells are drilled, chip trays or vials of all washed well drilling cuttings shall be submitted along with their documentation.

PHASE IV

Task 1. NEPA Documentation and Environmental Permitting

The U.S. Bureau of Reclamation (USBR) will be the lead federal agency for the National Environmental Policy Act (NEPA) review process on this project, and the U.S. Army Corps of Engineers (USACE) will be a cooperating agency. The level of NEPA analysis anticipated for this project is an Environmental Assessment (EA). The Consultant shall work with USBR and USACE to complete the required NEPA documentation and environmental permitting.

The Consultant shall submit the Draft Environmental Assessment for Federal Agency Review no later than September 1, 2024.

Scoping

Scoping allows the project team to focus the environmental analysis on potential issues for the project and is required by NEPA regulations. Scoping is defined as "an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action." The Consultant shall support the USBR in coordinating with Tribal authorities and permitting agencies to review and refine the requirements of applicable tribal, federal, and state permits and approvals required for the project. As a continuation of previous work, the draft stakeholder list and scoping letters will be finalized and distributed.

Environmental Assessment Development

The project will involve USBR funding and is anticipated to require a permit from USACE. Therefore, the project must comply with the NEPA (42 U.S.C. § 4321 et seq.) prior to USBR approval of the project and commencement of project construction. NEPA requires federal agencies to consider the impacts of their actions on the natural, social, economic, and cultural environment and to disclose those considerations in a public document. Based on information gathered to-date, it is anticipated the project will be evaluated under an EA which would be developed in accordance with 23 CFR Part 771 – Environmental Impact and Related Procedures and other applicable environmental laws. Resources to be considered for detailed evaluation are described in the following subtasks. It is assumed the EA will be developed with one Action Alternative, which may include options for site layout and features, and the No Action Alternative. The following items must be identified, developed, and addressed through this process:

- NEPA Kick Off Meeting
- Purpose and Need Statement
- Alternatives Analysis

- Affected Environment and Environmental Consequences
- Comments and Coordination
- References

Environmental Assessment Document Production

Production of the EA document will include development of the Cover, Title Page, Table of Contents, Acronyms and Abbreviations, and Appendices. Additional efforts include editing, document compilation, development of PDFs, and test printing. A preliminary version of the EA will be prepared for review and initial comment by the LID, WWDO, USBR, and USACE. The Consultant shall address comments and prepare a revised version for LID, WWDO, USBR, and USACE review and final comment. The Consultant will address those final agency comments and prepare a revised version for Legal Sufficiency Review. A final version of the EA will be developed to address legal review comments and will include the Decision Document and the Project Record.

Environmental Assessment Public Involvement

The Consultant shall conduct public involvement activities to assist USBR and USACE in obtaining input from landowners, stakeholders, agencies, and the public about the project in compliance with NEPA. The Consultant shall hold one EA Public Meeting to solicit comments on the EA. The Consultant shall prepare materials to facilitate the meeting, including newspaper advertisement, presentation boards, meeting handouts, sign-in sheets, and comment sheets. The meeting will be an open house style without a formal presentation. The Consultant shall then prepare a Public Meeting Summary that details the scoping process and results, including comments heard at the meeting and a record of comments received during the scoping period.

Environmental Permitting

Under this task, the Consultant shall address the environmental permitting needs for the project. The primary nexus/work will be the Clean Water Act Section 404 Permit (USACE) and the Floodplain Development Permit. These permits require or "trigger" a series of other state and federal reviews and compliance points (e.g., Endangered Species Act, Section 106 of the National Historic Preservation Act, Section 401 Certification, etc.), for which this task includes studies, analyses, and agency coordination to provide necessary information to state and federal agencies for their review and use in developing authorizations.

PHASE V

The Consultant shall advance site characterization and design of the proposed RCC dam to a 30% level. The Consultant may assume that USBR oversight is limited to financial and programmatic input.

Task 1. Project Management

Project management activities include directing and managing project work and subconsultants, tracking project financials, maintaining the project schedule, and managing changes to scope, schedule, and budget as needed. The Consultant is responsible for reviewing subconsultant work to provide quality assurance and quality control.

Kickoff Meeting

The Consultant shall hold an in-person meeting with Office staff shortly after Phase V work is initiated. The purpose of the meeting will be to review scope and schedule; identify key milestones; review needs and expectations for collaborative workshops; and review design concepts.

Project Meetings

Project planning and update meetings between the Consultant, WWDO staff, and the Sponsor (in-person, teleconference, or online) will be conducted as necessary for the coordination of project activities and to keep the Sponsor and all affected parties informed of project progress. At a minimum, a monthly progress meeting or teleconference will occur between the Consultant and Office project manager. Project workshops between the Consultant team, WWDO staff, and relevant stakeholders will be held through Phase V with up to 2 workshops during the 30% design phase. The Consultant shall notify the Office project manager in advance of meetings with the Project Sponsor. No meetings shall be conducted without approval in advance by the Office project manager.

Task 2. Pre-Construction Planning

Pre-Construction planning activities will be ongoing, with the purpose of preparing ancillary items in advance to prevent construction delays. The activities for this task are described below.

Real Estate Services

The Consultant shall provide a direct approach in developing a project corridor and completion of agreements to impacted landowners while maintaining a single/common point of contact. The Consultant shall utilize County courthouse title records and sales data to determine the value of compensation based on design impacts. The Consultant shall perform surveys to establish property line boundaries where needed.

The Consultant shall also develop a market analysis for WWDO review to establish fair market value and just compensation for the impacted landowners. The Consultant shall have a proven understanding of public outreach with landowners and shall present offers as an Agent on behalf of WWDO and/or the Sponsor as appropriate. The Consultant shall provide quality control support for closing and filing of documentation in accordance with County Register of deeds and/or title commitment with local title company. Acquisition shall be conducted in accordance with State of Wyoming and federal funding requirements.

Constructability, Cost, Schedule, and Construction Risk

The Consultant shall advance Constructability, Cost, Schedule, and Construction Risk (CCS&R) assessments as part of the 30% design. Early CCS&R assessment efforts will provide a strong basis for further design criteria development, basis of design engineering analyses, early design document development, project delivery, and pre-construction support.

CCS&R input during the 30% design will set important direction for the project that will be advanced through completion of the 60% and 90% design milestones under future work. Through these assessments, the Consultant shall also evaluate management requirements for existing reservoir sedimentation and provide an initial evaluation of potential methods for removal of the existing dam.

The Consultant shall develop a design level construction work breakdown structure (WBS) early in the 30% design process. The preliminary WBS will help clarify and address work contracts and packaging options, and work tasks to aid design planning, schedule development and understanding, and cost development and understanding. The Consultant shall produce an updated opinion of probable construction cost (OPCC) and estimated construction schedule with the 30% design package.

The Consultant shall develop a draft risk register to identify and classify risks and potential impacts to the project (i.e., construction cost, schedule, safety, and liability). The draft risk register will be developed for design team evaluation and contribution before finalizing to a "working" draft of the register. The risk register will be referenced during key design development, meetings, and workshops, and will be updated as needed to support remaining work.

It is anticipated that a Constructability Review Panel will be assembled for the next stage of work and a formal constructability review will be held early in the 60% design process, after the delivery of the 30% design package.

Reservoir Operations and Operational Risk during Construction

Maintaining reservoir releases will impact construction costs and schedule. Routing reservoir inflows and releases through construction will be necessary and these flow requirements will depend upon inflows, storage operations and restrictions, and environmental and operational water delivery requirements. The Consultant shall identify and evaluate construction risk and reservoir operational constraints and expectations and formulate reservoir operational changes to be imposed during construction, if any are required.

The Consultant shall develop a draft construction diversion plan and design to accommodate anticipated reservoir operations and continuous delivery of flow to the LaPrele Creek channel downstream of the work area. The Consultant shall prepare and hold a reservoir operations and operational workshop with the WWDO, Wyoming State Engineer's Office, the Sponsor, and stakeholders as deemed appropriate by the Office project manager. The Consultant shall develop a draft interim plan for reservoir operations during construction. This plan will address flood water

storage and routing, maintenance of stream flows, and preliminary construction contract and specification considerations. The plan for reservoir operations during construction will be updated as the final design progresses under future work.

Task 3. Site Characterization

This task includes additional data acquisition and analysis for advancing beyond the 30% design level. The data acquisition effort will build on the data collected and developed in previous phases. Additional phases of data acquisition may be needed beyond this scope in order to finalize the preferred design option, however this task is intended to complete drilling activities needed for final design, unless unforeseen conditions are encountered during these task activities.

30% Design Geologic Evaluation

The Consultant shall evaluate all geologic and geotechnical data previously collected under this contract to characterize the geologic conditions at the proposed dam site. The geologic evaluation will provide a better understanding of the potential subsurface conditions that will be encountered in construction, provide foundation material properties, and support geotechnical and structural design of the dam, spillway, stilling basin or energy dissipation structure, outlet works, access roads, and other ancillary facilities associated with the new dam. This work will be used to support development of geologic, geotechnical, and structural models needed through 30% design. The work will include:

- Creation of a 3-D geologic model;
- Interpretation of the inactive fault that has been identified at the ground surface above the right abutment of the existing dam;
- Characterization of the proposed RCC dam foundation conditions including rock mass and bedrock structure characterization.

The Consultant shall develop foundation engineering properties from the results of the above tasks utilizing the rock structure jointing, rock quality designation and rock mass classifications developed from previously collected borehole core samples, geophysical surveys, and laboratory testing results.

Advanced Design Geotechnical Explorations

The Consultant shall perform additional geotechnical explorations to enable final design efforts beyond the design tasks scoped in this amendment. This level of additional exploration is needed in 2023 to keep design on schedule due to field condition constraints and typical lab testing turnaround times.

The Consultant shall procure services for drilling up to 16 boreholes for this phase of site characterization, including up to 2,920 feet of drilling. These borings will be performed at the proposed dam site to support advancing the dam foundation characterization and geologic interpretation beyond a 30% design level under future work. All the borings will receive downhole

surveys before grouting that include televiewer and sonic suspension surveys. Most of the borings will receive water pressure testing during the drilling process to evaluate foundation bedrock hydraulic conductivity to support design of a grout curtain and understand uplift pressures. The program will include up to two (2) borings for further investigating the location of the inactive fault through the site, the location of which will be determined following the fault interpretation task.

It is anticipated that the evaluation of previous geologic information will identify data gaps. Furthermore, to fully interpret the fault it is likely that data gathering from a larger area to gain a full scope of the geology will be required to advance the understanding of the fault. Up to 3 days of geologic mapping, conducted by up to 3 geologists, will be included in the dam site explorations to gather data to be used during the final design geologic characterization.

A Geotechnical Data Report will be developed to present the results of this task and will include methodology, geologic cross sections, boring logs, figures, evaluation results and recommendations for subsequent phases, as needed.

Foundation Analysis Lab Testing

The Consultant shall conduct tests to evaluate properties of rock encountered during drilling operations for characterization of the foundation and abutments. These tests will include density, unconfined compressive strength, tensile strength, and direct shear. If significant depth of soil is encountered during drilling, the Consultant shall evaluate water content, Atterberg limits, and provide sieve analysis. A testing plan will be developed by the Consultant based on borehole observations and samples collected.

Geophysical Survey

The Consultant shall conduct additional geophysical surveys in the area of the new dam crest access road downstream of the right abutment to evaluate the depth to bedrock and strength profile using seismic refraction. The geophysical surveys will enable refinement of the conceptual geological model and refinement of the location and design of the new dam crest access road. Multiple seismic refraction lines may be required.

Additional Construction Materials Evaluations

Additional construction materials evaluations may be needed for the 30% design effort, depending on the results of the ongoing Phase III work. This effort would build upon the previous material sourcing studies, testing, and evaluation work and result in source definitions and requirements to be included in basis of design engineering analyses.

Reservoir Temperature Survey

This task shall not be initiated without formal written approval from the Office Project Manager.

The Consultant shall design and install a reservoir temperature monitoring system in the existing reservoir. This system will begin recording reservoir underwater and ambient temperature needed for structural thermal analysis in subsequent design phases. It is unlikely the data will be available for 30% design, but thermal models can be calibrated in 60% or 90% design efforts.

Surveying

Additional survey of key topographic and geologic features will be collected as needed for structural and geologic modeling and site civil design.

Task 4. Design Advancement

The Consultant shall continue the engineering effort associated with 30% dam design from multiple disciplines including hydrologic, hydraulic, foundation, site civil, and structural. This includes design of such items as the spillway crest, chute, and terminal structure design, outlet works system and flow control valve house configuration. The Consultant shall use the results of the physical scale hydraulic modeling to define hydraulic performance and obtain quantitative hydraulic loading conditions to determine structural requirements for the flip bucket terminal structure, spillway and overtopping shoulder flow nappe training and containment walls, dam toe protection and plunge pool scour estimates. Structural parameters determined will include the cross-section properties of the dam appurtenant structural features such as spillway features, training walls, intake tower, outlet works flow control structure, and return conveyance to route release flows back to the LaPrele Creek channel downstream of the dam.

Hydraulic Analysis and Design

The Consultant shall refine desktop and numerical hydraulic modeling/analyses to characterize in more detail the hydraulic data obtained from the previously accomplished physical scale hydraulic modeling. The scale model provided visual confirmation and specific direct measurements of flow characteristics and parameters for the preferred spillway design, flip bucket design, and plunge pool behavior. Quantitative data obtained from the scale model will then be input into more detailed desktop and numerical analysis tools to define the appropriate hydraulic design loads for the hydraulic structures of the spillway and associated features.

The Consultant shall retain the physical scale model for additional data collection and additional design refinement testing as needed to support the 30% design effort. The outlet works release facilities were not incorporated into the Phase III physical scale modeling scope, and their design will be included in this task.

Preliminary analysis conducted previously provided estimated spillway flows and have been used to route various flood events through the spillway structure. The Consultant shall use the final spillway design discharge rating curve developed from the physical scale modeling to refine the routing analyses as part of this task to evaluate the PMF outflow and other flood events.

This work will include:

- Reservoir Wave Runup Analysis
- Spillway Hydraulic Design
- Spillway Energy Dissipator Hydraulic Design
- Outlet Works Hydraulic Design
- Spillway Design Flood Hydrology Updates

Geologic and Geotechnical Engineering

The Consultant shall complete 30% design of the dam foundation and abutments and support the structural design of the dam, spillway and outlet works under this subtask. Data from the 30% design geologic evaluation will provide the starting point for analyses and modeling of the dam foundation to serve as the basis for development of a design summary report, cost estimate and schedule development, and constructability reviews.

This work will include:

- Foundation Excavation Objective
- Excavation Slope and Foundation/Abutment Stability
- Foundation Treatments
- Seepage Design

The Consultant will prepare a geological design report that summarizes results of this task as well as the 30% design geologic evaluation. The report will include subsurface interpretations and design implications based on the geologic/geotechnical data reports developed under previous work.

Site Civil Design

The Consultant shall develop the configuration requirements of all major site civil features of the project. This work includes demonstrating physical and functional integration of those features with other project features and providing input/requirements on site civil components of the work into the development of construction contract documents including drawings, specifications, and design summary reports.

Design and development of site civil features includes:

- construction and permanent access needs evaluation,
- construction disturbance limits,
- permanent site access roads, bridges and culverts,
- construction and permanent power supply and utility services,
- grading and site fills for the outlet works discharge buildings,
- temporary and permanent drainage systems,
- construction access, work area access, and plant and staging area development and

restoration,
- stockpiling, reuse, or disposal of excess excavated materials including restoration of disturbed areas, and
- site safety and security provisions including fencing, gates. etc.

The requirements for these items will be developed and documented under this task and will be integrated with constructability considerations.

Structural Engineering and Design

The Consultant shall update structural analyses and designs to the 30% level, addressing the updated plan and cross-section configuration of the dam developed in Phase III, including the spillway, non-overflow portions of the dam between the spillway and abutments, and outlet works. The designs and analyses will incorporate revised foundation material properties arising from the recent geotechnical investigations, as well as modifications to the dam geometry/alignment.

The structural and engineering design will include the following elements, consistent with a 30% design level:

- 2D Stability Analysis
- 2D Finite Element Modeling
- Thermal Analysis
- Hydraulic Structures Design
- Existing Dam Removal

30% Design Package

The Consultant shall produce the 30% design package, including drawings that illustrate the project configuration and serve as the basis for estimating project costs for that level of design, as well as a list of specifications. The Consultant shall submit the Draft 30% Design Package to the Office no later than January 15, 2024.

Site Civil Works Models

Digital Terrain Models (DTMs) will be developed in support of the 30% design. DTMs will be developed for various phases of work and may include existing conditions utilizing topographic information. This DTM will serve as the basis to layout site features, for development of earthwork quantities, and for generation of topography. A DTM will be prepared depicting existing conditions with required excavations. This DTM will consolidate existing topographic information with required excavations for various site features and support development of excavation quantities. Another DTM will be prepared depicting existing conditions and new site features (such as the dam, spillway, and access roads). This DTM will consolidate existing topographic information and site features into one seamless model (i.e., finished grade model), and will support development of quantities and be used as basis for development of the 30% Drawings. Development of DTMs will be dependent on the results of supporting tasks identifying the

locations and limits of the foundation and abutment excavation requirements, treatments, dam, spillway, outlet works, site roadways, and bridge requirements.

30% Design Drawings

The Consultant shall prepare 30% level design drawings based on and coordinated with the 3D geologic, structural, and DTM models. Existing topography of the dam and reservoir area will be used to develop the drawings. Design drawings will be prepared to the 30% (feasibility) design level and will meet industry standards, depicting the layouts, alignments, and elevations of major site features and provide a basis for development of designs beyond 30%.

Task 5. 30% Design Reports

The Consultant shall document the 30% advancement of Design Criteria and Basis of Design as separate reports, which will be updated under future work as design advances to final. The Consultant shall submit these draft reports to the Office no later than April 1, 2024.

Design Criteria Updates

An initial Design Criteria Report for the new RCC dam was published in May 2018. Under this subtask, the previously developed Design Criteria Report will be updated and used to guide final design activities for each project element.

Basis of Design Report

The Basis of Design Report will document the engineering analyses necessary through 30% design (based on the established design criteria) and the basic location and configuration of features that will be used to establish the drawings through the milestone completion level (30% design).

SMALL WATER PROGRAM PROJECT AMENDMENT

Return to Agenda

THE STATE OF WYOMING
Water Development Office
6920 YELLOWTAIL ROAD TELEPHONE: (307) 777-7626 CHEYENNE, WY 82002

MEMORANDUM

DATE: May 11, 2023

TO: Wyoming Water Development Commission

FROM: Jodie Pavlica, Small Water Projects Program Manager

SUBJECT: Amendment Three to the Lower Snake River Ranch Bank Stabilization & Fish Habitat Project Agreement

The Teton Conservation District is requesting a one-year time extension for the Lower Snake River Ranch Bank Stabilization & Fish Habitat Project. The District has provided the following information to support the extension request:

"The timeline for the project was initially delayed due to uncertainties around the COVID pandemic, which resulted in the timeline for the design and engineering work, and associated permitting and grant fundraising timelines, to take much longer than expected. Project partners now have final designs, USACE permitting, and NEPA completed as well as have raised a significant amount of funding for the project. We are planning to put the project out to bid in early March and have a contractor in place to implement the project in September, October, or November of 2023. We have also made progress on materials sourcing. An amendment by WWDC and TCD to extend the funding would be invaluable to the project as the material costs are expected to be quite high, our budget is lean, and the timing to resubmit a new request for WWDC funding would not work with our construction timeline."

Project Description:

The Lower Snake River Ranch Bank Stabilization and Fish Habitat Project area is located on the Snake River Ranch's property along the Snake River, approximately 8 miles downstream of the Town of Wilson, WY, and near Munger Mountain. The pasture adjacent to the Snake River at this location is used for cattle grazing, and although there is currently riparian fencing installed along the bank, there is little to no woody riparian vegetation established. The pasture has experienced significant bank erosion and land loss at this location, downstream of the river-right terminus of the Snake River levee, which demonstrates the river's highly variable range of flows and geomorphic dynamism. From 2009-2017, approximately 180 feet of bank and irrigated pastureland were lost, or about 22.5 ft/year. Currently, this eroded bank is not along the main channel of the Snake River, however, as recently as the summer of 2017, the main channel was along this bank and accelerated rates of bank erosion were observed. There is about 1,000 feet of exposed, vertical, actively eroding banks along the Snake River, and an additional 2,000 feet of eroding banks in a smaller side channel of the Snake River behind a vegetated island (which includes a small portion of public land). Protecting these banks by adding length to the Snake River levee is not allowed

Return to Agenda

by the U.S. Army Corps of Engineers at this site. In addition, there is very little cover or rearing habitat for Snake River cutthroat trout in this section of the river.

Trout Unlimited, the Snake River Ranch, and the Wyoming Game and Fish Department (WGFD) are collaborating on this project to address bank erosion, land loss, and lack of quality fish habitat within the project area. Project partners will select a design consultant with extensive experience in designing bank stabilization treatments in large (>30,000 cfs peak flow) rivers with dynamic stream types (braided or anastomosing) such as the Snake River to ensure that the selected bank treatments have been modeled to withstand a wide range of flows and forces, and are expected to remain robust over time.

Project goals include:

1: Stabilizing banks in the project area using bioengineering techniques to minimize land loss and reduce downstream sediment contributions.

2: Improving local habitat conditions for all life stages of Snake River cutthroat trout and other native fish in the project area by addressing bank erosion and a lack of in-stream/overhead cover and slower backwater areas.

3: Showcasing the benefits and effectiveness of bioengineering techniques for bank stabilization and fisheries along a highly-visible reach of the Snake River.

AMENDMENT THREE TO PROJECT AGREEMENT MSC NO. 05SC0298490 LOWER SNAKE RIVER RANCH BANK STABILIZATION & FISH HABITAT PROJECT BETWEEN WYOMING WATER DEVELOPMENT COMMISSION AND TETON CONSERVATION DISTRICT

1. **Parties.** This Amendment is made and entered into by and between the Wyoming Water Development Commission [Commission], whose address is: 6920 Yellowtail Road, Cheyenne, Wyoming 82002; and the Teton Conservation District, Teton County, Wyoming, a duly organized conservation district existing under the laws of that state [Sponsor], whose address is: 420 W. Pearl Ave, PO Box 1070, Jackson, WY 83001.

2. **Purpose of Amendment.** This Amendment shall constitute the third amendment to the Agreement between the Commission and the Sponsor. The purpose of this Amendment is to extend the term of the Agreement through December 31, 2024.

The original Agreement, dated May 29, 2020 authorized the design and construction of the Lower Snake River Ranch Bank Stabilization & Fish Habitat Project and all appurtenances necessary to make the project complete and function in the manner intended.

Amendment One, dated July 21, 2021 updated submittal requirements for distribution of funds in keeping with recent statutory changes as relates to the affidavit of publication documenting final settlement.

Amendment Two, dated September 23, 2021, extended the term of the Agreement through December 31, 2023.

3. **Term of the Amendment.** This Amendment shall commence upon the date the last required signature is affixed hereto (Effective Date), and shall remain in full force and effect through the term of the Agreement, as amended, unless terminated at an earlier date pursuant to the provisions of the Agreement, or pursuant to federal or state statute, rule or regulation.

4. **Amendments.** The third sentence of Section 4(D) of the original Agreement is hereby amended to read as follows:

"The Sponsor shall complete the PROJECT no later than **December 31, 2024** and shall have settled all claims and paid all project expenses by said date."

5. **Amended Responsibilities of the Sponsor.**

Responsibilities of the Sponsor have not changed.

6. Amended Responsibilities of the Commission.

Responsibilities of the Commission have not changed.

7. Special Provisions.

A. Same Terms and Conditions. With the exception of items explicitly delineated in this Amendment, all terms and conditions of the original Agreement, and any previous amendments, between the Commission and the Sponsor, including but not limited to sovereign immunity, shall remain unchanged and in full force and effect.

B. Counterparts. This Amendment may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Amendment. Delivery by the Sponsor of an originally signed counterpart of this Amendment by PDF shall be followed up immediately by delivery of the originally signed counterpart to the Commission.

8. General Provisions.

A. Entirety of Agreement. The Original Agreement, consisting of seven (7) pages; Amendment One consisting of three (3) pages; Amendment Two consisting of three (3) pages; and this Amendment Three, consisting of three (3) pages; represent the entire and integrated Agreement between the parties and supersede all prior negotiations, representations, and agreements whether written or oral.

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Return to Agenda

9. **Signatures.** The parties to this Amendment, through their duly authorized representatives, have executed this Amendment on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Amendment.

This Amendment is not binding on either party until approved by A&I Procurement and the Governor of the State of Wyoming or his designee, if required by Wyo. Stat. § 9-2-3204(b)(iv).

WYOMING WATER DEVELOPMENT COMMISSION:

_____ _____
Ronald E. Kailey, Chairman Date

_____ _____
Lee Craig, Secretary Date

TETON CONSERVATION DISTRICT:

_____ _____
Steve McDonald, Chairman Date

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____
Megan Pope, Senior Assistant Attorney General Date

GROUNDWATER EXPLORATION GRANT APPLICATION\CONTRACT

Return to Agenda

2023 WATER DEVELOPMENT PROGRAM RECOMMENDATION

GROUND WATER EXPLORATION GRANTS PROGRAM

Project Name: Cheyenne BOPU Borie Wellfield Expansion GWG

Program: New Development

Project Type: Municipal Water System

Sponsor: Cheyenne Board of Public Utilities

WWDO Recommendation: 75% Grant Cost Share ~ max $400K

Proposed Budget: $400,000

Project Manager: George Moser, P.G.

I. PROJECT DESCRIPTION

New Public Water Supply Test Well

1. Describe existing status in the program and previous appropriations (table):

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Cheyenne Belvoir Ranch	II	34	2004	I	$ 350,000	2006
Cheyenne Belvoir Ranch, Phase II 2.	II	99	2006	I	$ 450,000	2008
Cheyenne Belvoir Ranch Groundwater	II	66	2009	I	$ 2,000,000	2010

2. Describe the location of the project: The Borie Wellfield is located in the eastern portion of the Belvoir Ranch. In 2003, the Belvoir Ranch was acquired, in part, to develop the water resources for the City of Cheyenne. The Borie Wellfield is located in Laramie County, south of Interstate 80, west of Interstate 25, and is located outside of the "Laramie County Groundwater Control Area." In addition, the area is within the South Platte River Basin.

3. Summarize the request: Install and test two new groundwater well sites for providing additional water supply to the Board of Public Utilities (BOPU) system.

4. Summarize the reasons for the request: BOPU obtains significant water supply from a trans-basin diversion which is part of the Colorado River system. BOPU Currently obtains nearly 70% of its water from the Colorado River System. Recent developments on the Colorado River (most notably the potential for curtailment) increases the desire for BOPU to pursue multiple strategies to acquire additional water supplies. While many options are on the table, the Belvoir Ranch is the most readily available option.

II. WWDC ELIGIBILITY CONSIDERATIONS

1. Is the Sponsor a public entity? Yes

2. Project Priority According to WWDO Criteria: 2. Wells & Diversion Structures

3. Will the project serve at least 15 water taps? Yes

   A. Number of Taps: 24,787

4. Is the sponsor eligible for funding from other state or federal programs? Yes

A. If so, what are they? SRF, WaterSMART, others.

5. Is the Sponsor under any federal (EPA) mandates to improve its system? No

6. Is the Sponsor currently served by a regionalized water supply system (specify)? No. BOPU serves consecutive systems including South Cheyenne Water and Sewer District and Warren Air Force Base. In addition, BOPU has planned for rural customer connections in case of failing wells or declining water quality.

Or will the Sponsor consider regional solutions to the purpose and needs of its water supply system? Yes

7. What is monthly water bill for 5,000 gallons? $29.63/month – ¾" residential service

A. 20,000 Gallons? $114.49/month – ¾" residential service

8. Can the project be delayed or staged? No. Should it be? No

9. Basis for the Funding Recommendation: The sponsor is an eligible program applicant and the project falls within the criteria for program fund utilization.

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY-5600011C

B. Groundwater

(1) Number of Wells: 39

(2) Primary Supply Aquifer(s) or Formation(s): High Plains Aquifer System

(3) Total Average Production Yield of All Wells (GPM): 1,984 gallons per minute

C. Surface Water

(1) Source Name(s): Crow Creek, Douglas Creek, and North Fork Little Snake River

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.): Headgates, dams, and reservoirs

(3) Total Average Diversion Yield (CFS of GPM): 33.1 cfs

D. Springs

(1) Name of Spring(s): None

(2) Total Average Production Yield of All Springs (CFS or GPM): N/A

E. Water Rights

(1) For the water source supply (or supplies) described above, does the Sponsor possess valid and/or adjudicated water rights? Yes

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 56,000,000

(2) Increased Capacity Needed (If Known) (Gallons per Day): 2,300,000 (at the new wells)

(3) Approximate Distance from Source(s) to Distribution System: 75 miles

(4) Transmission Pipe Diameter(s): 20- to 54-inch

(5) Type of Transmission Pipe Material(s): Steel, ductile iron, cast iron, concrete

(6) Age of Transmission Pipeline(s): 14-106 years

(7) Condition of Transmission Pipeline(s): Good to Excellent

G. Water Storage

(1) Raw (Volume and Tank Description): Hog Park 22,650 AF, Rob Roy 35,640 AF, Lake Owen 684 AF, Granite 5,320 AF, Crystal 3,400 AF, New North Crow 98AF, Old North Crow 98 AF, South Crow 12 AF

(2) Treated: King I 5MG, King II 15MG, Round Top 11MG, Buffalo Ridge 5MG, Swan Ranch 0.5MG

H. Treatment

(1) Specify Water Treatment: Flocculation, Sedimentation, Filtration, Chlorination

2. Existing Water Distribution System

A. Is the water use metered? Yes

B. Are billings based on meter readings? Yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.): fire hydrants and street sweeping

D. Average Day Demand Water Usage (Gallons per Capita per Day): 95 gpc/d

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 247 gpc/d

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 504 gpc/d

G. Distribution Pipe Diameter(s): 4- to 42-inch

H. Type of Distribution Pipe Material(s): steel, ductile iron, cast iron, concrete, PVC, HDPE

I. Age of Distribution Pipeline(s): 115 years old to present

J. Condition of Distribution Pipeline(s): poor to excellent

K. Estimated System Water Losses (Percentage): 5%

L. Describe any fire flow protection that the system provides: BOPU's system is designed to provide up to 3,500 gpm for 3 hours of fire fighting through hydrants and fire suppression systems.

M. What water conservation measures are employed? Plan for Wise Water Use includes tiered water rates and outdoor watering schedules. Current projects include drought tolerant landscaping for development projects and advanced metering infrastructure to identify leaks.

N. Is there an independent raw water irrigation system? Yes.

3. Demographic Information and Existing Water Service Area

A. Population (2010 Census): 59,466 B. Current Population Estimate: 65,501

C. Does the applicant have a comprehensive planning boundary? Yes

(1) If so, what is the estimated additional population that may be served in the future? 95,000

D. How many taps are served within the service area? 24,787

E. How many taps are served outside the service area? 16

F. Identify names of other water system served: Warren Air Force Base and South Cheyenne Water and Sewer District.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Cheyenne Municipal Storage Level II Study (on file with WWDO)

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $9,818.70 for ¾-inch

(2) Average Residential Monthly Water Bill and Corresponding Gallons Used:
$38.00 at 6,400 gallons per month

(3) Water Rates – Potable: See Attached.

(4) Identify any local conditions that affect water rates: None

B. Financial Statement (of Water Utility)

(1) Revenues

a. Annual Revenues Generated from Water Sales:	$ 19,572,000
b. Annual Revenues from Tap Fees:	$ 2,335,000
c. Annual Revenues from Other Sources:	$ 14,396,073
d. Total Annual Revenues:	$ 36,303,073

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$ 15,714,023
b. Annual Payments for Debt Retirement:	$ 2,801,400
c. Annual Payments to a Repair and Replacement Fund:	$ 0
d. Annual Payments to an Emergency Fund:	$ 0
e. Annual Payments for Other Purposes:	$ 17,787,650
d. Total Annual Payments:	$ 36,303,073

(3) Other

a. Balance in Repair and Replacement Fund:	$ 4,709,388
b. Balance in Emergency Projects Fund:	$ 5,310,720
c. Annual Cost of Water Quality Testing:	$ 324,070

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? Yes

a. If not, how is the difference subsidized?

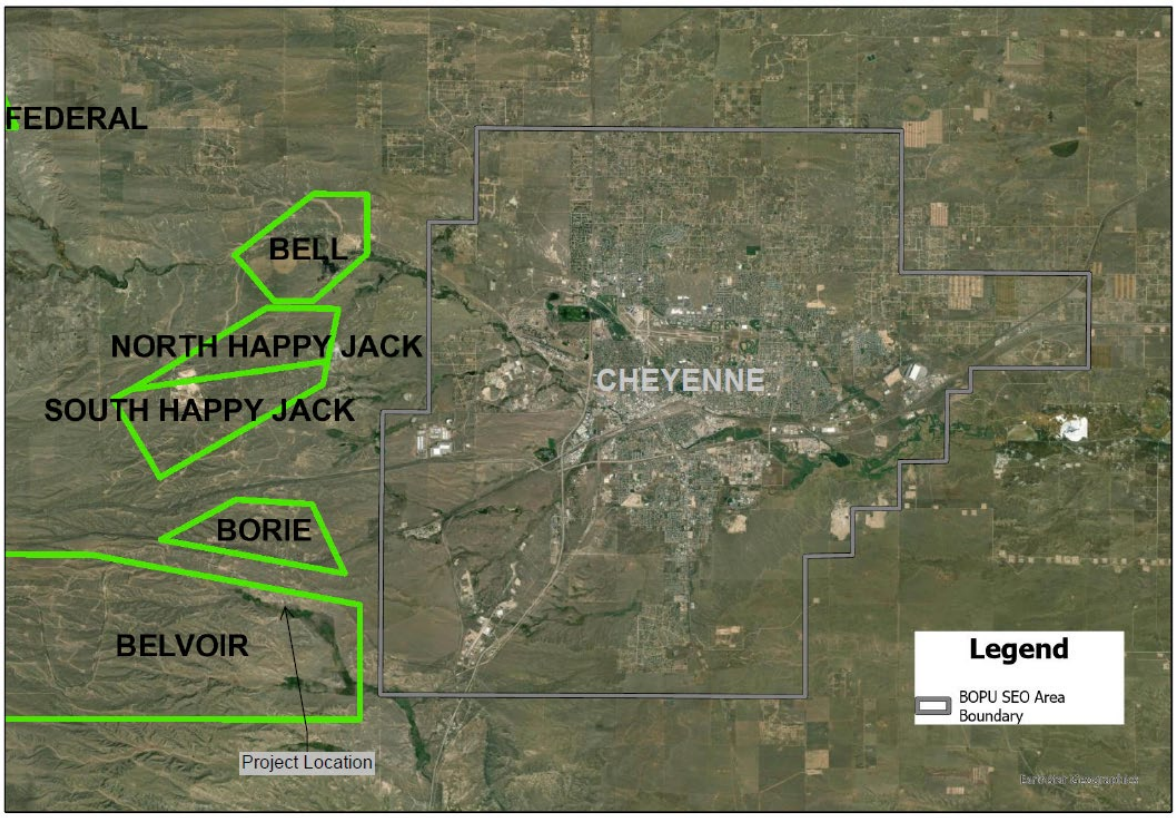
C. Ability of applicant entity to provide match funding and completion: Sponsor cost share will be $400,000 from system development fees from the 2024 budget. Subsequent transmission line work will be through applications for WWDC Level III, Water SMART grants, and DWSRF loans.

5. Project Cost Estimate

Preparation of Hydro-geologic Analysis and/or Well Siting Study	$ 0
Permitting	$ 0
Advertising, Contractor Procurement, Contracts	$ 80,000
Well Construction [1]	$ 600,000
Aquifer (Pump) Testing	$ 80,000
Water Quality Analysis	$ 30,000
Project Management/Subcontracts	$ 0
Miscellaneous Applications/Procurements (specify)	$ 0
Reports	$ 10,000
Total Project Cost	$ 800,000
WWDC (75% Grant Cost Share ~ max $400K)	**$ 400,000**
Sponsor	**$ 400,000**

[1] Including, but not limited to: Mobilization, Bonds & Insurance, Drill-Furnish-Install Casing/Screen, Furnish-Install Filter Pack/Seal, Rig Time, Standby Time, Geophysical/Video Log, Development, Disinfection, Plugging and Abandonment, De-Mobilization, Reclamation. Any inflation costs, as determined by the WWDC, will be applied to the Total Project Cost.

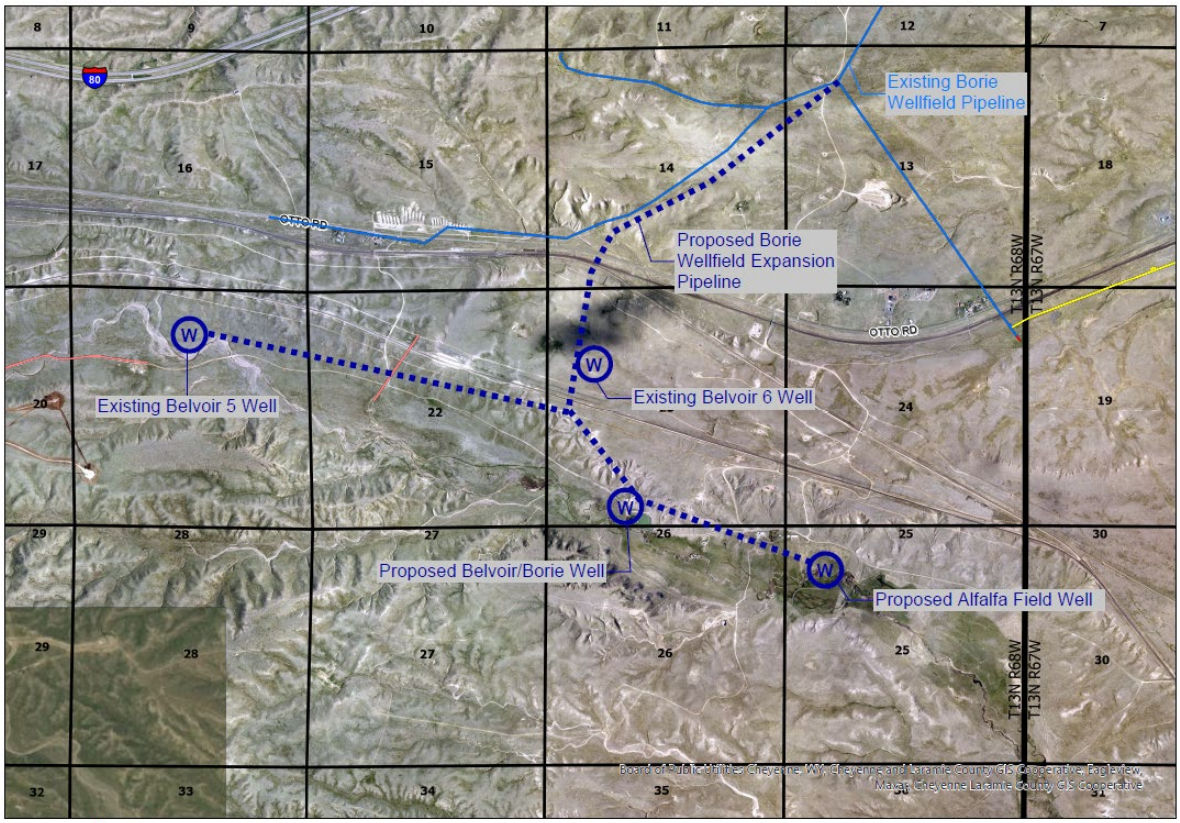
PROJECT MAPS



N

0 0.5 1 2 3 4 Miles

Project Area Map
Borie Well Expansion



N

Borie Wellfield Expansion

Return to Agenda

RATE SHEET

WATER RATE SCHEDULE

Effective with metered consumption after November 01, 2021 on bills issued on or after the date indicated:

Meter Size	January 1, 2022 Monthly Service Fee	January 1, 2021 Monthly Service Fee
5/8 In. & 3/4 In.	$ 6.43	$ 6.12
1 In.	8.18	7.79
1 1/4 In. & 1 1/2 In.	13.01	12.39
2 In.	16.20	15.43
3 In.	63.08	60.08
4 In.	75.10	71.52
6 In.	97.65	93.00
8 In.	127.66	121.58
10 In.	165.18	157.31
12 In.	219.17	208.73

Service Fee: The monthly service fee is charged in addition to the charge per 1,000 gallons. This service fee is based upon the size of the water meter. The monthly service fee for outside city users will be 1.5 times the above rates.

		January 1, 2022 Volume Rate Charge Per 1,000 Gallons	January 1, 2021 Volume Rate Charge Per 1,000 Gallons
Residential Single-Family Structure (in-city)			
First Block	First 6,000	$ 4.64	$ 4.42
Second Block	Next 18,000	5.73	5.46
Third Block	Next 18,000	7.12	6.78
All Over	42,000	8.86	8.44
Residential Multifamily Structure (in-city)			
First Block	First 3,000 per unit	$ 4.64	$ 4.42
Second Block	Next 9,000 per unit	5.73	5.46
Third Block	Next 9,000 per unit	7.12	6.78
All Over	21,000 per unit	8.86	8.44
Commercial / Industrial		$ 5.33	$ 5.08
South Cheyenne Water & Sewer District		5.33	5.08
F.E. WAFB		5.33	5.08
Large volume Commercial / Industrial		5.09	4.85
Irrigation - Treated Water		5.99	5.70
Irrigation - Raw Water including WAFB		2.99	2.85
Reclaimed Water		2.43	2.31
Recycled Water		4.33	4.12
Treated Water Fill Station		7.98	7.60
Hydrant Meter - Treated Water		5.99	5.70

* The volume rate charge for all outside city customers will be 1.5 times the above rates (except for the Treated Water Fill Station rate).

RESOLUTION

Approved as to form only:
Date: 4/11/23

BOPU RESOLUTION NO. 2023-11

Entitled: A RESOLUTION AUTHORIZING SUBMISSION OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION GROUND WATER EXPLORATORY GRANTS PROGRAM FOR THE BORIE WELLFIELD EXPANSION PROJECT IN THE AMOUNT OF $400,000.00 AND AUTHORIZING THE DIRECTOR OF THE BOARD OF PUBLIC UTILITIES TO EXECUTE THE APPLICATION AND ALL RELATED DOCUMENTS.

WHEREAS, Wyoming Statute 15-7-401, provides for a Board of Public Utilities (BOPU) to manage, operate, maintain, and control municipal waterworks, sanitary sewer system and sewage disposal plants; and

WHEREAS, Cheyenne City Code, Section 2.68.010, established the BOPU to have exclusive authority to manage, operate, maintain and control the Cheyenne Municipal Waterworks, Sanitary Sewage System and Sewage Disposal Plants of the City and to make all rules and regulations necessary for the safe, economical and efficient operation and maintenance of the above facilities; and

WHEREAS, the 2013 Water and Wastewater Master Plan and 2005 Cheyenne Belvoir Ranch Groundwater, Level II, Study recommend the development of additional groundwater resources; and

WHEREAS, the City of Cheyenne and BOPU own groundwater resources in the High Plains Aquifer under the eastern portion of Belvoir Ranch (Borie Wellfield; and

WHEREAS, the BOPU desires to pursue the Borie Wellfield Expansion project to locate, drill, complete, and test two new wells; and

WHEREAS, the PROJECT cost estimate for engineering, construction, and other administrative costs is $800,000.00, which includes drilling services, construction and miscellaneous costs; and

WHEREAS, the PROJECT meets the criteria and is eligible for consideration of grant funding from the Wyoming Water Development Commission (WWDC) Ground Water Exploratory Grants program in the amount of $400,000.00, fifty percent (50%); and

WHEREAS, the BOPU will match funds in the amount of $400,000.00, fifty percent (50%), from System Development Fees as part of Fiscal Year 2024 Budget; and

WHEREAS, the BOPU recognizes that the PROJECT is necessary and that it is essential to provide additional water supply for the City of Cheyenne, especially during potential Colorado River Curtailment.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF CHEYENNE, that an application be submitted to the Wyoming Water Development Commission for a Ground Water Exploratory Grant in the amount of $400,000.00 for the Borie Wellfield Expansion Project; and

BE IT FURTHER RESOLVED, that the Director of the Board of Public Utilities is hereby designated as the authorized representatives of the City of Cheyenne to act on behalf of the City of Cheyenne in all matters related to this application and related documents, including any amendments to the Project Agreement.

PRESENTED, READ AND ADOPTED this 17 day of April, 2023.

BOARD OF PUBLIC UTILITIES
BY:

Mary B. Guthrie

Mary B. Guthrie, President

(SEAL)

ATTEST:

Matthew Pope, Secretary

https://cheyennebopu.sharepoint.com/sites/Capital-Projects-Team/Shared Docments/1_BOPU/Borie Wellfield Expansion

Return to Agenda

SEO LETTER

State Engineer's Office

HERSCHLER BUILDING, 2 WEST
CHEYENNE, WYOMING 82002
(307) 777-6150

MARK GORDON
GOVERNOR

BRANDON GEBHART
STATE ENGINEER

April 17, 2023
Wyoming Water Development Office
Attn: George Moser
6920 Yellowtail Road
Cheyenne, WY 82002

Re: Ground Water Exploration Grant: City of Cheyenne Borie Wellfield Expansion

Dear Mr. Moser:

The State Engineer's Office/Ground Water Division (GW) received the Ground Water Exploration Grant application for the City of Cheyenne's Borie Wellfield Expansion project by email March 24, 2023. GW reviewed the application compliant with Chapter 6, Section 4 of the Wyoming Water Development Commission's Rules and Regulations, and offers the following opinion regarding associated water right issues:

- The area under consideration for this project is an area that has previously been the subject of an interference investigation conducted by GW. Further information is available at https://seo.wyo.gov/ground-water/interference-investigations and at this link. This investigation involved potential interference between wells belonging to the City of Cheyenne and Coastal Chemical/ Dyno Nobel. As far as GW is aware, groundwater usage by Dyno Nobel has decreased due to plant reconfiguration since the time of this interference investigation and there have been no complaints from either party since the completion of the linked report. However, the applicant should be aware of the potential interference issues.

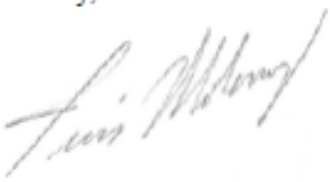
- The State Engineer's Office (SEO) typically reviews large water user's compliance with their existing groundwater rights before considering approval of any new groundwater applications. Please note the compliance review can add additional time to the permit application process. The City of Cheyenne's compliance is currently under review due to applications submitted for groundwater production wells on the Belvoir Ranch.

- It does not appear that the SEO has issued well permits for this project, nor has the SEO received a Form U.W. 5, *Application for Permit to Appropriate Ground Water*, which authorizes a new well. An approved permit is required prior to drilling a new well. Given that these applications will trigger a compliance review, it is recommended that the necessary applications be submitted expediently.

Board of Control (307) 777-6178 | Ground Water (307) 777-6163 | Interstate Streams (307) 777-1942 | Surface Water (307) 777-6475

If you have any questions, please feel free to contact me at (307) 777-6689 or at tim.moloney@wyo.gov

Sincerely,



Tim Moloney, Hydrogeologist
Ground Water Division

Cc: Lisa Lindemann, Administrator, Ground Water Division
Brandon Gebhart, State Engineer

Board of Control (307) 777-6178 | Ground Water (307) 777-6163 | Interstate Streams (307) 777-1942 | Surface Water (307) 777-6475

CONTRACT
BETWEEN THE WYOMING WATER DEVELOPMENT COMMISSION AND CITY OF CHEYENNE BOARD OF PUBLIC UTILITIES
GROUNDWATER EXPLORATION GRANT
CONTRACT NO. _____

1. **Parties.** The parties to this Contract are the Wyoming Water Development Commission [Commission], 6920 Yellowtail Road, Cheyenne, Wyoming 82002; and City of Cheyenne Board of Public Utilities [Sponsor], whose address is: 2416 Snyder Avenue, Cheyenne, Wyoming 82001.

2. **Purpose of Contract.** The purpose of this Contract is for the Commission to fund the Sponsor with Ground Water Exploration Grant program monies, as provided by Wyo. Stat. § 41-2-119, in order to acquire certain technical, professional, or contract services as required to construct new public water system wells and to delegate to the Wyoming Water Development Office [Office], through its Director or his designee, the authority to administer this contract.

3. **Term of Contract.** This Contract is effective when all parties have executed it (Effective Date). The term of this Contract is from the Effective Date through June 30, 2025. The services to be performed under this Contract will commence upon receipt of authorization to proceed. All services shall be completed during this term.

   If the Sponsor has been delayed and as a result will be unable, in the opinion of the Commission, to complete performance fully and satisfactorily within this Contract period, the Sponsor may be granted an extension of time, upon submission of evidence of the causes of delay satisfactory to the Commission.

4. **Payment.**

   A. **Reimbursement of Expenses.** The Commission agrees to pay the Sponsor an amount equal to seventy-five (75%) maximum of total original invoices provided for the services described in Attachment A, attached to this Contract and incorporated by reference as part of this Contract. Total payment under this Contract shall not exceed four hundred thousand dollars ($400,000.00).

   The Contract total amount is controlling. Payment shall be made directly to the Sponsor. The Sponsor shall maintain hourly records of time worked by its personnel. Billing reports shall be submitted no more often than monthly for activities and costs accrued since the last billing report and shall be made on forms provided by the Office. The Sponsor may use alternate billing forms if approved in advance by the Office project manager. A brief project progress report summarizing project activities in the billing period must be submitted with each billing.

B. **Billing Procedures.** The Commission shall pay the Sponsor upon receipt of billing reports as the services are performed for the various tasks outlined in Attachment A. The Director of the Office will initiate the payment process promptly upon the receipt of a verified statement of services, and payment shall be made within forty-five (45) days following receipt by the Commission.

C. **Money Withheld.** When the Commission has reasonable grounds for believing that the Sponsor will be unable to perform this Contract fully and satisfactorily within the time fixed for performance, then the Commission may withhold payment of such portion of any amount otherwise due and payable to the Sponsor reasonably deemed appropriate to protect the Commission against such loss. These amounts may be withheld until the cause for the withholding is cured to the Commission's satisfaction or this Contract is terminated pursuant to Section 8.W. Any amount so withheld may be retained by the Commission for such period as it may deem advisable to protect the Commission against any loss. This provision is intended solely for the benefit of the Commission and no person shall have any right against the Commission by reason of the Commission's failure or refusal to withhold monies. No interest shall be payable by the Commission on any amounts withheld under this provision. This provision is not intended to limit or in any way prejudice any other right of the Commission.

D. **Withholding of Payment.** If a work element has not been received by the Commission by the dates established in Attachment A, the Commission may withhold all payments beginning with the month following that date until such deficiency has been corrected.

E. **Final Payment.** The final payment shall be made upon acceptance of the final report and receipt of the final billing.

5. **<u>Responsibilities of Sponsor</u>.**

A. **Scope of Services.** The Sponsor shall perform the specific services required under this Contract in a satisfactory and proper manner as outlined in Attachment A. If there is any conflict between this Contract and the provisions of the specific requirements of Attachment A, the terms of this Contract shall prevail.

B. **Personnel.** All of the services required hereunder will be performed by the Sponsor or under its supervision, and all personnel engaged by consultants or contractors in the work shall be fully qualified and shall be authorized, licensed, or permitted under state law to perform such services, if state law requires such authorization, license, or permit.

C. **Permits, Access, Environmental Clearances, Reclamation.** Permits, access or right-of-way agreements, and environmental clearances as needed prior to construction and testing activities described in Attachment A shall be acquired by the Sponsor only, and the Sponsor shall not enter the WWDC as a co-applicant, nor

party, nor co-signer in necessary filings. Following construction and testing activities, the Sponsor shall be responsible for construction site reclamation as required by landowner agreement(s).

D. Contracts

(i) Approval Required for Contracts. The Sponsor shall submit a list of the proposed consultants, contractors, and subcontractors; the scope and extent of each subcontract; and the dollar amount of each subcontract subsequent to Contract execution to the Office for approval. During the performance of the Contract, substitutions in or additions to such contracts, associates, or subcontracts will be subject to the prior approval of the Office. Approval of subcontractors will not relieve the Sponsor from any responsibilities outlined in this Contract. The Sponsor shall be responsible for the actions of the consultants, contractors, and subcontractors.

(ii) Billings for Contractors. Billings for consultants, contractors, or subcontract services will not include any mark up. The subcontract costs will be billed to the Commission at the actual costs as billed to the Sponsor. Subcontract costs will be documented by attaching subcontractor billings to the Sponsor's billing submittals. Contractors will utilize billing forms provided by the Office, or alternate forms if approved in advance by the Office project manager.

(iii) Copies of Contracts. The Sponsor shall provide to the Commission copies of each consultant or contractor contract immediately following execution with the contractor. All contracts between the Sponsor and a consultant or contractor shall refer to and conform to the terms of this Contract. However, nothing in this Contract shall be construed as making the Commission a party of any contract entered between the Sponsor and a consultant or contractor.

E. Requests from the Commission. The Sponsor shall be responsible and responsive to the Commission and the Office in their requests and requirements related to the scope of this Contract.

F. Presentation of Data. The Sponsor shall select and analyze all data in a systematic and meaningful manner so as to contribute directly in meeting the objectives of the Project, and shall present this information clearly and concisely, in a professional and workmanlike manner.

G. Draft of Final Report. The Sponsor shall provide to the Commission in Cheyenne, Wyoming, a draft of the final report covering all work elements of the Project including maps, charts, conclusions and recommendations prior to the publication

of any final report and no later than the date specified in Attachment A. The Commission will respond with written comments to the Sponsor as soon as practicable. The Sponsor will address the comments of the Commission in the final report.

H. **Project Completion Report.** A final project completion report in the form described in Attachment A shall be submitted to the Commission by the date specified in Attachment A.

I. **Reports, Maps, Plans, Models and Documents.** One (1) copy of maps, plans, worksheets, logs, field notes or other documents prepared under this Contract, and one (1) copy of each unpublished report prepared under this Contract shall be submitted to the Commission. If the Sponsor writes or uses a computer program or spreadsheet as a part of this project, the Sponsor shall submit to the Office for approval all proposed program names and data formats prior to beginning work on that task. All data shall be submitted to Commission in written and digital forms with the final report. Digital media shall be labeled by the Sponsor to provide sufficient detail to access the information on the media. All user manuals shall be submitted by the Sponsor to the Commission providing complete documentation of computer programs developed under this Contract. The user manual shall also specify the source code language and the type of computer equipment necessary to operate the program(s). Any programs or computer software generated as a part of this Contract shall be the sole property of the Commission.

6. **Responsibilities of the Commission.**

A. **Designated Representative.** The Director of the Office shall act as the Commission's representative with respect to the Sponsor's obligation to be performed under this Contract and shall have complete authority to transmit instructions, receive information, and interpret and define the Commission's policies and decisions with respect to services covered by this Contract.

B. **Data to be Furnished to the Sponsor.** All information, data, reports, and maps as are available to the Commission and necessary for the carrying out of the Scope of Services set forth herein shall be furnished to the Sponsor without charge and the Office shall cooperate with the Sponsor in every way possible in the carrying out of the project.

C. **Review Reports.** The Office shall examine all studies, reports, sketches, opinions of the construction costs, and other documents presented by the Sponsor to the Commission and shall promptly render in writing the Commission's decisions pertaining thereto within the time periods specified in Attachment A.

D. **Provide Criteria.** The Office shall provide all criteria and full information regarding its requirements for the project.

7. Special Provisions.

A. No Finder's Fees. No finder's fee, employment agency fee, or other such fee related to the procurement of this Contract shall be paid by either party.

B. Publicity. Any publicity given to the projects, programs or services provided herein, including, but not limited to, notices, information, pamphlets, press releases, research, reports, signs, and similar public notices in whatever form, prepared by or for the Sponsor, shall identify the Commission as the sponsoring agency and shall not be released without prior written approval from the Commission.

C. Monitor Activities. The Commission shall have the right to monitor all activities related to this Contract that are performed by the Sponsor or its subcontractors. This shall include, but not be limited to, the right to make site inspections at any time and with reasonable notice; to bring experts and consultants on site to examine or evaluate completed work or work in progress; to examine the books, ledgers, documents, papers, and records pertinent to this Contract; and to observe all Sponsor consultants and contractors in every phase of performance of Contract related work.

D. Kickbacks. The Sponsor certifies and warrants that no gratuities, kickbacks, or contingency fees were paid in connection with this Contract, nor were any fees, commissions, gifts, or other considerations made contingent upon the award of this Contract. If the Sponsor breaches or violates this warranty, the Commission may, at its discretion, terminate this Contract without liability to the Commission, or deduct from the Contract price or consideration, or otherwise recover, the full amount of any commission, percentage, brokerage, or contingency fee.

8. General Provisions.

A. Amendments. Any changes, modifications, revisions or amendments to this Contract which are mutually agreed upon by the parties to this Contract shall be incorporated by written instrument, executed by all parties to this Contract.

B. Applicable Law, Rules of Construction, and Venue. The construction, interpretation, and enforcement of this Contract shall be governed by the laws of the State of Wyoming, without regard to conflicts of law principles. The terms "hereof," "hereunder," "herein," and words of similar import, are intended to refer to this Contract as a whole and not to any particular provision or part. The Courts of the State of Wyoming shall have jurisdiction over this Contract and the parties. The venue shall be the First Judicial District, Laramie County, Wyoming.

C. Assignment Prohibited and Contract Shall Not be Used as Collateral. Neither party shall assign or otherwise transfer any of the rights or delegate any of the duties set out in this Contract without the prior written consent of the other party. The

Sponsor shall not use this Contract, or any portion thereof, for collateral for any financial obligation, without the prior written permission of the Commission.

D. **Audit and Access to Records.** The Commission and its representatives shall have access to any books, documents, papers, electronic data, and records of the Sponsor which are pertinent to this Contract.

E. **Availability of Funds.** Each payment obligation of the Commission is conditioned upon the availability of government funds which are appropriated or allocated for the payment of this obligation and which may be limited for any reason including, but not limited to, congressional, legislative, gubernatorial, or administrative action. If funds are not allocated and available for continued performance of the Contract, the Contract may be terminated by the Commission at the end of the period for which the funds are available. The Commission shall notify the Sponsor at the earliest possible time of the services which will or may be affected by a shortage of funds. No penalty shall accrue to the Commission in the event this provision is exercised, and the Commission shall not be obligated or liable for any future payments due or for any damages as a result of termination under this section.

F. **Award of Related Contracts.** The Commission may award supplemental or successor contracts for work related to this Contract or may award contracts to other contractors for work related to this Contract. The Sponsor shall cooperate fully with other contractors and the Commission in all such cases.

G. **Compliance with Laws.** The Sponsor shall keep informed of and comply with all applicable federal, state, and local laws and regulations, and all federal grant requirements and executive orders in the performance of this Contract.

H. **Confidentiality of Information.** Except when disclosure is required by the Wyoming Public Records Act or court order, all documents, data compilations, reports, computer programs, photographs, data, and any other work provided to or produced by the Sponsor in the performance of this Contract shall be kept confidential by the Sponsor unless written permission is granted by the Commission for its release. If and when the Sponsor receives a request for information subject to this Contract, the Sponsor shall notify the Commission within ten (10) days of such request and shall not release such information to a third party unless directed to do so by Commission.

I. **Conflicts of Interest.**

(i) Sponsor's consultant(s) or contractor(s) shall not engage in providing consultation or representation of clients, agencies or firms which may constitute a conflict of interest which results in a disadvantage to the Commission or a disclosure which would adversely affect the interests of the Commission. Sponsor shall notify the Commission of any potential or actual conflicts of interest arising during the course of the Sponsor's

performance under this Contract. This Contract may be terminated in the event a conflict of interest arises. Termination of the Contract will be subject to a mutual settlement of accounts. In the event the contract is terminated under this provision, the Sponsor shall take steps to ensure that the file, evidence, evaluation and data are provided to the Commission or its designee. This does not prohibit or affect the Sponsor's ability to engage in consultations, evaluations or representation under agreement with other agencies, firms, facilities, or attorneys so long as no conflict exists.

(ii) A conflict of interest warranting termination of this Contract may include, but is not necessarily limited to, acting on behalf of a client in an adversarial proceeding against the State of Wyoming, its agencies, boards, commissions, or the University of Wyoming, or initiating suits in equity including injunctions, declaratory judgments, writs of prohibition or quo warranto.

J. **Entirety of Contract**. This Contract, consisting of thirteen (13) pages, and Attachment A, consisting of fifteen (15) pages, represent the entire and integrated Contract between the parties and supersede all prior negotiations, representations, and agreements, whether written or oral. In the event of a conflict or inconsistency between the language of this Contract and the language of any attachment or document incorporated by reference, the language of this Contract shall control.

K. **Ethics.** Sponsor shall keep informed of and comply with the Wyoming Ethics and Disclosure Act (Wyo. Stat. § 9-13-101, *et seq.*), and any and all ethical standards governing Sponsor's actions.

L. **Force Majeure.** Neither party shall be liable for failure to perform under this Contract if such failure to perform arises out of causes beyond the control and without the fault or negligence of the nonperforming party. Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather. This provision shall become effective only if the party failing to perform immediately notifies the other party of the extent and nature of the problem, limits delay in performance to that required by the event, and takes all reasonable steps to minimize delays.

M. **Indemnification.** Each party to this Contract shall assume the risk of any liability arising from its own conduct. Neither party agrees to insure, defend, or indemnify the other.

N. **Independent Contractor.** The Sponsor shall function as an independent contractor for the purposes of this Contract and shall not be considered an employee of the State of Wyoming for any purpose. Consistent with the express terms of this Contract, the Sponsor shall be free from control or direction over the details of the performance of services under this Contract. The Sponsor shall assume sole

responsibility for any debts or liabilities that may be incurred by the Sponsor in fulfilling the terms of this Contract and shall be solely responsible for the payment of all federal, state, and local taxes which may accrue because of this Contract. Nothing in this Contract shall be interpreted as authorizing the Sponsor or its agents or employees to act as an agent or representative for or on behalf of the State of Wyoming or the Commission or to incur any obligation of any kind on behalf of the State of Wyoming or the Commission. The Sponsor agrees that no health or hospitalization benefits, workers' compensation, unemployment insurance, or similar benefits available to State of Wyoming employees will inure to the benefit of the Sponsor or the Sponsor's agents or employees as a result of this Contract.

O. **Notices.** All notices arising out of, or from, the provisions of this Contract shall be in writing either by regular mail, email, or delivery in person at the addresses provided under this Contract. Notice provided by email shall be delivered as follows:
Commission: George Moser, george.moser1@wyo.gov, 307-777-7626.
Sponsor: Bryce Dorr, bdorr@cheyennebopu.org, 307-432-2618.

P. **Ownership and Return of Documents and Information.** The Commission is the official custodian and owns all documents, data compilations, reports, computer programs, photographs, data, and other work provided to or produced by the Sponsor in the performance of this Contract. Upon termination of services, for any reason, the Sponsor agrees to return all such original and derivative information and documents to the Commission in a useable format. In the case of electronic transmission, such transmission shall be secured. The return of information by any other means shall be by a parcel service that utilizes tracking numbers.

Q. **Patent or Copyright Protection.** The Sponsor recognizes that certain proprietary matters or techniques may be subject to patent, trademark, copyright, license, or other similar restrictions, and warrants that no work performed by the Sponsor or its subcontractors will violate any such restriction. The Sponsor shall defend and indemnify the Commission for any infringement or alleged infringement of such patent, trademark, copyright, license, or other restrictions.

R. **Prior Approval.** This Contract shall not be binding upon either party, no services shall be performed, and the Wyoming State Auditor shall not draw warrants for payment, until this Contract has been fully executed, approved as to form by the Office of the Attorney General, filed with and approved by A&I Procurement, and approved by the Governor of the State of Wyoming, or his designee, if required by Wyo. Stat. § 9-2-3204(b)(iv).

S. **Insurance Requirements.**

(i) During the term of this Contract, the Sponsor's Consultant shall obtain and maintain, and ensure that each subcontractor obtains and maintains, each type of insurance coverage specified in Insurance Coverage, below.

Return to Agenda

(ii) All policies shall be primary over any insurance or self-insurance program carried by the Sponsor or the State of Wyoming. All policies shall include clauses stating that each insurance carrier shall waive all rights of recovery under subrogation or otherwise against the Sponsor's Consultant or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

(iii) The Sponsor's Consultant shall provide Certificates of Insurance to the Commission verifying each type of coverage required herein. If the policy is a "claims made" policy instead of an "occurrence" policy, the information provided shall include, but is not limited to, retroactive dates and extended reporting periods or tails.

(iv) All policies shall be endorsed to provide at least thirty (30) days advance written notice of cancellation to the Commission. A copy of the policy endorsement shall be provided with the Certificate of Insurance.

(v) In case of a breach of any provision relating to Insurance Requirements or Insurance Coverage, the Commission may, at the Commission's option, obtain and maintain, at the expense of the Sponsor's Consultant, such insurance in the name of the Sponsor's Consultant or subcontractor, as the Commission may deem proper and may deduct the cost of obtaining and maintaining such insurance from any sums which may be due or become due to the Sponsor under this Contract.

(vi) All policies required by this Contract shall be issued by an insurance company with an A.M. Best rating of A- VIII or better.

(vii) The Commission reserves the right to reject any policy issued by an insurance company that does not meet these requirements.

T. Insurance Coverage. The Sponsor's Consultant shall not commence work under this Contract until it has obtained all the insurance required by the Commission and the State. The Sponsor's Consultant shall obtain and maintain the following insurance in accordance with the Insurance Requirements set forth above:

(i) Commercial General Liability Insurance. Commercial general liability insurance (CGL) coverage, occurrence form, covering liability claims for bodily injury and property damage arising out of premises, operations, products and completed operations, and personal and advertising injury, with minimum limits as follows:

(a) $1,000,000.00 each occurrence;
(b) $1,000,000.00 personal injury and advertising injury;
(c) $2,000,000.00 general aggregate; and
(d) $2,000,000.00 products and completed operations.

The CGL policy shall include coverage for Explosion, Collapse and Underground property damage. This coverage may not be excluded by endorsement.

(ii) Workers' Compensation and Employer's Liability Insurance. Employees hired in Wyoming to perform work under this Contract shall be covered by workers' compensation coverage obtained through the Wyoming Department of Workforce Services' workers' compensation program, if statutorily required. Employees brought into Wyoming from the Sponsor's Consultant's home state to perform work under this Contract shall be covered by workers' compensation coverage obtained through the Wyoming Department of Workforce Services' workers' compensation program or other state or private workers' compensation insurance approved by the Wyoming Department of Workforce Services, if statutorily required.

The Sponsor's Consultant shall provide the Commission with a Certificate of Good Standing or other proof of workers' compensation coverage for all of its employees who are to perform work under this Contract, if such coverage is required by law. If workers' compensation coverage is obtained by the Sponsor's Consultant through the Wyoming Department of Workforce Services' workers' compensation program, The Sponsor's Consultant shall also obtain Employer's Liability "Stop Gap" coverage through an endorsement to the CGL policy required by this Contract, with minimum limits as follows:

(a) Bodily Injury by Accident: $1,000,000.00 each accident;
(b) Bodily Injury by Disease: $1,000,000.00 each employee; and
(c) Bodily Injury by Disease: $1,000,000.00 policy limit.

(iii) Unemployment Insurance. The Sponsor's Consultant shall be duly registered with the Department of Workforce Services and obtain such unemployment insurance coverage as required. The Sponsor's Consultant shall supply Commission with a Certificate of Good Standing or other proof of unemployment insurance coverage.

(iv) Automobile Liability Insurance. Automobile liability insurance covering any auto (including owned, hired, and non-owned) with minimum limits of $1,000,000.00 each accident combined single limit.

(v) Professional Liability or Errors and Omissions Liability Insurance. Professional liability insurance or errors and omissions liability insurance protecting against any and all claims arising from the Sponsor's Consultant's alleged or real professional errors, omissions, or mistakes in the performance of professional duties under this Contract, with minimum limits as follows:

(a) $1,000,000.00 each occurrence; and
(b) $1,000,000.00 general aggregate.

The policy shall have an extended reporting period of two (2) years.

U. **Severability.** Should any portion of this Contract be judicially determined to be illegal or unenforceable, the remainder of the Contract shall continue in full force and effect, and the parties may renegotiate the terms affected by the severance.

V. **Sovereign Immunity and Limitations.** Pursuant to Wyo. Stat. § 1-39-104(a), the State of Wyoming and Commission expressly reserve sovereign immunity by entering into this Contract and the Sponsor expressly reserves governmental immunity. Each of them specifically retains all immunities and defenses available to them as sovereign or governmental entities pursuant to Wyo. Stat. § 1-39-101, *et seq.*, and all other applicable law. The parties acknowledge that the State of Wyoming has sovereign immunity and only the Wyoming Legislature has the power to waive sovereign immunity. Designations of venue, choice of law, enforcement actions, and similar provisions shall not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this Contract shall not be strictly construed, either against or for either party, except that any ambiguity as to immunity shall be construed in favor of immunity.

W. **Taxes.** The Sponsor's Consultant's and contractors shall pay all taxes and other such amounts required by federal, state and local law, including but not limited to federal and social security taxes, workers' compensation, unemployment insurance, and sales taxes.

X. **Termination of Contract.** This Contract may be terminated, without cause, by the Commission upon thirty (30) days written notice. This Contract may be terminated immediately for cause if the Sponsor fails to perform in accordance with the terms of this Contract.

Y. **Third-Party Beneficiary Rights.** The parties do not intend to create in any other individual or entity the status of third-party beneficiary, and this Contract shall not be construed so as to create such status. The rights, duties and obligations contained in this Contract shall operate only between the parties to this Contract. The provisions of this Contract are intended only to assist the parties in determining and performing their obligations under this Contract.

Z. **Time is of the Essence.** Time is of the essence in all provisions of the Contract.

AA. **Titles Not Controlling.** Titles of sections and subsections are for reference only and shall not be used to construe the language in this Contract.

BB. Waiver. The waiver of any breach of any term or condition in this Contract shall not be deemed a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.

CC. Counterparts. This Contract may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Contract. Delivery by the Sponsor of an originally signed counterpart of this Contract by PDF shall be followed up immediately by delivery of the originally signed counterpart to the Commission.

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9. **Signatures**. The parties to this Contract, either personally or through their duly authorized representatives, have executed this Contract on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Contract.

The Effective Date of this Contract is the date of the signature last affixed to this page.

WYOMING WATER DEVELOPMENT COMMISSION:

_____ _____
Ronald E. Kailey, Chairman Date

_____ _____
Lee Craig, Secretary Date

CITY OF CHEYENNE BOARD OF PUBLIC UTILITIES:

_____ _____
Bradley A. Brooks, Director Date

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____
Megan Pope, Senior Assistant Attorney General Date

WYOMING WATER DEVELOPMENT COMMISSION
GROUNDWATER EXPLORATION PROGRAM

ATTACHMENT A
SCOPE OF SERVICES

A. AUTHORIZATION:

The Wyoming Legislature has authorized the Water Development Commission to Contract with Sponsors (cities, towns, water & sewer districts, and improvement & service districts) in Wyoming for exploration for and feasibility studies of the use of underground water for municipal and domestic purposes, not to exceed four hundred thousand dollars ($400,000) per project. Any Sponsor participating in the program must provide at least twenty-five percent (25%) of the cost of the project from its own funds.

B. PROJECT REQUIREMENTS

1. Selection of a consultant or contract services by the Sponsor:

   The Commission advises that municipalities and Sponsors contract with one firm to be responsible for all phases of the project. The firm selected by the Sponsor, and all proposed sub-consultants and subcontractors for drilling, logging, pump testing, water quality analysis and other supportive services, must be submitted to WWDC for review and approval prior to subcontract execution. Work performed under this Contract must be supervised by A WYOMING-LICENSED PROFESSIONAL ENGINEER OR A WYOMING-LICENSED PROFESSIONAL GEOLOGIST.

   The Sponsor shall promote and ensure that responsible Wyoming contractors and residents receive employment on public works projects as set forth under Wyoming preference laws, W.S. §16-6-102, W.S. §16-6-203, W.S. §16-6-1001.

   The Sponsor is responsible for ensuring that all appropriate work items and conditions contained in this Contract and its exhibits and attachments are contained in the technical specifications used by the Sponsor in the selection of a drilling contractor. The Sponsor must also ensure that such items and conditions are contained in the performance Contract between the Sponsor and its contractor. Work performed under said contract must be conducted by a WYOMING-LICENSED WATER WELL CONTRACTOR. The Commission requires utilization of a competitive public bidding process to select the well construction contract services.

2. Monthly Progress Reports and Billing Statements

The Sponsor shall submit a brief monthly progress report outlining the study status, progress, and results to date. The progress report shall be submitted on or before the last working day of the month.

The billing statement must include a task-by-task report justifying the cost items contained in the billing statement. The monthly progress report may be used as the justification for the billing statement as long as all cost items covered in the billing statement are addressed in the progress report.

3. Computer Models, Statement of Assumptions, Project Work File

a. If the Sponsor (or its Consultant) writes or uses a computer model or spreadsheet as a part of this project, the Sponsor shall submit to the WWDC for approval all proposed model names and data formats prior to beginning work on that task. All data shall be submitted to WWDC in written and magnetic forms with the final report. Magnetic disks shall be labeled by the Sponsor to provide sufficient detail to access the information on the disks. User manuals shall be submitted by the Sponsor to WWDC providing complete documentation of computer models developed under this project. The user manuals shall also contain the source code language and the type of computer equipment necessary to operate the model(s). The computer models and spreadsheets (written and magnetic forms) are due on the same date as the final report which contains the information generated by the model.

b. To facilitate the Commission's accurate evaluation of the Sponsor's work product, computations, conclusions, and recommendations, the Sponsor shall:

(i) Include in the final report a section describing the assumptions and methodology used by the Sponsor in generating the data and conclusions contained in the report.

(ii) Maintain a project work file containing the materials used in project analysis. This file will be available for review by the Commission and should be organized in such a way as to allow replication of the steps and procedures used by the Sponsor to reach the conclusions described in the study.

(iii) Prepare a project notebook containing a description of the assumptions and methodologies used in the project analysis. The notebook shall be organized in such a way as to allow replication of the steps, calculations, and procedures used by

the Sponsor to reach the conclusions described in the final report. The project notebook shall be submitted with the final report.

4. Cost Estimates

The Sponsor shall provide, as a part of project cost estimates, an estimate of:

a. The cost to prepare final plans and specifications.
b. The cost to acquire permits and to mitigate project impacts.
c. The cost of project legal expenses.
d. The cost of acquiring access and rights-of-way.

5. Calculation of Engineering Costs and Contingencies

The Sponsor shall use the following guidelines in calculating final cost estimates.

WWDC ELIGIBLE PROJECT COSTS

CONSTRUCTION COSTS

Itemized Cost of Each Project Component	$_____
	$_____
	$_____
Cost of Project Components TOTAL	$_____ (subtotal #1)
Construction Engineering Cost (subtotal #1 x 10%)	$_____
Components + Construction Engineering Costs	$_____ (subtotal #2)
Contingency (subtotal #2 x 15%)	$_____
Construction Cost Total (subtotal #2 + Contingency)	$_____ (subtotal #3)

PRE-CONSTRUCTION COSTS

Preparation of Final Designs & Specifications (subtotal #1 x 10%)	$_____
Site Access Permit Fees (BOR, USFS, etc.)	$_____
Title Opinion	$_____
Acquisition of Access and Rights of Way	$_____
Pre-construction Costs Total	$_____ (subtotal #4)

TOTAL WWDC ELIGIBLE PROJECT COST

Total WWDC Eligible Project Cost (subtotal #3 + subtotal #4)	$_____ (subtotal #5)

WWDC INELIGIBLE PROJECT COSTS

Itemized Costs of Ineligible Project Components	$_____
	$_____
	$_____
	$_____

Additional Cost for Construction Engineering	$_____
Additional Cost for Preparation of Final Designs & Specifications	$_____
Total WWDC Ineligible Project Costs Total	$_____ (subtotal #6)

TOTAL PROJECT COST

Total Project Cost (subtotal #5 + subtotal #6) $_____

MATERIALS ONLY TOTAL

Materials Only Total Project Cost (Subtotal #1) $_____

Note: Any inflation costs, as determined by the Office project manager, will be applied to the Total Project Cost during the recommendation work.

6. Stand-By Time

The WWDC will not reimburse the Sponsor for stand-by time charges for either their own or their consultants or supervisory personnel.

7. Well Permitting

An approved permit to appropriate groundwater shall be obtained from the State Engineer prior to commencing construction on any well. The Sponsor shall be responsible for obtaining the permit. The Sponsor shall consult with the Groundwater Division of the Wyoming State Engineer's Office (SEO) prior to the initiation of well siting studies, and shall abide by SEO rules and regulations concerning well siting and construction.

The Sponsor shall comply with all provisions of the Wyoming Department of Environmental Quality – Water Quality Division Rules and Regulations regarding a permit to construct for construction of source wells supplying public water supply systems.
For pump testing purposes that may be required herein, The Sponsor shall obtain, from WDEQ-WQD, a National Pollution Discharge Elimination System (NPDES) permit as required under the federal Clean Water Act (CWA) for pump tests of water wells.

8. Verification Log

After all casing has been installed in the well, the WWDC may require that a geophysical log be performed on the well to verify casing placement. A copy of this log shall be included in the final report.

9. Final Report

The Sponsor shall use the Contract Scope of Services as the outline for draft and final reports so that compliance with Contract provisions can be verified. IF THE FINAL REPORT CONTAINS INFORMATION OF AN ENGINEERING NATURE, THE COVER OF THE FINAL REPORT, ALL PLATES, AND THE EXECUTIVE SUMMARY MUST BE STAMPED AND SIGNED BY A WYOMING-LICENSED PROFESSIONAL ENGINEER. IF THE FINAL REPORT CONTAINS INFORMATION OF A GEOLOGIC NATURE, THE COVER OF THE FINAL REPORT, ALL PLATES, AND THE EXECUTIVE SUMMARY MUST BE STAMPED AND SIGNED BY A WYOMING-LICENSED PROFESSIONAL GEOLOGIST. IF THE FINAL REPORT CONTAINS INFORMATION OF BOTH AN ENGINEEERING AND GEOLOGIC NATURE, THE COVER OF THE FINAL REPORT, ALL PLATES, AND THE EXECUTIVE SUMMARY MUST BE STAMPED AND SIGNED BY BOTH A WYOMING-LICENSED PROFESSIONAL ENGINEER AND A WYOMING-LICENSED PROFESSIONAL GEOLOGIST.

10. Final Report - Digital Format

In addition to the paper submittal described in Section B.9 above, the Consultant shall also provide the final documents and related materials in a digital format. This digital format shall contain the final documents in their entirety, including all text, tables, plates, figures, etc. This digital report shall be contained on CD/DVD(s), USB drive(s), or other media as approved by the Office project manager, and shall be in Searchable Image Adobe Acrobat format. The final documents will also be provided fully assembled into one file, in a complete "internet ready" digital format to facilitate their distribution via the WWDC website.

11. Anticipated Project Funding Assistance

The Sponsor shall clearly identify project components eligible for Commission funding, both in cost estimates and in project mapping. The Sponsor shall verify project component funding eligibility with the Office project manager prior to commencing any economic analysis. Unless otherwise directed by the Office project manager, the Sponsor shall assume that projects will be funded with a sixty-seven percent (67%) grant and a thirty-three percent (33%) loan. The Commission loan will be financed at an interest rate of four percent (4%) with a term to be specified by the Office project manager. If funding is anticipated from another agency, such as the Office of State Lands and Investments or the Rural Utilities Service (RUS), the Sponsor shall prepare cost estimates for system components not eligible for Commission assistance in a format and level of detail acceptable to the potential funding agency.

C. SCOPE OF SERVICES

1. Project Meetings

A meeting shall be held early in the project schedule to assure the affected parties (Sponsor, WWDC Project Manager, consultants, contractors, etc.) have a common understanding of the scope of the project. One additional meeting may be scheduled at the discretion of the WWDC project manager depending on developments during the Project. One meeting may be held at the conclusion of the Project to present the results to the Sponsor Council. In the interest of economy, meetings shall be scheduled to coincide with fieldwork if possible. The Sponsor shall notify the WWDC project manager in advance of any meetings regarding conduct of the project.

2. Production Well Siting, ROW Acquisition, Permitting, Drilling, Completion and Testing

a. The Sponsor shall prepare a plan for determining the feasibility of using the selected groundwater source as a public water supply. This plan shall include a siting study for emplacement of a new public water supply (PWS) source well that includes well location alternatives and a preferred alternative site selection. The Sponsor shall acquire access permits and execute access/ROW/easement agreements and environmental clearances as needed to allow for drilling and completion of a public water supply well.

b. The Sponsor shall acquire all permits necessary from oversight agencies (e.g. Wyoming State Engineer's Office, Wyoming Department of Environmental Quality – Water Quality Division) to drill and test a new PWS well for the Sponsor.

c. The Sponsor shall conduct a public bidding process, in accordance with State of Wyoming statutes, for selection from interested contractors to perform the well construction services required herein. The Sponsor shall analyze the bids received and select a contractor, after coordination with the WWDC project manager.

d. Consultant Services during Well Construction, Aquifer Testing

(i) The Consultant shall serve as the Sponsor's representative at the construction site during the construction process. The Consultant shall ensure the project is constructed in accordance with the bid documents. The Consultant shall provide full time supervision during well construction by a Professional Geologist licensed in the State of Wyoming.

(ii) The Consultant shall generate a drilling log containing the following information:

1) Depth, thickness, type, general characteristics, and drilling characteristics of each material encountered.

2) Time required to drill each foot of depth, along with the speed of rotation.

3) Depth at which bit diameters change.

4) Detailed "as built" well completion specifications, including hole and casing diameters, depths at which these diameters change, casing thickness and material, manufacturer, depths, diameters, and opening size of well screen or perforated casing, gravel packed intervals and gravel size installed, casing centralizer types and their spacing, cemented intervals, cement type, etc.

(iii) The Consultant shall generate a geologic log containing the following information:

1) Reference point for all depth measurements.

2) Depth at which each change of formation occurs.

3) Thickness of each formation.

4) Depth at which each stratum is encountered.

5) Thickness of each stratum.

6) Description of the material composing each stratum.

7) Depth at which water is first encountered.

8) Depth to the static water level (SWL) and changes in with increasing well depth.

9) Total depth of completed well.

10) Any and all other pertinent information for a complete and accurate log.

(iv) Formation samples shall be collected and described in detail at each change in stratum, not to exceed 10-foot intervals, or more frequently to accurately depict lithologic changes encountered during construction.

(v) Pump testing of well:

After completion and isolation of the aquifer to be tested has been ensured, the well shall be developed by water jetting or other approved methods to remove contaminants and foreign material. The aquifer will then be allowed to recover to ninety-eight percent (98%) of its original SWL before aquifer testing begins. All aquifer testing activities shall be supervised by a Wyoming-licensed Professional Geologist.

1) Step test:

Water-level monitoring shall be performed during each step of the test at logarithmic time intervals. Each step should continue until a distinct change in the rate of drawdown occurs. It is suggested that the pumping rate be set at twenty-five percent (25%), fifty percent (50%), seventy-five percent (75%), one-hundred percent (100%), and one-hundred fifty percent (150%) of the estimated design discharge. The Consultant shall refer also to DEQ-WQD PWS source development testing requirements in WQD Rules and Regulations, Chapter 12, Section 9(b)(ii).

2) Recovery test:

Following the step test water level shall be monitored at logarithmic time intervals until the well has recovered to 98 percent of its original SWL.

3) Constant discharge test:

Following the recovery test, a constant-rate discharge (rate determined by the Consultant based on the step test) test will be maintained for seven (7) days or until a stable drawdown is attained. Water levels and pumping rate shall be monitored at logarithmic time intervals during the test. The WWDC project manager must approve in advance if the test is to be terminated prior to the seven (7) days specified.

4) Recovery test:

Following the constant-rate discharge test, recovery shall be monitored until the well has recovered to ninety-eight percent (98%) of its original SWL, with water levels measured at logarithmic time intervals. Analysis of all aquifer testing, recovery, and surface water monitoring data will be performed to determine aquifer characteristics including transmissivity, storativity, specific capacity, and safe yield, and to assess the impacts on surface water caused by long-term groundwater production in the area. Estimates will be made of long term well yield, and the configuration and extent of the cone of depression at one (1), five (5), ten (10), and twenty (20) years into the future for the entire well field. This analysis shall assume production at maximum safe yield, and the design discharge if different. Assumptions and analytical methods used in these calculations shall be included. This information will be presented in the final report.

(vi) Testing of Flowing Well:

After completion and isolation of the aquifer to be tested has been ensured the well shall be developed by water jetting or other methods to remove contaminants and foreign material. The aquifer will then be allowed to recover to ninety-eight percent (98%) of its original shut-in pressure before testing begins.

(1) Stepped Rate Test:
Monitoring of pressure and flow rate shall be performed during each step of the test at logarithmic time intervals. Each step should continue until a distinct change in the rate of drawdown occurs. It is suggested that discharge be set at twenty-five percent (25%), fifty percent (50%), seventy-five percent (75%), and one-hundred (100%) of maximum flow rate.

(2) Recovery test:
Following the step test, shut-in pressures shall be monitored at logarithmic time intervals until the well has recovered to ninety eight percent (98%) of its original shut-in pressure.

(3) Constant Drawdown Test:
Following the recovery test the well shall be allowed to flow "wide open" and monitoring of flow rate and pressure with

respect to time will be conducted at logarithmic time intervals for a period of seven (7) days.

3. Water Quality, Water Treatment,

For each aquifer on which a test is conducted, the following shall be performed by the Consultant:

a. During each test, a pH/conductance/temperature meter shall be used to monitor these parameters at the following time periods:

(1)	Beginning of test	(6)	4 hours
(2)	30 minutes	(7)	8 hours
(3)	1 hour	(8)	16 hours
(4)	2 hours	(9)	24 hours
(5)	3 hours	(10)	24 hour intervals

The above-collected data will be listed and plotted versus time in the final report.

b. During the test water quality samples shall be collected for analysis by a U.S. Environmental Protection Agency approved laboratory. Samples will be properly collected and preserved such that the appropriate constituents listed below may be analyzed for concentration level. Samples shall be received by the laboratory within the time period specified by the laboratory for the particular analyses being performed. Water samples will be collected during the test at the following time intervals:

i. Midway through the first test.

ii. End of all testing.

The following analyses shall be conducted midway through the first test:

. Bicarbonate
. Calcium
. Carbonate
. Chloride
. Conductance
. Magnesium
. pH
. Potassium
. Sodium
. Sulfate

- Total Dissolved Solids
- Iron and Iron Related Bacteria
- Total Coliform Bacteria
- Gross Alpha
- Gross Beta
- Combined Radium 226 & 228
- Natural Uranium

The Consultant shall collect samples for analysis of all EPA regulated constituents that are applicable to this project. The following analyses shall be conducted, as appropriate for the particular source, treatment techniques, system size, and as required in the State of Wyoming, at the end of all testing:

Inorganic Chemicals

- Antimony
- Arsenic
- Asbestos
- Barium
- Beryllium
- Cadmium
- Chromium
- Copper
- Cyanide
- Fluoride
- Lead
- Mercury
- Nickel
- Nitrate (as N)
- Nitrite (as N)
- Total Nitrate/Nitrite
- Selenium
- Sulfate
- Thallium

Organic Chemicals

Pesticides

- Alachlor
- Aldicarb
- Aldicarb sulfoxide
- Aldicarb sulfone
- Atrazine
- Carbofuran
- Chlorodane
- Dalapon

- Dibromochloropropane (DBCP)
- Dinoseb
- Diquat
- Endothall
- Endrin
- Ethylene dibromide (EDB)
- Glyphosate
- Heptachlor
- Heptachlor epoxide
- Lindane
- Methoxychlor
- Oxamyl (Vydate)
- Pentachlorophenol
- Picloram
- Simazine
- Toxaphene
- 2,4,5-TP (Silvex)
- 2,4-D

Volatile Organic Chemicals

- Benzene
- Carbon tetrachloride
- para-Dichlorobenzene
- ortho-Dichlorobenzene
- 1,2-Dichloroethane
- 1,1-Dichloroethylene
- cis-1,2-Dichloroethylene
- trans-1,2-Dichloroethylene
- Dichloromethane
- 1,2-Dichloropropane
- Ethylbenzene
- Monochlorobenzene
- Styrene
- Tetrachloroethylene (PCE)
- Toluene
- 1,2,4-Trichlorobenzene
- 1,1,1-Trichloroethane
- 1,1,2-Trichloroethane
- Trichloroethylene (TCE)
- Vinyl chloride
- Xylenes

Synthetic Organic Chemicals

- Benzo (a) pyrene

. Di (2-ethylhexyl) adipate
. Di (2-ethylhexyl) phthalate
. Hexachlorobenzene
. Hexachlorocyclopentadiene (HEX)
. PCBs
. 2,3,7,8 Tetrachlorodibenzo-p-dioxin

Treatment Techniques
. Acrylamide
. Epichlorohydrin

Disinfection By-Products

. Total trihalomethanes (TTHMs)
. Haloacetic acids (HAA5)
. Total Organic Carbon (TOC)
. Chloromines
Total Suspended Solids (TSS)

Turbidity

. Turbidity

Microbiological

Total Coliform (Coliform bacteria, fecal coliform, streptococcal, and other bacteria)
. Giardia lamblia
. Legionella
. Viruses
. Heterotrophic Plate Count
. Iron and Iron related bacteria

Radiological Contaminants

. Gross alpha
. Gross beta

. Combined Radium 226 & 228
. Natural uranium

Secondary Standards

. Aluminum
. Bicarbonate
. Boron

. Calcium
. Carbonate
. Chloride
. Color
. Conductance
. Corrosivity
. Foaming agents
. Hardness
. Iron
. Magnesium
. Manganese
. Odor
. Ph
. Potassium
. Silica
. Silver
. Sodium
. Sulfate
. Total Acidity
. Total Alkalinity
. Total dissolved solids (hardness)
. Zinc

All analyses will be listed in the final report, as well as the reasons for deleting the analyses for any items contained in this list.

The Consultant shall determine the water treatment requirements for the groundwater supply source and include costs for this treatment in the final report.

4. Deliverables

The Consultant shall submit to the Office three (3) hard copies of a draft report describing the results of all work completed in this study no later than November 15, 2024. One USB drive containing the draft report in a Searchable Image Adobe Acrobat (pdf) format will also be provided, and two (2) USB drive(s) copies of the draft ArcGIS coverages (if applicable). The digital report will be completely assembled into one standalone Acrobat file, and will be the same version as the hard copy. Each USB drive shall have a hard copy table of contents attached.

After receipt and incorporation of the Office and the Sponsor's review comments, the Consultant shall submit all final documents and materials to the Office on or before January 15, 2025. These final documents and materials shall include:

- Eight (8) hard copies of the final report.

- Three (3) USB drive copies containing the final report in both Microsoft Word and Searchable Image Adobe Acrobat (pdf) formats will be provided. The digital reports will be completely assembled, contained in one Word file and one Acrobat file for each report, and will be the same version as the hard copies. The USB drives shall also contain the project digital files in their original format (Word, Cad, Excel). Each USB drive shall have a hard copy table of contents attached.

- Two (2) USB drive copies containing the final report in Searchable Image Adobe Acrobat (pdf) format will be provided. The digital reports will be completely assembled, contained in one Acrobat file for each report, and will be the same version as the hard copies. Each USB drive shall have a hard copy table of contents attached.

- One (1) project notebook containing the working files used in this project will be provided. The project notebook files shall include descriptions of the assumptions and methodologies used in the project analysis. The notebook shall be organized in such a way as to allow replication of the steps, calculations, and procedures used by the Consultant to reach the conclusions described in the final report.

PLANNING PROJECTS CONSULTANT SELECTION & CONTRACT APPROVAL

Return to Agenda

Materials for the consultant selection results on the Green River\Little Snake River Basins Conveyance Loss Study will be handed out during the meeting

Return to Agenda

Materials for the consultant selection results on the Rawlins Water Master Plan will be handed out during the meeting

Return to Agenda

FONTENELLE RESERVOIR – 3RD PARTY CONTRACT CONSIDERATION

Return to Agenda

CONTRACT BETWEEN STATE OF WYOMING, WYOMING WATER DEVELOPMENT COMMISSION AND AMERICAN SODA LLC

1. **PARTIES.** The Parties to this Contract are THE STATE OF WYOMING, acting through the Wyoming Water Development Commission ("State"), whose address is 6920 Yellowtail Road, Cheyenne, Wyoming 82002, and, AMERICAN SODA LLC, whose address is 400 County Road 85, Green River, Wyoming 82935 ("Contractor"). The State and Contractor are sometimes referred to herein individually as a "Party" and jointly as the "Parties."

2. **RECITALS.**

A. The United States of America, acting through the Secretary of the Interior, has constructed Fontenelle Reservoir ("Fontenelle") on the Green River, a tributary of the Colorado River in the State of Wyoming, as a feature of the Seedskadee Project, a participating project of the Colorado River Storage Project authorized under the Act of Congress approved April 11, 1956 (43 U.S.C 620, 70 Stat. 105).

B. Waters storable in Fontenelle are within the portion of the waters of the Colorado River apportioned to the State of Wyoming under the Colorado River Compact (Wyoming Session Laws 1923, Ch. 3, Sec. 1) as approved by the United States Congress, December 21, 1928, (45 Stat. 1064) and the Upper Colorado River Basin Compact (Wyoming Session Laws 1949, Ch. 6, Sec. 1) as approved by the United States Congress, April 8, 1949, (63 Stat. 31).

C. The rights to store water in Fontenelle and to divert the waters of the Green River are evidenced by Wyoming Permit No. 6629-Res., with a priority date of January 22, 1962, and Permit No. 22364 with a priority date of April 26, 1955.

D. Under authority of The Act of August 4, 1939, Ch. 418, 53 Stat. 1187, 43 U.S.C. 485, the U.S. Bureau of Reclamation and the Secretary of the Interior are authorized to contract for the sale of storage water in Bureau of Reclamation water storage projects.

E. Pursuant to the authority granted by Chapter 190, Session Laws of Wyoming 1959 and Chapter 128, Session Laws of Wyoming 1973, the State of Wyoming has contracted with the United States of America, by Contract Number 14-06-400-2474 dated June 14, 1962, and by Contract Number 14-06-400-6193 dated December 27, 1974 ("Federal Contracts"), by which the State has agreed to purchase 120,000 acre-feet of Fontenelle Reservoir storage water and the right to use said waters under Permit Nos. 6629 Res. and 22364 for municipal and industrial ("M & I") use and other uses.

F. The Wyoming Attorney General has furnished her written opinion declaring that the proceedings on the part of the State for authorization and execution of the Federal Contracts were valid and proper and that said contracts are legal and binding obligations of the State.

G. This Contract is entered into pursuant to and subject to the compacts, laws, permits, and Federal Contracts hereinabove described, which are attached hereto and incorporated herein as Attachment B and Attachment C.

H. All water contracted for by Contractor under the provisions of this Contract shall be deemed, for the purposes of said Federal Contracts, to have been used by the State.

NOW THEREFORE, for good and valuable consideration, and intending to be legally bound, each of the Parties to this Contract hereby agrees to the following:

3. **PURPOSE OF CONTRACT.** The parties wish to enter into this Contract for the purpose of the State providing Readiness-To-Serve services to Contractor for four thousand (4,000) acre-feet of water per calendar year from Fontenelle and the right to purchase all or a portion of this amount for use at Township 18 North, Range 109 West, Section 31 located in Sweetwater County, Wyoming (Green River Soda Ash Plant). The State has a right to water from Fontenelle under the Federal Contracts.

4. **TERM OF CONTRACT.**

A. **Effective Date.** This Contract is effective on the date of the signature last affixed to the signature page.

B. **Term.** The initial period of this Contract shall commence on the Effective Date and end on December 31, 2052. In addition, Contractor shall have the option to extend the initial period up to three additional, successive ten year periods (the initial period plus any successive periods referred to collectively as the "Term"). Written notice of Contractor's election to extend the initial period or any successive period in this manner shall be delivered to the State at least six (6) months prior to the expiration of the period sought to be extended.

5. **SERVICES & PAYMENT.**

A. **Readiness-To-Serve Annual Payments.**

(i) The State shall make available to Contractor each calendar year during the Term, on a Readiness-To-Serve basis, four thousand (4,000) acre-feet of water ("Contract Water Amount") from Fontenelle for use at the Green River Soda Ash Plant. Readiness-To-Serve shall mean that the State assures sufficient water, as provided by the Federal Contracts, is available to

Contractor in Fontenelle during the Term so that any portion of the Contract Water Amount can be purchased and used by Contractor under the terms and conditions of this Contract.

(ii) In the event of drought or other acts of nature (force majeure) that would interrupt or limit releases of the Contract Water Amount, the State agrees to meet with representatives of the United States and Contractor to identify and seek administrative and operational remedies that would maximize releases prescribed by the referenced Federal Contracts.

(iii) In consideration for the State providing the Readiness-To-Serve services, Contractor shall pay the State annually a fee equal to ten dollars ($10.00) per acre-foot of the annual Contract Water Amount. Provided, however, that the foregoing annual fee shall be reduced proportionately in any particular year to the extent the State does not provide full Readiness-To-Serve services in that year. The Readiness-To-Serve fee shall be credited to Contractor in the event it elects to purchase water under Section 5.B. Contractor shall pay the Readiness-To-Serve fee in accordance with Section 5.E.

B. Purchase Water Amount.

(i) In addition to the Readiness-To-Serve services under Section 5.A., the State shall release to Contractor, at Contractor's option and upon written notice as set forth in Section 6.D., an amount of stored water from Fontenelle ("Purchase Water Amount") not to exceed the Contract Water Amount during each calendar year of the Term.

(ii) Contractor may exercise its option to purchase the Purchase Water Amount from the State at any time and from time to time throughout the calendar year upon written notice as set forth in Section 6.D. Contractor's purchase of the Purchase Water Amount in any calendar year does not obligate Contractor to purchase the Purchase Water Amount in any subsequent years.

(iii) In consideration of the State delivering the Purchase Water Amount, Contractor shall pay the State, in advance of any such water delivery in a given calendar year, the rate of eighty-one dollars ($81.00) per acre-foot per year ("Base Rate") for each acre foot that Contractor elects to purchase. This Base Rate shall be in effect during the initial five-year period of the Term.

(iv) At the end of each successive five year period of the Term following the initial five-year period, the Base Rate shall be automatically revised (the "Revised Rate") as set forth in Attachment A, which is attached to and

incorporated into this Contract by this reference. In no event shall the Revised Rate be less than the Base Rate.

C. Normal Annual OM&R Payments. In addition to payments under Sections 5.A. and 5.B., Contractor shall pay to the State a proportionate share of the Normal Annual Operation Maintenance & Replacement ("OM&R") Charges for Fontenelle as allocated to the State by the United States Department of the Interior ("United States") and determined in accordance with the following formula:

> *The Contract Water Amount available to Contractor on a Readiness-To-Serve basis (4,000 acre-feet) divided by the total amount of water for which the State contracts with the United States to receive from Fontenelle (120,000 acre-feet), times the total Normal Annual OM&R Charges allocated to the State by the United States.*

The use of the word "normal" in this subsection is intended to indicate the customary OM&R charges incurred at Fontenelle, other than the cost of Major Dam Repair and Construction which shall not be included in the Normal Annual OM&R Charges allocated to Contractor by the State. The cost of Normal Annual OM&R Charges allocated to Contractor by the State shall not include the initial construction costs of any future Fontenelle Reservoir or dam projects designed to increase the useable active capacity of Fontenelle, including without limitation the riprap project under consideration by the State as of the Effective Date of this Contract, which is designed to increase the useable active capacity of Fontenelle Reservoir by approximately eighty thousand (80,000) acre-feet. However, should the State increase the useable active capacity of Fontenelle Reservoir after the Effective Date of this Contract, and the State has a right to water made available due to the increase, the expanded active capacity of Fontenelle Reservoir, to the extent the State has a right to that water, shall be included in the total amount of water for which the State contracts with the United States to receive from Fontenelle in the denominator of the formula set forth in this Section 5.C. of the Contract, which is used to determine Contractor's' Normal Annual OM&R Charges.

D. Major Dam Repair and Construction Payments. In addition to payments under Section 5.A., 5.B. and 5.C., Contractor shall pay to the State a proportionate share of the actual cost of any Major Dam Repair and Construction at Fontenelle which is allocated to the State by the United States and computed in the same manner as the Normal Annual OM&R Payment in Section 5.C. of this Contract. However, costs incurred by the State to further expand the useable active capacity of Fontenelle, including without limitation the riprap project under consideration by the State as of the date of this Contract, which is designed to increase the useable active capacity of Fontenelle by approximately eighty thousand (80,000) acre-feet, shall not be included in the Major Dam Repair and Construction Costs allocated to

Contractor by the State. To the extent that such Major Dam Repair and Construction charges exceed five dollars ($5.00) per acre-foot, Contractor may elect to pay that portion of such charges which exceed five dollars ($5.00) per acre-foot over a period not to exceed twenty (20) years after such charges are first invoiced to Contractor. Contractor's right to make such an election is conditioned upon executing a separate written agreement with the State which contains all payment terms as mutually agreed upon by the Parties. If Contractor's obligation under this section will not be paid in full by the twentieth year, that portion of Contractor's obligation which remains due at the end of the twentieth year shall be paid by Contractor at that time.

E. Annual Payments. Contractor shall make the annual payments specified in Sections 5.A., 5.C. and 5.D. in the following manner (payments for the Purchase Water Amount, as specified in Section 5.B. are addressed in Section 6.A.):

(i) The State shall supply an annual invoice or statement to Contractor for the applicable Readiness-To-Serve payments as specified in Section 5.A., the Normal Annual OM&R Payments as specified in Section 5.C., and any Major Dam Repair and Construction costs as specified in Section 5.D. Invoices/statements shall be addressed as follows:

American Soda LLC, accountspayable.na-us@solvay.com
and ouisha.dean@solvay.com

(ii) The State shall send the annual invoice to Contractor during the period from the first day of January to the first day of March of each year.

(iii) The State's invoice will include, as an attachment, the United States' notice of estimated Normal Annual OM&R Charges and Major Dam Repair and Construction costs, as well as documentation pertaining to the actual Normal Annual OM&R costs from the previous year, and Major Dam Repair and Construction costs, if any.

(iv) Annual payments from Contractor under this section are due within thirty (30) days of Contractor's receipt of the State's annual invoicing by certified mail.

6. SPECIAL PROVISIONS.

A. Purchase Water Amount.

(i) After receiving Contractor's written notice pursuant to Sections 5.B.(i) and 6.D., the State shall submit an invoice to Contractor for the Purchase Water Amount using the Base Rate or the Revised Rate, as applicable, as set forth

in Section 5.B. The invoice shall be sent to the address identified in Section 5.E.(i).

(ii) Advanced payment by Contractor for any portion of the Purchase Water Amount that is not released from Fontenelle according to Contractor's request or developed schedule shall be refunded by the State to Contractor at the same rate which Contractor paid for the unused water by January 31 of the following calendar year.

(iii) During each calendar year, any portion of the Contract Water Amount not elected to be purchased by Contractor under Section 5.B. shall remain available under the Readiness-To-Serve service for purchase by Contractor for the balance of such calendar year.

(iv) Upon receipt of a proper invoice, Contractor shall pay the invoiced amount to the State within thirty (30) days.

(v) Upon failure of Contractor to make timely payments in accordance with Sections 5 and 6 of this Contract, and upon thirty (30) days written notice to Contractor by the State and failure to cure such non-payment by Contractor, this Contract shall terminate at the option of the State.

B. Relinquishment.

(i) If at any time during the Term the State receives a bona fide written offer to purchase water from Fontenelle on a temporary basis not to exceed one calendar year, which necessarily involves the use of any portion of the Contract Water Amount, the State shall not accept such offer until it: (i) notifies Contractor of the terms of such offer in writing by certified mail and (ii) allows Contractor the opportunity to purchase, within sixty (60) days of receipt of such notice, the same amount of water up to the Contract Water Amount which is the subject of such bona fide temporary annual purchase offer at the same price as that being offered by the proposed purchaser or at the purchase price set forth in section 5.B., whichever is less. The bona fide temporary annual offer shall be deemed to necessarily involve a portion of the Contract Water Amount if the total Fontenelle water contracted from the State, including the bona fide offer, exceeds the total acre-feet to which the State is entitled under the Federal Contracts. If the State exercises the provision in this section, the State will reimburse Contractor for the Readiness-To-Serve fees for the amount of the water relinquished and restore Contractor's original Contract Water Amount the succeeding calendar year.

(ii) The Parties recognize that an express purpose of this Contract is to maximize the beneficial use of the waters of the State of Wyoming and the

Parties agree that this purpose shall guide the interpretation of this Contract, anything to the contrary contained herein notwithstanding. To this end, negotiations by the State and solicitations of offer(s) to contract with another entity for the purchase and sale of water shall not be deemed a breach of this Contract. The State shall be free to make any disposition it chooses of any portion of the Contract Water Amount in any year in which Contractor has relinquished its Readiness-To-Serve rights or elected not to acquire the Purchase Water Amount.

C. Contract Water Amount Increase. At any time during the Term, Contractor may provide a written notification to the State requesting that the Contract Water Amount be increased. The State agrees to use its best effort to accommodate Contractor's request to increase the Contract Water Amount in which case the Parties shall enter into a mutually acceptable written amendment to this Contract reflecting the terms of any increase to the Contract Water Amount.

D. Delivery.

(i) Contractor shall provide at least sixty (60) days written notice to the State of Contractor's desired schedule of release date(s) and amounts of the Purchase Water Amount so elected under Sections 5.B. and 6.D.

(ii) The State shall exercise all rights under the Federal Contracts to arrange for release to Contractor of the Purchase Water Amount at such rates of flow as Contractor shall specify in its desired schedule provided to the State. In the event that Contractor's desired schedule for releases conflicts with the Bureau of Reclamation's Fontenelle operating plans or rules, or creates problems related to the State's other obligations concerning regulation and releases from Fontenelle for which the State cannot overcome by the exercise of reasonable effort and expense and which require a change in the Contractor's desired schedule (e.g., rate of flow, timing of flow requested, etc.), then the State shall notify Contractor at the earliest time reasonable under the circumstances. The Parties will use their best efforts to develop a schedule that will accommodate Contractor's needs and avoid the Fontenelle water release problems.

(iii) Contractor shall divert the Purchase Water Amount at its existing point of diversion on the Green River, described and located as follows:

NE1/4 SE1/4 of Section 1, Township 19 North, Range 109 West

The Purchase Water Amount may be diverted at a point other than Contractor's existing point of diversion only upon agreement of all Parties. Release by the State of the Purchase Water Amount into the Green River at the Fontenelle Dam shall constitute delivery of the Purchase Water Amount

to Contractor. Contractor shall use the Purchase Water Amount for municipal or industrial purposes, or both, within the State of Wyoming, except as provided in Section 6.D.(iv).

(iv) Contractor may not transport the Purchase Water Amount for use outside the State of Wyoming without complying with applicable Wyoming Statutes then in effect.

(v) Contractor intends to use the Purchase Water Amount as replacement water should the direct flow source of Contractor's appropriation under Permit 26126D become insufficient, in full or in part, to supply the appropriation. In the event Contractor intends to use the Purchase Water Amount in addition to, rather than replacement of, diversions made under Permit 26126D, Contractor shall notify the State and Bureau of Reclamation in writing of its intent prior to the Purchase Water Amount being released. Bureau of Reclamation shall then ensure any necessary environmental compliance is complete, including compliance with Section 7 of the Endangered Species Act of 1973. Once any necessary environmental compliance is complete, Bureau of Reclamation will notify the Parties and the Purchase Water Amount will be available for release for the additional use under the terms of this Contract.

(vi) Contractor shall be responsible for the control, carriage, handling, distribution and use of the Purchase Water Amount released and diverted at its point of diversion, and shall hold the State, its officers, agents and employees harmless from every claim for damage to person or property, direct or indirect, of whatever nature arising out of or in any manner connected with the control, carriage, handling, distribution or use by Contractor of the Purchase Water Amount. Contractor shall have no responsibility or liability for any damages which may result from a break of the Fontenelle Dam, escape of water from Fontenelle, or release of water outside of the Purchase Water Amount requested by Contractor.

(vii) The Parties recognize that a detailed plan of operation is critical to the timely and efficient management of the Purchase Water Amount. Therefore, prior to Contractor making a request for release of the Purchase Water Amount, the Parties agree to cooperatively develop a detailed plan of operation subject to the review of the United States, that will outline the "day-to-day" guidelines of water management under this Contract, including but not limited to Fontenelle storage changes, releases, river flows, evaporation, communication, reporting or any other detailed information relevant to administration of Contractor's rights hereunder.

E. Measurement.

(i) The Purchase Water Amount shall be measured and accounted for at the Fontenelle Dam. Contractor shall assume any loss of any nature whatsoever occurring to the Purchase Water Amount between the Fontenelle Dam and Contractor's point of diversion. Conveyance loss shall be assessed by the State Engineer and may be determined by conducting a conveyance loss study on the system or by using an accepted loss value from a comparable system. All losses occurring to the Purchase Water Amount between the Fontenelle Dam and the point of diversion downstream shall be assessed at Contractor's point of diversion.

(ii) All water diverted by Contractor from the Green River shall be measured at the point or points of diversion by means of recording measuring devices installed and owned by Contractor and approved by the Wyoming State Engineer. Such devices shall be rated as to accuracy upon request by the State at the expense of Contractor. It is recognized by the Parties that such measuring devices may, from time to time, be unable to accurately measure flow (routine maintenance, equipment malfunction, etc.). During such times, Contractor shall estimate the amount of water being diverted based on Contractor Historic Data; plant data, or other comparable historic diversion or use data during comparable periods of previous years.

F. Operations.

(i) It is mutually understood that the United States has reserved, under the Federal Contracts, the right to make rules and regulations to carry out the Federal Contracts and supply necessary details of administration thereunder. To the extent that the operation of Fontenelle may be consistent with Contractor's needs and the State's allocation hereunder, the State agrees to consult with Contractor periodically about its delivery requirements and to include representatives of Contractor in any conferences the State may have regarding specific operation plans for Fontenelle.

(ii) As of the Effective Date of this Contract, Contractor is not able to predict for each calendar year during the Term how much Purchase Water Amount it may elect to receive or the schedule of deliveries. Accordingly, Contractor agrees to use its best efforts to provide the State, on or before March 1, prior to the time in each calendar year (May 1) when the United States develops its annual operating plan for Fontenelle, a tentative schedule for Fontenelle releases expected by Contractor for the calendar year in which deliveries will be made. Modifications to such schedule will be transmitted to the State by Contractor as far in advance of the actual required

releases as possible so that such schedule modifications can be incorporated into current operating procedures for Fontenelle.

(iii) If, due to inadequate overall water supply at Fontenelle, the State is unable to provide all State contractors of Fontenelle water with the total amount of water available under the Federal Contracts, then Contractor's right to receive the Contract Water Amount may be temporarily reduced on a proportionate basis so that all shortages in supply are shared proportionately among all State contractors of Fontenelle water. A contract users' pro rata share shall be determined by dividing the contract users' entitlement by the total amount available to the State for use under the Federal Contracts.

(iv) If the State is unable to provide Contractor the Purchase Water Amount for any reason in any calendar year, then the purchase price per acre-foot of the undelivered water shall be the Readiness-To-Serve fee. Contractor's next Readiness-To-Serve payment due shall be credited by the Readiness-To-Serve amount Contractor paid for water the State was unable to provide the previous calendar year.

G. Default. No Purchase Water Amount shall be released to Contractor under this Contract if Contractor is in default in making any payment due the State under this Contract.

H. Miscellaneous Provisions.

(i) The State will comply with all applicable provisions of the Federal Contracts and will make all required payments to the United States when they become due. If the United States withholds from the State scheduled deliveries of the Purchase Water Amount to Contractor, Contractor shall be excused from making future payments in the same manner that the State is excused from future payment under the Federal Contracts, and will be credited for payments made for water not delivered. This section shall not in any manner make the State a surety for any negligent, misfeasant or malfeasant conduct of the United States.

(ii) The State makes no warranty with respect to the quality of water released to Contractor, it being understood that this is raw, untreated water as it naturally occurs in the Green River at Fontenelle. In the use of the Purchase Water Amount, Contractor shall comply with all applicable State and Federal laws. Contractor shall comply fully with all laws, orders, standards, or regulations under federal, State and local jurisdictions now or hereafter in force as may be applicable to the facilities at which the Purchase Water Amount may be used.

(iii) Contractor shall not make any sale, gift, delivery, assignment or other disposition of this Contract or the whole or any part of the Contract Water Amount or Purchase Water Amount except to any entity or entities associated with or retained by Contractor for purposes and operations advantageous to the continued operation or expansion of the Green River Soda Ash Plant, without first obtaining the express written consent of the State. Nothing contained within this Contract shall be construed to require the State to approve any sale, gift, delivery, assignment or other disposition and the right to disapprove or reject the same is hereby expressly reserved. Notwithstanding the foregoing provisions, the State will not unreasonably withhold approval of the foregoing transfers and assignments:

(a) To any mortgagee, trustee or secured party, as security for bonds or other indebtedness incurred by Contractor or its assigns, as specified above, for the Green River Soda Ash Plant; and subject to all provisions of this Contract, such mortgagee, trustee or secured party may realize upon such security in foreclosure or other suitable proceedings, and succeed to all rights and responsibilities of Contractor;

(b) To any corporation or other entity acquiring all the property of Contractor or its assigns, as specified above, or of any subsidiary or affiliate of Contractor or its assigns, as specified above;

(c) To any corporation or entity which Contractor or its assigns, as specified above, may be merged or consolidated.

Transfer or assignments shall not relieve Contractor of any obligation hereunder except as may be agreed in writing by the State.

(iv) All successors and assigns, if any, of Contractor shall be bound by the terms and conditions herein and will be expressly precluded from using any water delivered under this Contract outside of Wyoming, except as provided herein.

(v) Nothing contained herein relating to the assignability of this Contract shall preclude Contractor from entering into arrangements with others for the installation, construction, operation and maintenance of water diversion, carriage and distribution facilities by which the Purchase Water Amount, separately or together with other permitted water appropriations, may be applied to a beneficial consumptive use in Wyoming.

(vi) Neither party hereto shall be, or be considered as, the agent, servant, or employee of the other party or be held responsible or liable for damages for the acts or conduct of the others.

(vii) Wherever in this Contract a time for performance of an obligation is established, then it is agreed that time is of the essence.

7. GENERAL PROVISIONS.

A. Amendments. Any changes, modifications, revisions, or amendments to this Contract which are mutually agreed upon by the Parties to this Contract shall be incorporated by written instrument, executed by all Parties to this Contract.

B. Applicable Law, Rules of Construction, and Venue. The construction, interpretation and enforcement of this Contract shall be governed by the laws of the State of Wyoming, without regard to conflict of laws principles. The terms "hereof," "herein," and words of similar import, are intended to refer to this Contract as a whole and not to any particular provision or part. The Courts of the State of Wyoming shall have jurisdiction over this Contract and the Parties. The venue shall be the First Judicial District, Laramie County, Wyoming.

C. Audit and Access to Records. The State and its representatives shall have access to any books, documents, papers, electronic data, and records of the Contractor which are pertinent to this Contract.

D. Compliance with Laws. The Contractor shall keep informed of and comply with all applicable federal, state and local laws and regulations in the performance of this Contract.

E. Entirety of Contract. This Contract consisting of fifteen (15) pages; Attachment A, consisting of one (1) page; Attachment B, consisting of ten (10) pages; and Attachment C consisting of thirty-five (35) pages represent the entire and integrated Contract between the Parties and supersede all prior negotiations, representations, and agreements, whether written or oral.

F. Force Majeure. Neither Party shall be liable for failure to perform under this Contract if such failure to perform arises out of causes beyond the control and without the fault or negligence of the nonperforming Party. Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather. This provision shall become effective only if the Party failing to perform immediately notifies the other Party of the extent and nature of the problem, limits delay in performance to that required by the event, and takes all reasonable steps to minimize delays.

G. Indemnification. The Contractor shall release, indemnify, and hold harmless the State, the Wyoming Water Development Commission, and their officers, agents, and employees from any and all claims, suits, liabilities, court awards, damages, costs, attorneys' fees, and expenses arising out of Contractor's failure to perform

any of Contractor's duties and obligations hereunder or in connection with the negligent performance of Contractor's duties or obligations, including, but not limited to, any claims, suits, liabilities, court awards, damages, costs, attorneys' fees, and expenses arising out of Contractor's negligence or other tortious conduct.

H. **Notices.** Notices to be given hereunder shall be deemed fully given and served when received by certified mail, addressed to the State in care of the Director, Wyoming Water Development Commission 6920 Yellowtail Road, Cheyenne, Wyoming 82002 or to American Soda LLC, Vice President – Site Manager, 400 County Road 85, Green River, WY 82935 or at such other address as either Party shall hereafter designate in writing. Routine communications, including invoices/statements, shall be considered as duly delivered when addressed as follows: American Soda LLC, accountspayable.na-us@solvay.com and ouisha.dean@solvay.com or e-mailed to the Director and Fiscal Manager of the Wyoming Water Development Commission.

I. **Independent Contractor.** The Contractor shall function as an independent contractor for the purposes of this Contract and shall not be considered an employee of the State of Wyoming for any purpose. Consistent with the express terms of this Contract, the Contractor shall be free from control or direction over the details of the performance of services under this Contract. The Contractor shall assume sole responsibility for any debts or liabilities that may be incurred by the Contractor in fulfilling the terms of this Contract and shall be solely responsible for the payment of all federal, state, and local taxes which may accrue because of this Contract. Nothing in this Contract shall be interpreted as authorizing the Contractor or its agents or employees to act as an agent or representative for or on behalf of the State of Wyoming or the Agency or to incur any obligation of any kind on behalf of the State of Wyoming or the Agency. The Contractor agrees that no health or hospitalization benefits, workers' compensation, unemployment insurance or similar benefits available to State of Wyoming employees will inure to the benefit of the Contractor or the Contractor's agents or employees as a result of this Contract.

J. **Severability.** Should any portion of this Contract be judicially determined to be illegal or unenforceable, the remainder of the Contract shall continue in full force and effect, and the parties may renegotiate the terms affected by the severance.

K. **Sovereign Immunity and Limitations.** Pursuant to Wyo. Stat. § 1-39-104(a), the State of Wyoming and the Wyoming Water Development Commission expressly reserve sovereign immunity by entering into this Contract and specifically retain all immunities and defenses available to them as sovereign. The parties acknowledge that the State of Wyoming has sovereign immunity and only the Wyoming Legislature has the power to waive sovereign immunity. Designations of venue, choice of law, enforcement actions, and similar provisions shall not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity

in this Contract shall not be strictly construed, either against or for either party, except that any ambiguity as to sovereign immunity shall be construed in favor of sovereign immunity.

L. **Termination.** This Contract may be terminated for cause as provided in Section 6.A.(v) of this Contract.

M. **Third Party Beneficiary Rights.** The Parties do not intend to create in any other individual or entity the status of third-party beneficiary, and this Contract shall not be construed so as to create such status. The rights, duties, and obligations contained in this Contract shall operate only between the Parties to this Contract and shall inure solely to the benefit of the Parties to this Contract. The provisions of this Contract are intended only to assist the Parties in determining and performing their obligations under this Contract.

N. **Titles Not Controlling.** Titles of sections and subsections are for reference only and shall not be used to construe the language in this Contract.

O. **Waiver.** The waiver of any breach of any term or condition in this Contract shall not be deemed a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.

P. **Counterparts.** This Contract may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Contract. Delivery by Contractor of an originally signed counterpart of this Contract by PDF shall be followed up immediately by delivery of the originally signed counterpart to the State.

THE REMAINDER OF THIS PAGE WAS INTENTIONALLY LEFT BLANK

8. **Signatures.** The Parties to this Contract, either personally or through their duly authorized representatives, have executed this Contract on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Contract intending to be legally bound.

AMERICAN SODA LLC:

_____ _____
Todd Brichacek, Executive Vice President – Site Manager Date

WYOMING WATER DEVELOPMENT COMMISSION

_____ _____
Ronald E. Kailey, Chairman Date

_____ _____
Lee Craig, Secretary Date

WYOMING STATE ENGINEER

_____ _____
Brandon Gebhart Date

GOVERNOR

_____ _____
Mark Gordon Date

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____
Megan Pope, Senior Assistant Attorney General Date

ATTACHMENT A

Computation of Revised Purchase Rate

(1) At five year intervals from the Effective Date during the term of this Contract or any extension thereof, the State shall compute the increase, if any, using as a basis of such computation the United States Department of Labor Consumer Price Index (CPI) for All Urban Consumers (CPI-U) for the U.S. City Average for All Items, 1982-84 =100, hereinafter called the CPI, published by the United States Department of Labor, Bureau of Labor Statistics.

(2) The Base Index Number (BIN) shall be the Index Number published by the United States Department of Labor for the month and year that this Contract is first entered into. The Current Index Number (CIN) shall be the corresponding CPI number for the month and year on each five year anniversary of this Contract and any extension thereof.

(3) The increase in the CPI, if any, on each five year anniversary of this Contract shall be determined by dividing the CIN by the BIN and subtracting the integer 1 (one) from the quotient in accordance with the following formula: Increase in construction cost index = CIN/BIN - 1.

(4) Seventy-five percent (75%) of the increase of the Implicit Price Deflator multiplied by eighty-one dollars ($81.00) per acre-foot per year shall be the increase required to be added to the eighty-one dollars ($81.00) per acre-foot per year as set forth above.

(5) For example, if the BIN is 200 and the CIN at the first five year anniversary is 400, the price would be:

$$\$81.00 + [.75 \times (400/200 - 1) \times \$81.00] = \$141.75 \text{ per acre-foot per year}$$

At the ten year anniversary of the Contract, if the CIN is 800 the price would be:

$$\$81.00 + [.75 \times (800/200 - 1) \times \$81.00] = \$263.25 \text{ per acre-foot per year}$$

ATTACHMENT B

DUPLICATE ORIGINAL

Contract No. 14-06-400-2474

ROFS060661
Rev. 6/28/61
Rev. W.O. 8/10/61
Rev. W.O. 5/21/62

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Colorado River Storage Project
Seedskadee Participating Project

CONTRACT WITH THE STATE OF WYOMING
for
STORAGE CAPACITY IN FONTENELLE RESERVOIR

THIS CONTRACT, made this 14th day of June, 1962, between THE UNITED STATES OF AMERICA, hereinafter called the United States, acting through the Secretary of the Interior, and pursuant to the Federal Reclamation Laws, and THE STATE OF WYOMING, herein called the State, acting through the Wyoming Natural Resource Board.

WITNESSETH, That:

WHEREAS, the following statements are made in explanation:

The Act of Congress approved April 11, 1956 (70 Stat. 105), authorized the construction, operation and maintenance of the Seedskadee Project, a participating project of the Colorado River Storage Project, which participating project is hereinafter called the project, and the United States has investigated, planned, and proposes to construct said project for the diversion, storage and distribution of water of the Green River for irrigation, municipal, flood control, fish and wildlife and recreational purposes.

The Act of Congress of July 3, 1958 (72 Stat. 320), Title III (Water Supply) provided that storage may be included in any reservoir project to be surveyed, planned and constructed by the Bureau of Reclamation to impound water for anticipated future need for municipal

or industrial water when the State or local interests shall agree to pay for the cost of providing storage for anticipated future demands as provided in said Act.

The State of Wyoming, by Chapter 190, Session Laws of Wyoming, 1959, approved by the Governor, March 2, 1959, authorized its Wyoming Natural Resource Board to contract with the United States for not to exceed 60,000 acre-feet of additional capacity in Fontenelle Reservoir to meet anticipated future demands and for the payment to the United States of not to exceed $900,000 as the allocated costs thereof pursuant to said Act of Congress of July 3, 1958.

NOW, THEREFORE, in consideration of the mutual and dependent covenants and conditions herein contained, it is agreed between the parties hereto as follows:

GENERAL DEFINITIONS

1. When used herein, unless otherwise distinctly expressed or manifestly incompatible with the intent hereof, the terms:

a. "Secretary" or "Contracting Officer" shall mean the Secretary of the Interior or his duly authorized representative.

b. "Project" shall mean the Seedskadee Participating Project as authorized by the Congress by the Act of April 11, 1956 (70 Stat. 105).

c. "Reservoir" shall mean the Fontenelle Dam and Reservoir, a feature of the Project.

d. "Project Water" shall mean the water made available by the project works for project purposes, including the

water made available to the State hereunder by virtue of increasing the capacity of the reservoir.

PROJECT WORKS

2. The United States will investigate, plan and construct the Project, including the Reservoir, and pursuant to said July 3, 1958 Act (72 Stat. 320), Title III, will provide 60,000 acre-feet of additional active storage capacity in said reservoir or such part thereof as $900,000 allocated to municipal and industrial purposes shall construct to carry out the purposes of said Act, and this contract.

REPAYMENT OBLIGATION

3. a. The State hereby agrees to pay to the United States in the manner herein provided the sum of $900,000 or such lesser amount as represents project cost finally allocated by the Secretary to municipal and industrial purposes as provided in the Water Supply Act of July 3, 1958 (72 Stat. 320), including interest accruing during construction of the reservoir at the rate of 2.632 percent per annum, herein designated as the repayment obligation. This sum shall be exclusive of operation, maintenance and replacement costs for the project works which are to be paid as provided in Article 5.

b. The State agrees to pay the repayment obligation in fifty (50) successive, equal annual installments commencing December 31 of the year in which the water supply herein provided is first used by the State, or commencing December 31 of the eleventh year after completion of construction of the dam and reservoir, whichever comes first. The State, at its option, may accelerate payment of any part of its repayment obligation.

c. Beginning with the first installment paid on the repayment obligation as provided in subsection (b) above, or commencing with the eleventh year after completion of construction of the dam and reservoir, whichever comes first, interest shall be charged the State at the rate of 2.632 percent per annum on the unpaid balance of the repayment obligation. Such interest charges shall be paid the United States annually on December 31 each year during the repayment period.

USE AND ALLOTMENT OF PROJECT WATER

4. The United States shall notify the State when the reservoir is completed and water is available for the use of the State. The notice shall specify the amount of storage water not to exceed 60,000 acre-feet that is available for the use of the State, and shall be based on the yield of the additional capacity of the reservoir constructed as provided herein. The State shall have the perpetual right to use such water to the extent that it has contracted for its use for municipal and industrial purposes with others and to call for the release from the reservoir such water so contracted. Such contracts with others shall be subject to the provisions of this contract and shall be submitted to the Secretary of the Interior, before execution, for his review and recommendations. A copy of such contract or contracts is to be filed with the United States. All such water not used by the State for municipal and industrial purposes shall be utilized by the United States for the benefit of the project as a whole.

OPERATION, MAINTENANCE AND REPLACEMENT CHARGES

5. The State shall pay the United States or its designee,

if some organization other than the United States is operating the project, its proper share of the cost of operation and maintenance and replacement of the reservoir. Payment under this article shall be in advance on the basis of annual estimates made by the Secretary. A notice of the estimates shall be furnished to the State on or before August 1 of the year preceding the one for which the notice is issued. The State shall pay the amounts set out in any such notice on or before December 31 of the year in which the notice is given. Payment under this article shall commence with the first year the State receives water under this contract.

REFUSAL OF WATER IN CASE OF DEFAULT

6. No water shall be delivered to the State under this contract if it is in arrears in the advance payment of operation, maintenance and replacement charges due as provided in Article 5, or it is in arrears more than 12 months in the installment payments as provided in Article 3 hereof. The provisions of this article are not exclusive and shall not in any manner prevent the United States from exercising any other remedy given by this contract or by law to enforce the collection of any payments due under the terms of this contract.

RIGHTS RESERVED UNDER SECTION 3737 REVISED STATUTES

7. All rights of action for breach of any of the provisions of this contract are reserved to the United States, as provided in Section 3737 of the Revised Statutes of the United States.

PENALTY FOR DELINQUENT PAYMENTS

8. Every installment or charge required to be paid to the

United States under this contract and which shall remain unpaid after it shall become due and payable, shall be subject to a penalty of one-half of one percent per month from the date of delinquency.

TITLE TO PROJECT WORK TO REMAIN IN THE UNITED STATES

9. Title to the reservoir shall remain in the United States until otherwise provided by the Congress.

UNITED STATES NOT LIABLE FOR WATER SHORTAGE

10. In the event there is a shortage of project water resulting from drouth, inaccuracy in distribution, hostile diversion, prior or superior claims, or other causes, no liability shall accrue against the United States, or any of its officers, agents or employees for any damage, directly or indirectly arising therefrom, and the payments to the United States provided for herein shall not be reduced because of any such shortage or damage. In the event of such shortage all project uses shall bear such shortages proportionately.

RESPONSIBILITY FOR DISTRIBUTION AND BENEFICIAL USE OF WATER

11. The State shall be responsible for the control, carriage, handling, distribution, and use of all water delivered or taken hereunder and shall hold the United States, its officers, agents, employees, and successors or assigns, harmless from every claim for damages to persons or property, direct or indirect, and of whatever nature, arising out of or in any manner connected with the control, carriage, handling, distribution, or use of such water. The State shall not use any of the project water taken or delivered hereunder for other

than municipal and industrial purposes. Beneficial use shall be the basis, the measure, and the limit of the right to the use of project water.

SECURITY FOR PAYMENT OF OBLIGATIONS

12. The State shall, to the extent permitted by law, exercise all powers to meet its obligations to the United States under this contract including, but not limited to, the issuance of bonds authorized by Chapter 190, Session Laws of Wyoming, 1959 and the establishment of the Fontenelle Reservoir Revolving Fund therein provided. The State further grants the United States a first lien on all receipts collected from project water sold by the State and deposited in said fund.

ACCESS TO BOOKS AND RECORDS

13. Each party shall have the right, during office hours, to inspect and to make copies of the other party's books and official records relating to matters covered by this contract.

RULES AND REGULATIONS

14. There is reserved to the Contracting Officer the right, so far as the purport thereof may be consistent with the provisions of this contract, to make rules and regulations and to add to or to modify them as may be deemed proper and necessary to carry out this contract, and to supply necessary details of its administration, and the State agrees to observe such rules and regulations.

PUBLIC USE OF RESERVOIRS

15. Public recreation, including boating, fishing, and

hunting will be allowed on or in project reservoirs. Fishing and hunting on or in said reservoirs will be allowed in accordance with State and Federal laws without payment of any charge or fee except as required by such laws. The Contracting Officer may promulgate or approve such rules and regulations as he may deem necessary and proper for project purposes, for the protection of the works, for public health and safety, and may enter into contracts with the State or State agencies to regulate and administer such facilities for recreation or similar uses; Provided, that such contracts may provide for a fee or fees to be charged for use of such area or facilities, or both. Nothing in this article shall affect the use of project reservoirs for recreation in accordance with Section 8 of the Act of Congress approved April 11, 1956 (70 Stat. 105). Public use of reservoirs as provided herein or as provided in said Section 8 shall be consistent with the primary purposes of the project.

NOTICES

16. a. Any notice authorized or required to be given to the United States shall be delivered or mailed, postage prepaid, to the Regional Director, Region 4, Bureau of Reclamation, Salt Lake City, Utah. Any notice authorized or required to be given to the State shall be delivered or mailed, postage prepaid, to the Wyoming Natural Resource Board, Cheyenne, Wyoming.

b. The designation of the addressee or the address given above may be changed by notice given in the same manner as provided in this article for other notices.

CONTINGENT UPON APPROPRIATIONS OR ALLOTMENT OF FUNDS

17. The expenditure of any money or the performance of any work by the United States herein provided for, which may require appropriations of money by Congress or the allotment of funds, shall be contingent upon such appropriations or allotments being made. The failure of Congress to so appropriate funds or the failure of an allotment of funds shall not relieve the State from any obligations under this contract nor give the State the right to terminate this contract as to any of its executory features. No liability shall accrue against the United States in case of such funds not being appropriated or allotted.

ASSIGNMENT LIMITED - SUCCESSORS AND ASSIGNS OBLIGATED

18. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any part or interest therein shall be valid until approved by the Secretary.

ASSURANCES RELATING TO VALIDITY OF CONTRACT

19. This contract shall not be binding upon the United States; nor shall any water be delivered pursuant to this contract until the Attorney General of the State of Wyoming has furnished his written opinion declaring that the proceedings on the part of the State for authorization of the execution of this contract were valid and proper and that this contract is a legal and binding obligation of the State.

CONTINGENT FEE CLAUSE

20. The State warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the State for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or in its discretion to add to the contract repayment obligation or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

OFFICIALS NOT TO BENEFIT

21. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By F. M. Clinton
Regional Director
Bureau of Reclamation

STATE OF WYOMING
WYOMING NATURAL RESOURCE BOARD

By
President
Glenn E. Sorensen

ATTEST:

Charles S. Sargent, Jr.
Secretary
Charles S. Sargent, Jr.

10

Attachment C

Contract No. 14-06-400-6193
(FA No. 5- -01-00033)
Conformed Copy

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Colorado River Storage Project
Seedskadee Participating Project

REPAYMENT CONTRACT WITH THE STATE OF WYOMING
for
RESERVOIR CAPACITY IN FONTENELLE RESERVOIR

INDEX

INDEX

Contract No. 14-06-400-6193
(FAST No. 5-05-01-00033)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Conformed Copy

Colorado River Storage Project
Seedskadee Participating Project

REPAYMENT CONTRACT WITH THE STATE OF WYOMING
for
RESERVOIR CAPACITY IN FONTENELLE RESERVOIR

THIS CONTRACT, made this 27th day of December, 1974, between THE UNITED STATES OF AMERICA, hereinafter called the United States, acting through the Secretary of the Interior, and pursuant to the Federal Reclamation Laws, and THE STATE OF WYOMING, hereinafter called the Contractor, acting through the WYOMING DEPARTMENT OF ECONOMIC PLANNING AND DEVELOPMENT.

WITNESSETH, That:

EXPLANATORY RECITALS

WHEREAS, the following statements are made in explanation:

The Act of Congress approved April 11, 1956 (70 Stat. 105), authorized the construction, operation and maintenance of the Seedskadee Project, a participating project of the Colorado River Storage Project, which participating project is hereinafter called the Project, and the United States has investigated, planned, and is constructing said project for the diversion, storage, and distribution of water of the Green River for irrigation, power, municipal, industrial, flood control, fish and wildlife and recreational purposes.

WHEREAS, pursuant to Chapter 190, Session Laws of Wyoming, 1959, approved by the Governor March 2, 1959, the State of Wyoming contracted with the United States, Contract No. 14-06-400-2474, dated

Preamble
Explanatory Recitals

June 14, 1962, for not to exceed 60,000 acre-feet of storage capacity in Fontenelle Reservoir to meet future anticipated demands and for payment to the United States of not to exceed $900,000 as the allocated costs thereof pursuant to Title III of said Act of Congress of July 3, 1958 (72 Stat. 297).

WHEREAS, Fontenelle Dam and Reservoir of the Seedskadee Project has been constructed by the United States and Contractor desires to contract for the perpetual right to use an additional portion of the storage capacity and eventually purchase all unused storage capacity in said reservoir, as hereafter defined for the purpose of beneficially utilizing the waters of the Green River.

WHEREAS, the United States has heretofore filed applications for and obtained permits for the appropriation of the waters of the Green River in the State of Wyoming, as follows:

(a) Permit No. 6629 Res. filed January 22, 1962, and approved July 21, 1962, for the storage of water in the Fontenelle Reservoir for irrigation, domestic, industrial, municipal, stock watering, fish and wildlife, recreation and power purposes, for a total capacity of 345,397 acre-feet, with 190,250 acre-feet of active capacity, 154,584 acre-feet of inactive capacity and 563 acre-feet of dead storage;

(b) Secondary Permit No. 22365 (an amendment of which the parties recognize will be required), filed July 9, 1962, and approved March 6, 1963, for the allocation of 90,000 acre-feet from and out of the aforesaid active storage of 190,250 acre-feet of the waters of the

Green River, stored in the Fontenelle Reservoir, through the Seedskadee Project canal system, including the East Side, West Side and river outlets, for the irrigation of lands in the Seedskadee Project and Seedskadee Wildlife Refuge;

(c) Permit No. 22364 (the original application for which was filed April 26, 1955, and a Substitute Application for which was filed with the State Engineer and approved March 6, 1963), for the appropriation of the natural flow of the waters of the Green River, for purposes of irrigation, domestic, stock water, fish and wildlife, municipal and industrial uses. This permit is a direct flow appropriation and provides for 1,365 c.f.s. for the purposes listed in the permit.

NOW, THEREFORE, in consideration of the mutual and dependent covenants and conditions herein contained, it is agreed hereto as follows:

GENERAL DEFINITION

1. When used herein, unless otherwise distinctly expressed or manifestly incompatible with the intent hereof, the term:

(a) "Secretary" or "Contracting Officer" means the Secretary of the Department of the Interior or his duly authorized representative.

(b) "Contractor" means the State of Wyoming, acting through its authorized representative, the Wyoming Department of Economic Planning and Development.

(c) "Project" means the Seedskadee Participating Project as authorized by the Act of Congress of April 11, 1956 (70 Stat. 105), as amended.

(d) "Reservoir" means the Fontenelle Dam and Reservoir, a feature of the Project.

(e) "Water year" means that period from April 1 through March 31 of the next calendar year, or such different period as may be established by mutual agreement in writing.

(f) "Federal Reclamation Laws" means the Act of June 17, 1902 (32 Stat. 388), and all acts amendatory thereof or supplementary thereto.

ALLOCATION OF RESERVOIR STORAGE AND DIRECT FLOW RIGHTS

2. (a) The parties agree that storage and release of water from the Fontenelle Reservoir shall be accomplished so as to maximize the total water supply. Fontenelle Reservoir is now constructed with a total capacity of 345,397 acre-feet; 563 acre-feet of dead storage; 154,584 acre-feet of inactive capacity and 190,250 acre-feet of active capacity. Under the terms of Contract No. 14-06-400-2474, the State of Wyoming acquired 60,000 acre-feet of the active storage capacity in Fontenelle Reservoir. Of the active capacity of Fontenelle Reservoir, only 154,250 acre-feet between elevations 6484.0 feet and 6506.0 feet above mean sea level are useable storage for delivery of water through the irrigation outlet works. However, Permit No. 6629 Res. provides for an active reservoir capacity of 190,250 acre-feet. The capacity difference of 36,000 acre-feet, between elevations 6477.8 feet and 6484.0 feet, is required to furnish sufficient head to supply irrigation water through the outlet works by gravity.

(b) The 190,250 acre-feet of storage space in Fontenelle Reservoir is hereby allocated to the functions listed hereinafter, and the parties further agree that the reservoir shall be managed to provide storage water according to the following priorities:

First Priority: 5,000 acre-feet reserved to the United States for use on the Seedskadee National Wildlife Refuge and 250 acre-feet reserved to the United States for recreation uses;

Common Priority: 60,000 acre-feet shall be available to the Contractor under the terms and conditions hereinafter provided in this contract; 60,000 acre-feet allocated to the State of Wyoming by Contract No. 14-06-400-2474 and available pursuant to the terms of that contract; and 65,000 acre-feet reserved to the United States for other uses. If the irrigation features of the project are built, it is agreed that 36,000 acre-feet of the 65,000 acre-feet or such lesser amount as is required to adequately deliver water to the irrigable lands, not to exceed 34,000 acres, must be carried over from year to year in the reservoir without reallocation among other uses.

(c) The Bureau of Reclamation in acquiring its direct flow water rights under the terms and conditions of Permit No. 22364, specified in its filing dated April 26, 1955, that the uses under the permit were irrigation, stock watering, domestic, municipal and power purposes, but in its substitute application approved March 6, 1963, stated that the uses under the permit were irrigation, domestic, stock watering, fish and wildlife, municipal and industrial, all without specification of the quantity of water allocated to each such use. The Contractor and the United States agree that operation and management of said storage rights in conjunction with the aforesaid direct flow water rights are required in order to produce a maximum firm yield of water. It is agreed that Permit No. 22364 provides for an allocation of uses of 1365 c.f.s. to include 1140 c.f.s. for irrigation, stock or domestic use on the Seedskadee Project, 115 c.f.s. for the Seedskadee Wildlife Refuge and 110 c.f.s. for municipal and industrial use. It is further agreed that of the 1140 c.f.s. allotted for use by irrigation, 547.2 c.f.s. shall be made available for use by the State and 592.8 c.f.s. shall be retained by the United States. Of the 110 c.f.s. allotted for municipal and industrial use, 52.8 c.f.s. shall be available for municipal and industrial use by the State of Wyoming under this contract and 57.2 c.f.s. shall be retained for municipal and industrial use by the United States. If there is a determination by a Court of competent jurisdiction that the allocation of water uses under Permit No. 22364 differs from the above, the parties hereto agree to amend this Contract to be consistent therewith.

(d) It is further agreed that immediately upon execution of this contract and after the request of the State, the United States will petition the State Engineer (1) to withdraw Secondary Permit No. 22365 and (2) to convert 547.2 c.f.s. of irrigation water rights to municipal and industrial use. Upon approval of these petitions by the State Engineer, and if allowed by him, the said municipal and industrial direct flow will be available to the State for municipal and industrial use year round under this contract. The State agrees that the United States may at any time similarly petition the State Engineer to convert any part of its 592.8 c.f.s. of irrigation direct flow to municipal and industrial direct flow.

(e) The 115 c.f.s. reserved for the Refuge shall be used in conjunction with the storage capacity allotted first priority in Article 2(a) hereof to meet the following monthly requirements:

Wildlife Refuge Requirements

Month	Irrigation requirement 1/ (acre-feet)	Pondage requirement (acre-feet)	Total (acre-feet)
May	700	4,300	5,000
June	1,700	4,300	6,000
July	1,800	4,200	6,000
August	1,200	2,800	4,000
September	600	2,400	3,000
Winter		4,000	4,000
Total	6,000	22,000	28,000

1/ Requirement estimated at 3 acre-feet per acre at the head of the refuge area.

(f) The Contractor agrees not to enter into subcontracts involving the delivery of more than 125,000 acre-feet of water per year under this contract. This provision shall not be construed to limit or define the extent of the direct flow which may eventually be used by the United States or the State for municipal and industrial purposes under future contracts.

PURCHASE PROVISIONS

3. In consideration of the provisions of this contract made by the Contractor and the United States specified herein, it is agreed that:

The Contractor purchases the 60,000 acre-feet of storage capacity in Fontenelle Reservoir allocated in Article 2(b) hereof. The Contracting Officer agrees to assign to the Contractor the right to the use of 52.8 c.f.s. for municipal and industrial purposes, and the right to the use of 547.2 c.f.s. for irrigation purposes under Permit No. 22364. The right to use the water contracted herein shall commence at the time of the Contractor's initial payment provided for in Article 5 hereof.

CONDITIONS OF SALE

4. It is further agreed:

(a) The Contractor at its option may accelerate the payment schedules herein provided and, without penalty of any kind whatsoever, may prepay to the United States in any amount and at any time any of its obligation herein contained.

(b) For those contracts which are executed between the State and a third party and which provide revenues to the State in excess of that required to be paid to the United States, as specified herein, the State agrees that 50 percent of such excess revenues will be returned to the United States and will be applied to the unpaid balance of the repayment obligation, including interest, given in Article 5. Any such revenues so applied will accelerate the repayment of the State's obligation. It is further agreed that any funds so applied to accelerated repayment may be credited toward any subsequent regular payments by the State if the revenues available to the State are less than the State's obligation to the United States.

REPAYMENT OBLIGATION

5. For the purchase of Fontenelle Reservoir capacity, the Contractor agrees as follows:

(a) To pay the United States in the manner herein provided the repayment obligation of $11,410,000 (construction cost allocation including funded interest through 1977 at the per annum rate of 2.632%) or such lesser amount if repayment commences at a date earlier than herein specified by the appropriate reduction in funded interest. That sum and the annual installments herein stipulated do not include the annual operation, maintenance, and replacement costs which are to be paid as provided in Article 5(c). The repayment obligation is to be paid in not more than 40 successive annual installments, which scheduled amounts include interest at the rate of 2.632% per annum,

commencing December 31, 1977, or December 31 prior to the year that water is used for municipal and industrial purposes under the rights specified herein, whichever occurs first. The annual installments to be paid are as follows:

Installments	Payment
1 - 5	$301,000
6 and thereafter	$503,000

Provided the last installment will be the amount required to complete repayment of the Contractor's obligation.

(b) The parties further agree that if the Contractor is unable to make, execute and deliver a completed and final contract, approved by all required Federal agencies, for scheduled water deliveries to one or more of its subcontractors, because of the requirement that the Secretary or other Federal agency comply with the requirements of the National Environmental Policy Act of 1969 or as it may be amended, required by Article 17 of this contract, then and in that event the Contractor shall have the right to reduce its annual installment payment in the manner hereinafter provided and to continue such annual reduction thereon until such time as the said statements are filed and a final determination made thereon by the Secretary or the agency charged by law with the duty of making a decision thereon. The Secretary agrees that upon the filing by the Contractor of the Contractor's subcontract and the data and information with respect to preparation of the environmental impact statement covering the proposed subcontract as required by Article

17 hereof, the Secretary shall promptly and without delay prepare and file an environmental impact statement. The Secretary agrees to notify the Contractor in writing of any action he is taking with respect to the subcontract, and agrees further that in any event notification of his approval or disapproval of such subcontract shall be given no later than 9 calendar months following the date of filing said subcontract. If at the end of 9 calendar months the Secretary shall fail to give such written notice of his approval or disapproval of said contract to the Contractor or if the Secretary requests additional time before a determination can be made by him with respect to the subcontract, then the Contractor shall have the right and option, at its election, to reduce its next installment payment then coming due by an amount to be determined by the following formula:

$$\frac{\text{Number of acre-feet of water specified in subcontract held in abeyance}}{\text{(125,000 acre-feet)}} \text{ times } \text{Installment payment due} = \text{Amount of payment suspended}$$

Thereafter, future installment payments shall likewise be reduced, by the similar application of the above formula, until such time as the Secretary notifies the Contractor of his determination that the subcontract is approved, or notifies the Contractor that the subcontract is rejected because of substantial adverse environmental impacts. The Contractor shall be notified, in writing, of such determination at least 30 days in advance of any installment due date. Subsequent to said determination by the Secretary, the amount of the suspended payment or payments specified in this article, together with interest accrued

11 Art 5

thereon at the rate of 2.632 per cent per annum, shall be divided equally among the remaining installment payments to be paid by the Contractor. The parties further agree that in the event the Contractor is unable to make scheduled water deliveries to a subcontractor because of litigation or any Federal administrative action by or against the Contracting Officer, the Contractor, or the Contractor's subcontractors, involving the use of water under this contract, the Contractor shall have the right to reduce its annual installment payments in the manner herein provided by use of the aforesaid formula. If such litigation is instituted 30 days or more prior to the date an installment payment is due, then and in that event, said payment shall, at the option of the Contractor, be so reduced, and any future installment payments also shall at the option of the Contractor, be reduced accordingly, until the time of final determination of the litigation or administrative action, including exhaustion of all appellate remedies. The amount of the payment or payments so suspended shall likewise be divided equally among the remaining installment payments to be made by the Contractor after the said final determination, Provided, that the first installment payment to receive its pro rata share of the suspended amount shall be due at least 30 days after the parties hereto have been notified of the said final determination.

(c) On or before December 31 following the execution of this contract, the Contractor shall pay the United States or its designee if some organization other than the United States is operating

the project, its proportionate share of the annual cost of operation, maintenance and replacement assignable to 60,000 acre-feet of capacity of Fontenelle Dam and Reservoir, which share shall exclude operation, maintenance and replacement of the powerplant and its facilities. Payment under this article shall be made in advance on the basis of annual estimates made by the Secretary. A notice of the annual estimated operation, maintenance, and replacement charges shall be furnished to the Contractor on or before August 1 of the year preceding the one for which the notice is issued, except if this contract is executed subsequent to August 1 of any year, the parties hereby waive the August 1 date for notice issuance for that year. The Contractor shall pay the amounts set out in any such notice on or before December 31 of the year in which the notice is given. If payment made by the Contractor exceeds or is short of the appropriate actual cost for the year for which advanced, the credit or debit amount will be taken into account in preparing the next notice to be issued to the Contractor. It is mutually agreed that the Contracting Officer shall not levy or assess charges upon the Contractor for loss of power revenue occasioned by water withdrawals from the reservoir which by-pass the powerplant. Upon mutual agreement of the parties hereto the Contracting Officer may transfer to the Contractor the care, operation, and maintenance of any project feature or the entire project.

RIGHT TO USE OF STORAGE CAPACITY

6. The Contractor shall have the sole and perpetual right to use the storage capacity purchased by it under this contract and to subcontract with others for use of said storage capacity. Contracts made by the Contractor with others shall be subject to the provisions of this contract, and a copy of each shall be filed with the Contracting Officer prior to being executed by the Contractor. Two copies of each executed contract shall be filed with the Contracting Officer.

CONTRACT SALES BY THE UNITED STATES

7. (a) During the first 10 years following execution of this contract or such earlier date that the Contractor has subcontracted substantially all of its water specified in Article 2(f) hereof, the Contracting Officer agrees that it will not offer for sale, contract for the delivery of, promise or otherwise commit in any way any of the Fontenelle storage or direct flows of the Green River retained by the United States to any person, firm, corporation or other governmental entity, except that the waters herein reserved to the United States for irrigation of lands for stock and domestic uses upon the Seedskadee Project may be contracted for, and sold for irrigation, stock and domestic purposes, to bona fide occupants of said project lands.

(b) The Contracting Officer agrees to give the Contractor at least one year's notice of the availability of any additional water and the Contractor shall have the first right of refusal to purchase such additional water upon the same terms and conditions as the Contracting Officer is willing to offer to any other person, firm,

corporation or other governmental entity before such water is sold to others.

(c) Contractor agrees that it will diligently and expeditiously negotiate for contracts with all bona fide customers seeking municipal and industrial water in Fontenelle Reservoir.

TRANSPORTATION LOSSES

8. Transportation of water from the reservoir to points of use shall be the sole responsibility of the Contractor, so that conveyance losses from the reservoir to the points of use shall not be borne by the United States.

DOWNSTREAM FISHERY RESOURCE

9. Operation of the constructed Fontenelle Reservoir has heretofore created a substantial stream fishery resource in the reach of the Green River below Fontenelle Dam. The Contracting Officer and the Contractor, subject to such water rights as have been heretofore and may hereafter be granted or adjudicated upon the Green River or the tributaries thereof, agree to encourage water deliveries and points of diversion that would be compatible with maintaining the stream fishery. In order for the Contractor to contribute to preservation of minimum stream flows for fish and wildlife purposes, the Contractor agrees that not less than 50 percent of the full amount of water purchased under this contract shall be diverted at or downstream from the I-80 highway crossing of the Green River near the community of Green River, Wyoming, in Section 7, Township 18 N., Range 107 W., 6th P.M. It is

further agreed that the foregoing 50 percent shall be delivered as a continuous, reasonably uniform, daily flow calculated over a one-year period at said diversion point without interruption for diminution of stream flow unless some other flow pattern is mutually acceptable to the Contractor and the Contracting Officer. In order to facilitate maintenance of minimum streamflows for fish and wildlife purposes, it is agreed that the United States shall manage its portion of the water described in Article 2 so that not more than 25% of the total water described in said Article 2, exclusive of that amount of water subject to Contract No. 14-06-400-2474 and that water reserved to the United States for the Seedskadee National Wildlife Refuge, described in said Article, will be diverted above the aforesaid highway crossing. Of the remaining water, the Contracting Officer agrees to reserve from sale that amount of storage water necessary to maintain at least 50 c.f.s. in the river at the U.S.G.S. Green River, Wyoming, gaging station so as to assure water supply for fish and wildlife purposes in the Green River between the gage and Flaming Gorge Reservoir. The Contractor agrees to work closely with the Wyoming Game and Fish Commission in all municipal and industrial water sales and deliveries to protect this fishery resource insofar as practicable.

RIGHTS RESERVED UNDER SECTION 3737 REVISED STATUTES

10. All rights of action for breach of any of the provisions of this contract are reserved to the United States, as provided in Section 3737 of the Revised Statutes of the United States.

SECURITY FOR PAYMENT OF OBLIGATIONS

11. The Contractor shall, to the extent permitted by law, exercise all power to meet its obligations to the United States under

this contract including, but not limited to, the issuance of bonds authorized by the laws of the State of Wyoming, and the establishment of a Fontenelle Reservoir Revolving Fund. The Contractor further grants the United States a first lien on all receipts collected from purchasers of water sold pursuant to terms of this contract.

PUBLIC USE OF RESERVOIR

12. Public recreation, including boating, fishing, and hunting will be allowed on or in Fontenelle Reservoir. Fishing and hunting on or in said reservoir will be allowed in accordance with State and Federal laws without payment of any charge or fee except as required by such laws. The Contracting Officer and the Contractor through its appropriate agency, may promulgate or approve such rules and regulations as may be deemed necessary and proper for project purposes, for the protection of the works, for public health and safety, and the parties may enter into contracts with State agencies to regulate and administer such facilities for recreation or similar uses; Provided, that such contracts may provide for a fee or fees to be charged for use of such area or facilities, or both; and Provided further, that in the event of unresolved conflict between the Contracting Officer and the Contractor on said proposed rules and regulations, the conflict shall be submitted to arbitration as set forth in Article 33 hereof. Nothing in this contract shall affect the use of Fontenelle Reservoir for recreation in accordance with Section 8 of the Act of Congress approved April 11, 1956 (70 Stat. 105).

TITLE TO SEEDSKADEE PROJECT TO REMAIN IN THE UNITED STATES

13. Title to the Seedskadee Project shall remain in the United States until otherwise provided by the Congress.

UNITED STATES NOT LIABLE FOR WATER SHORTAGE

14. In the event that there is a shortage of Project water resulting from drouth, inaccuracy in distribution, hostile diversion, prior or superior claims, or other causes, no liability shall accrue against the United States, or any of its officers, agents, or employees for any damage, directly or indirectly arising therefrom, and the payments to the United States provided for herein shall not be reduced because of such shortage. In the event of such shortages, uses of reservoir capacity, and water uses will be in accordance with priorities established in Article 2 hereof.

RESPONSIBILITY FOR DISTRIBUTION AND BENEFICIAL USE OF WATER

15. The Contractor shall be responsible for the control, carriage, handling, distribution, measurement, accounting for and use of all water stored in the contracted storage capacity or used under direct flow rights as hereinbefore provided and shall hold the United States, its officers, agents, employees, and successors or assigns, harmless from every claim for damages to persons or property, direct or indirect, and of whatever nature, arising out of or in any manner connected with the control, except initial impoundment thereof, carriage, handling, distribution or use of such water. The Contractor shall not use any of the water taken or delivered hereunder for other than

beneficial uses. Beneficial use shall be the basis, the measure and the limit of the right to the use of the water.

WATER DELIVERY SUBJECT TO COMPACTS, ACTS, AND TREATY

16. This contract and all water delivery pursuant thereto shall be subject to and controlled by the applicable provisions of the Colorado River Compact, dated November 24, 1922, and proclaimed by the President of the United States, June 25, 1929, the Boulder Canyon Project Act approved December 21, 1928, the Boulder Canyon Project Adjustment Act of July 19, 1940; the Upper Colorado River Basin Compact dated October 11, 1948; the Mexican Water Treaty of February 3, 1944, and the Colorado River Basin Project Act of September 30, 1968, P.L. 90-537.

ENVIRONMENTAL IMPACT STATEMENT

17. The Contractor agrees that it will furnish the United States data and information as may be required for preparation of environmental impact statements pertaining to this contract pursuant to the National Environmental Policy Act of 1969 (P.L. 91-190), or as it may be amended. The Contractor agrees that no water will be used under this contract or any subcontract until the United States has complied with the National Environmental Policy Act of 1969 (P.L. 91-190) as it may hereafter be amended, and if an environmental impact statement is prepared, no water will be used under this contract or any subcontract until the statement is completed by the assigned agency of the United States and filed with the Council on Environmental Quality

and the use of such water is thereafter approved by the Secretary of Interior, it being the intent of the parties hereto that such approval is to be based on environmental considerations only.

AIR AND WATER POLLUTION CONTROL

18. The Contractor agrees that it will comply fully with air and water pollution control laws, orders, standards, or regulations under Federal, State and local jurisdictions now or hereafter in force. From time to time, but not less often than once in every five years, the designated representatives of the Secretary, the Contractor, and the State's contractor shall, at the request of any of the three parties cited herein meet to review such technological advances in air pollution and water pollution control equipment as have taken place and determine the feasibility of installing new or additional equipment or modifying existing equipment in the plant facilities for the purpose of improving performance, taking into account costs and economic feasibility as well as benefits. In the event of any disagreement as to whether or when the State's contractor should install new or additional air pollution control equipment or facilities or modify existing equipment of facilities, the decision by any two of the three parties cited herein shall be final and conclusive. Also, the Contractor agrees that any contract it may enter into for the furnishing of water pursuant to this contract will contain similar air and water pollution control provisions. The Contractor further agrees that any such contract it may enter into will require that its designs and plans for air and water pollution control facilities or equipment which are necessary parts of any design, facility,

plant, or process which utilizes project water will be submitted to the Secretary for his review and written comments prior to contracting for said facilities, their installation or major modification thereof.

ACCOUNTS AND RECORDS

19. The Contractor shall establish and maintain accounts and other books and records pertaining to water uses and other matters pertaining to this contract as the Contracting Officer may require. Reports thereon shall be furnished to the Contracting Officer in such form and on such date or dates as he may require. Subject to applicable State and Federal laws and regulations, each party shall have the right during office hours to examine and make copies of each others' books and records relating to matters covered by this contract.

RULES, REGULATIONS, AND DETERMINATIONS

20. (a) The United States shall operate and maintain the Fontenelle Dam, Reservoir, and facilities appurtenant thereto until otherwise provided by the United States. These facilities will be operated for multiple benefits of the project in accordance with project authorization and contracts, including this agreement entered into pursuant thereto. As soon as Contractor commences payment under Article 5(a) hereof, the Contracting Officer shall operate and manage said reservoir in accordance with a plan of annual operation which shall have been jointly developed and agreed upon by the Contracting Officer and the Contractor. The Contracting Officer, after consultation and joint agreement with the Contractor, shall have the right to make rules

and regulations consistent with the provisions of this contract, the laws of the United States and the State of Wyoming, to add to or to modify them as may be deemed proper and necessary to carry out this contract, and to supply necessary details of its administration which are not covered by express provisions of this contract; Provided that in the event of unresolved conflict between the Contracting Officer and the Contractor on said proposed rules and regulations, the conflict shall be submitted to arbitration as set forth in Article 33 hereof.

(b) Where the terms of this contract provide for action to be based upon the opinion or determination of either party to this contract, whether or not stated to be conclusive, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations.

(c) It is understood and agreed that the hydro-powerplant of the Fontenelle Reservoir shall be operated secondarily to the other purposes and uses of the Fontenelle Reservoir and subordinate thereto.

GENERAL OBLIGATION--BENEFITS CONDITIONED UPON PAYMENT

21. (a) The obligation of the Contractor to pay the United States as provided in this contract is a general obligation of the Contractor notwithstanding the manner in which the obligation may be distributed among the Contractor's water users and notwithstanding the default of individual water users in their obligations to the Contractor.

(b) The payment of charges becoming due hereunder is a condition precedent to receiving benefits under this contract. No

reservoir capacity or right to the use of any direct flows of the United States will be made available to the Contractor through project facilities during any period in which the Contractor may be in arrears in the advance payment of any operation, maintenance, and replacement charges due the United States or in arrears for more than 12 months in the payment of any construction and interest installments due the United States unless such payment or any portion thereof has been suspended pursuant to Article 5(a) hereof. The Contractor shall not furnish water made available pursuant to this contract to parties in arrears more than 12 months in the payment of charges as levied or established by the Contractor.

INTEREST FOR DELINQUENT PAYMENTS

22. The Contractor shall pay an interest charge on installments which become delinquent computed at the rate of 1% per month of the amount of such delinquent installments or charges for each day from such delinquency until paid; Provided, that no interest shall be charged to the Contractor unless such delinquency continues for more than 30 days in which event the interest shall accrue from the initial date of delinquency.

QUALITY OF WATER

23. The operation and maintenance of Fontenelle Dam and Reservoir shall be performed in such manner as is practicable to maintain the quality of raw water made available through such facilities at the highest level reasonably attainable as determined by the Contracting Officer. The United States does not warrant the quality of water and

is under no obligation to construct or furnish water treatment facilities to maintain or better the quality of water.

EQUAL OPPORTUNITY

24. During the performance of this contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining

agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Contracting Officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of Contractor's noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless

exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Contracting Officer may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Contracting Officer, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

TITLE VI, CIVIL RIGHTS ACT OF 1964

25. The Contractor agrees that it will comply with Title VI of the Civil Rights Act of July 2, 1964 (78 Stat. 241), and all requirements imposed by or pursuant to the Department of the Interior Regulation (43 CFR 17) issued pursuant to that title, to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Contractor receives financial assistance from the United States and hereby gives assurance that it will immediately take any measure to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the

Contractor, by the United States, this assurance obligates the Contractor, or in the case of any transfer of such property, any transferee for the period during which the real property or structure is used for a purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance obligates the Contractor for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Contractor for the period during which the Federal financial assistance is extended to it by the United States.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the United States, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the Contractor, its successors, transferees, and assignees.

CERTIFICATION OF NONSEGREGATED FACILITIES

26. The Contractor hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform

their services at any location, under its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants, and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color or national origin, because of habit, local custom, or otherwise. The Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

"NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001."

CONTINGENT UPON APPROPRIATIONS OR ALLOTMENT OF FUNDS

27. The expenditure of any money or the performance of any work by the United States herein provided for, which may require appropriations of money by Congress or the allotment of funds, shall be contingent upon such appropriations or allotments being made. The failure of Congress to so appropriate funds or the failure of an allotment of funds shall not relieve the Contractor from any obligations under this contract nor give the Contractor the right to terminate this contract as to any of its executory features. No liability shall accrue against the United States in case of such funds not being appropriated or allotted.

ASSIGNMENT LIMITED: SUCCESSORS AND ASSIGNS OBLIGATED

28. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any part of interest thereon shall be valid until approved by the Secretary.

ASSURANCES RELATING TO VALIDITY OF CONTRACT

29. This contract shall not be binding upon the United States, nor shall any water be delivered pursuant to this contract until the Attorney General of the State of Wyoming has furnished his written opinion declaring that the proceedings on the part of the Contractor for authorization and execution of this contract were valid and proper and that this contract is a legal and binding obligation of the Contractor.

OFFICIALS NOT TO BENEFIT

30. (a) No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom. This restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

(b) No official of the Contractor shall receive any benefit that may arise by reason of this contract other than as a water user in the same manner as other users of project water.

NOTICES

31. Any notice, demand, or request authorized or required by this contract shall be deemed to have been given when mailed, postage prepaid, or delivered to the Regional Director, Bureau of Reclamation, 125 South State Street, P.O. Box 11568, Salt Lake City, Utah 84111, on behalf of the United States and to the Wyoming Department of Economic Planning and Development, 720 West 18th Street, Cheyenne, Wyoming 82001, on behalf of the Contractor. The designation

of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

UNCONTROLLABLE FORCES

32. Neither party shall be considered to be in default in respect to any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces, the term "uncontrollable forces" being deemed for the purposes of this contract, to mean any cause beyond the control of the party affected, including, but not limited to, drouth, failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, and restraint by court or public authority, which by exercise of due diligence and foresight, such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

ARBITRATION

33. Whenever a controversy arises as to which arbitration is provided for and such controversy cannot be resolved by the Contracting Officer and the Contractor, either of said parties by written notice to the other may require such controversy to be submitted to arbitration. Within 30 days from the date of the notice the Contracting Officer and the Contractor shall each name one arbitrator and the two arbitrators so selected shall within 60 days from the date of said notice select a third arbitrator. In the event that either party has not appointed

its arbitrator within the specified 30-day period, then the other party may make application to the appropriate United States District Court for Wyoming for the appointment of an arbitrator for the party failing to act. In the event of the failure of the two arbitrators to select the third arbitrator either the Contracting Officer or the Contractor may make application to the appropriate United States District Court for Wyoming for the appointment of the third arbitrator substantially in accord with the procedure provided in the Federal Arbitration Act (9 U.S.C.A. 1). It is understood and agreed that the Contracting Officer and the Contractor shall each bear the costs and expenses of its respective arbitrator, and the cost and expense of the third arbitrator together with all other costs and expenses incident to said arbitration shall be shared equally by the parties. The decision of any two of the three arbitrators shall be a valid and binding award of the arbitration. The arbitrators shall render a decision within 180 days of the time of submission of the controversy to arbitration. In event of a determination that arbitration is not binding on the United States, any matter referred to arbitration shall be referred to a court of competent jurisdiction.

REMEDIES - WAIVERS

34. Nothing contained in this contract shall be construed as in any manner abridging, limiting, or depriving either party to this contract of its rights with respect to any default, or any other matter

arising in connection with this contract shall not be deemed to be a waiver with respect to any subsequent default or matter.

IN WITNESS WHEREOF, the parties hereto have signed their names, the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ Jack O. Horton
Assistant Secretary of the Interior

STATE OF WYOMING

By /s/ Stanley K. Hathaway
Governor of Wyoming

ALADDIN WATER DISTRICT – WATER SERVICE CONTRACT EXTENSION

Return to Agenda

WATER SERVICE CONTRACT RENEWAL BETWEEN THE WYOMING WATER DEVELOPMENT COMMISSION AND THE ALADDIN WATER DISTRICT

1. **Parties.** The parties to this Water Service Contract are the Wyoming Water Development Commission (Commission), 6920 Yellowtail Road, Cheyenne, Wyoming 82002 and the Aladdin Water District (District), 3983 State HWY 24, Aladdin, Wyoming 82710.

2. **Purpose.** The purpose of this Contract is for the Commission to sell water from the AWD-1 Well (Permit No. U.W. 131196), constructed from Water Development Program funds, to the District as authorized by Chapter 16, Session Laws of Wyoming, 1999. The original water service contract (executed October 22, 1999) has expired and the latest renewal Contract will expire July 16, 2023. The Commission intends to transfer (sell), the well to the District. While the transfer is pending, the parties wish to continue the sale and purchase of water from the AWD-1 Well.

3. **Term of Contract.** This Contract is effective when all parties have executed it (Effective Date). The term of the contract is from July 16, 2023 or the Effective Date, whichever is later, through July 16, 2025.

4. **Payment.** The District shall be assessed a fee of two dollars ($2.00) per one thousand (1,000) gallons and shall remit payment to the Commission on or before December 1st of each year for water used annually.

5. **Responsibilities of the District.**

   A. **Installation, Construction and Operation.** The District currently owns, and is responsible for all costs including labor for all operation, repair, and maintenance of, the well pump, well house, metering components and appurtenances necessary for the District to convey water to its customers and for the Wyoming Department of Transportation to access the well for state or federally funded highway projects. The Commission makes no warranty or representation concerning the quality of the water sold and the District is responsible for compliance with all state and federal water quality standards. Prior to installation of any new components the District shall submit a proposal to the Commission for approval. No construction shall commence until the Commission has approved the components proposed for installation and the method of construction.

   B. **Expenditures.** All expenditures necessary to pump, meter and deliver water to its customers shall be borne by the District.

   C. **Meters.** The District shall meter all water use and shall maintain water use records, documenting water used by the District and water used by the Wyoming

Department of Transportation. The Commission may request the District to inspect and/or calibrate the metering device to insure accuracy of measurement.

6. General Provisions.

A. Amendments. Any changes, modifications, revisions or amendments to this Contract which are mutually agreed upon by the parties to this Contract shall be incorporated by written instrument, executed by all parties to this Contract.

B. Applicable Law, Rules of Construction, and Venue. The construction, interpretation, and enforcement of this Contract shall be governed by the laws of the State of Wyoming, without regard to conflicts of law principles. The terms "hereof," "hereunder," "herein," and words of similar import, are intended to refer to this Contract as a whole and not to any particular provision or part. The Courts of the State of Wyoming shall have jurisdiction over this Contract and the parties. The venue shall be the First Judicial District, Laramie County, Wyoming.

C. Audit and Access to Records. The Commission and its representatives shall have access to any books, documents, papers, electronic data, and records of the District which are pertinent to this Contract. The District shall immediately, upon receiving written instruction from the Commission, provide to any independent auditor or accountant all books, documents, papers, electronic data, and records of the District which are pertinent to this Contract. The District shall cooperate fully with any such independent auditor or accountant during the entire course of any audit authorized by the Commission.

D. Compliance with Laws. The District shall keep informed of and comply with all applicable federal, state and local laws and regulations in the performance of this Contract.

E. Entirety of Contract. This Contract, consisting of five (5) pages, represents the entire and integrated Contract between the parties and supersedes all prior negotiations, representations and agreements whether written or oral.

F. Indemnification. The District shall release, indemnify, and hold harmless the State, the Commission, the Office, and their officers, agents, and employees from any and all claims, suits, liabilities, court awards, damages, costs, attorneys' fees, and expenses arising out of District's failure to perform any of District's duties and obligations hereunder or in connection with the negligent performance of District's duties or obligations, including, but not limited to, any claims, suits, liabilities, court awards, damages, costs, attorneys' fees, and expenses arising out of District's negligence or other tortious conduct.

G. **Nondiscrimination.** The District shall comply with the Civil Rights Act of 1964, the Wyoming Fair Employment Practices Act (Wyo. Stat. § 27-9-105, *et seq*.), the Americans with Disabilities Act (ADA), 42 U.S.C. § 12101, *et seq*., and the Age Discrimination Act of 1975 and any properly promulgated rules and regulations thereto and shall not discriminate against any individual on the grounds of age, sex, color, race, religion, national origin, or disability in connection with the performance under this Contract.

H. **Prior Approval**. This Contract shall not be binding upon either party until the Contract has been fully executed, approved as to form by the Office of the Attorney General, filed with and approved by A&I Procurement, and approved by the Governor of the State of Wyoming, or his designee, if required by Wyo. Stat. § 9-2-1016(b)(iv).

I. **Severability.** Should any portion of this Contract be judicially determined to be illegal or unenforceable, the remainder of the Contract shall continue in full force and effect, and the parties may renegotiate the terms affected by the severance.

J. **Sovereign Immunity and Limitations.** Pursuant to Wyo. Stat. § 1-39-104(a), the State of Wyoming, the Commission, and the Office expressly reserve sovereign immunity by entering into this Contract and specifically retain all immunities and defenses available to them as sovereigns. The parties acknowledge that the State of Wyoming has sovereign immunity and only the Wyoming Legislature has the power to waive sovereign immunity. Designations of venue, choice of law, enforcement actions, and similar provisions shall not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this Contract shall not be strictly construed, either against or for either party, except that any ambiguity as to sovereign immunity shall be construed in favor of sovereign immunity.

K. **Third-Party Beneficiary Rights.** The parties do not intend to create in any other individual or entity the status of third-party beneficiary, and this Contract shall not be construed so as to create such status. The rights, duties, and obligations contained in this Contract shall operate only between the parties to this Contract and shall inure solely to the benefit of the parties to this Contract. The provisions of this Contract are intended only to assist the parties in determining and performing their obligations under this Contract.

L. **Time is of the Essence.** Time is of the essence in all provisions of this Contract.

M. **Titles Not Controlling.** Titles of sections and subsections are for reference only and shall not be used to construe the language in this Contract.

N. **Waiver.** The waiver of any breach of any term or condition in this Contract shall not be deemed a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.

O. Counterparts. This Contract may be executed in counterparts. Each counterpart, when executed and delivered, shall be deemed an original and all counterparts together shall constitute one and the same Contract. Delivery by the District of an originally signed counterpart of this Contract by PDF shall be followed up immediately by delivery of the originally signed counterpart to the Commission.

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7. **Signatures.** The parties to this Contract, either personally or through their duly authorized representatives, have executed this Contract on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this Contract.

The EFFECTIVE DATE of this Contract is the date of the signature last affixed to this page.

WYOMING WATER DEVELOPMENT COMMISSION

_____ _____

Ronald E. Kailey — Date
Chairman

_____ _____

Lee Craig — Date
Secretary

ALADDIN WATER DISTRICT

_____ _____

Trent Top — Date
President

ATTORNEY GENERAL'S OFFICE: APPROVAL AS TO FORM

_____ _____

Megan Pope — Date
Senior Assistant Attorney General

UW WATER RESEARCH PROGRAM

Return to Agenda

REQUEST FOR PROPOSALS

University of Wyoming Office of Water Programs
Water Research Program
FY2024

The Office of Water Programs/Water Research Program (OWP/WRP) welcomes proposals covering topics involved in Wyoming's water resources. Each proposal shall include a brief non-technical summary of relevance that describes in layman's terms:

- how the study results could be used by governmental agencies in the management of Wyoming's water resources;
- how this proposal will meet the research needs of State and Federal agencies regarding Wyoming's water resources, including how this new proposal does not duplicate previous OWP/WRP research;
- how this proposal will support water related training and education;
- specifically, how technology transfer will occur.

Principal Investigators are encouraged to consult with state agencies concerning the following topics prior to submitting proposals. Letters of support from local, state and federal agencies are also encouraged to be submitted with proposals.

Proposals will be evaluated on the following:

- Benefits
- Likelihood of success
- Scientific merit
    - Ability to expand upon previously funded OWP/WRP projects
    - Ability to develop new techniques that may further future research
- Methods
- Timeline
- Overall presentation

Investigating the Hydrologic and Physical Effects of Water Shortage and Conservation Activities

Extended drought conditions in the Southwest have had major effects on water supplies, especially reservoir levels. In Wyoming's Upper Colorado River basin, which includes the Green and Little Snake River basins, this may result in eventual curtailment of water rights per existing interstate compacts. Due to these conditions, there is a need for information to implement water conservation programs such as the System Conservation Pilot Program and a potential Demand Management Program. Furthermore, related information is necessary for the State Engineer's Office and water users to be prepared for a compact curtailment.

A major component of these actions could include reduced flow to fields and possible transfer of water downstream. Information gathered to date has identified the need for further research and data gathering (communication and coordination with the State Engineer's Office is highly encouraged for any proposals). Research results should have applicability to other basins in

Return to Agenda

Wyoming. Areas of research include:

- The quantification of reduced depletions (i.e., conserved consumptive use) resulting from reducing irrigation to a field. This may include practices of partial and/or full season fallowing, foregoing the use of free river and surplus water rights (2^{nd} cfs per 70 acres), deficit irrigation and/or crop switching. Research should consider sprinkler and/or basic flood irrigation methods and incorporate the effects of annual precipitation and subirrigation.
- The effects of fallowing on harvest yields. Research should take into account same-year yields of fields that are partial-season fallowed and/or the post-season effects on yields of fields fallowed in the prior season(s).
- The effects, both beneficial and detrimental, on field health related to invasive species due to fallowing. Research should consider partial season and/or full season fallowing time frames as well as flood and/or sprinkler irrigation methods.
- The short- and long-term effects, both beneficial and detrimental, of fallowing fields on stream health, including quality and quantity of flow. Research should consider partial season and/or full season fallowing time frames as well as flood and/or sprinkler irrigation methods.
- Assessment of stream transit losses utilizing existing stream gage data. Research should quantify transit losses as well as identify locations where additional stream gaging infrastructure is recommended for data gaps. Researchers should coordinate with the State Engineer's Office in order to utilize new gage location data.

Protecting Public Health

Wyoming citizens and out-of-state visitors enjoy fishing, boating, swimming, floating and other recreational opportunities provided by Wyoming's lakes, reservoirs, rivers and streams. However, recreational activities, particularly those that result in full-body immersion, can pose a risk to public health if individuals are exposed to pollutants in the water that cause adverse health effects. In addition, pollutants in surface water and groundwater used for drinking water can pose a risk to human health.

- **Water borne pathogens** (as typically measured by the fecal bacteria indicator *E. coli*) are a common surface water quality impairment in Wyoming. Research addressing pathogens is of significant importance to the State of Wyoming. Additional tools are needed to better allow state and local water managers, regulators, conservation groups and others to ascertain and minimize public health risk by 1) better understanding fecal-indicator bacteria such as *E. coli* and their relationship to other pathogen (e.g., cryptosporidium, giardia, Cyclospora) and 2) identifying effective management measures to reduce pathogens and mitigate public health risk. In particular, the following topics are identified as priority research areas:
    - Evaluate the ability of fecal bacteria indicators other than *E. coli* (e.g., enterococci, streptococci, coliphage), and their relationships to waterborne pathogens, to accurately assess public health risk from waterborne pathogens.
    - Relating pathogen levels to incidence of waterborne pathogen exposure and illness specifically in Wyoming streams and rivers.
    - Evaluate the effectiveness of novel conservation practices in preventing or reducing fecal bacteria indicator (e.g., *E. coli*) loading to surface waters.

- **Nutrients** (nitrogen and phosphorus), in appropriate amounts, are essential to healthy aquatic ecosystems. However, excessive nutrients, or nutrient pollution, can lead to harmful

Return to Agenda

cyanobacteria blooms (HCBs) in lakes, reservoirs, streams and rivers. HCBs are dense concentrations of cyanobacteria (i.e., blue-green algae) that pose a risk to human, pet and livestock health. HCBs can produce cyanotoxins and may be associated with other irritants that can cause adverse health effects such as rashes, itching, numbness, nausea, fatigue, disorientation, abdominal pain, vomiting and diarrhea. In extreme cases, cyanotoxins may lead to pet or livestock death. HCBs can also cause fish kills, interfere with drinking water supplies, and may present risks for human consumption of fish. Recreational use health advisories due to HCBs are issued on numerous publicly-accessible Wyoming lakes and reservoirs each year. Mat-forming benthic HCBs have recently been identified in certain streams and reservoirs in Wyoming and also pose a health risk to humans, pets, livestock and wildlife. Research on nutrient pollution and HCBs would help state and local entities better identify, assess and respond to HCBs in order to reduce public health risk from exposure to cyanotoxins and related irritants.

Excess nutrient pollution associated with elevated nitrates can also represent a public health risk for surface water and groundwater used for drinking. Elevated nitrates in drinking water can affect the ability of the blood to carry oxygen and can cause methemoglobinemia. Understanding potential sources (e.g., wastewater, fertilizer, animal waste) and transport of nutrients within a watershed can help local, state, and federal agencies protect water quality for drinking water.

The following topics are identified as priority research areas:

- Evaluating the effectiveness of conservation practices or advanced treatment septic systems in reducing nutrient loading to surface waters and groundwater.
- Investigate the types and levels of toxins (or other compounds that cause adverse health effects) in cyanobacteria blooms in Wyoming surface waters.
- Evaluate the risks of exposure to cyanotoxins from human consumption of fish harvested in lakes and reservoirs with toxic cyanobacteria blooms.
- Assess the health risk, including maximum threshold concentrations, associated with human and animal exposure (e.g., ingestion, dermal contact) to toxic cyanobacteria found suspended in lakes and reservoirs compared to benthic forms in streams and rivers.
- Assess the spatial and temporal variation of benthic cyanobacteria blooms in streams and rivers and their potential for cyanotoxin production.
- Evaluate the health risks (both human and animal) of using irrigation water containing HCBs on forage crops.
- Investigate the sources of nutrient pollution in areas of the state where elevated nitrates are being detected in groundwater used for drinking water.
- Investigate the efficiency and efficacy of conventional and novel methods to identify nutrient sources (e.g., nutrient isotope analysis) for different waters (e.g., lakes, streams, groundwater) and watersheds.
- Investigate the efficiency and efficacy of conventional and novel methods to monitor benthic cyanobacteria blooms in streams and rivers for identification, enumeration, and ascertaining human and animal health risk.
- Investigate the health risk of toxic benthic cyanobacteria blooms to drinking water sources.

Research on these topics would build on the findings from past OWP/WRP funded projects on nutrient pollution and HCBs. Past OWP/WRP funded projects have demonstrated that remote

Return to Agenda

sensing is a useful tool for identifying HCBs in lakes and reservoirs, yet in-situ monitoring will continue to be necessary to confirm HCBs and determine cyanobacteria density. Past OWP/WRP projects also suggest that the increased number of HCB advisories reflects an increased awareness (through monitoring) of a long-term issue rather than the result of increased nutrient pollution over time.

Dam Operation and Sediment Management and Transport

The accumulation of sediment in stream systems and behind dams presents challenges. Effective dam operations require the ability to meet water user needs while still protecting downstream uses (e.g., fisheries, aquatic life). Additional research is needed to help understand how to prevent heavy sediment releases and how to effectively respond when they occur. Areas of research include, but are not limited to:

- Additional studies describing the fate and transport of sediments in Wyoming's erosive watersheds and what measures can assist with reducing sediment inputs.
- Further studies on using "flushing flows" to address downstream sediment deposition following releases.
- Studies on economically feasible ways to remove sediment accumulated behind dams.
- Information on ways to most effectively manage sediment at dams and reservoirs to protect and maintain downstream surface waters.
- Best management practices (BMPs) for reducing sediment transport from contributing watersheds.

Proposals may also address dam infrastructure issues and dam operation.

Groundwater Analysis/Aquifer Characterization

Research is needed to address the challenges of measuring, characterizing, protecting, and managing aquifers in areas of growing population and those identified as vulnerable. In addition, drought and its effects on Wyoming via interstate regulations, such as the Colorado River Compact, have required users that rely on surface water to look to groundwater as a backup source in the event of a curtailment of their water rights.

Research regarding the integration of recognized or novel methods with geochemical, hydrogeologic and geophysical measurements to understand aquifer reservoir properties and recharge dynamics is needed. Priority is given to:

- Detailed aquifer characterization of the deeper aquifers in the southeastern portion of the state, including the Cretaceous Lance Formation and the Cretaceous Fox Hills Sandstone. Aquifer characterization is needed to investigate and define aquifer properties such as grain size distribution, transmissivity, yield, lateral continuity and extent, and evaluate interaction with the overlying Tertiary High Plains Aquifer under pumping stress. Proposals may address these questions by additional data collection, analysis, or modeling, or by a combination thereof.
- Novel applications of geophysical or other remotely sensed measurements to evaluate groundwater presence and movement within the subsurface at comparatively large scales (e.g., larger than a single well; well field to watershed-scale). Such applications are needed to identify locations of groundwater occurrence for potential development, refine methods for groundwater exploration, and improve data collection methods relative to the scale of aquifer heterogeneity.

Return to Agenda

- Groundwater quality characterization of aquifers with potential for geologic sequestration of carbon dioxide (Class VI wells) to aid in determination of aquifer exemption status.

Understanding and Responding to Future Change in Hydrologic Variability

Hydrologic variability is predicted to change as climate variability changes. Climate projections indicate Wyoming will become significantly hotter by 2040-2069 (https://wgfd.wyo.gov/habitat/habitat-resources). Precipitation projections are less certain but it is possible there will be increases in springtime flooding, droughts and intensity of precipitation events. Soil moisture projections are also uncertain but with an increase in climate variability, evapotranspiration is likely to increase as well. Better understanding of future changes in hydrologic variability and assessment of on-the-ground management actions will help the State of Wyoming plan for how best to mitigate and adapt to those changes. Areas of research include:

- Evaluating and/or developing models to best predict watershed-specific frequencies, magnitudes, durations and timing of snowfall, rainfall and runoff affecting baseflows, bankfull flows, flooding and droughts in Wyoming.
- Assessing and prioritizing watersheds by their vulnerability to future hydrologic variability.
    - Identify watersheds most susceptible to increased flooding, droughts and evapotranspiration and to reduced availability of water for agricultural, municipal, industrial, domestic and other beneficial uses. This could include assessment of past, current and projected future categorization of streams as ephemeral, intermittent or perennial.
    - Identify watersheds most likely to experience higher rates of erosion and/or sedimentation due to changes in frequency or magnitude of bankfull and flood flows.
    - Determine which watersheds are most likely to show adverse effects to stream, riparian and wetland habitats and species due to changes in water quantity, hydrologic connectivity and water quality (including water temperature).
    - Assess potential for increased threats of invasive aquatic and riparian species due to changes in water quantity, water quality (including water temperature) and habitat availability and/or condition.
    - Develop remote sensing, GIS and/or other tools to identify, monitor and show stream, riparian, wetland and watershed vulnerability to change in hydrologic variability. Such tools will be most useful if they can be updated as additional information and modeling projections become available.
- Identifying and assessing watershed-specific effects (beneficial and detrimental) of on-the-ground restoration and management actions to mitigate long-term change in hydrologic variability and its effects. For example:
    - Upland, wetland and stream restoration to affect water quality and timing and quantity of water availability.
    - Actions that favor native species over invasive aquatic and riparian species.

Proposals may build upon research needs for specific areas of the state (i.e., Upper Colorado River Basin).

Enhanced Streamflow Estimation and Water Supply Forecasting

The Wyoming Water Strategy identified the need to better understand watershed, atmospheric, and climatic variables and their effects on streamflows and water supply, as well as the need to update, improve and/or develop water supply forecasts in river basins of Wyoming.

Return to Agenda

Areas of research include:

- Innovation of new approaches to complement or replace existing methods of streamflow estimation and flow forecasting tools that analyze the response of various combinations of climate, water demand and land use on streamflow as well as general watershed hydrology. New and improved tools will aid in watershed planning, water management planning, and feasibility studies. Particular emphasis should be placed on:
    - Developing new or improving weighted averaging approaches for combining regional regression methods and partial-year concurrent discharge measurements for estimating year-round mean monthly flows and exceedance flow statistics in small basins without long-term gaging stations. Ideally approaches will include statistical tools, such as confidence intervals, to characterize inherent uncertainty of such streamflow estimates.
    - Use of geospatial models and statistical analyses to better understand the important drivers of streamflow (including drivers that determine whether a stream is intermittent or perennial in a given basin) in small stream basins (<50 square miles).
    - Calibration of forecasting tools in hybrid plains/mountain streams with highly variable climates during low flow years. This could include an evaluation of temperature predictions in relation to water demand factors as well as research aimed at enhancing understanding of transitional zones (i.e., foothills that typically receive intermittent to seasonal snowpack) and lower-elevation (i.e., high plains) contributions to streamflow. Two examples of basins of interest in Wyoming that have large datasets that can contribute to the initiation of research are the Tongue River and Upper North Platte River Basins.

Return to Agenda

CONSTRUCTION PROJECT UPDATES

Return to Agenda

THE FOLLOWING INFORMATION WAS PROVIDED BY THE CITY OF GILLETTE'S ENGINEERING GROUP

Return to Agenda

City of Gillette Madison Pipeline and Extension Projects summary

All Project Funding: WWDC - 67% Sponsor match is Capital Facilities Tax - 33%

New Production Well (Contract 2A)

Pump testing completed on April 22, 2023. Completion of construction project is anticipated August 1, 2023, for all reclamation work. No completion or cost concerns at this time to complete.

Permanent Pumping Equipment and Road Improvements (Contract 2C and 2D)

50% design is complete with advertising for project mid-summer 2023. Anticipated completion September 2024. Concerns over long lead times for pump and electrical equipment. Concern on funding reversion date of July 2024.

Extension Projects

Phase I - All work completed from 2015 – 2017. Four of the eight districts use water. The four that do not use water are set up for emergency needs or use when wanted. 178 taps take water and 462 taps currently do not. When everyone uses water it equates to $12,406 per tap.

Phase II - All work completed from 2015 – 2020. Two of the three districts use water. The one district is set up for emergency needs or use when wanted. 74 taps take water and 40 currently do not. When everyone uses water it equates to $20,965 per tap.

Phase III – All four districts are currently at 50% design. Three of the districts have had major issues with getting easements secured under the railroad tracks. Concern for this project is being underfunded due to high construction costs. 428 total taps are anticipated to use water when all of these districts receive water. When everyone uses water it equates to $9,603 per tap.

Phase IV – Two of the three districts are complete and using water. The district not complete is currently at 50% design. Securing an easement has been the concern for this final project. 63 taps take water and 41 currently do not. The current users of water equates to approximately $8,300 per tap.

Phase V – Currently in design and working on securing easements. Three easements are secured and eight more are needed. It is anticipated that both districts will use water. Anticipated construction to begin in the fall of 2023 with completion in summer of 2024. The main concern is construction costs inflation. 567 total taps are anticipated to use water when all of these districts receive water at approximately $8,130 per tap.

Phase VI - Water service agreement fully executed. Putting the consultant selection process together with anticipated design to begin late summer of 2023. Construction anticipated in summer/fall of 2024. 174 total taps are anticipated to use water when all of these districts receive water. Preliminary estimates were approximately $9,655 per tap.

Return to Agenda

IDLE WELL – STATE NO. 1 TEST WELL #1 FINAL DISPOSITION

Return to Agenda

THE STATE OF WYOMING
Water Development Office
6920 YELLOWTAIL ROAD TELEPHONE: (307) 777-7626 CHEYENNE, WY 82002

MEMORANDUM

DATE: May 11, 2023

TO: Wyoming Water Development Commission

FROM: George Moser, P.G., Project Manager

SUBJECT: Idle Well Final Disposition
State No. 1 Test Well #1

For WWDC consideration today is the final disposition of an unused well which was drilled and cased under a Level II Study.

The State No. 1 Test Well #1 was drilled by the Water Development Commission as part of a 2011, Level II Feasibility Study for Lance Creek Water and Sewer District. While the Sponsor ultimately acquired one of the wells resulting from that study, the State No. 1 Test Well #1 has not been acquired. In part, this is because the well has detected concentrations of dissolved arsenic (27ppb) in excess of the U.S. EPA's MCL (10ppb).

The Office understands that the grazing lessee associated with the State Land parcel has filed an application with the State Engineer's Office to use the State No. 1 Test Well #1 for stock-watering use. The original permit to appropriate ground water associated with this well was filed by the WWDC for test purposes only and cancelled by the SEO on June 14, 2014.

The original Temporary Use Permit is no longer valid, and the WWDC does not hold a current Temporary Use Permit for this location or well. The original project sponsor acquired a different well resulting from the Level II Study. Therefore, the Office does not anticipate any other project-related use for the State No. 1 Test Well #1, and if the Commission decided to plug this well, there would be additional costs associated with that plugging activity.

Recommended Motion:

The Water Development Commission directs the Water Development Office to prepare and send correspondence to the grazing lessee, the Office of State Lands and Investments, and the State Engineer's Office informing them that the Commission supports efforts to place water to beneficial use within Wyoming, and that the Commission has no further project-related interest in the State No. 1 Test Well #1.

Return to Agenda

FUTURE MEETINGS SCHEDULE

Return to Agenda

2023 WWDC/SWC FUTURE MEETINGS SCHEDULE
(Nov. 2022)

Date:	Day:	Program Item:
MARCH		
March TBD, 2023	TBD	SWC Meeting (near legislative session end)
March 14, 2023	Tuesday	WWDC Workshop (Cheyenne)
March 15, 2023	Wednesday	WWDC Meeting (Election of Officers, Level I, II, III, SWPP Contract Approval)
MAY		
May 10, 2023	Wednesday	WWDC/SWC Workshop (Cheyenne)
May 11, 2023	Thursday	WWDC/SWC Joint Meeting, (New Level I & II Apps Review/Approval, SRF-IUP)
AUGUST		
August 15-17, 2023	Tues-Thurs	WWDC/SWC Workshop/Summer Tour/ Meeting (Cody)
OCTOBER		
October 2-4, 2023	Mon-Wed	Consultant Selection Interviews (Cheyenne)
October 5, 2023	Thurs	WWDC Meeting, Selection Approval
NOVEMBER		
November 7, 2023	Tuesday	WWDC/SWC Workshop (Casper)
November 8-9, 2023	Wed-Thurs	WWDC/SWC Joint Meeting (Preliminary Funding Recs prior to Wyo Legislature)