November 12-13, 2024

WWDC/SWC JOINT MEETING

RECOMMENDATIONS NOTEBOOK

Attachment to the Agenda

2025 Water Development Program Funding Recommendations

New Development Program – Account I – Wednesday, November 13th, 2024

Level III Projects

- Big Horn Regional JPB South Transmission Project 2025 **(A)**
- Cloud Seeding: Medicine Bow & Sierra Madre Mountain Ranges 2026 (aerial) **(B)**
- Cloud Seeding: Wind River & Sierra Madre Mountain Ranges 2026 (ground-based) **(C)**
- Hoback Junction Public Water System 2025 **(D)**
- SAWS JPB Upper Road Transmission Main Phase 1 2025 **(E)**

Level III Projects – Amendments

- Broken Wheel Ranch Water Supply 2017 **(F)**
- Gillette Regional Extensions 2017 **(G)**
- Gillette Regional Extensions Phase IV 2018 **(H)**
- Gillette Regional Extensions Phase V 2020 **(I)**
- GR/RS/SC JPWB Pump Station 2019 **(J)**
- Lander Well & Transmission Pipeline 2021 **(K)**
- Small Water Project Program – New Development **(L)**
- South End Water Users ISD Pipeline 2023 **(M)**

Level I Projects

- Hulett Water Master Plan **(Mc)**

General/Other

- UW Water Research Program **(N)**
- 2025 Account I Transfer **(O)**

Rehabilitation Program – Account II

Level III Projects

- CAID Lateral 256 Check Structure Rehabilitation 2025 **(P)**
- Casper Tank Replacement 2025 **(Q)**
- Cottonwood Irrigation District Pipeline Replacement 2025 **(R)**
- EVIDD Farson Lateral Phase 4A 2025 **(S)**
- GID 62.2 Check Structure Project 2025 **(T)**
- Kirby Creek Spillway Replacement 2025 **(U)**
- Meeteetse Trails Estates 2025 **(V)**
- Rawlins Sage Creek Pipeline 2025 **(W)**
- Saratoga Water Tank 2025 **(XYZ)**
- Shoshone 7C Lateral 2025 **(A2)**
- Sidon ID Canal Crossing 2025 **(B2)**
- Sidon ID North Lateral Project 2025 **(C2)**
- Upper Bluff Pump Plant No. 1 Pipeline 2025(**D2**)
- West Afton ID Phase I Project 2025 **(E2)**
- Wheatland Well No. 3 Replacement 2025 **(F2)**
- Willwood ID Willwood Chute 2025**(G2)**

Level III Projects – Amendments

- Eden Valley Irrigation District System Improvements 2019 **(H2)**
- Enterprise WID Canal Lining 2020 **(I2)**
- Laramie Valley Diversion Structure 2020 **(J2)**
- Small Water Project Program – Rehabilitation **(K2)**

Level I Projects

- Pioneer Canal Lake Hattie Irrigation District Master Plan **(L2)**
- Smith's Fork Irrigation District Master Plan **(M2)**
- Wheatland Irrigation District Master Plan **(MC2)**

General/Other

- Sponsor's Contingency Fund – Account II **(N2)**

Dam and Reservoir Program – Account III

Level III Projects – Amendments

- Alkali Creek Reservoir Pump Plant **(O2)**
- Middle Piney Reservoir **(P2)**

Level II Projects

- Middle Popo Agie River Level II Storage Feasibility Study **(Q2)**

LEVEL III PROJECTS

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Big Horn Regional JPB South Transmission Project 2025

Program: New Development

Project Type: Municipal

County: Washakie

Sponsor: Big Horn Regional Joint Powers Board

WWDO Recommendation: Level III Pre-Construction

Proposed Budget: $405,000

Pre-Construction Recommendation:	
WWDC Grant[1] (50%)	$ 405,000
Other Funding Source[2] (50%)	$ 405,000
Total	$ 810,000
Construction Recommendation:	
WWDC[1] Grant (50%)	$ 2,882,000
Sponsor[2] (50%)	$ 2,882,000
Total	$ 5,764,000
Funding for Total Project:	
WWDC Grants[1]	$ 3,287,000
Sponsor[2]	$ 3,287,000
Total	$ 6,574,000

[1] Not to exceed 50% of eligible project costs
[2] Sponsor or other funding source

Project Manager: Russell

Project Description: A new transmission main from just upstream of the existing Big Horn Regional JPB pressure reducing valve (PRV) on the east side of Worland near highway 16 to the Worland Municipal Airport property.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2017	LII Big Horn Regional Southern Water Supply Study	$ 180,000
2020	LIII Big Horn Regional Transmission 2020	$ 4,361,700
2021	LII Big Horn Regional Transmission Study	$ 146,000
2024	LIII Big Horn Regional JPB Lucerne Tank and Pump Station 2024	$ 1,803,000

2. **Describe existing water supply using information in the application.**
   The Big Horn Regional System currently has 8 wells, averaging about 3,800 feet deep, into the Madison Formation. The total yield from all wells is in excess of 5,000 gpm.

3. **Summarize the request.**
   Funding for pre-construction costs of this south transmission main. Funding to complete the construction of this pipeline would be considered once the design is completed to at least 50% and all easements and land access agreements are in place.

4. Summarize the reasons for the request.

The recently completed Big Horn Regional Transmission Level II Study identified this area of the Washakie Rural Improvement and Service District (WRISD) as needing service improvements during existing peak hour demands when pressures become excessively low in the Road 13/Lane 17 area.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 438,152	
Site Access Permit Fees (BOR, USFS, etc.)	$ 5,000	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 360,400	
Pre-Construction Costs (Subtotal # 1)		$ 808,552
Total Project Costs Rounded		$ 810,000
Cost of Project Components		
Transmission Main	$ 3,999,000	
Mobilization, Bonds, Miscellaneous	$ 168,520	
Highway Crossing	$ 150,000	
Road Restoration	$ 40,000	
Connections to Existing Water Main	$ 24,000	
Construction Cost (Subtotal #2)		$ 4,381,520
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 438,152
Components and Engineering Costs (Subtotal # 3)		$ 4,819,672
Contingency (Subtotal #3 x 15%)		$ 722,951
Construction Cost Total (Subtotal #4)		$ 5,542,623
Inflation Costs (1yrs @ 4% per year)		$ 221,705
Subtotal #5		$ 5,764,328
Total Project Costs (Subtotal #1 + Subtotal #5)		**$ 6,572,880**
Total Project Costs Rounded		**$ 6,574,000**
Level III Recommended Funding @ 50% Grant – Pre-Construction Only:		**$ 405,000**

Estimated Ineligible Expenses (Pipeline to Airport for fire flow)

Preparation of Final Designs and Specifications	$ 89,756	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 0	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 89,756
Cost of Project Components		
Transmission Main	$ 728,500	
Mobilization, Bonds, Miscellaneous	$ 29,460	
Services and Meters	$ 131,600	
Connections to Existing Water Main	$ 8,000	
Construction Cost (Subtotal #2)		$ 897,560
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 89,756
Components and Engineering Costs (Subtotal # 3)		$ 987,316
Contingency (Subtotal #3 x 15%)		$ 148,097
Construction Cost Total (Subtotal #4)		$ 1,135,413

Inflation Costs (1yrs @ 4% per year)	$ 45,417
Subtotal #5	$ 1,180,830

Total Ineligible Project Costs (Subtotal #1 + Subtotal #5) **$ 1,270,586**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2020 Census) Unknown – system is a regional system and census areas do not exactly correlate with regional area (Current Estimate) 17,740

b. Does the entity have a comprehensive planning boundary? No
If so, what is the estimated additional population that could be served in the future? N/A

	Pre-Project	Post Project
c. Taps served within the entity boundaries?	7,267	7,335
d. Taps outside the entity boundaries?	0	0

e. Names of other water systems served? Greybull, Basin, Manderson, Burlington, Worland, South Big Horn, Washakie Rural, Kirby, Lucerne, Wyoming Boys' School

2. Water Usage (Potable water system only)	Pre-Project	Post Project
a. Total number of gallons produced by the water sources annually:	1,140MG	1,144MG
b. Gallons used per capita per day:		
Average Day:	160 gal	160 gal
Peak Day:	424 gal	424 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system		
Acre feet per day:	14.27	14.27
Gallons per day:	4.65 MGD	4.65 MGD
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Transmission	Transmission
c. Increased capacity needed:		
Acre feet per day	2.386	0.760
Gallons per day	777,600	247,680
d. Estimated system water losses (percentage):	5%	5%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day): 0.00

b. Average annual raw water usage (acre feet & gallons): 0.00

5. Rates

	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ NA	$ NA
Commercial:	$ NA	$ NA

This is a regional water distributor to other Districts/Municipalities. The Other water Districts/Municipalities provides taps and water sales to individuals, businesses, etc.

b. Average monthly water bill: Big Horn Regional JPB is a wholesale delivery operation.

c. Water Rates

Big Horn Regional JPB does not supply water to users directly; they wholesale water to independent Districts/Municipalities serving individual users. Pre-project monthly rates = $11.50/EDU + $1.05/1000gal. Post-project monthly rates = $12.00/EDU + $1.05/1000gal.

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 1,096,596	$ 1,440,459
Annual revenues from tap fees:	$ 0	$ 0
Annual revenues from other sources:	$ 192,400	$ 200,096
Total annual revenues:	$ 1,288,996	$ 1,640,555
Annual budget for operation and maintenance expenses:	$ 604,369	$ 638,101
Annual payments for debt retirement:	$ 362,297	$ 512,297
Annual payments to a repair and replacement fund:	$ 65,000	$ 200,000
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 1,031,666	$ 1,350,398
Budgeted values, if needed supplemented with reserves.		
Balance in repair and replacement fund:	$ 603,912	$ 1,200,000
Balance in emergency fund:	$ 0	$ 0
Annual cost of water quality testing:	$ 6,500	$ 10,500

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account I, Priority 3 Level III transmission pipelines

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes.

3. Will the project serve at least 15 water taps? Yes Number of taps: This is a regional system that supplies water to other distributers, not to individual taps; approximately 473 individual taps would be served “downstream” of this project.

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No

5. Does anyone in the service area haul water? Yes

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: RUS and SRF

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $16.75 20,000 gallons? $32.50
Note, this is the bulk water rate to other distributers, individual taps pay this cost, plus all local costs related to the local distribution system. With the local costs added, approximate monthly water bill for 5,000 gallons is $50-$95 and for 20,000 gallons is $120-$300.

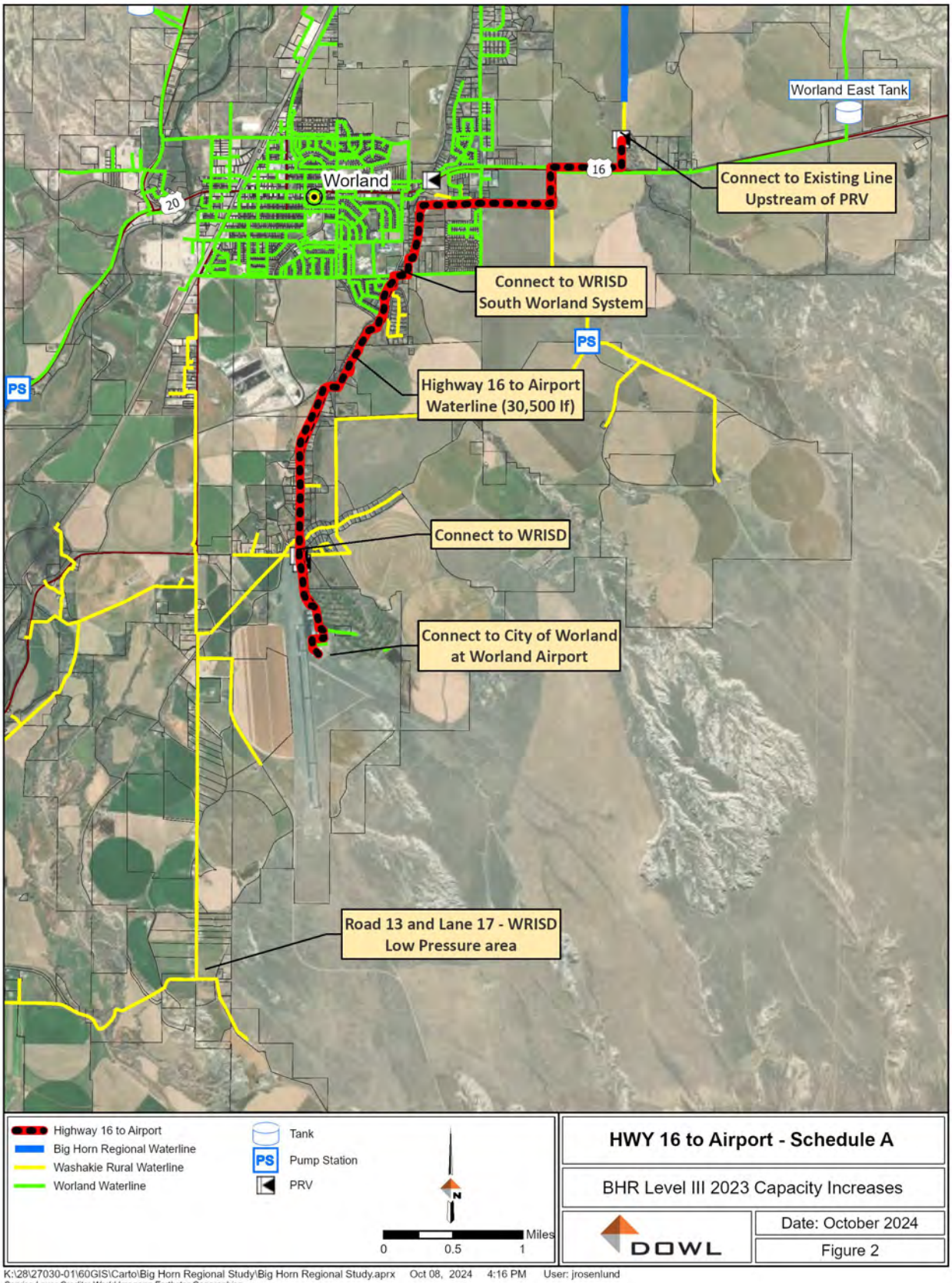
9. What water conservation measures are employed by the sponsor? Supplied Districts/Municipalities have tiered water rates.

10. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

11. Will the project consider regional solutions? Project would be part of an existing regional system.

12. Can the project be delayed or staged? Yes – will be split between pre-construction and construction phases Should it be? Yes – will be split between pre-construction and construction phases, construction funding after all permits, easements, and rights-of-way in place and design to at least 50%.

13. Basis for the funding recommendation: A portion of this project is needed to remedy low pressures during normal demands; the remaining is needed for fire flow to the airport, which is not a WWDC-eligible purpose. Therefore, recommendation is for funding of eligible portions only and not the continuation of the pipeline to the airport. Project Sponsor has an existing WWDC project in design that has the potential to be in construction beginning in 2025. Therefore, funding for the proposed project is recommended to be for pre-construction costs only.


Worland East Tank
Worland
16
20
Connect to Existing Line Upstream of PRV
Connect to WRISD South Worland System
PS
PS
Highway 16 to Airport Waterline (30,500 lf)
Connect to WRISD
Connect to City of Worland at Worland Airport
Road 13 and Lane 17 - WRISD Low Pressure area
Highway 16 to Airport
Big Horn Regional Waterline
Washakie Rural Waterline
Worland Waterline
Tank
Pump Station
PRV
N
0
0.5
1
Miles
HWY 16 to Airport - Schedule A
BHR Level III 2023 Capacity Increases
DOWL
Date: October 2024
Figure 2
K:\28\27030-01\60GIS\Carto\Big Horn Regional Study\Big Horn Regional Study.aprx Oct 08, 2024 4:16 PM User: jrosenlund
Service Layer Credits: World Imagery: Earthstar Geographics

Resolution No. 2024-03

A RESOLUTION AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE WYOMING WATER DEVELOPEMENT COMMISSION FOR THE FUNDING OF A LEVEL III CONSTRUCTION PROJECT.

Resolution made on August 21, 2024, at a regular open meeting of the Big Horn Regional Joint Powers Board (BHRJPB).

The BHRJPB considered making application to sponsor a WWDC Level III project for the South Transmission Project.

Upon Consideration, the board resolved to make application to sponsor a Level III application to be made on or before September 1st, 2024.

This resolution was adopted in open meeting by unanimous vote of the Board on August 21, 2024.

John Joyce, Big Horn Regional Water Supply Director, is hereby designated as the authorized representative of the Big Horn Regional Joint Powers Board, to act on behalf of the Governing Body on all matters relating to this application and to sign such documents as may be required to sponsor this Level III construction project.

PASSED, APPROVED AND ADOPTED THIS 21st day of August, 2024.

Board Chairman

Attest:

Secretary

State of Wyoming

County of Washakie

This Resolution 2024-03, A Resolution Authorizing Submittal of an Application to the Wyoming Water Development Commission for the Funding of a Level III Construction Project, signed before me on August 21, 2024 by Donald Russell and attested before me by Mike Neufer.

Julie E. Cross

Notary

My commission expires: April 20, 2030

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Cloud Seeding: Medicine Bow and Sierra Madre Mountain Ranges 2026 (Aerial)

Program: New Development

Project Type: Winter Snowpack Augmentation

County: Albany and Carbon

Sponsor: WWDO

WWDO Recommendation: Level III

Proposed Budget: $875,000

Project Manager: Barry Lawrence\Cheyenne Love

Project Description

The WWDO requests financial support from the Wyoming State Legislature for the continuation of aerial cloud seeding operations targeting the Medicine Bow and Sierra Madre Mountain Ranges, located in southeast Wyoming within the North Platte River Basin and Little Snake River Basin (western flanks of the Sierra Madres), for the 2025-2026 winter season. This would be the 8th year of operational seeding targeting these mountain ranges. This project is focused on mountain snow augmentation to increase streamflow, as part of a strategy for flow enhancement within the affected basins.

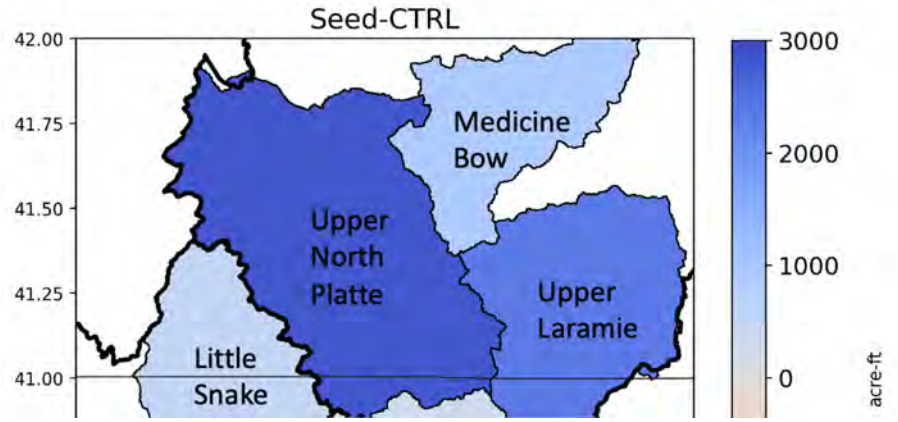
The WWDO has been successful in securing a long-standing local funding partner for the current winter season and past season operations. The City of Cheyenne Board of Public Utilities has consistently made generous contributions to the project, as they have a vested interest in additional runoff and water supplies coming from the Medicine Bow and Sierra Madre Mountain Ranges. The WWDO anticipates future contributions from this funding partner.

As proposed in this recommendation, aerial cloud seeding would continue during the winter of 2025-2026 upwind of the Medicine Bow and Sierra Madre Mountain Ranges target areas.

Evaluation of Precipitation and Streamflow Impacts

The 2022 Wyoming State Legislature funded a hydrological assessment study of precipitation and streamflow impacts due to airborne cloud seeding targeting the Medicine Bow and Sierra Madre Mountain Ranges. The study, conducted by the National Center for Atmospheric Research (NCAR), used a suite of advanced modeling tools along with flight-level cloud measurements and ground-based weather data collected during operations, in providing an estimate of the additional streamflow in acre feet and associated cost effectiveness calculations. The study looked at four seasons of WWDO's aerial operational cloud seeding, with the 2019-2020 winter season selected for a more intensive analysis. Although results focused on only one year (and does not account for season-to-season atmospheric variability), it provides an updated quantitative look at enhanced precipitation and streamflow from aerial cloud seeding in the target

areas. For the North Platte and Little Snake River basins combined, the simulated seeding effect on precipitation for the 2019-2020 season ranged from a maximum of 14,030-acre feet (AF) to a minimum of 6,058 AF, with a mean value of 9,478 AF. In terms of streamflow, seeding simulations showed the largest impact on the Upper North Platte and Upper Laramie River basins, with an estimated mean increase in streamflow of 2828 AF, and 2356 AF, respectively. Large increases in streamflow in those basins are consistent with seeding that targeted the Sierra Madre and Medicine Bow areas. Seeding simulations yielded a lesser impact on the Medicine Bow, North Platte Headwaters, and Little Snake River basins, with ensemble mean increases ranging from 348 AF to 892 AF.



The total mean accumulated streamflow (AF) difference between seeded and control simulations for each basin. Values in blue indicate an increase in streamflow. NCAR, 2024.

The effects of simulated seeding on the water budget can be summarized by the ensemble mean seeding change in evapotranspiration, streamflow, and soil moisture divided by the precipitation change. For the water year 2020, the results show that for the total increase in ensemble mean precipitation, 78% goes to an increase in streamflow, 21% goes to an increase in soil moisture, and 8% goes to an increase in evapotranspiration. Note that these percentages do not add up to 100%, due to rounding and not accounting for the minor portion going to recharge groundwater storage in the model. Overall, the water budget analysis shows that increases in precipitation due to seeding largely increase streamflow, with secondary increases in soil moisture, and a slight increase in evapotranspiration.

Using the total operational costs provided by the WWDO and its funding partners for the 2019-2020 aerial cloud seeding program, a cost-benefit analysis was conducted. Based on the range of the WRF-WxMod ensemble model output, costs for producing precipitation by cloud seeding range from $40.52 - $93.85/AF, with the ensemble mean at $59.99/AF. For the WRF-Hydro ensemble model output, costs for producing streamflow by cloud seeding range from $56.15 - $124.22/AF, with the ensemble mean at $81.87/AF.

Other western states have found cloud seeding to be a good investment of their respective state resources due to the current state of the science (physical evidence of microphysical changes in cloud properties), the need for water, and evidence that indicates cloud seeding efforts are beneficial and cost effective as a long-term water management tool. The nearby states (Idaho and Utah) have recently appropriated millions of dollars through their respective state legislative processes for future cloud seeding efforts.

Winter 2024-25 Cloud Seeding Operations in the Medicine Bow and Sierra Madre Mountains:

Aerial cloud seeding operations for the current 2024-2025 winter season were funded by the 2024 Wyoming State Legislature (in the “Omnibus Water Bill - Construction”), with additional contributions from the City of Cheyenne Board of Public Utilities. Operations, utilizing one aircraft began on November 8, 2024. Any increase in runoff produced through cloud seeding is considered additional “system” water, benefiting all water users in the North Platte River Basin.

Winter 2025-26 Cloud Seeding Operations in the Medicine Bow and Sierra Madre Mountains Budget:

The WWDO is focused on continuing aerial cloud seeding over the Medicine Bow and Sierra Madre Mountain Ranges for the winter season of 2025-2026. Funds are being requested for the operations consultant to prepare operational forecasts, provide decision support, operate one aircraft, maintain equipment, and conduct aerial seeding operations upwind of the target areas.

Winter 2025-2026 Operations Budget	$ 920,000	
Anticipated Cheyenne Board of Public Utilities Local Funding Contribution	- $ 50,000	
State of Wyoming Cost Share		$ 870,000
Wyoming Water Development Office (oversight) Travel/Communications		$ 5,000
Project Total Requested Appropriation		**$ 875,000**

Example seeding mission with flight tracks for 2 January 2020. Aerial seeding commenced at 4:10 pm along SM4; transitioned to MB4 at 06:21pm and to MB5 at 07:05pm. Seeding ended at 08:05 pm. NCAR, 2024.

Important Facts about Cloud Seeding:

- Cloud seeding has been utilized since the 1940's, however, incredible advances in research and technology have been made within the past 15 years. Forefront of this new innovative research, Idaho Power Company's SNOWIE Project actually builds on Wyoming's original Pilot Study.

- Winter cloud seeding is a technique to naturally increase the amount of ice nuclei within a cloud, allowing ice formation (and ultimately snow formation) to begin sooner.

- Studies have shown that the use of Silver Iodide in cloud seeding is safe, as it is a natural salt-compound. Silver is widespread in the natural environment, and sampling within cloud seeding target areas found silver to be undetectable above naturally-occurring background levels. Silver from cloud seeding is incredibly hard to find, even with the most advanced equipment.

- Extra Area Effects: The theory that cloud seeding reduces moisture downwind is a common misunderstanding. Long-term studies consistently show no precipitation decreases resulting from seeding. In fact, many studies show the potential for a slight increase downwind.

- Cloud seeding allows for an incremental increase in mountain snowpack, and is not the initial cause of springtime flooding events. Every year, the project must adhere to a strict suspension criteria. One of the thresholds for suspension is if snowpack reaches a specific above-normal level.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Cloud Seeding: Wind River & Sierra Madre Mountain Ranges 2026 (Ground-Based)

Program: New Development

Project Type: Winter Snowpack Augmentation

County: Fremont, Sublette, Carbon

Sponsor: WWDO

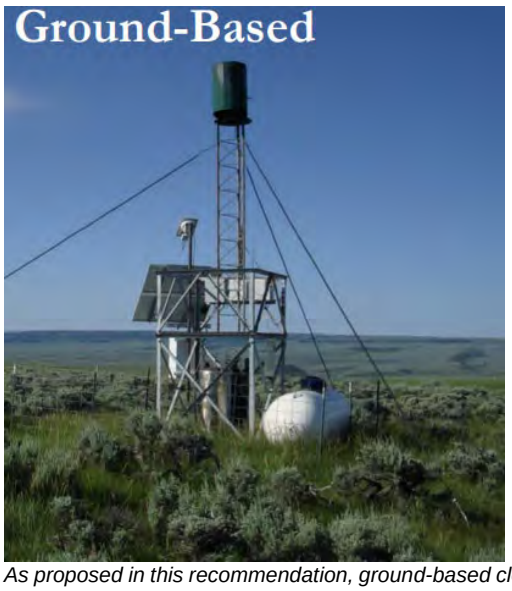
WWDO Recommendation: Level III

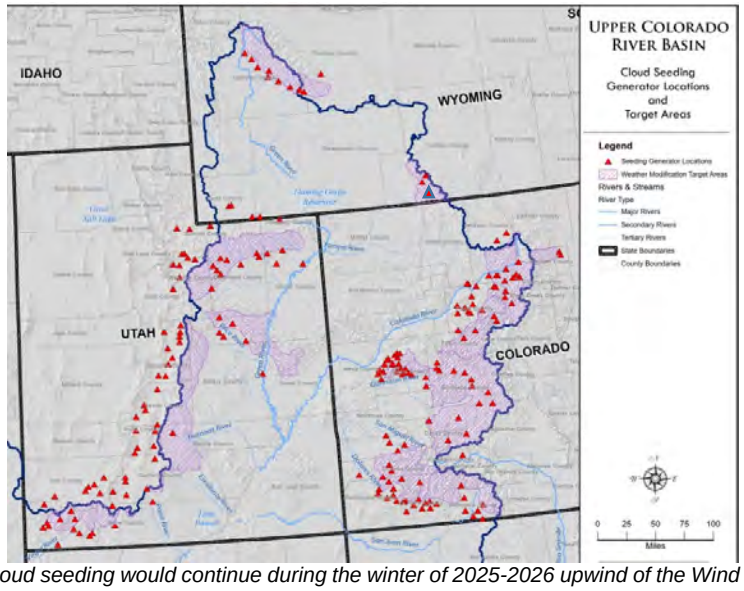
Proposed Budget: $322,143

Project Manager: Barry Lawrence\Cheyenne Love

Project Description

The WWDO requests cost share funding from the Wyoming State Legislature for the continuation of cloud seeding operations over the Wind River Mountains and west slope of the Sierra Madre Mountains, for the 2025-2026 winter season. This project represents the continuation of snow augmentation efforts as part of a larger strategy for flow enhancement within Wyoming's drainages of the Upper Colorado River Basin. The science continues to strongly suggest that increasing snowpack through cloud seeding incrementally augments water supply through spring runoff. In 2018, the WWDO was signatory to an Agreement Establishing Programmatic Funding for Colorado River Basin Weather Modification with the Lower Basin (also known as "The Agreement"), which ensures that the State of Wyoming remains a leader in efforts to augment snowpack and increase water supply within the Colorado River Basin, while remaining an active participant to the quickly advancing science that cloud seeding is successful and economic.





As proposed in this recommendation, ground-based cloud seeding would continue during the winter of 2025-2026 upwind of the Wind River and Sierra Madre Mountain Ranges target areas in Wyoming as part of a collaborative 7 basin states' weather modification effort to enhance streamflow in the Colorado River Basin. Shown is a ground generator targeting the Wind River Range (left) and a map of generator locations and target areas in the Upper Basin ~ Colorado, Utah and Wyoming (right).

As stated in The Agreement, the Lower Basin parties (Central Arizona Water Conservation District, Colorado River Board of California/Six Agency Committee, and Southern Nevada Water Authority) support augmenting Colorado River System runoff through this cooperative cost-share funding mechanism. More importantly, they also provide opportunities to expand Upper Basin States' projects. For example, some terms of The Agreement include: 1) The Lower Basin Parties agree to contribute up to $500,000 each, and up to $1,500,000 collectively, in funding for Activities approved in a single water year in the Upper Basin; 2) The Lower Basin Parties further agree to contribute up to $4,500,000 individually, and $13,500,000

collectively, in funding the Upper Basin Programs provided the Agreement does not terminate prior to the end of the Term; 3) a cost-sharing relationship of generally 50%/50% between the Lower Basin Parties and the Upper Basin Entities; and 4) The Lower Basin Parties do not expect to fund any activities when Lake Powell and Lake Mead are projected to collectively exceed 80% of live storage capacity in the upcoming water year. Notice of the decision of whether to fund activities will be based on the results of the United States Bureau of Reclamation's August 24 Month Study projections of collective inflow and storage at Lake Powell and Lake Mead. This Programmatic Agreement runs through the 2026 water year, the last year of which is reflected by this funding recommendation for Cloud Seeding in the Wind River and Sierra Madre Mountain Ranges 2026 (Ground Based).

All seven of the Colorado River Basin States (Colorado, New Mexico, Utah, Wyoming, Arizona, California and Nevada) and their water users, benefit from increased water supply. Any increase in runoff produced through Upper Basin cloud seeding is considered additional "system" water, benefiting all states within the Colorado River Basin.

The Wyoming Ground-Based Program

The Wyoming Ground-Based Cloud Seeding Program has operated annually since 2014. Currently, there are a total of thirteen remote cloud seeding generators targeting Wyoming's Upper Colorado River Basin. Ten generators are located around the Wind River Mountain Range (operational since 2014), and three generators are located along the west slope of the Sierra Madre Mountain Range (operational since 2022 & 2024). The WWDO is recommending the continuation of these thirteen seeding generators for the winter of 2025-2026.

Locations of the ten ground-based generators targeting the Wind River Range are shown. 9 generators are sited on the western flanks of the mountains while a 10th generator is sited in the lee of the mountain range to capture upslope flows. As proposed in this recommendation, ground-based cloud seeding would continue in this target area during the winter of 2025-2026 as part of a strategy for flow augmentation in the Colorado River Basin.

Locations of the three ground-based generators targeting the Sierra Madre Range are shown. The High Savery and West Tullis sites were installed in 2022 while the North Battle site was installed this year. As proposed in this recommendation, ground-based cloud seeding would continue in this target area during the winter of 2025-2026 as part of a strategy for flow augmentation in the Colorado River Basin.

Wind River & Sierra Madre Mountain Ranges 2025-2026 Estimated Budget

Since 2014, ground-based cloud seeding operations have been funded in part by the Wyoming State Legislature in each session's "Omnibus Water Bill - Construction." Funding for this target area has consistently been a cost share between the State of Wyoming and other interested water users. Wyoming's cost share for the 2024-2025 season was capped at 37%, with 63% of remaining project funds required from other funding partners. The following budget has been prepared for a continued cost sharing scenario for cloud seeding operations targeting the Wind River and Sierra Madre Mountain Ranges during the winter of 2025-2026. Funds are being requested for the consultant to continue cloud seeding operations using thirteen remote generators (including preparing weather forecasts, decision support, and equipment maintenance).

Winter 2025-2026 Operations Budget	**$ 857,143.00**
63% Cost Share from Funding Partners	- $ 540,000.00

37% Cost Share from WWDO	$ 317,143
Wyoming Water Development Office (oversight) Travel/Communications	$ 5,000
Project Total Requested Appropriation	$ 322,143

Important Facts about Cloud Seeding:

- Cloud seeding has been utilized since the 1940's, however, incredible advances in research and technology have been made within the past 15 years. Forefront of this new innovative research, Idaho Power Company's SNOWIE Project actually builds on Wyoming's original Pilot Study.

- Winter cloud seeding is a technique to naturally increase the amount of ice nuclei within a cloud, allowing ice formation (and ultimately snow formation) to begin sooner.

- Studies have shown that the use of Silver Iodide in cloud seeding is safe, as it is a natural salt-compound. Silver is widespread in the natural environment, and sampling within cloud seeding target areas found silver to be undetectable above naturally-occurring background levels. Silver from cloud seeding is incredibly hard to find, even with the most advanced equipment.

- Extra Area Effects: The theory that cloud seeding reduces moisture downwind is a common misunderstanding. Long-term studies consistently show no precipitation decreases resulting from seeding. In fact, many studies show the potential for a slight increase downwind.

- Cloud seeding allows for an incremental increase in mountain snowpack, and is not the initial cause of springtime flooding events. Every year, the project must adhere to a strict suspension criteria. One of the thresholds for suspension is if snowpack reaches a specific above-normal level.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Hoback Junction Public Water System 2025

Program: New Development

Project Type: Rural Domestic

County: Teton

Sponsor: Hoback Junction Water and Sewer District

WWDO Recommendation: Level III Pre-Construction

Proposed Budget: $274,450

Pre-Construction Recommendation:	
WWDC Grant[1] (50%)	$ 274,450
Other Funding Source[2] (50%)	$ 274,450
Total	$ 548,900
Construction Recommendation:	
General Fund Grant[3] (50%)	$ 974,050
Sponsor[4] (50%)	$ 974,050
Total	$ 1,248,500
Funding for Total Project:	
WWDC & General Fund Grants[3]	$ 1,248,500
Sponsor[4]	$ 1,248,500
Total	$ 2,497,000

[1] Not to exceed 50% of eligible costs
[2] Sponsor or other funding source

Project Manager: Mallo

Project Description: The project consists of standing up a new public water system with a new infiltration gallery adjacent to the Snake River, new treatment system (not eligible), new clear water vault and pump station, new transmission main, and new storage tank.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
N/A	None	$ N/A

2. **Describe existing water supply using information in the application.**
   No public water supply currently exists, as the community is served by private wells.

3. **Summarize the request.**
   The request is for funding a new public water supply which includes: a new diversion/infiltration gallery from the Snake River; clear water vault and pumping station; approximately 3,000 lineal feet of 4" transmission main; approximately 1,100 lineal feet of 8" transmission main; and a storage tank.

   The proposed storage tank would store municipal water as well as fire flow water. It was determined that 30,000 gallons of the storage out of a 150,000 gallons was related to municipal use water. The remaining 120,000 gallons was determined to be only for fire flow and ineligible for WWDC grant funds.

4. Summarize the reasons for the request.

The area of Hoback Junction is currently encountering high nitrate levels in their wells, resulting from concentrated number of septic systems in a small area and a shallow aquifer. The levels exceed the Clean Water Act maximum levels prompting the need for a new sewer and water district.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 136,900	
Site Access Permit Fees (BOR, USFS, etc.)	$ 70,000	
Title Opinion	$ 2,000	
Acquisition of Access and Rights of Way	$ 330,000	
Pre-Construction Costs (Subtotal # 1)		$ 548,900
Cost of Project Components		
New Water Supply Infiltration Gallery	$ 360,000	
Pump Station & Wet Well at Infiltration	$ 125,000	
4” Transmission Mains at Infiltration	$ 70,000	
4” Transmission Main to Storage	$ 347,000	
8” Transmission Main from Storage	$ 237,000	
20% of Water Storage Tank	$ 230,000	
Construction Cost (Subtotal #2)		$ 1,369,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 136,900
Components and Engineering Costs (Subtotal # 3)		$ 1,505,900
Contingency (Subtotal #3 x 15%)		$ 225,885
Construction Cost Total (Subtotal #4)		$ 1,731,785
Inflation Costs (4% per Three years)		$ 216,238
Subtotal #5		$ 1,948,023
Total Project Costs (Subtotal #1 + Subtotal #5)		**$ 2,496,923**
Total Project Costs Rounded		**$ 2,497,000**
Level III Recommended Funding @ 50% Grant: (Pre-Construction Only)		**$ 274,450**

Ineligible Expenses

80% of Water Storage Tank, Fire Flow & Distribution system	$ 4,962,000
Total Ineligible Project Costs	**$ 4,962,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2010 Census) 130 (Current Estimate) 137

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 151

	Pre-Project	Post Project
c. Taps served within the entity boundaries?	0	60
d. Taps outside the entity boundaries?	0	0
e. Names of other water systems served?	None	

2. Water Usage (Potable water system only)	Pre-Project	Post Project
a. Total number of gallons produced by the water sources annually:	0	7.5 MG
b. Gallons used per capita per day:		
Average Day:	0 gal	149 gal
Peak Day:	0 gal	448 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system Gallons per day:	0	241,920
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	No system exists	Treatment
c. Increased capacity needed: Gallons per day:	241,920	0
d. Estimated system water losses (percentage):	0%	5%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day):	0
b. Average annual raw water usage (acre feet & gallons):	0

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 0	$ 4,000
Commercial:	$ 0	$ 4,000
b. Average monthly water bill:	$ 0	$ 112

c. Water Rates

Water rates are not yet established, but will be determined on actual final system construction costs. The estimate at this time is around $112/month

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 0	$ 65,856
Annual revenues from tap fees:	$ 0	$ 0
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 0	$ 65,856
Annual budget for operation and maintenance expenses:	$ 0	$ 22,000
Annual payments for debt retirement:	$ 0	$ 28,283
Annual payments to a repair and replacement fund:	$ 0	$ 10,000
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 0	$ 60,283
Balance in repair and replacement fund:	$ 0	$ 0
Balance in emergency fund:	$ 0	$ 0
Annual cost of water quality testing:	$ 0	$ 5,500

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account I, Priorities 2, 3, and 4: Level III projects developing unappropriated water – examples include wells & diversion structures requiring the issuance of new water rights; Level III transmission pipelines; Level III potable water storage tanks

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes. The Teton County Board of County Commissioners has resolved to contribute up to $3,000,000 in funding for the system, and potentially more funds to assist with fire-suppression capacity.

3. Will the project serve at least 15 water taps? Yes Number of taps 60

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): The sponsor does not, however individual landowners that will connect to the new system do have exceedances.

5. Does anyone in the service area haul water? Yes

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: HJWSD anticipates receiving additional funding through both grants and loans. The Teton County Board of County Commissioners has resolved to contribute up to $3M in SPET funds, and potentially $1.8M more for fire. The Teton County Conservation District has awarded a grant for the project in the amount of $250,000. Remaining balance will be subsidized through a low interest loan that will be applied for the DWSRF.

7. Is water metered? It will be Are billings based on meter readings? They will be

8. What is monthly water bill for 5,000 gallons? Rates are undetermined. 20,000 gallons? Rates are yet to be determined, but will likely be in the $112/month range. Final rates will depend on final design system O&M costs, loan requirements, etc.

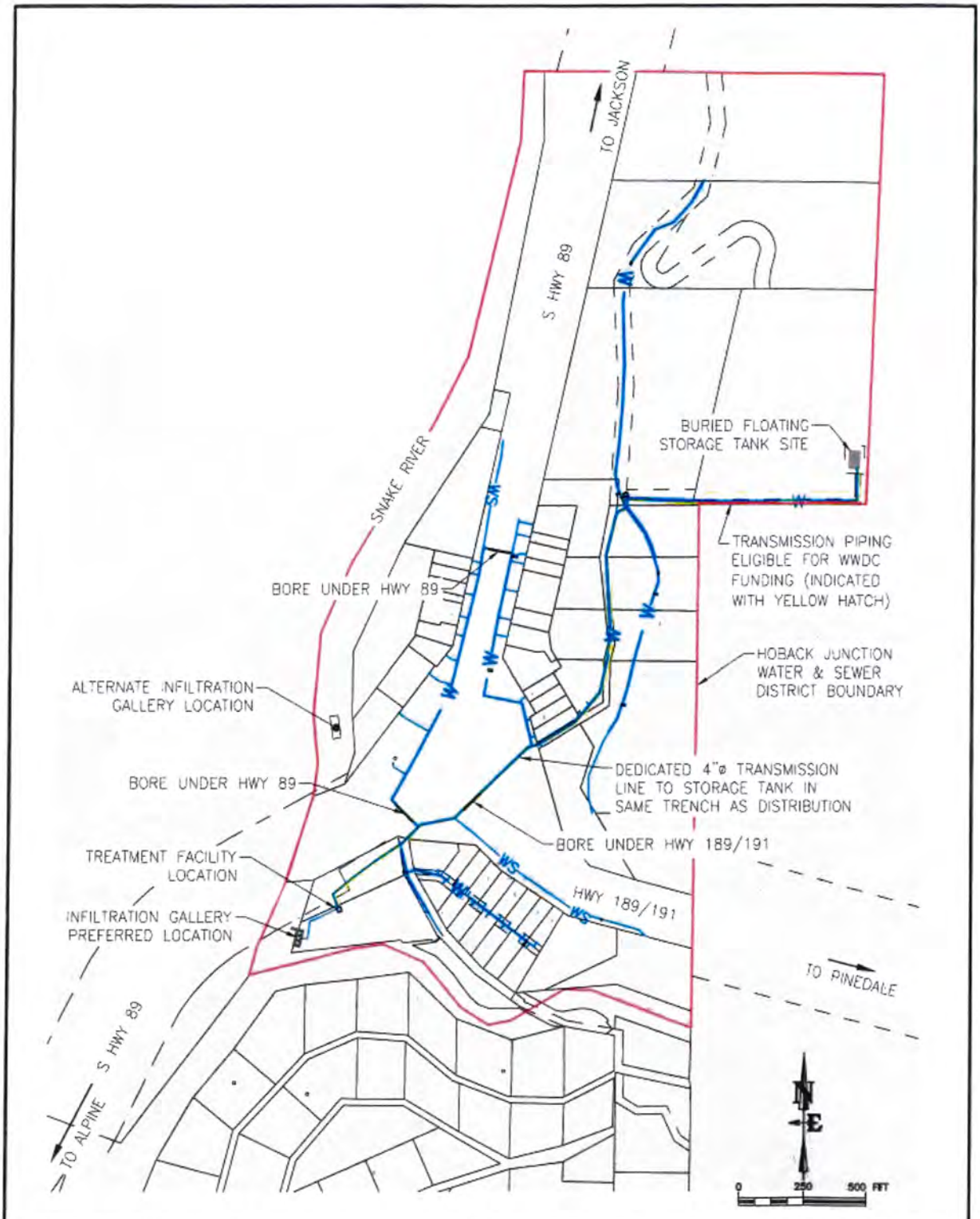
9. What water conservation measures are employed by the sponsor? District plans to employ tiered water rates to encourage conservation.

10. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Self-supporting except replacement. The District plans to institute a replacement fund upon debt retirement.

11. Will the project consider regional solutions? Yes

12. Can the project be delayed or staged? Yes Should it be? No, the project is being split as pre-construction and construction, due to the large amount of design work and easements needed.

13. Basis for the funding recommendation: The project proposes to develop new supply, transmission, and storage for a rural domestic water supply system, which is covered under the New Development Program, and is categorized as project priorities 2, 3, and 4 according to the operating criteria. This project will require developing a new source, and complete design of the water system.



DRAWING NO: EXHIBIT A JOB NO: 22-265	TITLE: HOBACK JUNCTION WSD WWDC LEVEL III APPLICATION HOBACK JUNCTION, WY	NELSON ENGINEERING P.O. BOX 1599, JACKSON WYOMING (307) 733-2087	DATE: 6/23/2024 SURVEYED: - DRAWN: BJG CHECKED: TR APPROVED: TR	REV

RESOLUTION # 2024-___

A RESOLUTION AUTHORIZING THE FILING OF AN APPLICATION FOR LEVEL III DESIGN AND CONSTRUCTION FUNDING FOR HOBACK JUNCTION WATER AND SEWER DISTRICT WATER SYSTEM PROJECT TO THE WYOMING WATER DEVELOPMENT COMMISSION (WWDC)

WHEREAS, the Hoback Junction Water and Sewer District (HJWSD) was established in the early part of 2023 to deal with water quality issues in the Hoback Junction area of Teton County; and

WHEREAS, there is no current centralized water system infrastructure located in Hoback Junction that serves the entire HJWSD constituency; and

WHEREAS, private water supply wells exist in the Hoback Junction region, whose discharge contain nitrate levels that exceed the limits set forth in the current Wyoming Department of Environmental Quality (WDEQ) regulations, and limits set forth by the Environmental Protection Agency (EPA); and

WHEREAS, the HJWSD has recently completed a home brew Level II Study that identified various options and a chosen alternative to implement necessary improvements that will result in construction of a viable, central water system intended to serve the entire HJWSD constituency; and

WHEREAS, the Wyoming Water Development Commission (WWDC) oversees a Program in which funds may be available for Level III Design and Construction of identified, eligible improvements; and

WHEREAS, the total project cost for design and construction of the project is estimated at $5.34 M; and

WHEREAS, the HJWSD desires to apply under said WWDC Program for partial support of the cost of all eligible project components, with the required match of the remainder coming from the HJWSD, either directly, or via other funding sources.

NOW, THEREFORE, be it resolved by the Elected Board of the Hoback Junction Water and Sewer District, located in Teton County, Wyoming, that the HJWSD is authorized to file the Level III Construction Funding Application with the Wyoming Water Development Commission for the purpose of design and construction of the HJWSD Water System Project.

PASSED, APPROVED, AND ADOPTED this 14th day of August, 2024.

HOBACK JUNCTION WATER & SEWER DISTRICT

Robert Frodeman, Board Chairman

ATTEST:

Chris Jaubert, HJWSD Board Vice Chairman

State of Wyoming)
) ss
County of Teton)

The forgoing instrument was acknowledged before me by Robert Frodeman as HJWSD Board Chairman and Chris Jaubert, HJWSD Board Vice Chairman, who are personally known to me, executed this 26th day of August, 2024.

OLIVIA BROCK
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 169302
MY COMMISSION EXPIRES: 12-06-2029

Notary Public

My commission expires: 12-06-2029

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: SAWS JPB Upper Road Transmission Main Phase 1 2025

Program: New Development

Project Type: Municipal

County: Sheridan

Sponsor: Sheridan Area Water Supply Joint Powers Board

WWDO Recommendation: Level III

Proposed Budget: $2,206,750

WWDC Grant[1] (50%)	$ 2,206,750
Other Funding Source[2] (50%)	$ 2,206,750
Total	$ 4,413,500

[1] Not to exceed 50% of eligible costs
[2] Sponsor or other funding source

Project Manager: Mallo

Project Description: The Sheridan Area Water Supply Joint Powers Board (SAWS JPB), in conjunction with the City of Sheridan water system, participated in the WWDC master planning effort to evaluate the combined Sheridan Water Supply System. This project is related to the former WWDC Level III Airport Transmission Main pipeline replacement construction project that came out of the final 2019 Sheridan Water Master Plan, Level I Study. The Airport Transmission Main pipeline was originally listed as the highest priority project identified within the water system for the Sheridan Area Water Supply Joint Powers Board. However, based on information provided last year by the City of Sheridan, when cancelling the Airport Transmission Main pipeline project, the need to replace the original transmission line did not rise to the level of the estimated cost. Therefore, this reduced project will be sized to meet the needs of the SAWS JPB without replacing the City of Sheridan's transmission pipeline.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2013/14	L-III, Sheridan North Loop Transmission Line	$ 1,714,460
2015	L-III, Sheridan Leopard Street Pipeline	$ 2,211,000
2015	L-III, Sheridan 4MG WTP Tank	$ 2,144,000
2018	L-I, Sheridan Water Master Plan	$ 250,000

2. **Describe existing water supply using information in the application.**
   The surface water supply for the City of Sheridan and the Sheridan Area Water Supply Joint Powers Board (SAWS JPB) rural system consists of direct flow from Big Goose Creek and stored water in reservoirs in the Big Horn Mountains. Raw water is diverted, pre-treated, then delivered to one of two water treatment plants (WTP). The system primarily utilizes gravity flow with many pressure reducing stations. There are also several booster stations to serve areas of higher elevations. Buried concrete storage tanks store a total of 13.5 MG within the various pressure zones. Although there are two entities involved, the same operators and facilities serve the entire Sheridan area system for efficiency. The entire water system covers both the City of Sheridan's system and the SAWS JPB system.

3. **Summarize the request.**
   The SAWS JPB is requesting design and construction funding for this Level III construction project, which is called the Upper Road Transmission Main Phase 1. The proposed new transmission main in this project connects an existing water supply pipeline in the eastern end of the Big Goose Valley to

major service areas at the airport, and then areas to the south into the entire Little Goose Valley. The existing transmission main is shared with the City of Sheridan and is the sole source of supply to some residences within this service area and the proposed new transmission main will increase capacity and flexibility in the service area that serves 70% of the SAWS JPB users. It is a key transmission main for SAWS JPB, but will also benefit the City of Sheridan water system in a growing area of Sheridan. This Service area is growing and additional transmission facilities are needed to meet demand and maintain dependable service to the area. This project is proposed as Phase 1 of 2. Phase 2 will tie on to Phase 1 and replace an undersized transmission pipeline to an area of the SAWS district that is experiencing low water pressures at times of high demand.

4. **Summarize the reasons for the request.**
The 2019 Sheridan Water Master Plan, Level I Study identified the critical need to replace the sole reliance on the key transmission main pipeline shared by the City of Sheridan and SAWS JPB as the highest priority. However, the City of Sheridan did not believe the cost to replace the main pipeline was justified compared to the repair costs to maintain it. Therefore, a reduced size pipeline to meet the anticipated growth in the SAWS JPB System and south Sheridan Area is being considered.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 140,000	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 0	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 140,000
Cost of Project Components		
Mobilization, Bonds, Insurance	$ 300,000	
Import Material	$ 18,000	
Excavation	$ 14,000	
Reclamation	$ 38,000	
Ditch Crossing	$ 14,000	
Valves	$ 100,000	
Air/Vac, Hydrants, & Blow-off Assemblies	$ 91,000	
Water Mains	$ 1,825,000	
Fittings	$ 93,000	
Water Main Connections/Abandonment	$ 61,000	
Jack and Bore 20” Rest. Joint Waterline	$ 400,000	
Quality Control Testing & Staking	$ 39,000	
Meters and Accessories	$ 122,000	
Construction Cost (Subtotal #2)		$ 3,115,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 311,500
Components and Engineering Costs (Subtotal # 3)		$ 3,426,500
Contingency (Subtotal #3 x 15%)		$ 513,975
Construction Cost Total (Subtotal #4)		$ 3,940,475
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 4,080,475
Inflation Costs (4% per two years)		$ 332,967
Total Project Costs		$ 4,413,442
Total Project Costs (Rounded)		$ 4,413,500
Level III Recommended Funding @ 50%		**$ 2,206,750**

Ineligible Expenses

None	$	0
Total Ineligible Project Costs	**$**	**0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2020 Census) 24,000 (Current Estimate) 25,000

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 40,000

	Pre-Project	Post Project
c. Taps served within the entity boundaries?	2,116	2,116
d. Taps outside the entity boundaries?	0	0
e. Names of other water systems served?	City of Sheridan	

2. Water Usage (Potable water system only)	Pre-Project	Post Project
a. Total number of gallons produced by the water sources annually:	1.5MG	1.5MG
b. Gallons used per capita per day:		
Average Day:	175 gal	175 gal
Peak Day:	400 gal	400 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system		
Acre feet per day:	76.72	76.72
Gallons per day:	25.0MGD	25.0MGD
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	N/A	N/A
c. Increased capacity needed:		
Acre feet per day	0	0
Gallons per day	0	0
d. Estimated system water losses (percentage):	15%	15%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day): 0

b. Average annual raw water usage (acre feet & gallons): 0

5. Rates

	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 5,380	$ 5,380
Commercial:	$ 5,380	$ 5,380
b. Average monthly water bill:	$ 66.00	$ 66.00

c. Water Rates

The rates are per meter size and usage. Rates for meters start at $53.42 for a ¾" meter and go up to $102.17 for a 2" or larger meter. Rates for usage start at $2.05/1,000 gallons for first 8,000 gallons and increase to $4.30/1,000 gallons after 8,000 gallons.

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 1,734,725	$ 1,734,725
Annual revenues from tap fees:	$ 266,392	$ 266,392
Annual revenues from other sources:	$ 500,950	$ 500,950
Total annual revenues:	$ 2,502,067	$ 2,502,067
Annual budget for operation and maintenance expenses:	$ 1,512,375	$ 1,512,375
Annual payments for debt retirement:	$ 439,000	$ 489,500
Annual payments to a Capital fund:	$ 550,692	$ 500,192
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 2,051,375	$ 2,051,375
Balance in Capital fund:	$ 6,575,000	$ 6,575,000
Balance in emergency fund:	$ 0	$ 0
Annual cost of water quality testing:	$ N/A	$ N/A

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account I, Priority 3 Level III Transmission Pipelines.

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes.

3. Will the project serve at least 15 water taps? Yes Number of taps 2,116

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No

5. Does anyone in the service area haul water? No

6. Is the sponsor eligible for funding from other state or federal programs? Yes If so, what are they: SLIB, SRF

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $63.67 20,000 gallons? $121.42

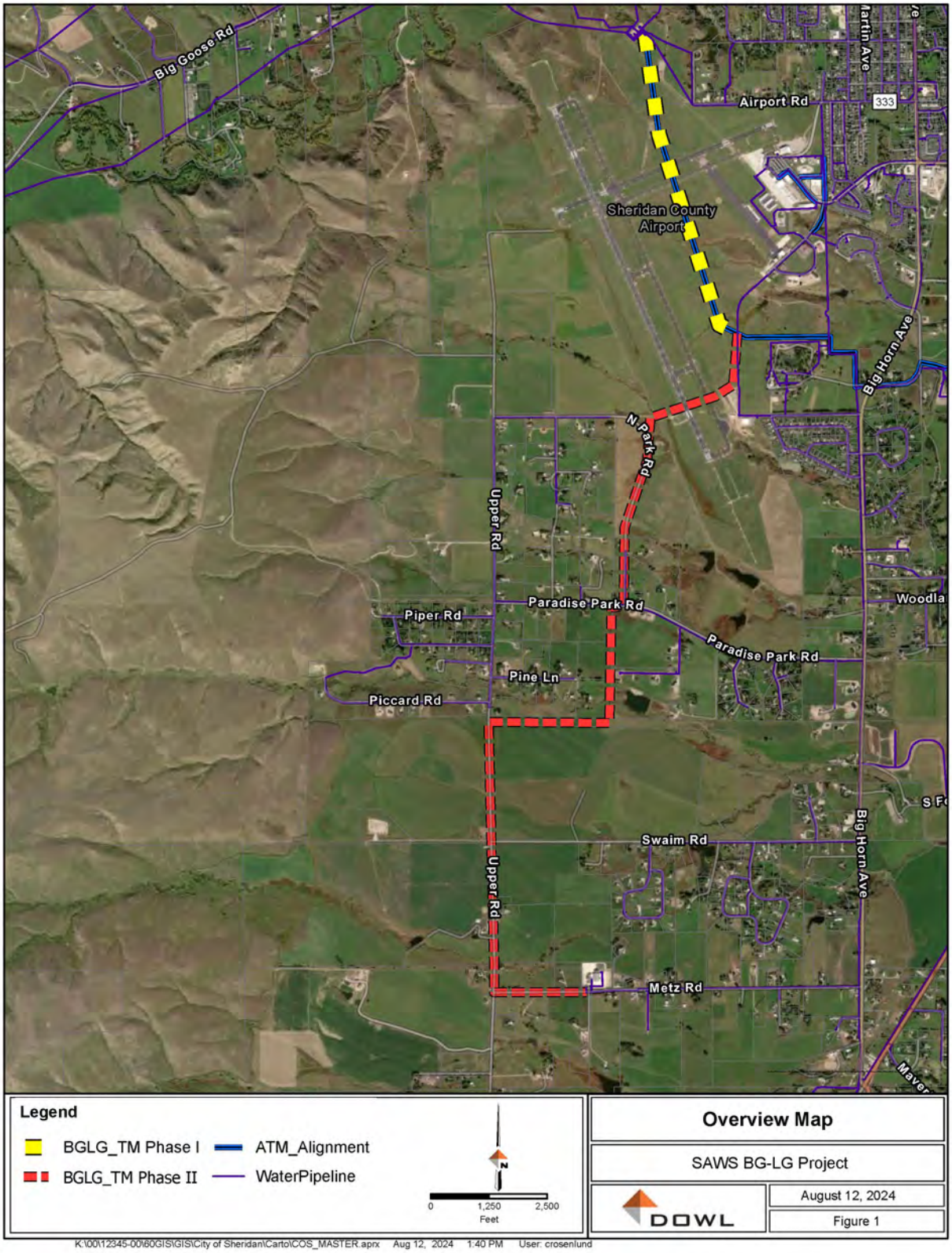
9. What water conservation measures are employed by the sponsor? Metered connections and tiered rates

10. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

11. Will the project consider regional solutions? Yes, System is part of a regional system.

12. Can the project be delayed or staged? Yes Should it be? No, the sponsor is staging the project in two phases on their own.

13. Basis for the funding recommendation: The project is being recommended as the first phase to bring water to an underserved portion of the SAWS JPB. This work is SAWS JPB's top priority, and brings the system closer to completing a regional transmission connection to an area near the limits of its capacity.


Big Goose Rd
Airport Rd
333
Sheridan County Airport
Big Horn Ave
N Park Rd
Upper Rd
Piper Rd
Paradise Park Rd
Pine Ln
Piccard Rd
Swaim Rd
Metz Rd
Legend
BGLG_TM Phase I
BGLG_TM Phase II
ATM_Alignment
WaterPipeline
N
0
1,250
2,500
Feet
Overview Map
SAWS BG-LG Project
DOWL
August 12, 2024
Figure 1
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Resolution No. 24-8-14

A RESOLUTION AUTHORIZING THE SUBMITTAL OF APPLICATIONS TO THE WYOMING WATER DEVELOPMENT COMMISSION AND OFFICE OF STATE LANDS AND INVESTMENTS FOR THE FUNDING OF THE CONSTRUCTION OF A LEVEL III TRANSMISSION MAIN.

WITNESSETH

WHEREAS, the Wyoming Water Development Commission (WWDC) funded a Level I study of the Sheridan water system that was completed in 2019, with the local sponsors of the study being both the City of Sheridan and the Sheridan Area Water Supply Joint Powers Board (SAWS JPB); and

WHEREAS, the 2019 Level I study recommended several improvement projects including a new Transmission Main through the Airport and connecting into other mains in the Little Goose valley, and a new Transmission Main from the Airport pump station to an existing main in Upper Road, with both mains benefiting the capacity, backup supply, flexible operation, area served by this regional water system; and

WHEREAS, the existing mains these proposed transmission mains are to connect to were sized to accommodate these proposed future connecting mains; and

WHEREAS, these proposed mains have been considered over recent years by both the governing bodies and staff of these two entities; and

WHEREAS, it was decided to modify the preliminarily proposed mains from the 2019 study so they can be combined into a single project which will provide overall efficiency in the scope of the projects; and

WHEREAS, due to the expanded scope of the combined single project, phasing will be used to accomplish the objectives of the improvements while accommodating funding plans; and

WHEREAS, both entities agree with the benefits the proposed Transmission Main will provide, have reviewed the scope of the project, support its design and construction, and the plan for phasing; and

WHEREAS, the funding plan for the initial phase includes a low interest SRF loan and possible principal forgiveness, and an application will be made to the OSLI to have the project considered at an upcoming SLIB meeting, and if obtained, this funding will be used to match any WWDC Level III grant funding that may be approved; and

WHEREAS, funding is available through the WWDC Level III program to help fund such a design and construction project and the WWDC has a process for applying for these funds; and this resolution and accompanying application are part of that process; and

WHEREAS, the SAWS JPB as well as the City of Sheridan recognize and support the need for this project and the submittal of this funding application;

NOW, THEREFORE, BE IT RESOLVED BY THE SHERIDAN AREA WATER SUPPLY JOINT POWERS BOARD OF SHERIDAN WYOMING, that applications for this proposed project be submitted to the WWDC for Level III and to the OSLI for funding.

BE IT FURTHER RESOLVED, that SAWSJPB Administrator, is hereby designated as the authorized representative of the SAWSJPB, to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED AND ADOPTED THIS 14th day of August 2024.

Richard Bridger, Chairman of the JPB

Attest:

Secretary

LEVEL III PROJECTS -AMENDMENTS

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Broken Wheel Ranch Water Supply 2017

Program: New Development

Project Type: Rural Domestic

County: Lincoln County

Sponsor: Broken Wheel Ranch Improvement and Service District

Proposed Budget Increase: $300,000

Sponsor's Request: Additional Funding & Time

Proposed Total Budget: $913,050

WWDO Recommendation: Increase budget and extend the reversion date from July 1, 2025 to July 1, 2026

	Existing	Changes	Revised Budget
WWDC Grant [1]	$ 613,050 (39.6%)	$ 300,000 (100%)	$ 913,050 (49.4%)
Other Funding Source [2]	$ 936,437 (60.4%)	$ 0 (0%)	$ 936,437 (50.6%)
Total	$ 1,549,487 (100%)	$ 300,000 (100%)	$ 1,849,487 (100%)

[1] Not to exceed 49.4% of eligible costs
[2] Sponsor or other funding source

Project Manager: Brich

Project Description: The Broken Wheel Ranch Improvement and Service District (BWR) is requesting a one-year time extension and an additional $300,000 to complete the Broken Wheel Ranch Water Supply 2017 project. The project is to design and construct a groundwater well, transmission pipeline, additional storage tank, and a booster pump station. This project was delayed by difficulties in finding a well site and drilling the well.

This is the third amendment request for the project. Amendment One to the project agreement, which was executed on May 25, 2022, extended the project reversion date from July 1, 2022, to July 1, 2023. Amendment Two, which was executed May 11, 2023, extended the project reversion date to July 1, 2025; and this amendment request is to extend it to July 1, 2026 and add $300,000 in grant funds.

After multiple failed negotiations, a potential well site was located in May of 2021; and an Affidavit Affecting Title to secure land access to drill a test well was filed August 12, 2022. Only one bid of $496,356.00 was received on March 28, 2022, for the well phase of the project. This price was well in excess of the $175,642.00 engineer's estimate, and the project was not awarded. It was advertised a second time with a bid opening date of August 3, 2022, and awarded to Atnip Well & Pump Services, Inc. for the amount of $179,380.00. The ownership of the well site changed before the well could be drilled, and the new owner contested the right of BWR to drill at the well site agreed upon with the previous owner. On April 2, 2024, a Memorandum of Understanding was executed with the new property owner to allow BWR to drill. Drilling began on May 6, 2024, and well testing was completed on June 21, 2024.

The Engineer's Opinion of Probable Cost dated April 14, 2023, was $1,161,780, which was in excess of the original $1,099,487 amount of funding available. On March 23, 2023, the BWR executed an ARPA Grant Agreement with the Wyoming Office of State Lands and Investments (OSLI) for an additional $450,000 grant for the project with the ARPA funds needing to be under contract by October 31, 2024. After the well was successfully completed in June of 2024, the designs for the storage tank and booster station building were finalized with an estimated cost of $406,000 to construct. Bids for this project were opened on October 8, 2024; and a single bid of $751,175 was received, which is over $345,000 more than the engineers estimate.

The additional $300,000 in this request is to increase the project budget to complete the design and construction of the projects transmission pipeline to connect the new well to the new storage tank and booster station building.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Gillette Regional Extensions 2017

Program: New Development

Project Type: Municipal

County: Campbell

Sponsor: City of Gillette

Sponsor's Request: Additional Time

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2026.

Previously Approved Budget: $ 2,753,700

WWDC Grant[1] (67%)	$ 2,753,700
Sponsor[2] (33%)	$ 1,356,300
Total	$ 4,110,000

[1] Not to exceed 67% of eligible costs
[2] Sponsor or other funding source

Project Manager: Brich

Project Description: This project provides connections to the Gillette Regional Water Project for rural users in the Meadow Springs Improvement and Service District, American Road Water and Sewer District, Freedom Hills Improvement and Service District and the Crestview Improvement and Service District . The project was originally delayed by obtaining right of way for the pipelines, but was awarded to DRM Inc. on May 28, 2024, for $3,302,593.37; and construction was scheduled to start on September 23, 2024 with a 130 working day duration. Given the length of construction time, potential for adverse weather conditions, and project closeout time requirements, the City of Gillette does not anticipate that the project will be closed until after the current July 1, 2025, reversion date. It is requesting the reversion date be extended until July 1, 2026.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Gillette Regional Extensions Phase IV 2018

Program: New Development

Project Type: Municipal

County: Campbell

Sponsor: City of Gillette

Sponsor's Request: Additional Time

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025, to July 1, 2026.

Previously Approved Budget: $ 1,512,190

WWDC Grant[1] (67%)	$ 1,512,190
Sponsor[2] (33%)	$ 744,810
Total	$ 2,257,000

[1] Not to exceed 67% of eligible costs
[2] Sponsor or other funding source

Project Manager: Brich

Project Description: This project provides connection to the Gillette Regional Water Project for the Fox Ridge and Rozet Ranchettes Improvement and Service Districts. The Rozet Ranchettes portion of the Project was completed in 2020, but the Fox Ridge portion of the project was delayed by design and rights-of-way acquisition. On July 30, 2024, the City of Gillette entered into a construction contract with Dan Hart Patrol Service, Inc. for $964,744.40; and construction was scheduled to commence in October of 2024. The contractor has sixty working days to complete the project. Given the length of construction time, potential for adverse weather conditions, and project closeout time requirements, the City of Gillette does not anticipate that the project will be closed until after the current July 1, 2025, reversion date. The City is requesting the reversion date be extended until July 1, 2026.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Gillette Regional Extensions Phase V 2020

Program: New Development

Project Type: Municipal

County: Campbell

Sponsor: City of Gillette

Sponsor's Request: Additional Time

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2027

Previously Approved Budget: $ 3,088,700

WWDC Grant[1] (67%)	$ 3,088,700
Sponsor[2] (33%)	$ 1,521,300
Total	$ 4,610,000

[1] Not to exceed 67% of eligible costs
[2] Sponsor or other funding source

Project Manager: Brich

Project Description: This is the fifth Gillette Regional Water Supply extension project, and provides connection to the Gillette Regional Water Project for the Means Water and Sewer District and the Gillette/Campbell County Airport. Completing the design for the project has been delayed by right-of-way negotiations. The City of Gillette is currently working with its engineer on the third different alignment tried since the owner engineer contract was executed on October 6, 2020. Due to delays in securing easements and the change in alignments, the City is requesting the reversion date be extended until July 1, 2027.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: GR/RS/SC JPWB Pump Station 2019

Program: New Development

Project Type: Municipal

County: Sweetwater County

Sponsor: Green River-Rock Springs-Sweetwater Co. Joint Powers Water Board

Proposed Budget Increase: $0

Sponsor's Request: Additional Funding & Time

Proposed Total Budget: $7,497,300

WWDO Recommendation: Do Not Fund Increased Budget, Do Not Extend Reversion Time

	Existing	Changes	Revised Budget
WWDC Grant [1]	$ 7,497,300 (67%)	$ 4,465,000 (50%)	$11,962,300(59.5%)
Other Funding Source [2]	$ 3,692,700 (33%)	$ 4,465,000 (50%)	$ 8,157,700(40.5%)
Total	$11,190,000 (100%)	$ 8,930,000 (100%)	$20,120,000 (100%)

[1] Not to exceed 59.5% of eligible expenses
[2] Sponsor or other funding source

Project Manager: Mitchell

Project Description: The Green River-Rock Springs-Sweetwater County Joint Powers Board (GR/RS/SC JPWB) applied for funding in 2018 for the design and construction of a pumping station and transmission pipeline. During the 2019 Legislative Session, they were appropriated $7,497,300, a 67% grant towards the total project budget of $11,190,000.

Due to significant delays and issues related to obtaining easements, the pipeline alignment has been modified several times. These time delays and realignment have increased the costs of the project significantly. The GR/RS/SC JPWB is requesting a total project budget increase of $8,930,000 (WWDC grant increase of $4,465,000, 50% grant) and a one year time extension to the reversion date.

At this time, the project has not obtained all necessary easements needed to bid the project for construction. The WWDO is recommending the project move forward with finalizing easements within the current time limit which has already been extended once to July 1, 2026. The WWDO recommends the sponsor reapply for funding once all easements are obtained and the project is ready to be bid. Therefore, the WWDO recommendation is to not extend the reversion date for the project and keep the budget as set forth in the 2019 Legislative Session.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Lander Well & Transmission Pipeline 2021

Program: New Development

Project Type: Municipal

County: Fremont County

Sponsor: City of Lander

Proposed Budget Increase: $ 1,030,058

Sponsor's Request: Additional Funding & Time

Proposed Total Budget: $2,857,400

WWDO Recommendation: Increase budget and extend the reversion date from July 1, 2026 to July 1, 2028

	Existing		Changes		Revised Budget	
WWDC Grant [1]	$ 884,400	(67%)	$ 1,030,058	(67%)	$ 1,914,458	(67%)
Sponsor [2]	$ 435,600	(33%)	$ 507,342	(33%)	$ 942,942	(33%)
Total	$ 1,320,000	(100%)	$ 1,537,400	(100%)	$ 2,857,400	(100%)

[1] Not to exceed 67% of eligible costs
[2] Sponsor or other funding source.

Project Manager: Mallo

Project Description: The project is to complete and connect four (4) new wells to the City's storage tank through the installation of pumps, pump houses, controls, a pipeline, and connection to the main transmission pipeline.

The City of Lander is requesting an additional $2,265,015 of grant funds to complete the project and maintain the 67% WWDC grant. The estimated project cost in 2021 was $1,320,000, but due to inflation and decisions to increase the size of three of the pumps to give greater flexibility to the City for control of the well field, the sole bid received this summer came in at $3,380,620 for eligible components. The bidding process for the project was less than ideal with multiple large addendums and significant items left to be resolved through contractor exploration, post award. The sole bid received of $3,380,620 is ~250% more than the original engineer's cost estimate. The cost increase is far in excess of cost increases seen by other WWDC Projects related to recent inflation. Much of the increase can be contributed to the cost of the building, the watermain connection vault, 12" HDPE watermain and electrical, which total $1,745,150 of the overall cost. The WWDO is seeing similar high costs for watermain and electrical work in other regions. However, the WWDO believes that there is the potential for more value engineering on other parts of the project moving forward, as well as potential to reduce contractor risk via resolution to issues that were encountered during the original bid. The amount of savings available is hard to quantify given the highly regional inflationary impacts on well building projects. The WWDO does not believe the increased request is justified based on other projects completed and it is unlikely the project would be funded today as a back-up system at the current cost request. The WWDO does believe additional funding is justified based on current market conditions, but feels there is still room to reduce the costs. The above recommendation is the maximum amount the WWDO feels should be expended by the WWDC on this project.

At this time, the project has been bid, but the sole bid received exceeded funding. As stated, the cost increases shown on the current bid are far above inflationary numbers seen by WWDO around the State for other projects. WWDO is recommending additional time and additional funding for the project at 67%, with the expectation that the City to look for value engineering to the greatest extent possible and to address

uncertainty in bid documents to provide the best opportunity for multiple bids. The Sponsor should also look for alternative funding, as needed, to address additional costs.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS
Small Water Project Program

Project Name: Small Water Project Program

Program: New Development

Project Type: Multipurpose

County: Statewide

Sponsor: WWDC

WWDO Recommendation: Level III (continuing)

Proposed Budget Increase: $1,500,000

	New Development (WDA I)
Presently available (as of 11/1/2024)	$ 406,290
Proposed budget increase	$ 1,500,000
Revised available	$ 1,906,290

Project Description: This Program provides funding for new small water projects including small reservoirs, wells, pipelines and conveyance facilities, springs, solar platforms, irrigation works, windmills, environmental projects, rural community fire suppression, recreational, and wetland developments.

1. Description of the existing status in the program and previous appropriations.

EXISTING LEGISLATION-New Development

Purpose	Chapter	Session	Account	Appropriation
Small Projects	14	2014	I	$600,000
Small Projects	100	2015	I	$500,000
Small Projects	100	2016	I	$750,000
Small Projects	121	2018	I	$750,000
Small Projects	55	2019	I	$2,000,000
Small Projects	113	2020	I	$1,063,000
Small Projects	12	2021	I	$1,000,000
Small Projects	93	2022	I	$1,000,000
Small Projects	180	2023	I	$1,000,000
Small Projects	99	2024	I	$1,000,000

2. Summary of the request.

The WWDO is recommending $1,500,000 be appropriated to meet the anticipated project application demands.

3. Program Statistics:

Current Active Account I Projects: 128

Application History:

Year	# of Account I Applications	Total # of Project Sponsors (between both accounts)	Estimated WWDC Account I Project Cost
2014	35	7	$816,080
2015	33	8	$806,830
2016	14	6	$313,525
2017	25	9	$612,760
2018	50	10	$1,295,654
2019	61	14	$1,693,617
2020	77	17	$2,034,290
2021	55	12	$1,546,675
2022	59	17	$1,655,200
2023	49	13	$1,636,150
2024	65	20	$2,012,880

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: South End Water Users ISD Pipeline 2023 **Program:** New Development

Project Type: Rural Domestic **County:** Big Horn

Sponsor: South End Water Users ISD **Proposed Budget Increase:** $ 0

Sponsor's Request: Additional Funding **Proposed Total Budget:** $307,800

WWDO Recommendation: Do Not Fund Increased Budget

	Existing		Changes		Revised Budget	
WWDC Grant [1]	$ 307,800	(67%)	$ 3,409,630	(67%)	$ 3,717,430	(67%)
Other Funding Source [2]	$ 151,603	(33%)	$ 1,679,370	(33%)	$ 1,830,973	(33%)
Total	$ 459,403	(100%)	$ 5,089,000	(100%)	$ 5,548,403	(100%)

[1] Not to exceed 67% of eligible costs
[2] Sponsor or other funding source

Project Manager: Russell

Project Description: In 2023, the Wyoming Legislature appropriated $307,800 for the design and pre-construction costs of this project, which will construct the Lane 9 Extension and West End Tie-In. The current application is for construction funding. While the design has progressed sufficiently and most of the easement/right-of-way work is in place, the district has not obtained the permit to complete work within railroad property. Therefore, it is recommended that the requested budget increase not be funded.

The 2023 funding recommendation included a construction cost estimate that is updated as follows:

Cost of Project Components		
Mobilization, Bonds, and Misc.	$ 249,500	
Reclamation	$ 33,000	
Connections to Existing Mains	$ 22,000	
Piping	$ 2,861,300	
Railroad, Highway, and Creek Bores	$ 365,500	
Fittings and Appurtenances	$ 233,800	
Control Building	$ 100,000	
Meter	$ 3,000	
Construction Cost (Subtotal #2)		$ 3,868,100
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 368,810
Components and Engineering Costs (Subtotal # 3)		$ 4,254,910
Contingency (Subtotal #3 x 15%)		$ 638,237
Construction Cost Total (Subtotal #4)		$ 4,893,147
Inflation Costs (4% per one year)		$ 195,726
Total Project Costs		**$ 5,088,873**
Total Project Costs (Rounded)		**$ 5,089,000**
Level III Requested Funding @ 67% Grant:		**$ 3,409,630**
Ineligible Expenses		
Service Meters		$ 69,300

LEVEL I PROJECTS

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

MUNICIPAL/JOINT POWERS WATER BOARD WATER SYSTEMS

Project Name: Hulett Water Master Plan

Program: New Development

Project Type: Municipal Water System

County: Crook

Sponsor: Town of Hulett

WWDO Recommendation: Level I

Proposed Budget: $166,000

Basis for the Funding Recommendation:

The Town of Hulett would like to evaluate existing infrastructure and develop sound recommendations for future water-system enhancements. This "reconnaissance-level" information is most appropriately categorized as a Level I Study. Furthermore, the WWDC has historically funded Level I Studies for program-eligible entities. Hulett is a program-eligible entity.

Project Manager: George Moser

I. PROJECT DESCRIPTION

The Water Master Plan will consist of an information review, growth and demand projections, water source review, system inventory and evaluation, system deficiency identification, GIS mapping, hydraulic modeling, recommendation and cost estimate development, financial evaluation, funding source analysis, and report generation.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Hulett Water Supply Project	II	123	1990	I	$ 250,000	1992
Hulett Water Supply	III	231	1991	I	$ 250,000	1995

2. Describe the location of the project:

Hulett is located in Crook County, on the Belle Fourche River.

3. Summarize the request:

Hulett is requesting WWDC-funded Water Master Plan. The study would evaluate the current condition of the water system and provide the tools and guidance needed to assist in the planning, rehabilitation, upgrade, and management of their system.

4. Summarize the reasons for the request:

Hulett does not have a comprehensive Water Master Plan. As a result, there are lingering questions regarding the capacity of their water source and adequacy of the storage and distribution system. Hulett has identified the WWDC program as a mechanism to evaluate their existing system and develop a Water Master Plan.

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: 259

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, other

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?

Hulett is not part of a regional supply system. If regionalization makes sound financial sense, Hulett would not be opposed to regionalization.

7. What is monthly water bill for 5,000 gallons? $27.00

   A. 20,000 Gallons? $57.00

8. Can the project be delayed or staged? No.

   A. Should it be? N/A

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600026

B. Groundwater

(1) Number of Wells: 1

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

(3) Total Average Production Yield of All Wells (GPM): 350

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) (Million Gallons per Day): 2.1

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

(3) Approximate Distance from Source(s) to Distribution System: 100 feet

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

(5) Type of Transmission Pipe Material(s): polyvinyl chloride

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

(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, above-ground, steel tank

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.):

Two parks and two baseball fields are unmetered.

D. Average Day Demand Water Usage (Gallons per Capita per Day): 170

E. Maximum Day Demand Water Usage (Gallons per Capita per Day): 391

F. Peak Hourly Demand Water Usage (Gallons per Capita per Day): 545

G. Distribution Pipe Diameter(s): varies between 4- and 10-inch

H. Type of Distribution Pipe Material(s): PVC, HDPE, Cast Iron, Asbestos-Cement

I. Age of Distribution Pipeline(s): up to 60 years

J. Condition of Distribution Pipeline(s): Poor

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

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

Fire hydrants plus business fire-suppression systems.

M. What water conservation measures are employed?

Billing by meter readings and constant supervision of well production.

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): 399 B. Current Population Estimate: 415

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? 250

E. How many taps are served outside of the corporate limits/JPB service area? 9

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:

N/A

4. Financial Information

A. Rates

(1) Tap Fee(s) – Residential: $600

(2) Tap Fee(s) – Commercial: $600

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

$21.00 for 2,000 gallons.

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

$19.00 for 1,000 gallons basic rate and $2.00 for every additional 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:	$	98,986
b. Annual Revenues from Tap Fees:	$	1,800
c. Annual Revenues from Other Sources:	$	340
d. Total Annual Revenues:	$	101,126

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	82,000
b. Annual Payments for Debt Retirement:	$	0
c. Annual Payments to a Repair and Replacement Fund:	$	0
d. Annual Payments to an Emergency Fund:	$	3,220
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	85,220

(3) Other

a. Balance in Repair and Replacement Fund:	$	243,000
b. Balance in Emergency Fund:	$	0
c. Annual Cost of Water Quality Testing:	$	2,167

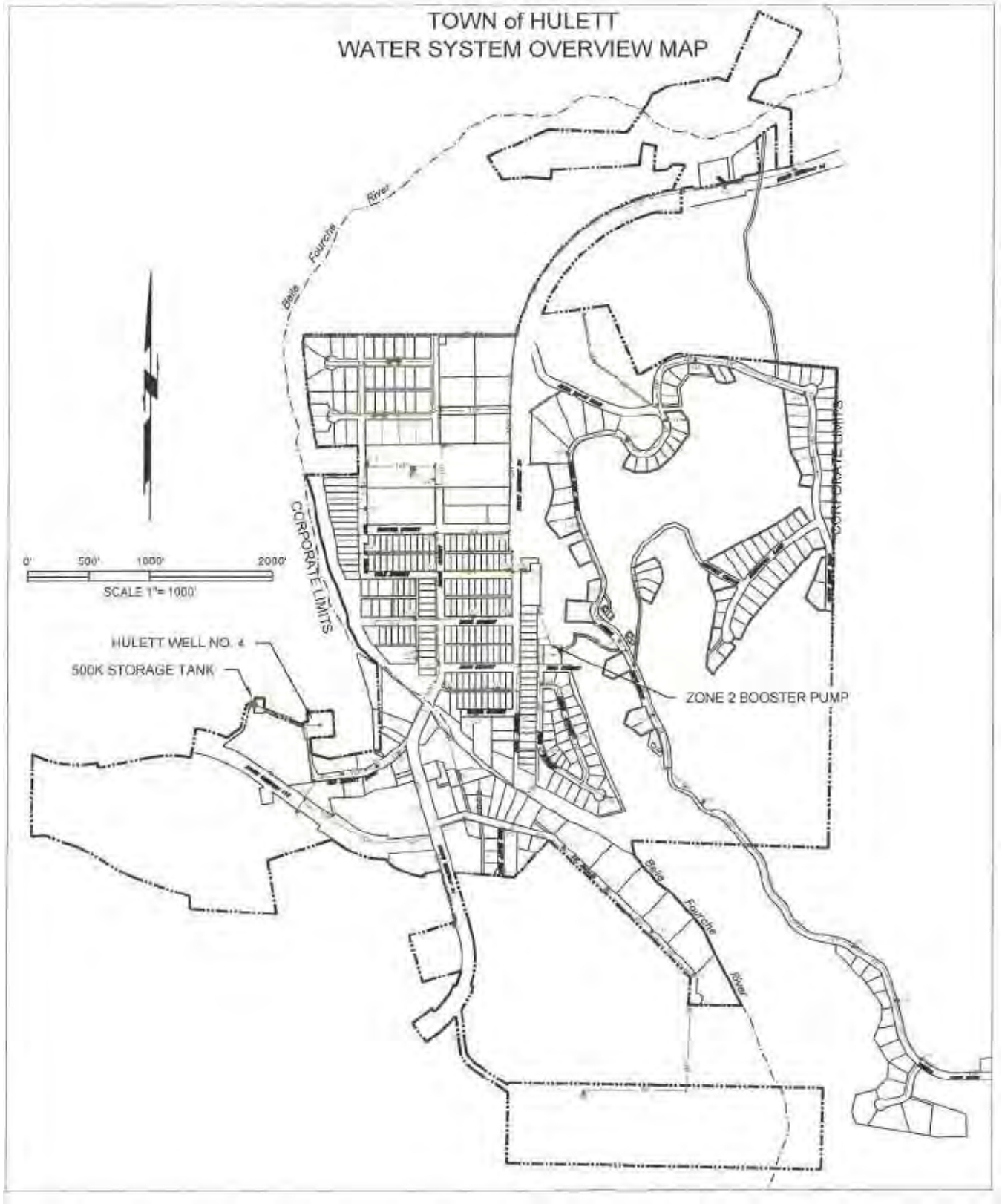
(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

Yes

a. If not, how is the difference subsidized?

N/A

PROJECT AREA MAP



PHOTOS

RESOLUTION

Resolution No. 2024-02

A resolution authorizing the submittal of a water system Master Plan Level 1 Study Application to the Wyoming Water Development Commission for the purpose of conducting an in-depth review and study of the Town of Hulett water system

WHEREAS, the Governing Body for the Town of Hulett desires to participate in a Wyoming Water Development Commission Water System Master Plan Level 1 study

WHEREAS, the Town of Hulett continues to experience steady growth

WHEREAS, it's been over 10 years since a Master Plan has been developed for the town; and

WHEREAS, the Town of Hulett desires to have sufficient water supply for customers and within the water distribution system

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF HULETT, WYOMING, that the Town of Hulett is authorized to apply for a Level 1 Wyoming Water Development Commission study to provide an in-depth review and study of the Town of Hulett's Water System

PASSED, APPROVED, AND ADOPTED this 8 day of Feb, 2024

Ted Parsons

Ted Parsons, Mayor

Attest:

Melissa Bears

Melissa Bears, Town Clerk

MELISSA BEARS
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 95414
MY COMMISSION EXPIRES: 12/07/2028

GENERAL/ OTHER

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

WATER RESEARCH PROGRAM PROJECTS

Project Name: UW Water Research Program

Program: New Development

Project Type: Multipurpose

County: Statewide

Sponsor: WWDC / USGS / UW

WWDO Recommendation: Level I

Proposed WWDC Budget: $368,998

Please Note: The Water Research Program Advisory Committee recommends that the WWDC and SWC fund both proposals D and B with a total appropriation request of $368,998.

Project Manager: Mabel Jones

Project Description: Statewide Water Research

The UW Water Research Program (WRP) is a cooperative State-Federal-University water-related research and training program. The primary goals of the WRP are to support and coordinate research relative to important water resource problems of the State and region, support the training of scientists in relevant water resource fields, and promote the dissemination and application of the results of this water-related research. The University of Wyoming's Office of Water Programs (OWP) annually solicits Wyoming stakeholders to identify areas of needed water research to be conducted by the University. The WRP supports faculty and students through competitive peer reviewed proposals addressing these water related issues upon a favorable recommendation by a WRP Advisory Committee and subsequent approval by both the Wyoming Water Development Commission (WWDC) and Legislative Select Water Committee (SWC). Projects are selected annually for funding, with Wyoming Water Development Commission funds being matched by the University of Wyoming.

Project proposals are evaluated first by the WRP Advisory Committee for scientific merit and applicability to the needs of the State to include a priority ranking of viable projects. This ranking is then presented to both the Water Development Commission and Legislative Select Water Committee for their consideration and formal action at their joint November meeting. Final approval as to which projects are included in the WRP block funding request as part of the Omnibus Water Planning Bill, rests with the WWDC and SWC. The current WRP project selection process ties the pending WRP funding request in the Omnibus Planning Bill to a specific set of projects that have been thoroughly reviewed by not only the WRP Advisory Committee (scientific review), but also by the WWDC and SWC. Specific completed and pending tasks and timelines under the FY25 project proposal selection and approval procedure follow:

<u>WRP Proposal Solicitation and Receipt</u>

April 24, 2024 – Solicitation of research topics and drafting of RFP (OWP & WRP Advisory Committee)
Aug 8, 2024 – RFP approved (WWDC & SWC)
Sept 4, 2024 – Distribution of RFP (OWP)
Oct 4, 2024 – WRP research proposal deadline (OWP)

<u>WRP Proposal Review and Project Selection</u>

Oct-Nov 2024 – Research proposals peer reviewed (OWP facilitates)
Nov 5, 2024 – Research proposals reviewed and ranked (WRP Advisory Committee)
Nov 13, 2024 – Rankings reviewed and projects approved (WWDC & SWC)
(Selected projects to be listed in the Blue Book for the legislative session)

WWDC/SWC WRP Funding Approval
Dec 18-19, 2024 – Omnibus Water Planning Bill legislation drafted (WWDC & SWC)
Jan-Mar 2025 – Planning Bill acted on by Wyoming State Legislature
Mar 2025 – WRP MOU approved (WWDC & SWC)
Mar 2025 – New WRP projects begin (OWP coordinates activities)

Research proposals were accepted by the Office of Water Programs from the campus community during the month of September up until the deadline of October 4, 2024. Five FY25 proposals were received, were peer reviewed (includes external review), discussed, and ranked by the WRP Advisory Committee at their November 5, 2024 meeting. A listing of these proposals, requested budget amounts, and corresponding statements of relevance follow. Copies of the full proposals are available from the WWDO Project Manager upon request.

UW Water Research Program ~ FY25 Proposals

WRP FY25 - Proposal A

Title: Using Isotopes to Investigate the Sources, Spatial Variation and Movement of Nitrate Contamination in the Casper Aquifer, Laramie, WY
PI: Kenneth W.W. Sims, College of Engineering and Applied Sciences, Department of Geology and Geophysics, UW. David G. Williams, College of Agriculture, Life Sciences and Natural Resources, Department of Botany, UW. Morteza Dejam, College of Engineering and Applied Sciences, Department of Energy and Petroleum Engineering, UW.
Proposed Start Date: 7/1/2025
Proposed End Date: 6/30/2027
Project Funds Requested: $132,529 University Matching: $104,698

Non-Technical Statement of Relevance:
Nitrate contamination threatens drinking water resources across most of the United States and is a concern among communities across Wyoming. The human health and environmental effects from high nitrate concentrations in water are well documented and can result in eutrophication, thereby threatening aquatic life, plants, animals, and human's dependent on those water sources, and is known to cause methemoglobinemia (blue baby syndrome). The primary challenge for managing sources of nitrates and safeguarding water quality is distinguishing between natural and human sources of the contaminant. Here we propose to develop a model to evaluate contributing sources of nitrate to water quality degradation using analysis of nitrate, water, and strontium isotopes. We will collaborate with the City of Laramie and Albany County to investigate the sources of potential nitrate contamination that threaten the Casper Aquifer, the primary drinking water source of the City and more than 400 homes in the County. The results of this study will be presented to both the City of Laramie and to Albany County for use in policy/regulatory development and in future updates to the Casper Aquifer Protection Plan, a land-use plan used by the City and County to safeguard the high-quality groundwater resource of the Casper Aquifer. This focused application on the Casper Aquifer will provide proof of concept for broadly applying refined methods across the state in areas of concern. This proposal uses similar tools to the current WRP project 65 but is a unique study in that we are focused on applications to groundwater, using strontium isotopes to evaluate the mixing and movement of groundwater, and the impacts on a water system used for residential areas. In contrast, WRP project 65 is focused on the formation of algal blooms in surface waters and N cycling in lakes and reservoirs. This study will provide training for one Ph.D. student focusing on applying isotopic tools to hydrologic problems and an undergraduate student interested in groundwater problems. Both students will have the opportunity to be mentored by experts in water research and policy working in academia, industry, and government from study design to implementation to final report.

Advisory Committee Deliberations:
This is a two-year project. Given the ongoing demands for water, groundwater studies are important to secure future supplies. This proposal was viewed favorably as an extension of existing research which would test the use of strontium isotypes to detect sources of nitrates. The analytics proposed by the PIs are sound. However, the sampling design raised some questions and suggestions from reviewers to improve the defensibility of the findings given the potentially high-profile ramifications for water users. Sampling design discussions included a recommendation for sampling to take place over two years, rather than a single year and include baseline, spike and quality control samples. The proposal did not include a map of the proposed

sampling areas which made it difficult to evaluate what nitrate inputs might be targeted in the research (e.g. septic, livestock). The proposal discusses that this research could be applied to other areas, however, the models may not apply to areas which have higher or other potential nitrate inputs.

WRP FY25 - Proposal B

Title: Elucidating mountain front aquifer recharge using machine learning, hydrogeochemistry, and groundwater modeling
PI: Ye Zhang, College of Engineering and Physical Sciences, Department of Geology and Geophysics, UW. Noriaki Ohara, College of Engineering and Applied Sciences, Department of Civil and Architectural Engineering and Construction Management, UW.
Proposed Start Date: 7/1/2025
Proposed End Date: 6/30/2028
Project Funds Requested: $200,286 University Matching: $95,259

Non-Technical Statement of Relevance:
To ensure future water supply for a growing population, the City of Cheyenne purchased Belvoir Ranch in southeastern Wyoming where Casper Aquifer at the mountain front was identified as a target for potential groundwater development. From 2006 to 2012, several reconnaissance-level studies were completed at the ranch including geological mapping, geophysical surveys, drilling/logging/test pumping, and hydrogeochemical sampling. Supported by a previous WRP grant (2015-2018), since 2016, PIs have been monitoring hourly: (1) groundwater levels (GWLs) at 6 confined Casper Aquifer test wells drilled by Cheyenne Board of Public Utilities (BOPU) & 8 shallow Casper Aquifer monitoring wells we drilled; (2) stream water levels (SWLs) at 6 gauging stations along 3 losing streams crossing the aquifer outcrops at mountain front; and (3) have built and simulated a 3-d Casper Aquifer hydrostratigraphic model calibrated to pumping test data assuming a constant recharge. This research, building upon this ongoing study, will: (a) integrate Machine Learning, hydrogeochemistry, and stream water balance to identify Casper Aquifer recharge mechanism (i.e., timing, pathway, rate) for 2016-2025, i.e., *the monitored period* including a 6-year drought followed by normal precipitation compared to 1991-2020 median; (b) inform by (a), build an improved groundwater model to replicate GWLs during the same monitored period; (c) use the improved groundwater model to predict GWLs and residence time distribution under non-pumping vs. pumping and for normal vs. drought vs. wet conditions; (d) for each modeled scenario in (c), delineate aquifer recharge area identified by model as vulnerable from surface contamination; and (e) considering results from all modeled scenarios, recommend a sustainable aquifer development plan that will account for future recharge variability.

Benefits to Wyoming Water Development:
Mountain front aquifer recharge dynamics are poorly known due to sparse data, complex stream-aquifer interaction, and a heterogeneous subsurface. *Without accounting for localized flows and recharge processes, the current hydrostratigraphic model of the Casper Aquifer suffers high uncertainty*. This research proposes a novel integration of statistical, hydrogeochemical, and physical-based analysis techniques to jointly determine recharge dynamics. Casper Aquifer at Belvoir Ranch, with the already acquired knowledge and measurements, presents a test case. Throughout the research, we will adopt co-production principles by seeking and implementing input and feedback from the BOPU which manage the ranch, thus our results can help inform potential development of this resource. The proposed integration, once proven, can be developed into an aquifer exploration and development technology applicable to studying other aquifer systems both within and outside the State.

Advisory Committee Deliberations:
This is a three-year project. This project will build on existing work in the Casper Aquifer and provide an updated aquifer model for the Belvoir Ranch. This is a unique opportunity to utilize existing wells and data sets to develop and test the investigators groundwater sustainability model. The project includes a strong collaborative effort with City of Cheyenne water managers. This work will utilize standard machine learning algorithms to help identify the drivers which are impacting recharge. The Committee felt that this was a sound project with well-developed methods that would help advance understanding of aquifer sustainability and have excellent transferability to other areas of the state for obtaining groundwater information.

WRP FY25 - Proposal C

Title: Assessing water banking feasibility in Wyoming's Upper Colorado river basin by leveraging advances in CCU quantification.
PI: Joseph N. Cook and Ginger B. Paige College of Agriculture, Life Sciences and Natural Resources, Department of Ecosystem Science and Management, UW. Kristiana M. Hansen, College of Agriculture, Life Sciences and Natural Resources, Department of Agriculture and Applied Economics, UW. Anne MacKinnon, Haub School of Environment and Natural Resources. UW.
Proposed Start Date: 7/1/2025
Proposed End Date: 6/30/2028
Project Funds Requested: $193,166 University Matching: $178,526

Non-Technical Statement of Relevance:
Management of water supplies in southwestern Wyoming is tied to the Colorado River Compact of 1922. The Compact requires that Wyoming along with Colorado, New Mexico, and Utah do not cause the flows of the Colorado River to be depleted below 75 million acre-feet over a 10-year period (SEP 2016). Under the extended drought conditions in the Colorado River Basin that are forecast to continue, Wyoming and these other three states would have to act to meet their compact obligation, to avoid triggering a "curtailment." In a curtailment, Wyoming and other Upper Division states would be forced to reduce their respective uses of water by cutting back water consumption of some post-1922 water rights. How to delay or perhaps even mitigate a curtailment in the Colorado River Basin is now under intense interstate negotiation. Wyoming state agencies and water users seek information on how water users could be able to handle reduced water use – either under compact curtailment or under a negotiated plan that may stave off curtailment.

The goal of this project is to leverage advances in water conservation quantification and current understanding of ranch decision-making to assess water bank feasibility in Wyoming's Upper Colorado River Basin. A Wyoming water bank could be a "paper" water bank (maybe a registry where potential water sellers and buyers can post), a physical water bank (with water stored for use later on), or both. This project leverages and builds on several existing OWP/WRP and SEO/BIL research projects; field scale evaluation of Conserved Consumptive Use under conservation scenarios and the assessment of economic impacts of Demand Management and curtailment. Two MS students (one in hydrology, one in agricultural economics) will receive training through this project. Results will be shared and discussed with policymakers, water users, and other interested parties through student projects, a decision support tool, and outreach publications.

Advisory Committee Deliberations:
This is a three-year project. This project proposes to address questions related to implementation of water banking in the Wyoming portion of the Upper Colorado River Basin. This is a complex topic where State Agencies and working groups are carefully considering policy needs, data requirements and how to measure benefits. One of the challenges for stakeholders has been the varying applications and methods for assessing CCU. This proposal was ambiguous regarding proposed methods for assessing CCU. This could create division and confusion for stakeholders as preferred methods are currently being considered for adoption. The Committee felt that there needs to be a more stepwise approach to evaluating water banking feasibility, which includes policy discussions and methods for quantifying use which have been approved and/or peer reviewed. This proposal would have benefitted from the PIs reaching out to the State Engineer's Office to ensure the timing, methods and steps contributed to current work in the UCRB.

The Committee also had concerns with the budget which included more funding for staff salaries than student salaries and inflated work hours for graduate students.

WRP FY25 - Proposal D

Title: Quantifying Wyoming forest metrics to better manage wildland fire fuel loads and increase watershed health and surface/subsurface water quality
PI: Austin Madson, School of Computing, Wyoming Geographic Information Science Center, UW.
Proposed Start Date: 7/1/2025
Proposed End Date: 6/30/2028
Project Funds Requested: $168,712 University Matching: $103,224

Non-Technical Statement of Relevance:
The varied public and private forested lands in Wyoming provide known ecosystem services to the state's water resources. Forests help to regulate runoff and increase downstream surface water quality. They help to retain water from snowpacks (which Wyoming is heavily reliant upon). Forested lands also help to both increase groundwater quantity and improve groundwater quality. Forests along the edges of rivers, lakes, and streams help support aquatic animals (e.g., cutthroat trout). Further, healthy forest ecosystems have an increased resiliency to wildland fires, and this resiliency has a direct effect on reducing the detrimental post-fire water quality impacts on our important surface water resources. A better understanding of the public and private forestlands within Wyoming is necessary in order for our forests to provide these much-needed services. This proposal seeks to quantify important forest metrics at an unprecedented spatial resolution (e.g., 50 cm – 100 cm) for all the forested lands in the State of Wyoming so that our land managers can better enact management decisions to have a lasting positive impact on the state's water resources. In particular, this work will leverage airborne lidar datasets acquired over the entire state along with innovative high-performance computing workflows to quantify forest metrics like forest floor and ladder fuel loads, individual tree counts, tree biomass, amount of standing and fallen dead trees - all at a very high spatial resolution. We will work hand-in-hand with the Wyoming State Forestry Division (WSFD) (as well as other allied state agencies) to develop these metrics so that they will have the greatest benefit to the state. We will use the forest metrics derived from this work to determine which Wyoming watersheds are more susceptible to high severity wildland fire events. The outputs from this project will directly inform forest planning and land management decisions within our state. We will work with the WSFD Geographic Information System (GIS) Program Director to ensure the data outputs from this proposed work will be immediately and easily utilized by the WSFD. We will provide all of the data outputs from this proposed work in the requested data formats to the WSFD in order to provide the most impact for the state. This proposed work is not duplicated in any recent or ongoing projects within the Water Research Program. Lastly, this proposal seeks to support water related training and education in Wyoming by directly funding two graduate students as well as multiple lab/field technicians.

Advisory Committee Deliberations:
This is a three-year project. This project will develop high resolution spatial data to assess forest susceptibility to catastrophic wildfire. This project has implications for assessing risk to water availability, water quality and water infrastructure (including collection and storage facilities) from wildfire. This project is supported by the Wyoming State Forestry Department and is viewed as a tool to prioritize land management practices and opportunities to work with local and federal Agencies. This work was identified as a priority by Conservation Districts in the state. While this project will provide an assessment at a statewide scale, should the PI demonstrate that the methods produce a useful tool there may be broader application across state boundaries of interest to the USGS and other agencies.

WRP FY25 - Proposal E

Title: Development of an advanced win-win technology for high-value utilization of harmful cyanobacteria blooms (HCBs) and thus preventive reduction of nutrient loading to surface waters
PI: Maohong Fan and Hertanto Adidharma, College of Engineering and Physical Sciences, Department of Chemical and Biomedical Engineering. UW
Proposed Start Date: 7/1/2025
Proposed End Date: 6/30/2027
Project Funds Requested: $180,000 University Matching: $120,967

Non-Technical Statement of Relevance:
The proposed project's goal is to remove excessive nutrients (N and P) and thus eliminate the harmful cyanobacteria blooms (HCBs) in lakes or reservoirs, which have already negatively affected the ecosystem and lives in Wyoming, by pyrolyzing HCBs into bio-oil, which is subsequently converted into high-value carbon nanofibers (CNFs) to be used for manufacturing supercapacitors, very important component in many electric devices, including electrical vehicles (EVs). Also, the solid ash from HCBs pyrolysis could contain a considerable amount of critical materials (CMs), which will be evaluated for the feasibility of their extractions. The integrated techno-economic analysis (TEA) life cycle assessment (LCA) and water chemistry analysis (WCA), WCA, will be used to evaluate the feasibility of the proposed excessive-nutrients-removal technology. The benefits of the proposed project to Wyoming include 1) Removing nutrients (N and P) and eliminating harmful HCBs; 2) protecting Wyoming people's lives and wild lives with high-quality water; and 3) supporting Wyoming's economy with HCBs-derived advanced materials, CNFs and CMs, while we just use the existing

pollutant, HCBs, rather than intentionally add N and P for growing HCBs. The study can be used by governmental agencies (GAs) to manage water resources. Firstly, GAs can use the research results for regulating the standards of the nutrients (N and P) in water in Wyoming by using the N and P removal efficiencies of new technology as reference data. Also, GAs can use the study results to guide the development of HCBs utilization technologies in Wyoming. Also, GAs can secure the quantity and quality of the water resources, resulting from using the new HCBs valorization technology, for Wyoming's sustainable development. Improving the standards of State and Federal agencies for protecting Wyoming's water resources: On the one hand, water is one of the most critical resources in developing the economies in Wyoming and other states. On the other hand, several precious water resources cannot be used due to their adverse health effects. The HCBs in lakes or reservoirs resulting from excessive nutrients have already negatively affected the ecosystem and lives in Wyoming and the U.S. Conventional HCBs control technologies are fully for the removal of HCBs, and thus expensive. The proposed technology, not designed to grow HCBs, can valorize existing pollutant-HCBs, thus generating economic benefits, which can be used for further controlling HCBs and water quality, setting the basis for raising water quality standards. The benefits of the project to K-12 and STEM education in Wyoming: The research results will be disseminated to the students not only from the UW campus but also from the K-12 schools, which is beneficial to STEM education at the university and increases the K-12 students' interest in STEM majors. The knowledge to be gained by students will help them grow and improve their abilities in inventing new technologies for simultaneous pollution control and economic development.

Advisory Committee Deliberations:
This is a two-year project. This is a novel project which considers harvesting HCBs in the natural environment and extracting high value carbon fibers. The process of extraction has been proven by facilities which are self-sourcing (growing) HCBs. Current efforts in the state, in regard to HCBs, supports projects which focus on the cause of these blooms. The feasibility of capturing and reducing HCBs at a scale which would be economically viable and have an impact on water quality was questioned by the Committee. The Committee did suggest that this work may have application at municipal wastewater facilities.

COMMITTEE RANKINGS

Eight Advisory Committee members ranked the proposals in order from 1 to 5. The rankings were compiled and the Committee presents the rankings in three different tiers, with Tier 1 being the highest-ranking proposals (average score = 15) and Tier 3 being the lowest-ranking proposals (average score = 34.5). The difference between the average scores for the Tier 1 and Tier 3 proposals is approximately 20 points. The proposals are listed in the table below by highest to lowest priority within each tier.

	PROPOSAL NAME AND PI(S)	UNIVERSITY MATCHING FUNDS	WWDC AMOUNT REQUESTED
TIER 1			
D	Quantifying Wyoming forest metrics to better manage wildland fire fuel loads and increase watershed health and surface/subsurface water quality	$103,224	$168,712
B	Elucidating mountain front aquifer recharge using machine learning, hydrogeochemistry, and groundwater modeling	$95,259	$200,286
TIER 2			
A	Using Isotopes to Investigate the Sources, Spatial Variation and Movement of Nitrate Contamination in the Casper Aquifer, Laramie, WY	$104,698	$132,529
TIER 3			
E	Development of an advanced win-win technology for high-value utilization of harmful cyanobacteria blooms (HCBs) and thus preventive reduction of nutrient loading to surface waters	$120,967	$180,000
C	Assessing water banking feasibility in Wyoming's Upper Colorado river basin by leveraging advances in CCU quantification	$178,526	$193,166

2025 RECOMMENDATION - WATER DEVELOPMENT ACCOUNT II

Project Name: Transfer of funds from Water Development Account I (WDA I) to Water Development Account II (WDA II)

Program: Rehabilitation

Project Type: Fund Transfer

County: Statewide

Sponsor: WWDC

Transfer Funds from WDA I to WDA II: $ 1,500,000

Project Manager: Jason Mead

Description:

The Wyoming Water Development Account II (WDA II) 2025 recommendations exceed the WDA II projected fund balance. With a current WDA II fund balance of $16,955,507 and WDA II 2025 recommendations totaling $18,285,425, there is a deficit of $1,329,918 to WDA II.

This recommendation is seeking formal Commission approval to transfer $1,500,000 from WDA I to WDA II to mitigate the WDA II fund deficit.

The table below summarizes WDA I and WDA II projected balances, WDA I and WDA II 2025 funding recommendations and WDA I and WDA II balances after the transfer of funds from WDA I to WDA II.

WWDC WDA I SUMMARY

WDA I Projected Balance	WDA I Requested Transfer	WDA I Recommended Funding	WDA I Balance[1]
$39,485,998	$1,500,000	$7,448,399	$30,537,599

[1] Following WDA I transfer

WWDC WDA II SUMMARY

WDA II Projected Balance	WDA I Requested Transfer	WDA II Recommended Funding	WDA II Balance[1]
$16,955,507	$1,500,000	$18,285,425	$170,082

[1] Following WDA I transfer

LEVEL III PROJECTS

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: CAID Lateral 256 Check Structure Rehabilitation 2025

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Natrona

Sponsor: Casper Alcova Irrigation District (CAID)

WWDO Recommendation: Level III (Check Structure Only)

Proposed Budget: $372,500

WWDC Grant[1] (50%)	$ 372,500
Sponsor[2] (50%)	$ 372,500
Total	$ 745,000

[1] Not to exceed 50% of eligible costs for design
[2] Sponsor or other funding source

Project Manager: Mallo

Project Description: The project consists of replacing a 60" major check structure on Lateral 256 just upstream from a 15 ft drop structure that failed and is currently being replaced. The 60" check structure is in poor condition and is listed as critical in the recently completed Casper Alcova Irrigation District Level I Master Plan. The existing check structure is considered structurally unstable and needs to be replaced for safety reasons, better flow control, and protection of the new 15ft drop structure just downstream of the check structure.

The District also requested a lining project on Lateral 256 in their application. However, that 3,300 feet of lining, in the 60" canal, is located ~ 7 miles downstream of the check structure and the WWDO considers it a separate project. Due to funding restraints the WWDO is not recommending multiple projects for any sponsors and the check structure was considered the priority by the District.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2015	L-III, Casper Alcova Rehabilitation 2015	$ 187,600
2016	L-III, Casper Alcova Rehabilitation 2016	$ 369,840
2018	L-III, Casper Alcova Irrigation District Underdrain 2018	$ 416,740
2023	L-III, CAID Lateral 256 Drop Structure	$ 477,040
2023	L-I, CAID Master Plan Study	$ 310,000

2. **Describe existing water supply using information in the application.**
   CAID receives water from the Alcova & Seminoe Reservoirs via 62.1 miles of canal, then distributes the water through 148.8 miles of laterals and sub-laterals to its 551 individual users.

3. **Summarize the request.**
   The request is to replace a 60" check structure, on Lateral 256, that's in poor condition. The existing check structure is considered structurally unstable and needs to be replaced for safety reasons, better flow control, and protection of the new 15ft drop structure just downstream of the check structure.

   The District also requested a lining project on Lateral 256 in their application. However, that 3,300 feet of lining, in the 60" canal, is located ~ 7 miles downstream of the check structure and the WWDO considers it a separate project. Due to funding restraints the WWDO is not recommending multiple projects for any sponsors and the check structure was considered the priority by the District.

4. Summarize the reasons for the request.

The replacement of the structurally unstable check structure will provide better flow control and protect a new drop structure being constructed on Lateral 256.

The lining project on Lateral 256 will need to be completed at some point. However, that 3,300 feet of lining, in the 60" canal, is located ~ 7 miles downstream of the check structure and the WWDO considers it a separate project.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 51,500	
Site Access Permit Fees (BOR, USFS, etc.)	$ 8,000	
Title Opinion	$ 1,000	
Acquisition of Access and Rights of Way	$ 3,000	
Pre-Construction Costs (Subtotal # 1)		$ 63,500
Cost of Project Components		
Mobilization	$ 50,000	
Demo Excavation and Grading	$ 60,000	
Rip Rap	$ 50,000	
Crushed Base	$ 5,000	
Cast-In-Place Check Structure	$ 175,000	
Sheet Pile / Cutoff Wall	$ 110,000	
Site Restoration	$ 20,000	
Walkway, Rails, Trash Rack, and accessories	$ 45,000	
Construction Cost (Subtotal #2)		$ 515,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 51,500
Components and Engineering Costs (Subtotal # 3)		$ 566,500
Contingency (Subtotal #3 x 15%)		$ 84,975
Construction Cost Total (Subtotal #4)		$ 651,475
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 714,975
Inflation Costs (4% per one year)		$ 28,599
Total Project Costs		$ 743,574
Total Project Costs (Rounded)		**$ 745,000**
Level III Recommended Funding @ 50% Grant:		**$ 372,500**
Level III Recommended Funding @ 0% Loan:		**$ 0**
Ineligible Expenses		
N/A		$ 0
Total Ineligible Project Costs		**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	35,000	35,000
b. Assessed acres?	24,240	24,240
c. Irrigated acres?	24,240	24,240
d. Average annual water delivery (acre-feet/acre assessed)?	74,595	74,340
e. How many individual landowners receive water?	551	551

f. What type(s) of on-farm irrigation water application is used? Center Pivot, Flood, Gated Pipe, Side Roll/handline, and other

g. Briefly describe the main crops and cropping patterns: Alfalfa 91%, Pasture 5%, Corn 2%, Spring Grains 1%, miscellaneous 1%

h. Describe the water measuring devices currently in use: Weirs, water meters at turnouts, pump meters, and automated check structures

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	62,787	62,787
b. Average Day Demand (AF):	185	185
c. Peak Day Demand (AF):	200	200

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	600	600
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Aging infrastructure & Seepage	Same
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	35%	35%

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Irrigable Acres Owned

b. How is voting authority delegated to water users? Number of Irrigable Acres Owned

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$36.00	$36.00
d. If there is a basic service charge in addition to assessments, how much is it?	$600.00	$600.00

5. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 1,183,728	$ 1,183,728
Annual revenues from other sources:	$ 10,500	$ 10,500
Total annual revenues:	$ 1,194,228	$ 1,194,228
Annual budget for operation and maintenance expenses:	$ 1,034,735	$ 1,034,735
Annual payments for debt retirement:	$ 29,493	$ 29,493
Annual payments to a repair and replacement fund:	$ 100,000	$ 100,000
Annual payments to an emergency fund:	$ 20,000	$ 20,000
Annual payments for other purposes:	$ 10,000	$ 10,000
Total annual payments:	$ 1,194,228	$ 1,194,228
Balance in repair and replacement fund:	$ 298,485	$ 104,985
Balance in emergency fund:	$ 40,763	$ 40,763

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority I Level III rehabilitation of water diversion or control structures

2. Will the project serve at least 2,000 water righted acres? Yes Number of acres - 24,240

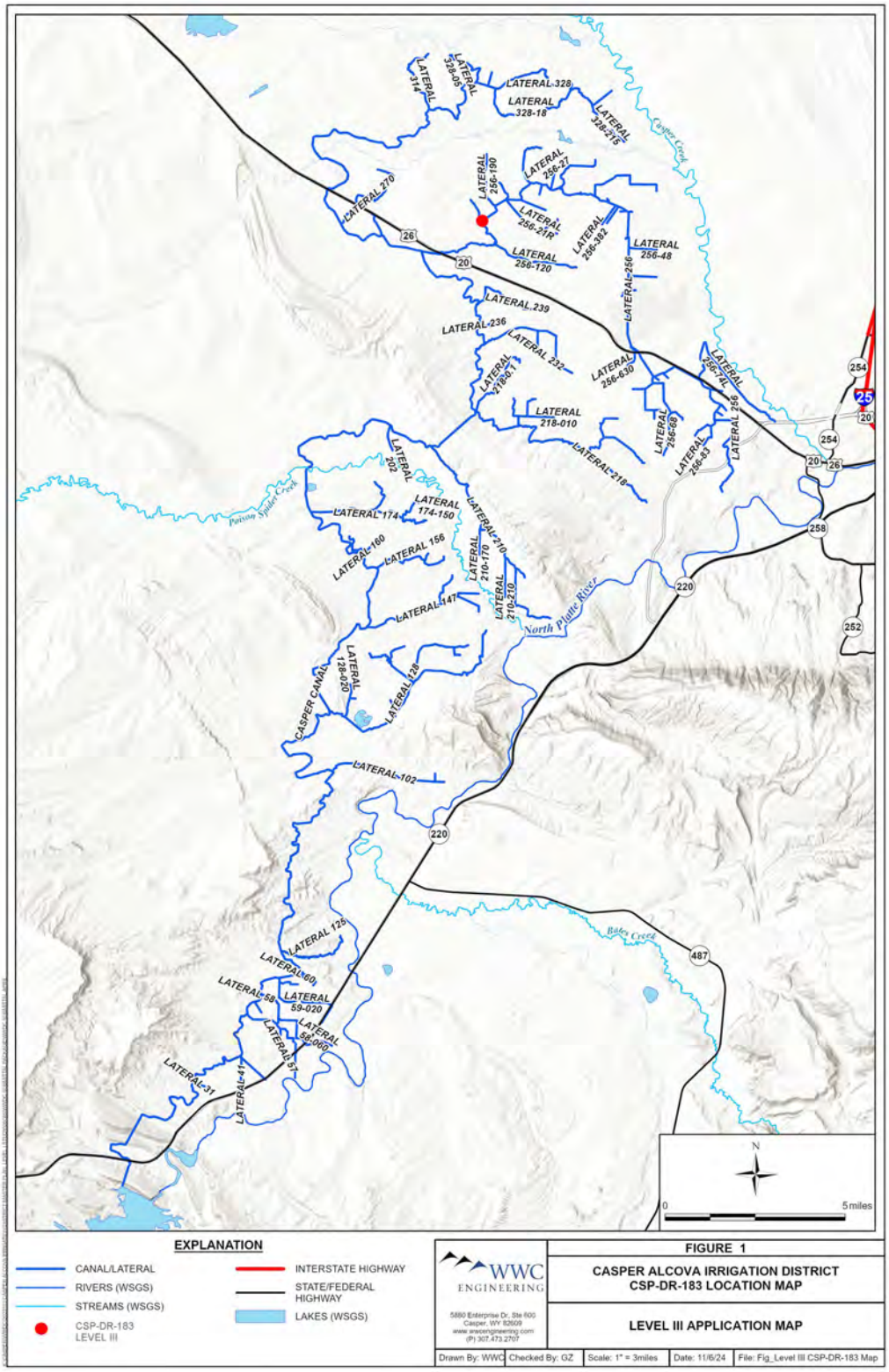
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? NACD TA, WWNRT, Turkey Federation, Water for Wildlife, NCCD

4. What water conservation measures are employed by the sponsor? Center Pivots, Canal Lining, and Piping are being employed.

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? No. Should it be? No. The project is intended to improve irrigation infrastructure needed to protect a drop structure that the district is replacing currently. Delaying it threatens the work the district is completing on the drop structure.

7. Basis for the funding recommendation: The replacement of the structurally unstable check structure will provide better flow control and protect a new drop structure being constructed on Lateral 256.


LATERAL 314
LATERAL 328-05
LATERAL 328
LATERAL 328-18
LATERAL 328-215
Casper Creek
LATERAL 270
LATERAL 256-190
LATERAL 256-27
LATERAL 256-21R
LATERAL 256-382
LATERAL 256-48
LATERAL 256-120
LATERAL 256
LATERAL 239
LATERAL 236
LATERAL 232
LATERAL 218-011
LATERAL 256-630
LATERAL 256-74L
LATERAL 218-010
LATERAL 256-68
LATERAL 256-83
LATERAL 218
LATERAL 202
Parsons Spider Creek
LATERAL 174
LATERAL 174-150
LATERAL 210
LATERAL 160
LATERAL 156
LATERAL 210-170
LATERAL 210-210
LATERAL 147
North Platte River
CASPER CANAL
LATERAL 128-020
LATERAL 128
LATERAL 102
LATERAL 125
LATERAL 60
LATERAL 58
LATERAL 59-020
LATERAL 58-060
LATERAL 57
LATERAL 41
LATERAL 31
Bates Creek
26
20
25
254
258
220
252
487
N
0
5 miles
EXPLANATION
CANAL/LATERAL
RIVERS (WSGS)
STREAMS (WSGS)
CSP-DR-183 LEVEL III
INTERSTATE HIGHWAY
STATE/FEDERAL HIGHWAY
LAKES (WSGS)
WWC ENGINEERING
5880 Enterprise Dr, Ste 600
Casper, WY 82609
www.wwcengineering.com
(P) 307.473.2707
FIGURE 1
CASPER ALCOVA IRRIGATION DISTRICT
CSP-DR-183 LOCATION MAP
LEVEL III APPLICATION MAP
Drawn By: WWC
Checked By: GZ
Scale: 1" = 3miles
Date: 11/6/24
File: Fig_Level III CSP-DR-183 Map


K:\Casper\WWDC\2023113 Casper Alcova Irrigation District Master Plan, Level I Study\06GIS\AP\2023113-CAID\2023113-CAID.aprx 5/22/2024 7:03 PM
FOLEY, JAYSON ET AL
34N 81W
Lateral 256-16L
APPARENT OWNER:
BUTLER,
PATRICIA F
NESE
Lateral 256
04
LEGEND
CHECK
HEADGATE/TURN-OUT
DROP
WDO_CONVEYANCE
PARCEL BOUNDARY
N
0
25
50
GRAPHIC SCALE: FEET
CASPER ALCOVA IRRIGATION DISTRICT
MASTER PLAN, LEVEL I STUDY
SITE MAP
CSP-CH-075
NATRONA COUNTY, WYOMING
PREPARED FOR
WYOMING WATER
DEVELOPMENT COMMISSION
6920 YELLOWTAIL ROAD
CHEYENNE, WY 82002
DESIGNED BY: WWC
DRAWN BY: WWC
CHECKED BY: WWDC
DATE: 5/15/2024
PREPARED BY
WWC ENGINEERING
5880 ENTERPRISE DRIVE
SUITE 600
CASPER, WY 82609
(307) 473-2707
www.wwcengineering.com
FIGURE
1

Casper Alcova Irrigation District
CAID
PO Box 849 ~ 755 Connie Street
Mills, WY 82644

September 18, 2024

To Whom It May Concern,

The Casper Alcova Irrigation District approved the applications submitted for the Level III funding for projects that were identified in the Level I Master Plan Study, 2024.

Both projects are on Lateral 256, a 60-inch drop structure and a 3,300-foot canal lining.

Please contact our district manager, Joan McGraw, if you need additional information.

Sincerely,

Ron Richner,
President

jlm

Phone: 307-234-8690 | **Email:** caid@caidwyo.com | **Website:** www.caidwyoming.com

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Casper Tank Replacement 2025 **Program:** Rehabilitation

Project Type: Municipal **County:** Natrona

Sponsor: City of Casper

WWDO Recommendation: Level III **Proposed Budget:** $ 4,624,675

WWDC Grant[1] (50%)	$ 4,624,675
Other Funding Source[2] (50%)	$ 4,624,675
Total	$ 9,249,350

[1] Not to exceed 50% of eligible costs
[2] Sponsor or other funding source

Project Manager: Brewer

Project Description: The project will consist of removing a 10MG finished water reservoir for Zone 1 Central of the City's water system. The City is requesting two new storage tanks to be designed and constructed to allow flexibility with filling, maintenance, etc. The two storage tanks will have a capacity of 3MG each, for a total of 6MG. However, one 3-4MG tank would likely meet the WDEQ requirement for storage. There will also be a need to design and construct a small portion of transmission pipeline to reconnect to the system.

1. **Describe existing status in the program and previous appropriations.**

Prior Legislation

Year	Project	Appropriation
2005	L-I, Casper Zone II – Phase II	$ 1,300,000
2013	L-III, Casper Raw Water Supply II	$ 487,600
2014	L-III, Casper Zone 3 Improvements	$ 3,685,000
2015	L-III, Casper Zone II 2015	$ 1,728,600

2. **Describe existing water supply using information in the application.**
   The City of Casper acquires their water through multiple sources including twenty-nine wells and the North Platte River. The water is transferred through a system of pipes from the sources, ranging in size from 12 inch to 43 inch, to the water treatment plant. Once the water is treated, it leaves the treatment plant and flows into multiple storage tanks including the10MG storage reservoir. From the tanks and reservoir, it is transmitted to distribution systems throughout the City to the City's users.

3. **Summarize the request.**
   The City of Casper is requesting the demolition of a 10MG storage reservoir and the design and construction of two 3MG storage tanks and associated transmission lines.

4. **Summarize the reasons for the request.**
   The 10MG storage reservoir is approaching its designed life expectancy and needs to be replaced. If the reservoir is not replaced, extensive costly repairs will need to be made to keep it in service. The existing 10MG storage exceeds the demands of the City, causing issues with water quality. Removing the 10MG reservoir and replacing it with two smaller 3MG tanks will help eliminate some of the water quality issues the City is experiencing. However, the Level I Master Plan identifies the storage needs to be 3.3MG. Therefore, the WWDO's funding recommendation is for funding related to 3.3MG of storage, not the full request of 6MG of storage.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 1,138,700	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 1,143,700
Cost of Project Components		
Mobilization and Bonds	$ 1,050,000	
30" PVC	$ 325,000	
24" PVC	$ 240,000	
12" PVC	$ 288,000	
30" Fittings	$ 135,000	
24" Fittings	$ 100,000	
12" Fittings	$ 50,000	
24" and 12" Gate Valves	$ 255,000	
Connection to 30" Waterline	$ 20,000	
Connection to 12" Waterline	$ 15,000	
Select Backfill	$ 50,000	
Foundation Material	$ 224,000	
Demolition and Removal	$ 150,000	
Earthwork	$ 75,000	
3MG (x2) Water Tanks	$ 7,000,000	
Tank Coating	$ 1,000,000	
Overflow Structure	$ 30,000	
Base Course (6")	$ 200,000	
Fencing	$ 50,000	
SCADA & Electrical	$ 100,000	
Seeding & Mulching	$ 20,000	
Traffic Control	$ 10,000	
Construction Cost (Subtotal #2)		$11,387,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 1,138,700
Components and Engineering Costs (Subtotal # 3)		$12,525,700
Contingency (Subtotal #3 x 15%)		$ 1,878,855
Construction Cost Total (Subtotal #4)		$14,404,555
Total Project Cost (Subtotal #1 + Subtotal #4)		$15,548,255
Inflation Costs (4% per two years)		$ 1,268,738
Total Project Costs		$16,816,993
Total Project Costs Rounded		$16,817,000
Total Eligible Project Costs Based on Level I Master Plan and DEQ Guidance of Recommended Storage Requirements of 3.3MG (55% eligible)		$ 9,249,350
Level III Recommended Funding @ 50%		**$ 4,624,675**
Ineligible Expenses		
45% of Project costs related to tank sizing		$ 7,567,650
Total Ineligible Project Costs		**$ 7,567,650**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2020 Census) 59,038 (Current Estimate) 59,096

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 6,200

	Pre-Project	Post Project
c. Taps served within the entity boundaries?	21,949	21,949
d. Taps outside the entity boundaries?	639	639
e. Names of other water systems served?	Natrona County Airport, Pleasant View Water District, Vista West Water and Sewer District, Ardon Subdivision, Airbase Acres	

2. Water Usage (Potable water system only)	Pre-Project	Post Project
a. Total number of gallons produced by the water sources annually:	3.6BG	3.6BG
b. Gallons used per capita per day:		
Average Day:	160 gal	160 gal
Peak Day:	420 gal	420 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system		
Acre feet per day:	85.9	85.9
Gallons per day:	28MGD	28MGD
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Water Treatment	Water Treatment
c. Increased capacity needed:		
Acre feet per day	0	0
Gallons per day	0	0
d. Estimated system water losses (percentage):	5%	5%

4. Does the entity have an independent raw water irrigation system? Yes

a. Raw water system capacity (acre feet per day & gallons per day): 3.1 AF/day, 1MG/D

b. Average annual raw water usage (acre feet & gallons):165.5 AF/D, 51MG/D

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 276	$ 276
Commercial:	$ 315	$ 315
b. Average monthly water bill:	$ 42.51	$ 45.06

c. Water Rates
Water rates are assessed by wholesale and retail rates.

6. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 13,113,392	$14,527,023
Annual revenues from tap fees:	$ 86,072	$ 90,000
Annual revenues from other sources:	$ 2,508,948	$ 3,630,404
Total annual revenues:	$ 15,708,412	$18,247,427
Annual budget for operation and maintenance expenses:	$ 13,453,587	$13,930,077
Annual payments for debt retirement:	$ 656,713	$ 562,783
Annual payments to a repair and replacement fund:	$ 0	$ 0
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 14,110,300	$14,492,860
Balance in repair and replacement fund:	$ 0	$ 0
Balance in emergency fund:	$ 0	$ 0
Annual cost of water quality testing:	$ 50,000	$ 50,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 4 Level III rehabilitation of existing water storage tanks

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes, a resolution has been provided supporting the project.

3. Will the project serve at least 15 water taps? Yes Number of 21,949

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): Yes, tank vent deficiency noted in sanitary survey.

5. Does anyone in the service area haul water? No

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: SLIB, SRF

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $26.94 20,000 gallons? $98.79

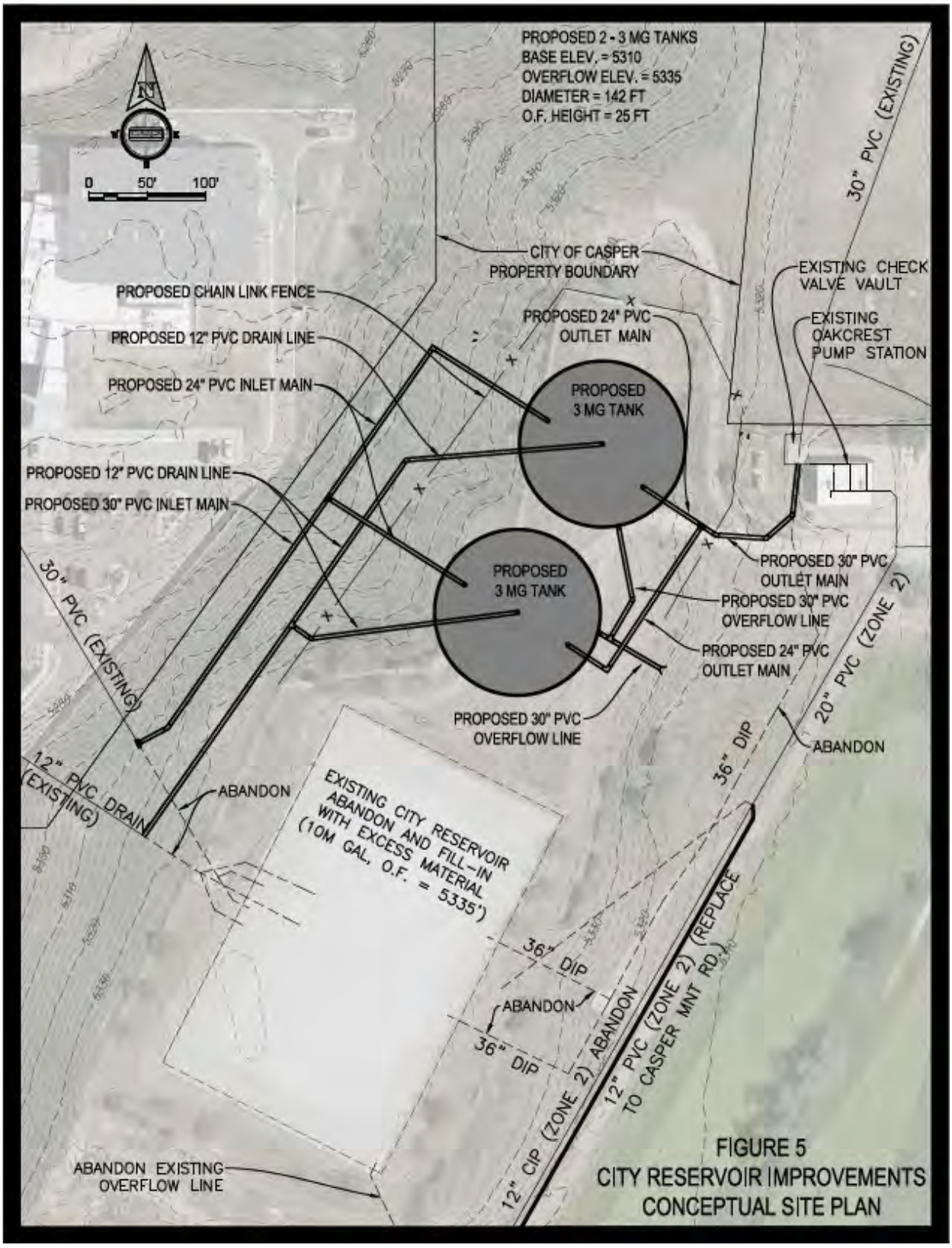
9. What water conservation measures are employed by the sponsor? Yes, Water restrictions are implemented as needed, and tiered water rate structure is proposed for the year 2025.

10. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

11. Will the project consider regional solutions? No, regionalization is not applicable to this project.

12. Can the project be delayed or staged? Yes Should it be? No, if the reservoir remains in service, it will lead to significant and costly repairs.

13. Basis for the funding recommendation: The recommended storage for Zone 1 Central is approximately 3.3.MG as stated in the WWDC Level I Masterplan, which used the Department of Environmental Quality (DEQ) guidance as a basis for storage recommendations. Due to the need of 3.3MG of storage, and the City of Casper requesting 6MG (two 3MG storage tanks), the total eligible costs are approximately 55% of the amount being requested. The City of Casper is working on securing an SRF loan to cover the remaining co-funding requirements for construction.


PROPOSED 2 - 3 MG TANKS
BASE ELEV. = 5310
OVERFLOW ELEV. = 5335
DIAMETER = 142 FT
O.F. HEIGHT = 25 FT
0 50' 100'
30" PVC (EXISTING)
CITY OF CASPER PROPERTY BOUNDARY
EXISTING CHECK VALVE VAULT
EXISTING OAKCREST PUMP STATION
PROPOSED CHAIN LINK FENCE
PROPOSED 12" PVC DRAIN LINE
PROPOSED 24" PVC INLET MAIN
PROPOSED 24" PVC OUTLET MAIN
PROPOSED 3 MG TANK
PROPOSED 12" PVC DRAIN LINE
PROPOSED 30" PVC INLET MAIN
PROPOSED 3 MG TANK
PROPOSED 30" PVC OUTLET MAIN
PROPOSED 30" PVC OVERFLOW LINE
PROPOSED 24" PVC OUTLET MAIN
30" PVC (EXISTING)
PROPOSED 30" PVC OVERFLOW LINE
20" PVC (ZONE 2)
36" DIP
ABANDON
12" PVC DRAIN (EXISTING)
ABANDON
EXISTING CITY RESERVOIR ABANDON AND FILL-IN WITH EXCESS MATERIAL (10M GAL, O.F. = 5335')
36" DIP
ABANDON
36" DIP
12" PVC (ZONE 2) ABANDON
12" PVC (ZONE 2) (REPLACE TO CASPER MNT RD.)
ABANDON EXISTING OVERFLOW LINE
12" CIP (ZONE 2)
FIGURE 5
CITY RESERVOIR IMPROVEMENTS
CONCEPTUAL SITE PLAN


Alltel Tower
Wyca Casper
Park
YMCA
Goodstein
Visual Arts
Center
Casper Mountain Rd
10MG Reservoir
S Oakcrest Ave
251

RESOLUTION NO. 24-174

A RESOLUTION AUTHORIZING A GRANT APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR THE DESIGN AND CONSTRUCTION OF THE CITY RESERVOIR IMPROVEMENTS PROJECT.

WHEREAS, the City of Casper has need to replace the existing 10 MG City Reservoir to address structural issues and water quality concerns; and,

WHEREAS, the need for the City Reservoir Improvements has been recommended in the 2020 Casper Water System Master Plan; and,

WHEREAS, the City of Casper recognizes the need for this project and accepts the impacts of this project; and,

WHEREAS, the Wyoming Water Development Commission has made available grants and loans for the purpose of assisting entities such as the City of Casper on this project.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF CASPER, WYOMING: That the City Council hereby authorizes submission of a Level III application in the amount of $8,040,000 (Eight Million Forty Thousand Dollars) to the Wyoming Water Development Commission for a 67% grant for the City Reservoir Improvements Project.

PASSED, APPROVED, AND ADOPTED this 20th day of August, 2024.

APPROVED AS TO FORM:

CITY OF CASPER, WYOMING
A Municipal Corporation

ATTEST:

Amanda Ainsworth
City Clerk

Stephen Cathey
Mayor

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Cottonwood Irrigation District Pipeline Replacement 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Lincoln

Sponsor: Cottonwood Irrigation District

WWDO Recommendation: Level III **Proposed Budget:** $598,000

WWDC Grant[1] (50.00%)	$ 551,000
WWDC Loan[2] (4.26%)	$ 47,000
Sponsor[3] (45.74%)	$ 504,000
Total Project	$ 1,102,000

[1] Not to exceed 50% of WWDC eligible project costs
[2] 4.26% loan at 4% interest and a term of 20 years, for 50% Preconstruction Costs Only
[3] Sponsor or other funding source

Project Manager: Kaiser

Project Description: This project replaces the final section of 16-inch steel pipe on Lateral L-20 and a section of pipe on Lateral L-7 north of the main PRV.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2016	L-I, Cottonwood Irrigation District Master Plan	$ 165,000
2018	L-III, Cottonwood ID Pipeline Replacement	$ 834,000
2020	L-III, Cottonwood Irrigation District Transmission Pipeline 2020	$ 1,540,000
2022	L-III, Cottonwood Irrigation District Pipeline Replacement 2022	$ 1,600,000

2. **Describe existing water supply using information in the application.**
   Direct flow is diverted from Cottonwood Creek and travels through pipelines to the sponsor's irrigators. There are 5,185 irrigated acres with 340 landowners in the district.

3. **Summarize the request.**
   This project replaces the final 2,050 LF of 16-inch steel pipe on Lateral L-20 and 475 LF of pipe on Lateral L-7 north of the main PRV. These two laterals are adjacent to each other and considered one project by the WWDO. Project also includes appurtenances such as valves, irrigation risers, cathodic protection, drains and air vacs. The application request included a loan for the pre-construction work while other funding is secured for the construction portion of the work to avoid delays in completing the project.

4. **Summarize the reasons for the request.**
   Cottonwood Irrigation District has identified certain sections of their system that have experienced corrosion/erosion of the pipe resulting in a disproportionate number of line breaks. In recent years, the District has replaced certain mainline sections critical to most of the District. This section is the next most critical section to be replaced.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 76,350	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 1,700	
Acquisition of Access and Rights of Way	$ 15,300	
Pre-Construction Costs (Subtotal # 1)		$ 93,350
Cost of Project Components		
Mobilization, Bonds, Insurance	$ 55,000	
Traffic Control and Testing	$ 16,800	
Pipe and Bedding	$ 356,400	
Pipe Appurtenances, Cathodic Protection	$ 311,700	
Reclamation	$ 23,600	
Construction Cost (Subtotal #2)		$ 763,500
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 76,350
Components and Engineering Costs (Subtotal # 3)		$ 839,850
Contingency (Subtotal #3 x 15%)		$ 125,978
Construction Cost Total (Subtotal #4)		$ 965,828
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 1,059,178
Inflation Costs (4% per one year)		$ 42,367
Total Project Costs		**$ 1,101,545**
Total Project Costs (Rounded)		**$ 1,102,000**
Level III Recommended Funding at 50.00% Grant:		**$ 551,000**
Level III Recommended Funding at 4.26% Loan (Pre-Construction Only):		**$ 47,000**
Ineligible Expenses		
Total Ineligible Project Costs – None noted		**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	6,020	6,020
b. Assessed acres?	5,185	5,185
c. Irrigated acres?	5,185	5,185
d. Average annual water delivery (acre-feet/acre assessed)?	2.0	2.0
e. How many individual landowners receive water?	340	340

f. What type(s) of on-farm irrigation water application is used? Side roll wheel lines, hand line and center pivots

g. Briefly describe the main crops and cropping patterns: Alfalfa, barley and pasture

h. Describe the water measuring devices currently in use: The system has three mainline orifice meters (36", 24" and 16") and the District also uses a portable meter on farm.

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	13,000	13,000
b. Average Day Demand (AF):	118	118
c. Peak Day Demand (AF):	134	134

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	135	135
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Line breaks and down time for repairs	Repairs in other areas of the system
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	25	21.3

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? Number of Acres

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$22.00/acre	$22.00/acre
d. If there is a basic service charge in addition to assessments, how much is it?	$150.00	$150.00

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 134,981	$ 134,981
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 134,981	$ 134,981
Annual budget for operation and maintenance expenses:	$ 45,695	$ 45,695
Annual payments for debt retirement:	$ 14,834	$ 52,063
Annual payments to a repair and replacement fund:	$ 0	$ 0
Annual payments to an emergency fund:	$ 74,452	$ 37,223
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 134,981	$ 134,981
Balance in repair and replacement fund:	$ 295,998	$ 295,998
Balance in emergency fund*:	$ 150,000	$ 150,000

*Funds in the emergency fund will be used to pay towards the loan.

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 3 Level III replacement of existing transmission pipelines

2. Will the project serve at least 2,000 water righted acres? Yes Number of acres 5,185

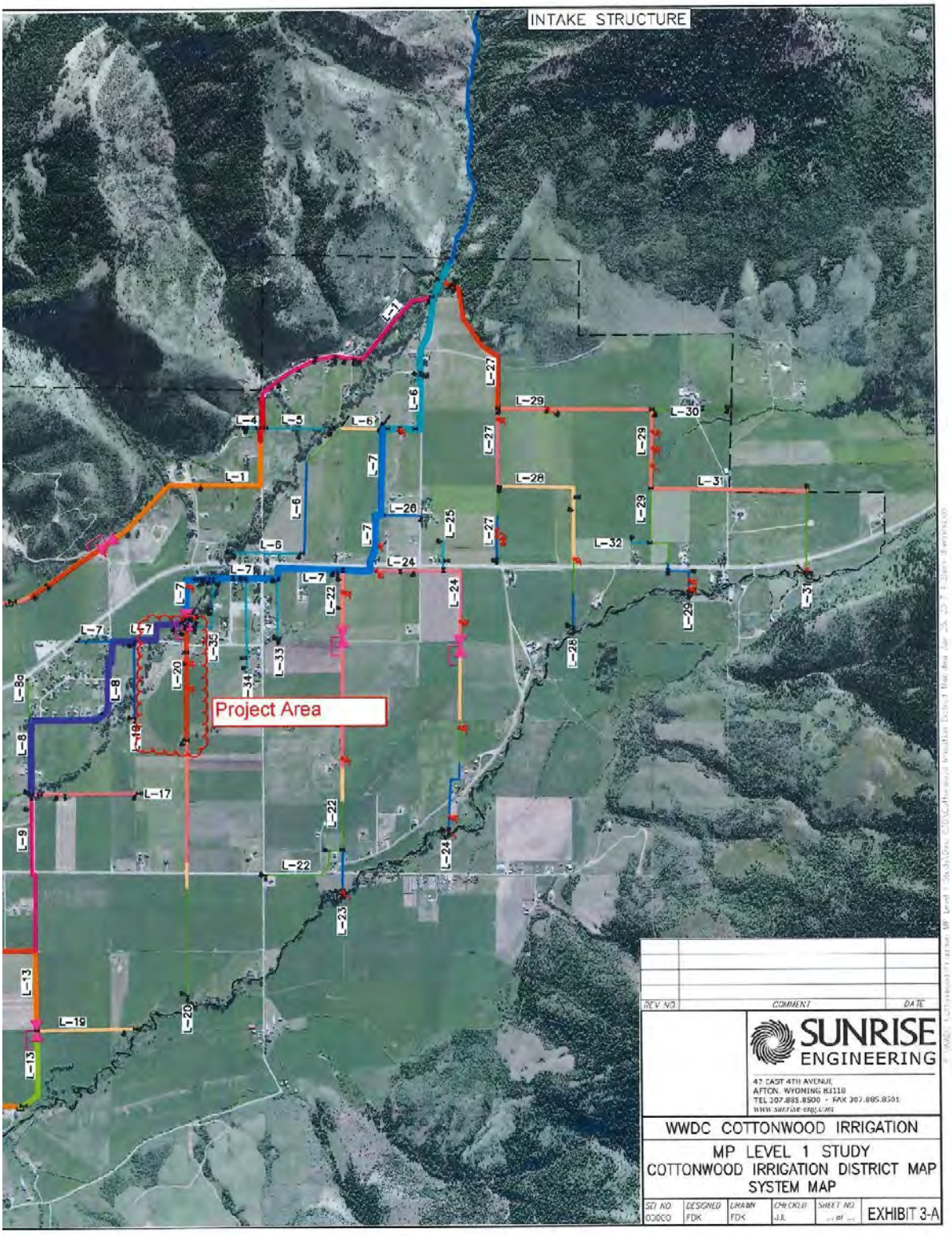
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? Bureau of Reclamation WaterSmart. They will be applying during the BOR's next funding opportunity cycle with possible funding in Spring of 2026.

4. What water conservation measures are employed by the sponsor? The District monitors on-farm usage and encourages timely maintenance and repairs of equipment.

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes Should it be? No, CID is requesting funding for a Bureau of Reclamation WaterSMART grant. Delaying the project until outside funds are secured for the project may reduce the uncertainty associated with grant funding through WWDC. However, the WaterSMART grant is reliant on matched funds that would be provided by WWDC. If WWDC funds are delayed, the ability to secure outside funds may be substantially reduced.

7. Basis for the funding recommendation: Replacement of this segment of L-20 was Project Number 8 in the 2017 Master plan, and a Phase I priority. Replacement of this segment of L-7 had a Phase II priority in the Master Plan. Completing the project will reduce water system downtime due to maintenance and water losses.


INTAKE STRUCTURE
Project Area
L-1
L-4
L-5
L-6
L-7
L-8
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REV NO
COMMENT
DATE
SUNRISE ENGINEERING
47 EAST 4TH AVENUE
AFTON, WYOMING 83110
TEL 307.885.8500 · FAX 307.885.8501
WWDC COTTONWOOD IRRIGATION
MP LEVEL 1 STUDY
COTTONWOOD IRRIGATION DISTRICT MAP
SYSTEM MAP
JOB NO 03000
DESIGNED FDK
DRAWN FDK
CHECKED JJL
SHEET NO
EXHIBIT 3-A

Close-up View of Pipe Taken from Cottonwood Irrigation District Pipeline

OFFICIAL RESOLUTION

OF THE

Cottonwood Irrigation District

Resolution No. 2024 -1

The President of the District is Kelly Johnson, and he will be the legal authority on the project.

AUTHORIZING THE PRESIDENT OF THE COTTONWOOD IRRIGATION DISTRICT TO APPLY FOR A CONTRIBUTION GRANT FROM THE WYOMING WATER DEVELOMENT COMMISSION, FOR THE REPLACEMENT OF THE L-7 PIPELINE FROM THE MAIN PRV VAULT NORTH TO THE FIRST CROSSING OF BELLVIEW ROAD AND REPLACEMENT OF L-20 WEST OF THE MAIN PRV VAULT FOR A DISTANCE OF 2,050 FEET.

WHEREAS, The Cottonwood Irrigation District, (the "District") of Lincoln County, Wyoming deems it necessary to apply to the Water Development Commission, for funding through a cost-sharing grant, that shall not exceed $545,190 (WWDC Grant), and $1,090,380 (Total Project,) for design & construction enhancements of the L-7 and L-20 pipelines for the purpose of seepage reduction and integrity of the pipeline. The District has reviewed and supports the application submitted.

WHEREAS, The District intentions are to provide the remaining funding through Wyoming Water Development Commission as specified in the funding plan.

NOW THEREFORE BE IT RESOLVED, the District will authorize application to the Wyoming Water Development Commission for the grant and balance of project funds.

Date: Aug 13- 2024

Kelly A Johnson

Kelly Johnson, President

ATTEST:

Linda Erickson

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: EVIDD Farson Lateral Phase 4A 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Sweetwater

Sponsor: Eden Valley Irrigation & Drainage District (EVIDD)

WWDO Recommendation: Level III **Proposed Budget:** $1,112,500

WWDC Grant[1] (25%)	$ 1,112,500
Sponsor[2] (75%)	$ 3,337,500
Total	$ 4,450,000

[1] 25% of eligible construction expenses
[2] Sponsor or other funding source

Project Manager: Mitchell

Project Description: The EVIDD Farson Lateral Phase IV 2025 project will improve water conservation and efficiency by turning open ditch into pipe. Construction will include multiple sizes of pipe ranging from 12 inch to 63 inch, fittings, and air valve assemblies. There will be some demolition of existing structures included in the project, along with some miscellaneous items.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2013	L-III, EVIDD Rehabilitation 2009	$ 1,327,000
2013	L-III, EVIDD Farson Lateral Rehab. Phase I	$ 233,500
2015	L-III, EVIDD Farson Lateral Rehab. Phase II	$ 2,366,000
2015	L-II, Big Sandy Enlargement	$ 2,000,000
2016	L-I, EVIDD Master Plan	$ 195,000
2019	L-III, EVIDD System Improvements	$ 351,000
2020	L-III, Farson Lateral Rehabilitation 2020	$ 2,262,000

2. **Describe existing water supply using information in the application.**
   The existing water system consists of multiple rivers and reservoirs (stored water rights of 62,225 acre-feet) which feed a series of canals and piped laterals through a gravity headgate.

3. **Summarize the request.**
   The Eden Valley Irrigation District is requesting a 25% grant from the WWDC to continue construction on a phased project to convert open ditch into pipe for the Farson Lateral portion of the system. This will be phase 4A of the overall projects. There is expected to be future phases to complete the Farson Lateral rehabilitation.

4. **Summarize the reasons for the request.**
   The Eden Valley Irrigation District has received a grant from the Natural Resource Conservation Service (NRCS) to construct phase 4A of the Farson Lateral rehabilitation. The NRCS grant covers 100% of engineering costs (design and construction management) and 75% of the construction costs. Phase 4A will convert approximately 15,000 feet of open ditch into pipe. This will eliminate seepage and enhance efficiency with water delivery. This is phase 4A of an ongoing project that will have additional phases.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Design and Specifications	$ 0	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 5,000
Cost of Project Components		
Mobilization, Bonds, Insurance	$ 210,000	
63" HDPE DR 41 Pipe 2800 LF	$ 1,058,400	
54" HDPE DR 41 Pipe 4200 LF	$ 1,180,200	
24" HDPE DR 41 Pipe 1400 LF	$ 86,800	
20" HDPE DR 32.5 Pipe 200 LF	$ 10,800	
16" HDPE DR 32.5 Pipe 3900 LF	$ 183,300	
12" HDPE DR 32.5 Pipe 2600 LF	$ 85,800	
Fittings	$ 180,000	
Air Valve Assembly	$ 144,000	
Turnout Assemblies	$ 240,000	
RTU & Solar	$ 80,000	
Remove and Replace Fence	$ 7,500	
Dewatering	$ 12,000	
Reseeding	$ 15,000	
Pipe Markers	$ 4,000	
Furnish Imported Backfill Type A1	$ 40,000	
Furnish Foundation Type A5	$ 18,000	
Furnish ¾" Rock Type A6	$ 3,375	
Furnish Untreated Base Course Type A7	$ 3,000	
Furnish Imported D50-8" Riprap	$ 4,875	
Geotextile	$ 600	
Drain	$ 15,000	
Install Temporary Outlet Structure	$ 75,000	
Connect to Existing	$ 50,000	
Remove Structures	$ 8,000	
Construction Cost (Subtotal #2)		$ 3,715,650
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 0
Components and Engineering Costs (Subtotal # 3)		$ 3,715,650
Contingency (Subtotal #3 x 15%)		$ 557,348
Construction Cost Total (Subtotal #4)		$ 4,272,998
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 4,277,998
Inflation Costs (4% per one year)		$ 171,120
Total Project Costs		$ 4,449,118
Total Project Costs (Rounded)		**$ 4,450,000**
Level III Recommended Funding @ 25% Grant:		**$ 1,112,500**

Ineligible Expenses

None	$ 0

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	16,895	16,895
b. Assessed acres?	16,895	16,895
c. Irrigated acres?	16,895	16,895
d. Average annual water delivery (acre-feet/acre assessed)?	2	2
e. How many individual landowners receive water?	125	125

f. What type(s) of on-farm irrigation water application is used? Center pivots, flood and gated pipe

g. Briefly describe the main crops and cropping patterns: Alfalfa, grass hay, barley and oats

h. Describe the water measuring devices currently in use: Propeller meters, CHO, flumes, weirs and doppler meters

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	42,124	42,124
b. Average Day Demand (AF):	350	350
c. Peak Day Demand (AF):	510	510

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	42,124	42,124
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Water loss due to seepage	
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	30	30

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? 1 vote per acre

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$16.30	$16.45
d. If there is a basic service charge in addition to assessments, how much is it?	$100.00	$100.00

5. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ $284,303	$ 286,818
Annual revenues from other sources:	$ 30,000	$ 30,000
Total annual revenues:	$ 314,303	$ 316,818
Annual budget for operation and maintenance expenses:	$ 22,400	$ 22,400
Annual payments for debt retirement:	$ 286,000	$ 286,000
Annual payments to a repair and replacement fund:	$ 5,000	$ 5,000
Annual payments to an emergency fund:	$ 0	$ 3,000
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 313,400	$ 316,400
Balance in repair and replacement fund:	$ 85,000	$ 85,000
Balance in emergency fund:	$ 278,800	$ 281,800

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 2 rehabilitation of existing irrigation canals

2. Will the project serve at least 2,000 water righted acres? Yes Number of acres 3,934

3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? NRCS Watershed Program

4. What water conservation measures are employed by the sponsor? Multiple laterals have been converted into pipe, reducing the loss of water to seepage. 75% of irrigation is performed through pivots

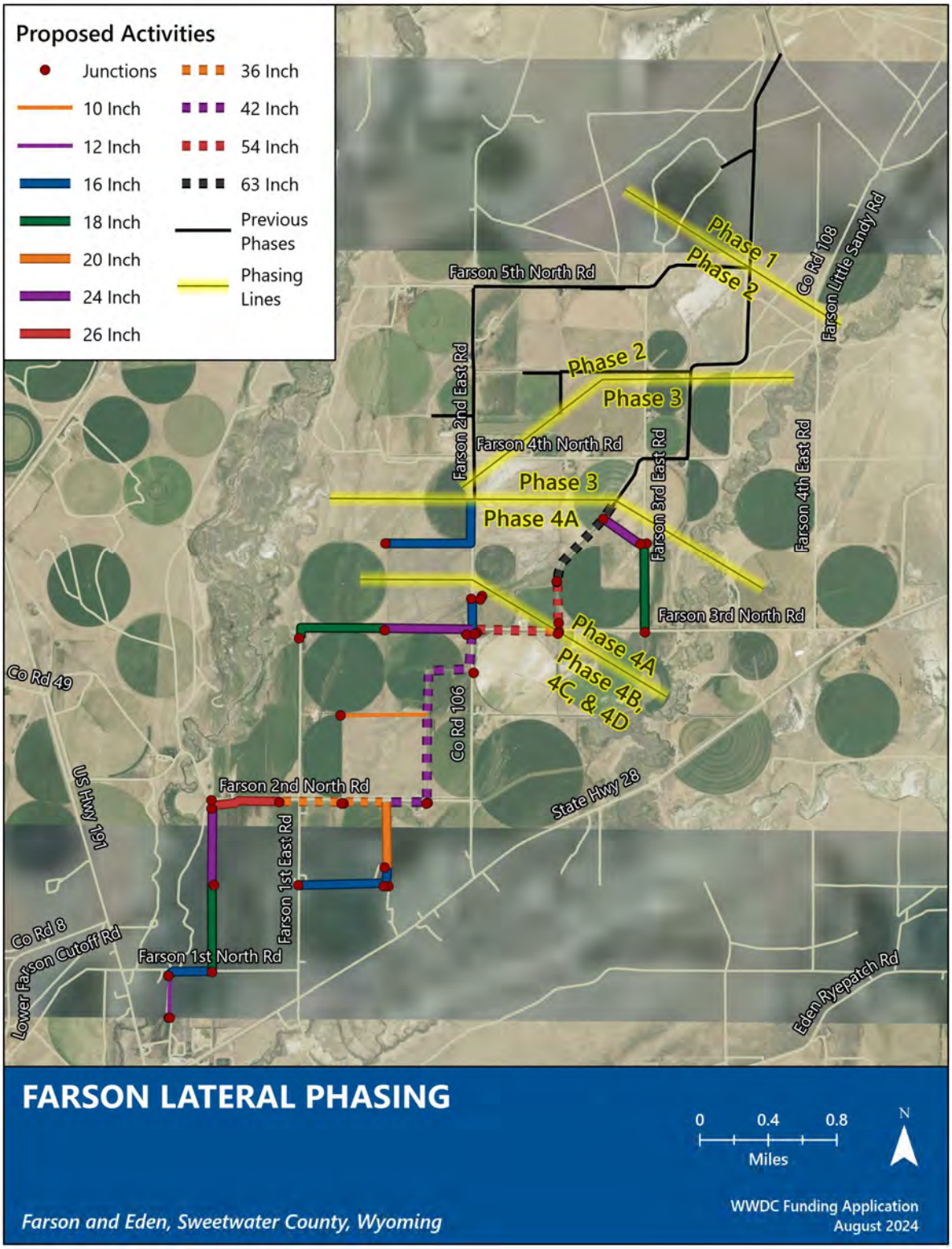
5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes Should it be? No. This is a phased project, and in order to continue the future phases as scheduled, this phase needs to begin construction by the fall of 2025.

7. Basis for the funding recommendation: In 2022, the Farson Lateral Rehabilitation Phase 3 project went out to bid for construction. The low bid received exceeded the project budget causing portions of the project to be removed. Those portions included 600 LF of 63" pipe and all components related to Lateral 2. When the Wyoming Water Development Commission agreed to remove those portions of the project, it was with the understanding that they would be included in phase 4A of the project at a 25% cost share for the Water Development Commission.

The 600 LF of 63" pipe, and the components associated with Lateral 2 have been included in this request. The district has applied for and received NRCS Watershed Program funding. The funding will cover 100% of design and constructions engineering services. The funding will also cover 75% of all construction related costs.

It is recommended to approve 25% of the costs associated with construction of the Farson Lateral Phase 4A. The estimated cost (at 25%) for phase IV is approximately $1,112,500. The total project budget is estimated to be approximately $4,450,000.


Proposed Activities
Junctions
10 Inch
12 Inch
16 Inch
18 Inch
20 Inch
24 Inch
26 Inch
36 Inch
42 Inch
54 Inch
63 Inch
Previous Phases
Phasing Lines
Phase 1
Phase 2
Phase 2
Phase 3
Phase 3
Phase 4A
Phase 4A
Phase 4B, 4C, & 4D
Farson 5th North Rd
Farson 4th North Rd
Farson 3rd North Rd
Farson 2nd North Rd
Farson 1st North Rd
Farson 2nd East Rd
Farson 3rd East Rd
Farson 4th East Rd
Farson 1st East Rd
Co Rd 108
Farson Little Sandy Rd
Co Rd 49
Co Rd 106
US Hwy 191
State Hwy 28
Co Rd 8
Lower Farson Cutoff Rd
Eden Ryepatch Rd
FARSON LATERAL PHASING
0
0.4
0.8
Miles
N
Farson and Eden, Sweetwater County, Wyoming
WWDC Funding Application
August 2024

EDEN VALLEY
IRRIGATION AND DRAINAGE DISTRICT
P. O. BOX 174 — TELEPHONE 273-9564
FARSON, WYOMING 82932

OFFICIAL RESOLUTION

Eden Valley Irrigation and Drainage District

WHEREAS, The **Eden Valley Irrigation and Drainage District** must maintain, provide for, and service the Water System,

WHEREAS, The **District** sees the need to construct the **Farson Lateral Phase 4A Project** to improve water conservation and efficiency,

WHEREAS, The **District** desires to obtain funding from the **Wyoming Water Development Commission (WWDC).**

NOW THEREFORE, BE IT RESOLVED that the Board of Directors, agrees and authorizes that:

1. The **WWDC PROJECT APPLICATION FOR LEVEL III CONSTRUCTION FUNDING** prepared by **J-U-B Engineers, Inc.** has been reviewed by the Board of Directors and supports the contents therein;
2. The **Eden Valley Irrigation and Drainage District** is capable of meeting the requirements specified in the application; and
3. If selected for funding, the **District** will work with the WWDC to meet established requirements.

DATED: 8/16/24

Ed Burton, President
Ed Burton, President

ATTEST:

Gail Johnson - Notary
Name, Title

8/16/24

GAIL JOHNSON - NOTARY PUBLIC
COUNTY OF SWEETWATER
STATE OF WYOMING
MY COMMISSION EXPIRES NOVEMBER 30, 2024

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: GID 62.2 Check Structure Project 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Goshen

Sponsor: Goshen Irrigation District

WWDO Recommendation: Level III **Proposed Budget:** $1,322,000

WWDC Grant[1] (50%)	$ 661,000
WWDC Loan[2] (50%)	$ 661,000
Total	$ 1,322,000

[1] Not to exceed 50% of project eligible costs
[2] 50% loan at 4% interest and a term of 20 years

Project Manager: Clarey/Brich

Project Description: This project is to remove and replace the 62.2 Mile Check Structure as recommended in the 2024 Goshen Irrigation District Level I Master Plan.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2015	L-III, Goshen Irr. District-Guernsey Spillway	$ 449,570
2017	L-III, Goshen Rehabilitation 2017	$ 214,000
2018	L-III, Goshen Irr. District Check Structure 2018	$ 468,330
2022	L-III, Goshen ID 29.4 Pipeline Project Phase II	$ 290,000
2022	L-III, Goshen ID Tunnel Rehabilitation	$ 24,160,000
2023	L-I, Goshen Irrigation District Master Plan	$ 300,000
2023	LIII, Goshen ID 56.0 Pipeline Phase I	$ 236,300

2. **Describe existing water supply using information in the application.**
   Goshen Irrigation District (GID) has a direct flow diversion water right of 735 cfs and receives water from the U.S. Bureau of Reclamation's Pathfinder Reservoir storage water right of 1,100,000 acre-feet. Water enters the system at the Whalen Diversion Dam, and serves 52,484 acres in the District.

3. **Summarize the request.**
   GID is requesting funding for a Level III project for the rehabilitation of the 62.2 Mile Check Structure. This main canal check structure is an integral component of the GID water delivery system, and was prioritized for replacement in the 2024 Goshen Irrigation District Level I Master Plan. It diverts 40% of the Goshen Irrigation District water into the Springer Main and East Springer Laterals, which provide water to 20,000 acres of farmland. In its current state, the check is also a safety hazard for GID personnel. The proposed new structure would be automated and make the system safer and more efficient, allowing employees to make SCADA adjustments remotely rather than manually adding or removing checkboards.

4. **Summarize the reasons for the request.**
   The 62.2 Mile Check Structure is an aging and failing component of the GID, which needs to be demolished and replaced, as recommended in the 2024 Goshen Irrigation District Level I Master Plan.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 92,730	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 97,730
Cost of Project Components		
Mobilization & Bonding	$ 85,000	
Demolition of Existing Structure	$ 25,000	
Excavation	$ 16,300	
Concrete - Structural	$ 407,000	
Embankment	$ 8,000	
Select Backfill	$ 27,000	
Riprap (D50 = 12")	$ 24,000	
Side Gates	$ 300,000	
SCADA/Automation	$ 15,000	
Misc. (handrails, etc.).	$ 20,000	
Construction Cost (Subtotal #2)		$ 927,300
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 92,730
Components and Engineering Costs (Subtotal # 3)		$ 1,020,030
Contingency (Subtotal #3 x 15%)		$ 153,005
Construction Cost Total (Subtotal #4)		$ 1,173,035
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 1,270,765
Inflation Costs (4% per one year)		$ 50,831
Total Project Costs		**$ 1,321,596**
Level III Recommended Funding @ 100% Grant: (Rounded)		**$ 1,322,000**
Level III Recommended Funding @ 50% Grant:		**$ 661,000**
Level III Recommended Funding @ 50% Loan:		**$ 661,000**
Ineligible Expenses		
Additional Cost for Construction Engineering		$ 10,000
Total Ineligible Project Costs		**$ 10,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	52,484	52,484
b. Assessed acres?	52,484	52,484

c. Irrigated acres?	52,484	52,484
d. Average annual water delivery (acre-feet/acre assessed)?	2	2
e. How many individual landowners receive water?	420	420

f. What type(s) of on-farm irrigation water application is used? Center Pivot, Flood, Furrow, Side Roll

g. Briefly describe the main crops and cropping patterns: Alfalfa, Corn, Dry Beans, Sugar Beets, Irrigated Grasses, Small Grains

h. Describe the water measuring devices currently in use: Parshall Flumes, Cipoletti Weir, Flow Meters

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	130,000	130,000
b. Average Day Demand (AF):	1,200	1,200
c. Peak Day Demand (AF):	1,500	1,500

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	1,500	1,500
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	N/A	N/A
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	34%	32%

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? Number of acres.

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$28.00	$28.00
d. If there is a basic service charge in addition to assessments, how much is it?	$225.00	$225.00

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 1,469,552	$ 1,469,552
Annual revenues from other sources:	$ 905,981	$ 905,981
Total annual revenues:	$ 2,375,533	$ 2,375,533
Annual budget for operation and maintenance expenses:	$ 20,000	$ 40,000

Annual payments for debt retirement:	$ 2,192,750	$ 2,162,509
Annual payments to a repair and replacement fund:	$ 0	$ 0
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 2,212,750	$ 2,202,509
Balance in repair and replacement fund:	$ 128,437	$ 128,437
Balance in emergency fund:	$ 32,000	$ 32,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 1: Level III Rehabilitation of Water Diversion or Control Structures

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 52,484

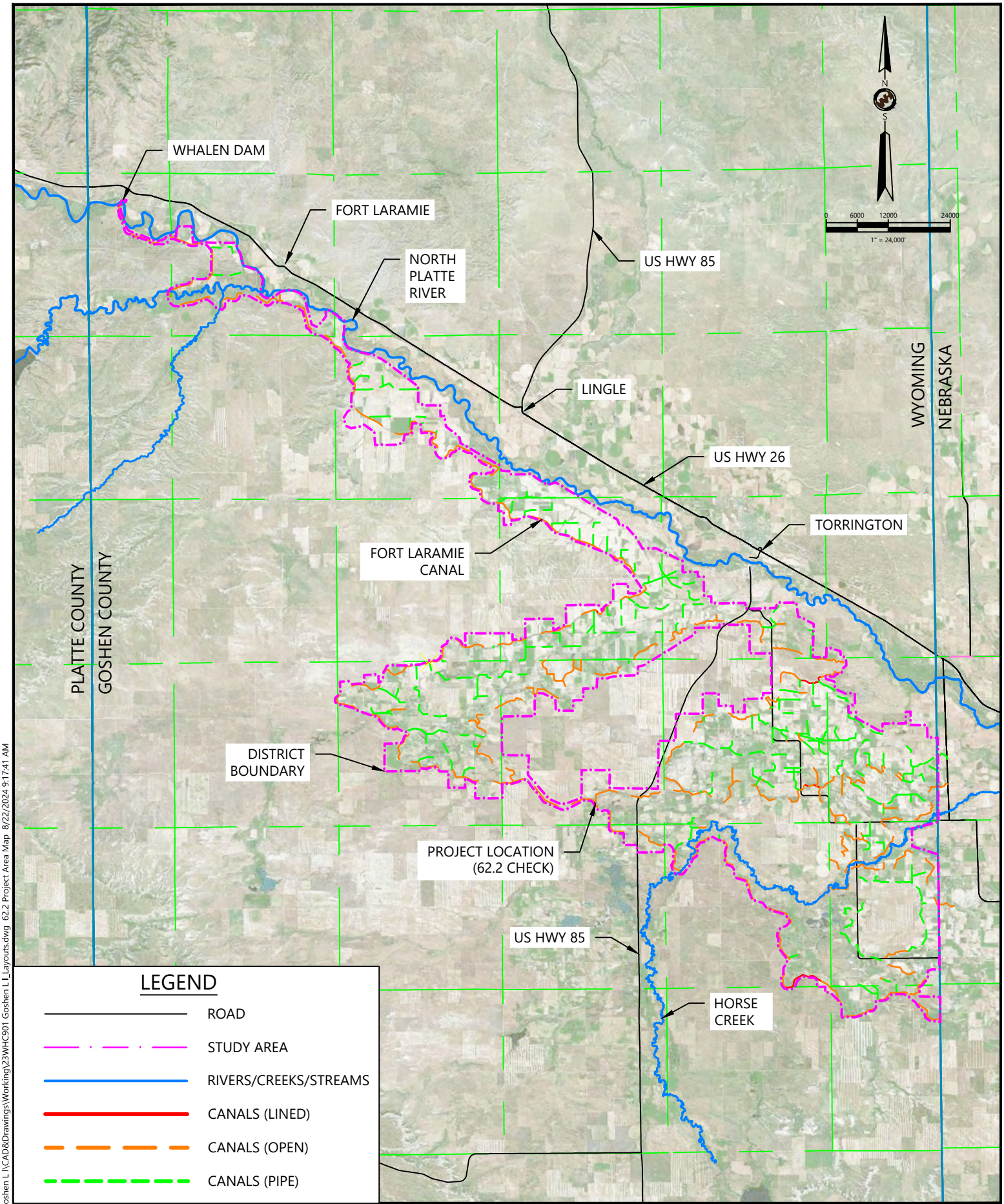
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? NRCS, BOR…GID plans to apply for 50% WaterSmart funding

4. What water conservation measures are employed by the sponsor? Lining, Sprinkler Irrigation, Underground Laterals

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes. Should it be? No, this project could be staged as a pre-construction/construction project, but it was identified as a top priority in the 2024 WWDC Goshen Irrigation District Level I Master Plan and is the next project GID would like to complete in their efforts to rehabilitate aging infrastructure. The project will likely be completed within three years and staging it into pre-con and construction would delay the completion of the project.

7. Basis for the funding recommendation: Goshen Irrigation District is requesting a Level III project for the rehabilitation of their 62.2 Mile Check Structure, including demolition and replacement of this failing system component, as recommended by the 2024 WWDC Goshen Irrigation District Level I Master Plan.



LEGEND

- ROAD
- STUDY AREA
- RIVERS/CREEKS/STREAMS
- CANALS (LINED)
- CANALS (OPEN)
- CANALS (PIPE)

FIGURE 8.1.2

Sheet Number:

Job Number: 23WHC901

WESTERN HERITAGE
CONSULTING ENGINEERING
307.215.7430
info@westernhce.com
PO BOX 2117
Mills, WY 82644

Rev	Date	Description	By
1.0	8/22/24	LEVEL III APPLICATION EXHIBIT	MSP

Drawn By: SDG
Designed By: MSP
Reviewed By: RLA
Scale: 1"=24,000'

Title:

GOSHEN IRRIGATION DISTRICT
LEVEL I STUDY
62.2 CHECK
PROJECT AREA MAP
GOSHEN COUNTY, WY

W:\Clients\23WHC901 Goshen L I\CAD&Drawings\Working\23WHC901 Goshen L I_Layouts.dwg 62.2 Project Area Map 8/22/2024 9:17:41 AM

CONCEPT DESIGN NOTES:

1. CANAL FLOWS (Q) SHOWN SELECTED BASED ON AVERAGE DELIVERY FLOWS BETWEEN 800-1000 CFS WITH ADDITIONAL CAPACITY FOR STORM WATER INFLOWS. FINAL DESIGN FLOWS SHALL BE COORDINATED WITH DISTRICT DURING LEVEL III DESIGN FOR CONSTRUCTION.
2. LOCATION OF NEW STRUCTURE FINAL LOCATION OF NEW CHECK STRUCTURE TO BE COORDINATED WITH DISTRICT PRIOR TO CONSTRUCTION.

DEWATERING NOTES:

1. SITE MAY CONTAIN STANDING WATER IN CANAL DUE TO HIGH WATER TABLE. CONTRACTOR RESPONSIBLE TO MANAGE GROUND WATER LEVELS DURING CONSTRUCTION.
2. CONTRACTOR SHALL PROVIDE DEWATERING PRACTICES SUCH AS COFFERDAMS, PUMPS, OR OTHER EQUIPMENT NECESSARY TO DEWATER THE SITE FOR CONSTRUCTION.
3. DEWATERING PRACTICES SHALL BE DISCHARGED IN THE CANAL SYSTEM, INCLUDING DOWNSTREAM OF CONSTRUCTION OR IN ADJACENT LATERAL DITCH SYSTEM.
4. ALL DEWATERING SHALL CONFORM TO LOCAL, STATE, AND FEDERAL REQUIREMENTS.

CONCEPT DESIGN

APPROXIMATE QUANTITY SCHEDULE

1	STRUCTURE EXCAVATION	650	CY
2	STRUCTURAL CONCRETE	185	CY
3	EMBANKMENT	400	SF
4	SELECT BACKFILL	450	CY
5	RIPRAP (D50=12)	80	CY

Title:
GOSHEN IRRIGATION DISTRICT,
LEVEL I STUDY
62.2 CHECK
PROJECT SITE MAP
GOSHEN COUNTY, WYOMING

Rev	Date	Description	By
1.0	8/22/24	LEVEL III APPLICATION EXHIBIT	MSP

Drawn By: SDG
Designed By: MSP
Reviewed By: RLA
Scale:
B: 1" = 80'
D: 1" = 40'

WESTERN HERITAGE
CONSULTING ENGINEERING
PO BOX 2117
Mills, WY 82644
307.215.7430
info@westernhce.com

Job Number:
23WHC901

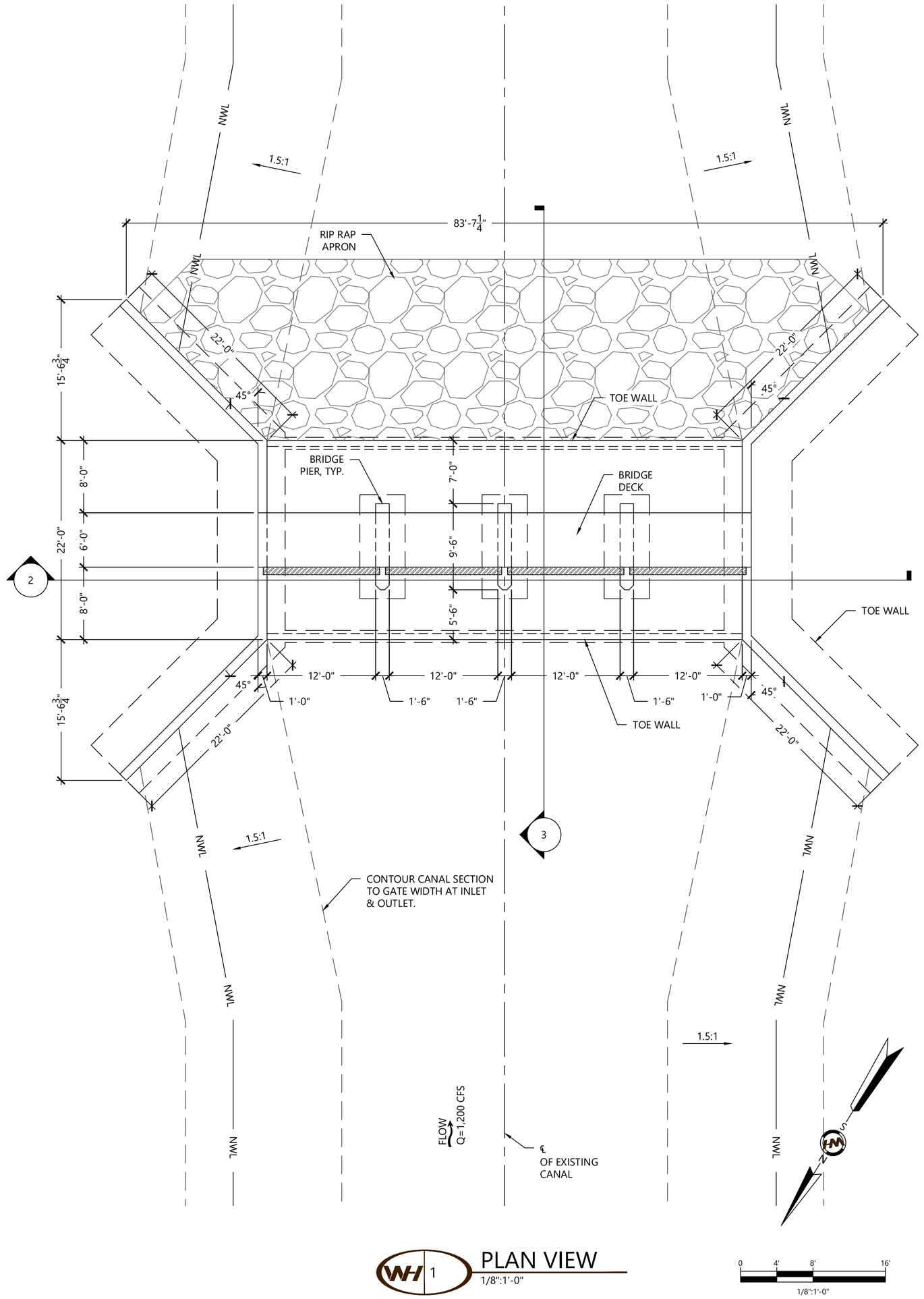
Sheet Number:
FIGURE 8.1.3

W:\Clients\23WHC901 Goshen L I\CAD&Drawings\Working\23WHC901 Goshen L I_Layouts.dwg 62.2 Project Site Map 8/22/2024 9:17:41 AM

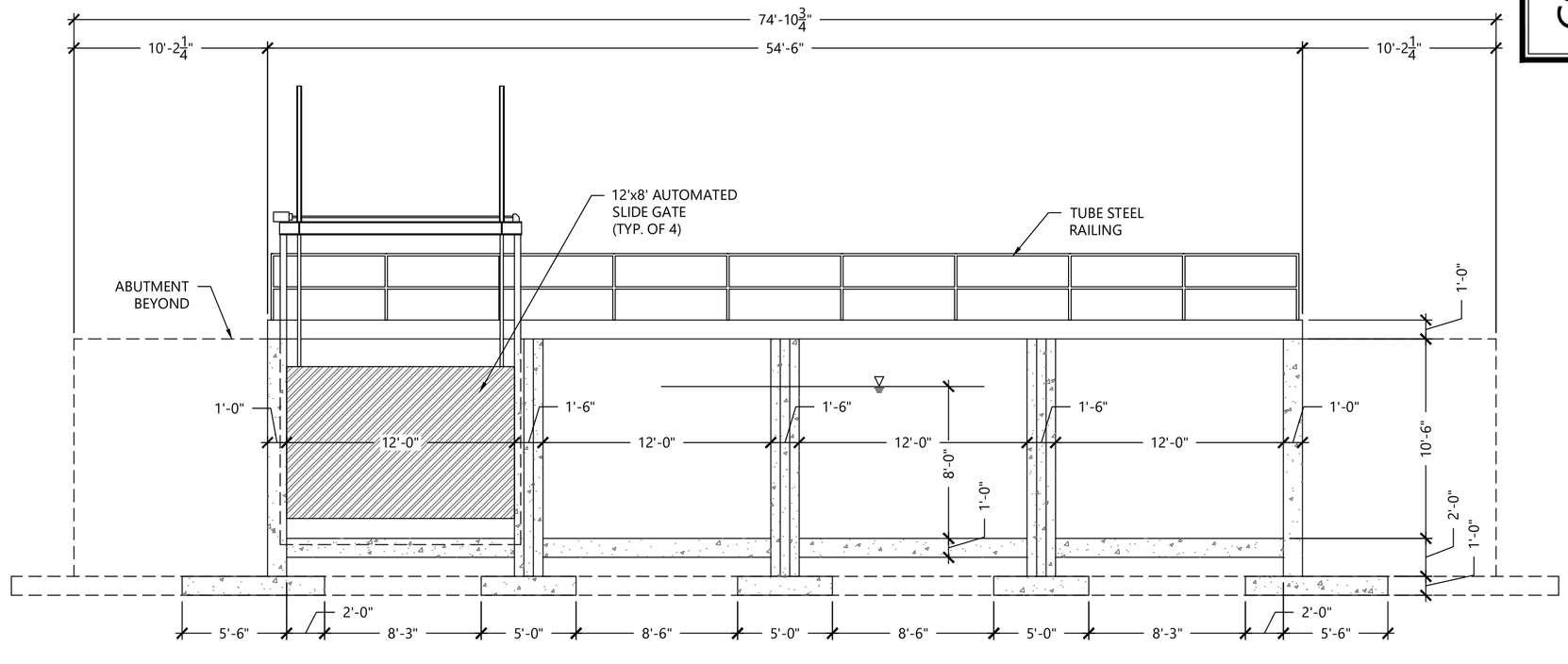
CONCEPT DESIGN

CANAL GATE NOTES

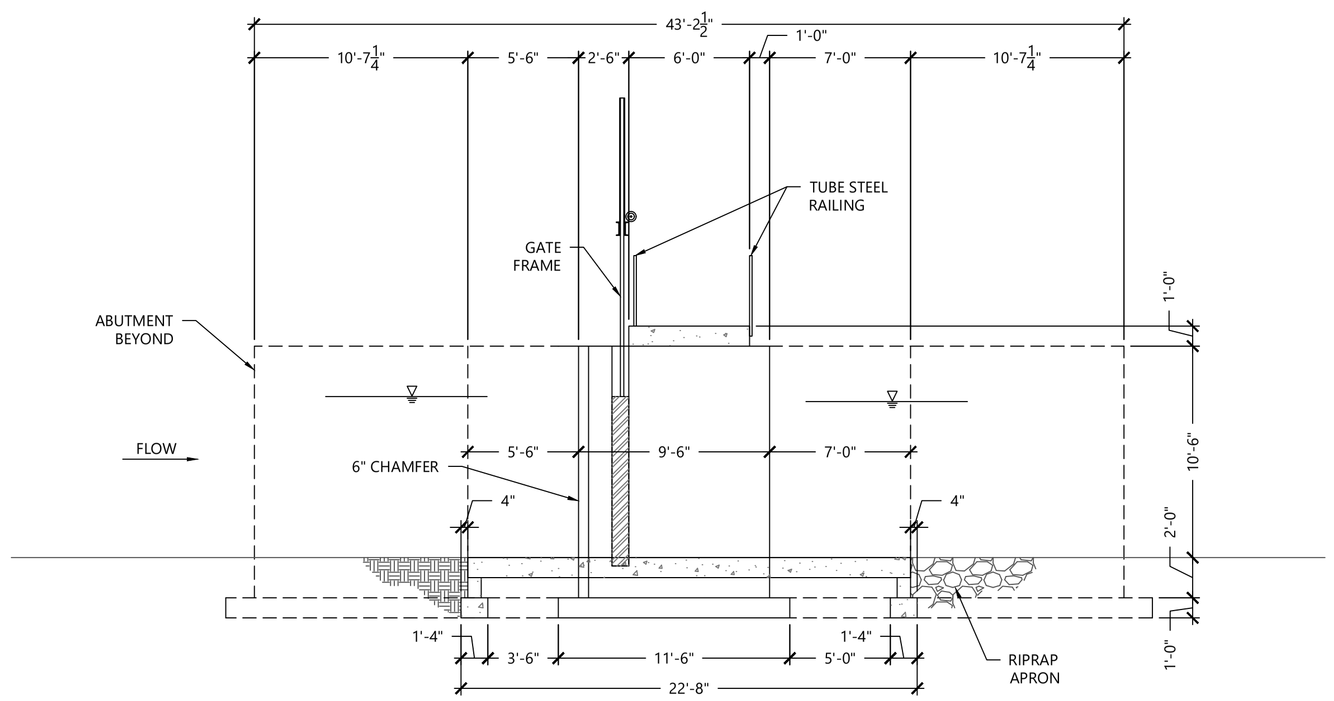
1. CANAL GATES SHOWN AS FOUR 12' WIDE BY 8' TALL STAINLESS STEEL SLIDE GATES. SLIDE GATES SHALL HAVE SELF-CONTAINED FRAME OF 304 STAINLESS STEEL AND IS TO BE CHANNEL MOUNTED WITH NO TOP SEAL.
2. ALL GATES SHALL BE AUTOMATED, ELECTRIC 24 Vdc, FOR WATER LEVEL CONTROL. GATES SHALL INCLUDE THE ABILITY TO BE MANUALLY OPERATED.
3. OWNER OPTION TO PROVIDE THREE 12' WIDE BY 8' TALL SLIDE GATES AND ONE 12' WIDE BY 8' TALL OVERSHOT GATE.
4. PROVIDE BATTERIES AND SOLAR PANEL WITH REGULATOR FOR GATE POWER SUPPLY.
5. PROVIDE ELECTRICAL PANEL INCLUDING AMMETER, LIMIT SWITCHES, OVERLOAD RELAY REVERSING MOTOR STARTERS, SWITCHES, FUSE, AND TERMINAL BLOCKS.
6. SCADA LEVEL CONTROLS TO PROVIDE THE FOLLOWING MINIMUM CAPABILITIES:
   A. COMMUNICATE WATER LEVEL INFORMATION TO MAIN OFFICE FOR ALARMING AND MONITORING PURPOSES.
   B. AUTOMATED GATE CONTROL BASED ON WATER LEVEL.
   C. MANUAL GATE CONTROL OVERRIDE FROM REMOTE OPERATOR.
   D. COORDINATE WITH DISTRICT PRIOR TO CONSTRUCTION FOR ADDITIONAL CONTROLS.
7. SUGGESTED GATE MANUFACTURER INCLUDE:
   A. FRESNO VALVES AND CASTING
   B. AQUA SYSTEMS 2000 INC
   C. RUBICON
   D. WATERMAN VALVE



WH 1 PLAN VIEW
1/8":1'-0"



WH 2 SECTION VIEW
3/16":1'-0"



WH 3 SECTION VIEW
3/16":1'-0"

0 2'-8" 5'-4" 10'-8"
3/16":1'-0"

0 4' 8' 16'
1/8":1'-0"

Rev	Date	Description	By
1.0	5/31/24	DRAFT REPORT	CM
2.0	8/22/24	LEVEL III APPLICATION EXHIBITS	MSP

Title: GOSHEN IRRIGATION DISTRICT
LEVEL I STUDY

62.2 CHECK STRUCTURE

GOSHEN COUNTY, WYOMING

Drawn By: CM
Designed By: MSP
Reviewed By: RLA
Scale: AS SHOWN

WESTERN HERITAGE CONSULTING ENGINEERING
PO BOX 2117
Mills, WY 82644
307.215.7430
info@westernhce.com

Job Number: 23WHC901

Sheet Number: FIGURE 8.1.4

RESOLUTION OF THE GOSHEN IRRIGATION DISTRICT
AUTHORIZING THE INTENT AND APPROVAL TO CONSTRUCT
THE 62.2 CHECK AUTOMATION PROJECT.

I hereby certify that I am Secretary-Treasurer of the Board of Directors of Goshen Irrigation District of Torrington, existing under the laws of the State of Wyoming.

I further certify that a meeting of the Board of Commissioners of Goshen Irrigation District was duly called and held at its office located in Torrington, Wyoming on the 21st day of August 2024, and that at said meeting a quorum was present and voting throughout, and that the following resolution was duly adopted.

BE IT HEREBY RESOLVED that the Goshen Irrigation District Board of Commissioners intend and approve to have constructed and complete the "62.2 Check Automation Project," with funding through the Wyoming Water Development Commission and the Goshen Irrigation District. A sum not to exceed One Million Two Hundred Eighty Thousand Seven Hundred and Thirty-Five Dollars ($1,280,735.00) or fifty percent (50%) of the actual development costs, whichever is less, which shall be dispersed to Goshen Irrigation District according to the terms of this Agreement. The remaining fifty percent (50%) shall be in the form of a loan to be paid back by Goshen Irrigation District to WWDC by the terms of this Agreement. The Board of Commissioners authorizes the Manager, Kevin Strecker to sign payment requests submitted to the WWDC.

Shawn Booth, President
Raymond Lynde, Vice-President
Randy Steben, Secretary-Treasurer
Steve Schmick, Commissioner
Fred Reichert, Commissioner
Kevin Strecker, Manager

I further certify that this resolution is within the power of the Board of Commissioners to pass as provided in the Charter and By-Laws of Goshen Irrigation District.

FOR THE COMMISSIONERS OF GOSHEN IRRIGATION DISTRICT

Randy Steben

Randy Steben, Secretary-Treasurer

STATE OF WYOMING)
) SS
COUNTY OF GOSHEN)

Subscribed in my presence and sworn to before me by Randy Steben on this 21st day of August, 2024.

Linda S. Keeran

Linda S. Keeran, Notary Public

LINDA S. KEERAN
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 146201
MY COMMISSION EXPIRES: 01/11/2028

My Commission Expires: January 11, 2028

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Kirby Creek Spillway Replacement 2025
Program: Rehabilitation
Project Type: Agricultural Irrigation
County: Hot Springs

Sponsor: Kirby Ditch Irrigation District

WWDO Recommendation: Level III
Proposed Budget: $554,000

WWDC Grant[1] (50%)	$ 277,000
WWDC Loan[2] (50%)	$ 277,000
Total	$ 554,000

[1] Not to exceed 50% of eligible project costs
[2] 50% loan at 4% interest and a 30-year term

Project Manager: Brich

Project Description: This project is to rehabilitate the Kirby Creek spillway by replacing the 36-inch diameter spillway pipe, installing a control and measurement gate at the inlet, and installing an energy dissipating outlet structure.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2018	L-II, Kirby Ditch Rehabilitation	$ 100,000
2020	L-III, Kirby Ditch Irrigation District Pipeline	$ 2,310,000
2024	L-III, Kirby Ditch ID Pipeline Phase II	$ 1,882,500

2. **Describe existing water supply using information in the application.**
   The Kirby Ditch Irrigation District (KDID) has a Bighorn River direct flow diversion of 86 cubic feet per second and can contract for water stored in Boysen Reservoir.

3. **Summarize the request.**
   In the spring of 2024, the spillway pipe was found to have failed, creating a large 18-foot diameter sinkhole. The downstream siphon structure appears to be in good condition. There are several locations where joints have separated and cracked causing significant deflection in the pipe and subsequent leakage. As a temporary repair, the spillway pipe was slip lined and the hole was filled; but the spillway was only available for limited operation during the 2024 irrigation season.

   The basis for this request is a “Homebrew” feasibility study submitted by Sage Civil Engineering to the WWDO on July 23, 2024, which investigated rehabilitation alternatives and provided cost estimates. The spillway was constructed in the 1980s and serves to regulate canal stage and flows to downstream users. It is located at about the midpoint of the canal and is directly upstream from the Kirby Creek Siphon, which was constructed in 1998 under a WWDC project.

   The project includes removing and replacing the spillway pipe as well as installing a concrete outlet structure, additional concrete at the inlet structure, a slide gate, anchor blocks, a drain, and vent assemblies. The slide gate and outlet structure will increase the resiliency of the spillway, and improve canal operations.

4. Summarize the reasons for the request.

The project is to rehabilitate the Kirby Creek spillway to protect irrigation infrastructure downstream, maintain canal operability, and more efficiently manage canal spillage.

The structure was temporarily repaired in the Spring of 2024, but is not fully operational. Its failure would have a large impact on the ability of the district to deliver water, and also put other conveyance structures at risk.

The District has requested a loan to ensure the project moves forward efficiently. The NRCS has stated that it may be able to provide up to $175,000 for this project under the EQIP program.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 38,060	
Site Access Permit Fees (BOR, USFS, etc.)	$ 5,300	
Title Opinion	$ 1,100	
Acquisition of Access and Rights of Way	$ 6,300	
Pre-Construction Costs (Subtotal # 1)		$ 50,760
Cost of Project Components		
Mobilization and Removal of Structure	$ 45,000	
Site Preparation and Reclamation	$ 16,900	
Concrete for Outlet and Additional Structure	$ 167,300	
Outlet Measurement and Control Slide Gate (3-feet)	$ 37,200	
Spillway Pipe with Fitting (36-inch Diameter)	$ 35,600	
Anchor Blocks and Placement	$ 31,600	
Vent and Drain Assemblies	$ 47,000	
Construction Cost (Subtotal #2)		$ 380,600
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 38,060
Components and Engineering Costs (Subtotal # 3)		$ 418,660
Contingency (Subtotal #3 x 15%)		$ 62,799
Construction Cost Total (Subtotal #4)		$ 481,459
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 532,219
Inflation Costs (4% per one year)		$ 21,289
Total Project Costs		**$ 553,508**
Total Project Costs(Rounded)		**$ 554,000**
Level III Recommended Funding @ 50% Grant:		**$ 277,000**
Level III Recommended Funding @ 50% Loan:		**$ 277,000**
Ineligible Expenses		
None		$ 0
Total Ineligible Project Costs		**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	5,454	5,454
b. Assessed acres?	3,295	3,295
c. Irrigated acres?	3,295	3,295
d. Average annual water delivery (acre-feet/acre assessed)?	8	8
e. How many individual landowners receive water?	53	53

f. What type(s) of on-farm irrigation water application is used? Flood, side roll, center pivot

g. Briefly describe the main crops and cropping patterns: Irrigated pasture, grass hay, alfalfa hay, row crops, beans, barley, corn

h. Describe the water measuring devices currently in use: SEO gaging station below the headgate; 4 field turnout meters

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	25,733	25,733
b. Average Day Demand (AF):	141	141
c. Peak Day Demand (AF):	190	190

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	210	210
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Controls, Algae	Controls, Algae
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	5	5

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? Shares-One acre equals one share

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$8.94	$13.19
d. If there is a basic service charge in addition to assessments, how much is it?	$75	$75

5. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 33,008	$ 42,631
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 33,008	$ 42,631
Annual budget for operation and maintenance expenses:	$ 44,292	$ 44,292
Annual payments for debt retirement[3]:	$ 0	$ 14,002
Annual payments to a repair and replacement fund:	$ 0	$ 0
Annual payments to an emergency fund:	$ 189	$ 189
Annual payments for other purposes[4]:	$ 0	$ 0
Total annual payments[5]:	$ 44,481	$ 58,483
Balance in repair and replacement fund:	$ 14,154	$ 14,154
Balance in emergency fund:	$ 94,727	$ 94,727

[3] KDID has applied for NRCS EQIP, which could significantly reduce the annual debt service payment
[4] Supplemental Water Storage payment; only realized when there are low water years in Boysen
[5] Budgeted Values; difference with revenue made up with reserves or adjusted assessments to balance the budget

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 1 Level III rehabilitation of water diversion or control structures

2. Will the project serve at least 2,000 water righted acres? Yes Number of acres 3,295

3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? KDID has applied for NRCS-EQIP, and is eligible for BOR WaterSMART.

4. What water conservation measures are employed by the sponsor? Canal to pipeline conversion, re-profiling canal, concrete canal lining, on-farm center pivots, on-farm metering, on-farm gated pipe

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes, the budget is balanced by using reserves and adjusting the assessment rates to pay for unforeseen expenses. The assessment rate is relatively low because the landowners pay for irrigation system repairs such as check structures or headgates out of their own pockets.

6. Can the project be delayed or staged? No Should it be? No, this structure was repaired temporarily, and is not fully operational, which disrupts canal operations. Delaying the project also increases the risks to the canal, downstream structures, and the recently installed pipeline.

7. Basis for the funding recommendation: The project is to rehabilitate a structure that failed in the Spring of 2024, and was not completely operable for the 2024 irrigation season. This structure is necessary to protect downstream irrigation infrastructure, and allow efficient canal operation.

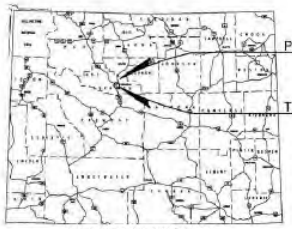
KIRBY CREEK SPILLWAY REHABILITATION STUDY

KIRBY DITCH IRRIGATION DISTRICT

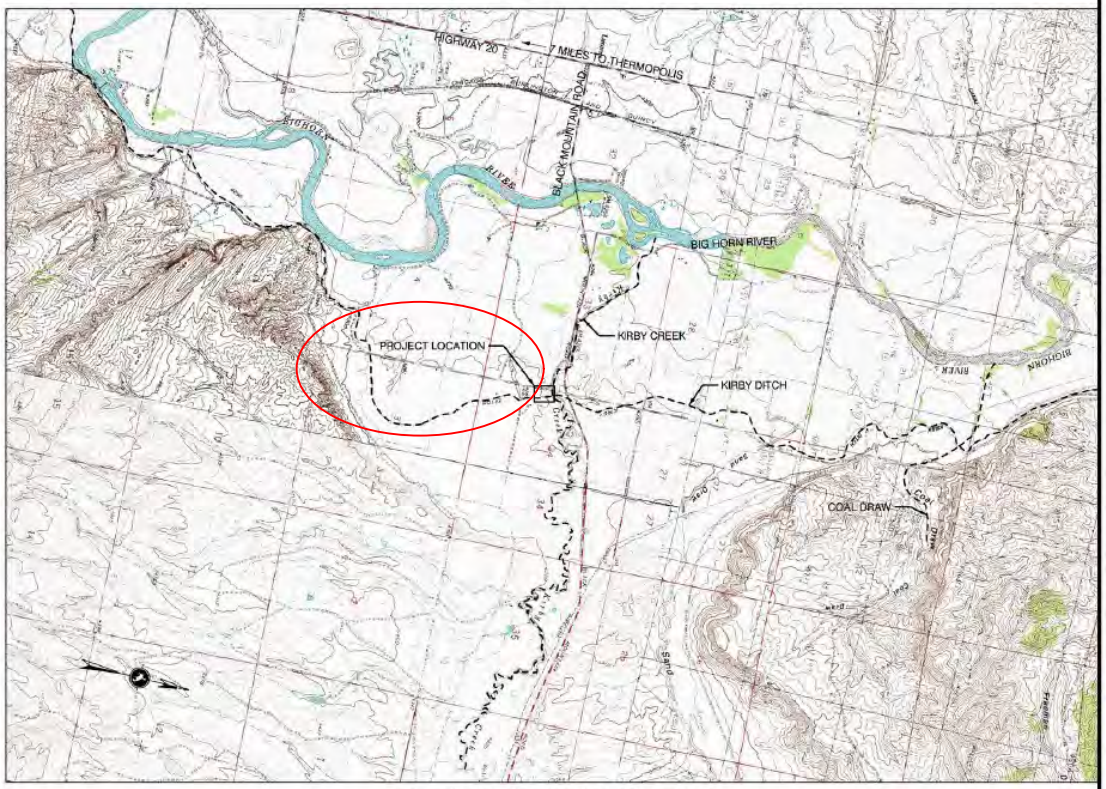
LEGEND

- DITCH FLOW LINE
- STRUCTURE
- OVERHEAD POWER
- IRRIGATION PIPE
- BARBED FENCE
- EDGE OF ROAD
- SANITARY SEWER
- TREATED WATER
- STORM SEWER
- PRIMARY POWER
- SECONDARY POWER
- LIGHT POWER
- GAS LINE
- TELEPHONE LINE
- TELEVISION LINE
- MAJOR CONTOUR (5 FT. INTERVAL)
- MINOR CONTOUR (1 FT. INTERVAL)
- AIR VAC ASSEMBLY
- TREATED WATER SERVICE
- TREATED WATER VALVE
- TREATED WATER TEE
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- SANITARY SEWER SERVICE
- STORM SEWER INLET
- STORM SEWER MANHOLE
- STORM SEWER FLARED END
- ELECTRICAL VAULT
- TRANSFORMER PAD
- SECONDARY PEDESTAL
- STREET LIGHT
- TELEPHONE PEDESTAL
- TELEVISION PEDESTAL
- PROPOSED GAS METER

NOTE: PROPOSED SHOWN AS BLACK/COLOR
EXISTING SHOWN AS GRAY



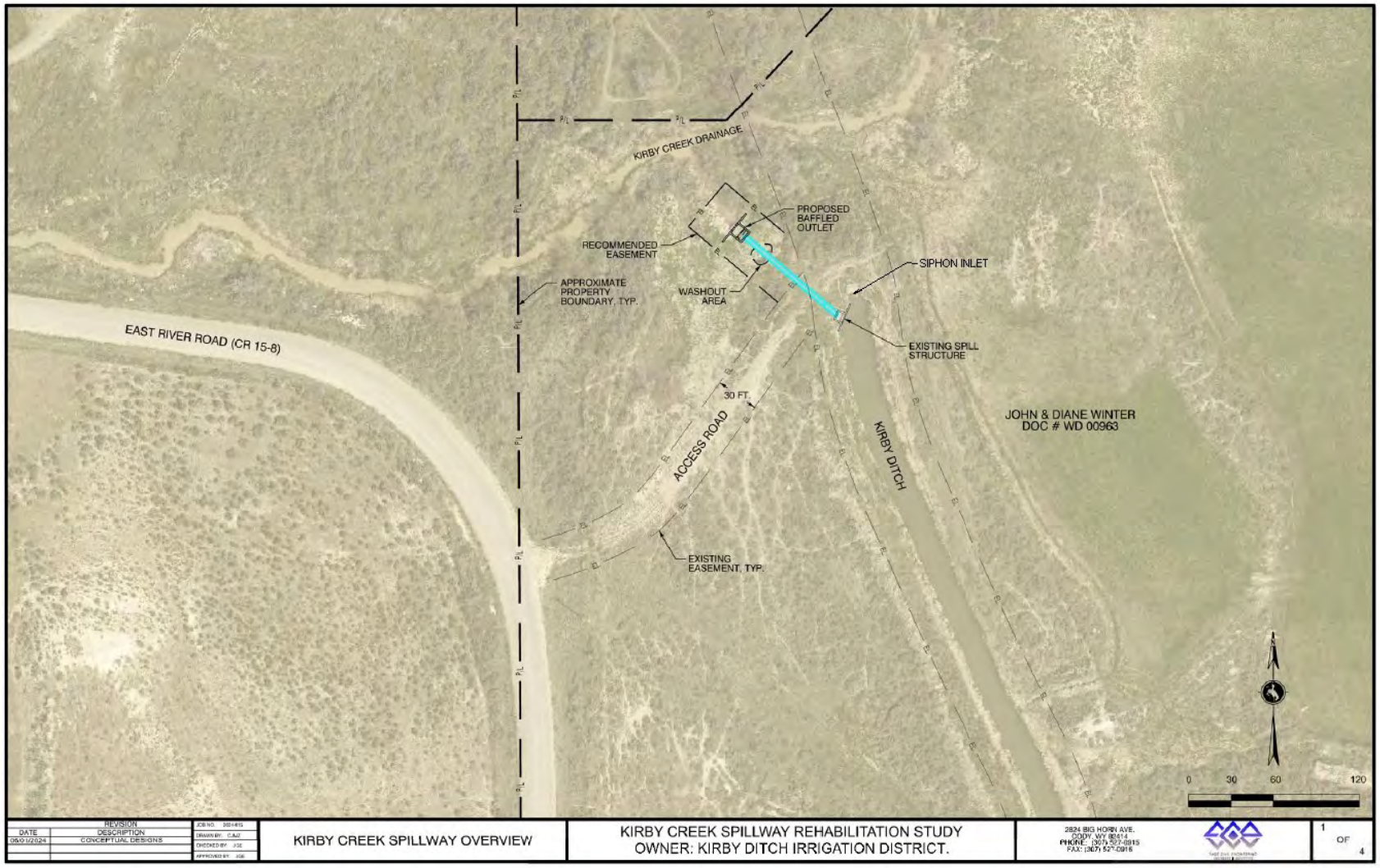
STATE OF WYOMING

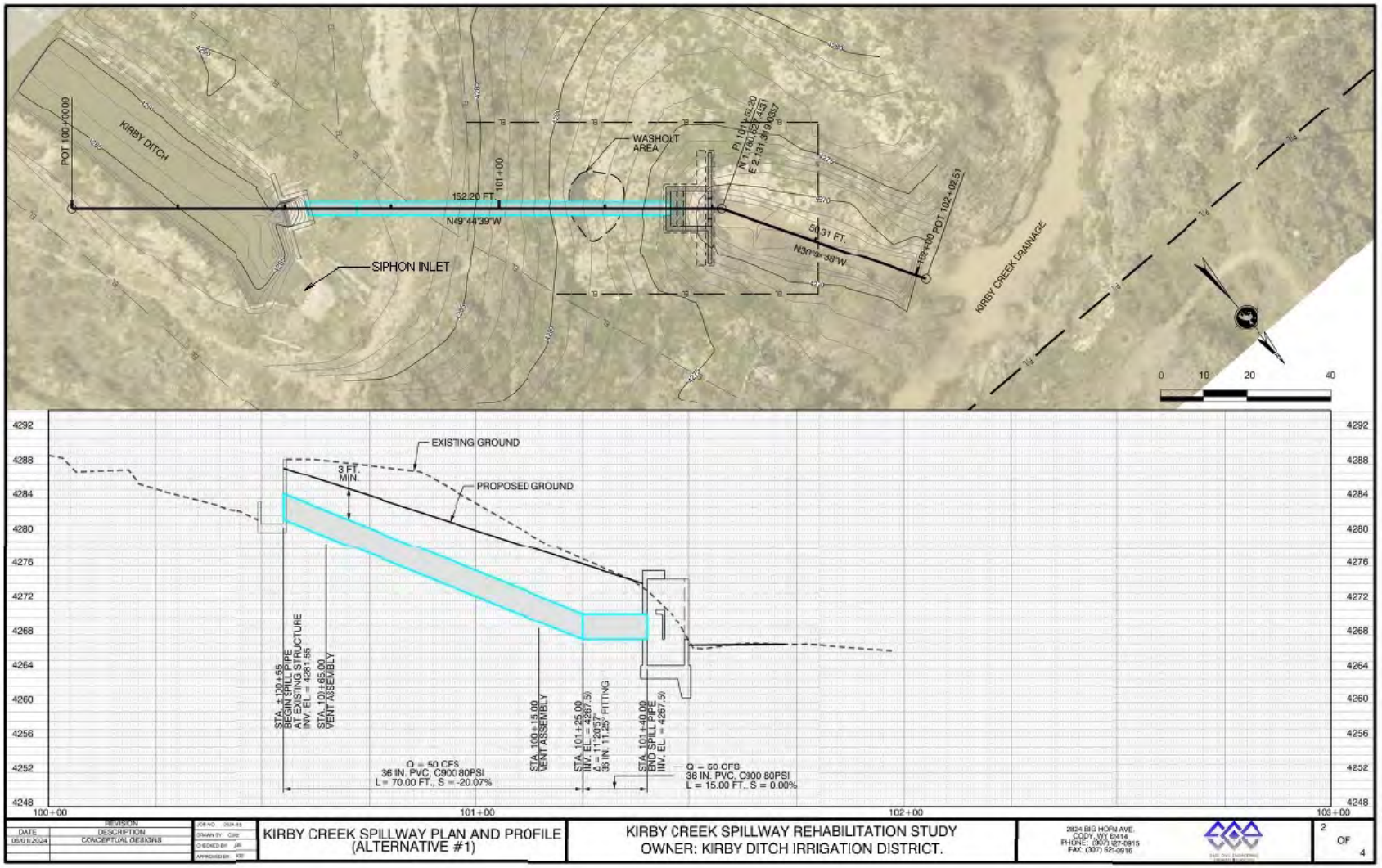


VICINITY MAP - HOT SPRINGS COUNTY, WY

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	PROJECT OVERVIEW
2	ALTERNATIVE #1 PLAN AND PROFILE
3	ALTERNATIVE #2
4	DETAILS

SAGE CIVIL ENGINEERING
2824 BIG HORN AVE.
CODY, WY 82414
PHONE: (307) 527-0915
FAX: (307) 527-0916
DATE: 06/01/2024


KIRBY CREEK DRAINAGE
PROPOSED BAFFLED OUTLET
RECOMMENDED EASEMENT
SIPHON INLET
APPROXIMATE PROPERTY BOUNDARY, TYP.
WASHOUT AREA
EAST RIVER ROAD (CR 15-8)
EXISTING SPILL STRUCTURE
30 FT.
ACCESS ROAD
KIRBY DITCH
JOHN & DIANE WINTER
DOC # WD 00963
EXISTING EASEMENT, TYP.
0
30
60
120
REVISION
DATE
DESCRIPTION
05/01/2024
CONCEPTUAL DESIGNS
JOB NO. 2024-015
DRAWN BY: CJM
CHECKED BY: JSE
APPROVED BY: JSE
KIRBY CREEK SPILLWAY OVERVIEW
KIRBY CREEK SPILLWAY REHABILITATION STUDY
OWNER: KIRBY DITCH IRRIGATION DISTRICT.
2824 BIG HORN AVE.
CODY, WY 82414
PHONE: (307) 527-6915
FAX: (307) 527-0916
1
OF
4



REVISION		JOB NO. 2024-15
DATE	DESCRIPTION	DRAWN BY CJW
05/01/2024	CONCEPTUAL DESIGNS	CHECKED BY JJR
		APPROVED BY KBF

KIRBY CREEK SPILLWAY PLAN AND PROFILE (ALTERNATIVE #1)

KIRBY CREEK SPILLWAY REHABILITATION STUDY
OWNER: KIRBY DITCH IRRIGATION DISTRICT.

2824 BIG HORN AVE.
CODY, WY 82414
PHONE: (307) 527-6615
FAX: (307) 527-6616

2 OF 4

Figure 1.3 Kirby Creek Siphon Inlet.

MEETING MINUTES
KIRBY DITCH IRRIGATION DISTRICT
SPECIAL MEETING
August 14, 2024

Meeting called to order at 7 PM by President Delbert Daniels. Purpose of the meeting to discuss Canal Maintenance, specifically Kirby Creek Spill.

After lengthy discussion Chip Axtell moved to apply to the WWDC for a program to assist with this repair. This will require moving the project to a level III project and requesting funding for the project. It was further moved to appoint Dee J. Hillberry to manage this program and to work with the WWDC to complete this project.

Motion seconded by Dawn Peil.

Motion passed unanimously.

Meeting adjourned at 7:30 PM.

Dawn Peil
Secretary

Delbert Daniels
President

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Meeteetse Trails Estates 2025 **Program:** Rehabilitation

Project Type: Municipal **County:** Park

Sponsor: Town of Meeteetse

WWDO Recommendation: Do Not Fund **Proposed Budget:** $0

WWDC Grant[1] (50%)	$ 590,500
Other Funding Source[2] (50%)	$ 590,500
Total	$ 1,181,000

[1] Not to exceed 50% grant of eligible project costs
[2] Sponsor's responsibility

Project Manager: Verplancke

Project Description: The Town requested this project to provide supply redundancy to parts of the Town of Meeteetse, to improve water quality and to correct deficiencies related to Haloacetic Acids (HAA5) and Total Trihalomethanes (THHM) in the upper pressure zone. The Town feels these goals would be partially achieved by replacing the Antelope Ridge Storage Tank with a new tank that includes a mixer, installing a new mixer in the main storage tank, and installing additional storage at the water treatment plant. The Town is currently looking for additional resources to help make this effort financially feasible.

1. Describe existing status in the program and previous appropriations.

Prior Legislation

Year	Project	Appropriation
2014	L-I, Meeteetse Master Plan	$ 125,800
2016	L-III, Tank/SCADA/Retrofit	$ 93,800

2. Describe existing water supply using information in the application.

The Town of Meeteetse provides municipal drinking water to its residents, and owns and operates its surface water treatment plant (1998). The Town's water is supplied by the Lower Sunshine Reservoir. After treatment, water is sent to the Meeteetse distribution system via a 6.6 mile transmission line (1987). The Town currently has one main storage tank (1976) with a capacity of 500,000-gallons and another smaller storage tank (1996) at Antelope Ridge with a capacity of 200,000-gallons.

3. Summarize the request.

The Town is requesting funding to replace the 200,000-gallon Antelope Ridge Storage Tank with a new tank including a mixer, install a mixer on the main tank, and to install a new 200,000-gallon tank at the water treatment plant. The WWDO considers only the replacement of the Antelope Ridge Storage Tank to be potentially eligible.

4. Summarize the reasons for the request.

By installing the tanks and mixers, the Town wants to improve water quality and to correct deficiencies related to HAA5 and THHM in the upper pressure zone.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 81,475	
Site Access Permit Fees (BOR, USFS, etc.)	$ 12,000	
Title Opinion	$ 1,000	
Acquisition of Access and Rights of Way	$ 10,000	
Pre-Construction Costs (Subtotal # 1)		$ 104,475
Cost of Project Components for Antelope Ridge Tank		
Mobilization, Traffic Control	$ 96,350	
Site Work	$ 180,950	
Piping	$ 34,700	
200,000-Gallon Tank with mixer	$ 495,000	
Reclamation	$ 7,750	
Construction Cost (Subtotal #2)		$ 814,750
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 81,475
Components and Engineering Costs (Subtotal # 3)		$ 896,225
Contingency (Subtotal #3 x 15%)		$ 134,434
Construction Cost Total (Subtotal #4)		$ 1,030,659
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 1,135,134
Inflation Costs (4% per one year)		$ 45,405
Total Project Costs		**$ 1,180,539**
Total Project Costs Rounded		**$ 1,181,000**
Level III Recommended Funding @ 50% Grant:		**$ 590,500**

Ineligible Expenses:

Permit, Rights of Way, etc.	$ 23,000
Engineering, Design & Construction	$ 168,450
Mobilization, Traffic Control	$ 96,325
Site Work	$ 150,950
Piping	$ 34,728
200,000-Gallon Tank with mixer at WTP	$ 495,000
Mixer at Main Tank	$ 50,000
Disinfection of Main Tank & New Tank at Plant	$ 7,500
Reclamation	$ 7,750
Total Ineligible Project Costs	**$ 1,033,703**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2010 Census) 309 (Current Estimate) 309

b. Does the entity have a comprehensive planning boundary? No
If so, what is the estimated additional population that could be served in the future? NA

	Pre-Project	Post Project
c. Taps served within the entity boundaries?	220	220
d. Taps outside the entity boundaries?	16	16
e. Names of other water systems served? None		

2. Water Usage (Potable water system only)	Pre-Project	Post Project
a. Total number of gallons produced by the water sources annually:	30,000,000	30,000,000
b. Gallons used <u>per capita</u> per day:		
Average Day:	168	168
Peak Day:	350	350

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system Gallons per day:	576,000	576,000
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Storage	None
c. Increased capacity needed:		
Acre feet per day	0	0
Gallons per day	0	0
d. Estimated system water losses (percentage):	10%	10%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day):	NA
b. Average annual raw water usage (acre feet & gallons):	NA

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 2,500	$ 2,500
Commercial:	$ 4,500	$ 4,500
b. Average monthly water bill:	$ 47.50	$ 49.00

c. Water Rates

The rates for metered water sold within the Town limits shall be as follows:

Type of use	Minimum Gallons Per Month	Minimum Rate Fee Per Month	Additional Fee Per 1,000 Gallons Over Minimum
Residential	6,000 or less	$47.50	$5.85
Outside	5,000 or less	$62.90	$5.85
Business	5,000 or less	$55.20	$5.85
Bed/Breakfast	5,000 or less	$55.20	$5.85
School	5,000 or less	$55.20	$5.85
Pool/Class	20,000 or less	$163.00	$5.85
Trailer Court	30,000 or less	$203.00	$5.85
Cafés	10,000 or less	$93.70	$5.85
Bars	8,000 or less	$78.30	$5.85
Convenience Store	14,000 or less	$124.50	$5.85
Motels	14,000 or less	$124.50	$5.85

The rate for metered water sold outside the corporate limits shall be as follows unless otherwise provided by the town council, an shall be as follows:

Minimum Gallons Per Month	Minimum Rate Fee Per Month	Additional Fee Per 1,000 Gallons Over Minimum
5,000 or less	$62.90	$5.85

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 187,484	$ 187,484
Annual revenues from tap fees:	$ 2,500	$ 2,500
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 189,984	$ 189,984
Annual budget for operation and maintenance expenses:	$ 191,357	$ 191,357
Annual payments for debt retirement:	$ 18,000	$ 18,000
Annual payments to a repair and replacement fund:	$ 2,000	$ 2,000
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 1,000	$ 1,000
Total annual payments:	$ 212,357	$ 212,357
Budgeted values, if needed supplemented with reserves.		
Balance in repair and replacement fund:	$ 42,473	$ 42,473
Balance in emergency fund:	$ 33,699	$ 33,699
Annual cost of water quality testing:	$ 7,124	$ 7,124

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 4 Level III rehabilitation of existing water storage tanks

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes, see attached resolution

3. Will the project serve at least 15 water taps? Yes Number of taps 236

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No, they have a WDEQ violation for discharge issues, but no documented EPA mandates were found.

5. Does anyone in the service area haul water? Yes

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: RUS, SLIB, SRF

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $47.50 20,000 gallons? $129.40

9. Theoretical reasonable monthly water bill ($29,241 (AMHI) x 2.5%/12) $81.75

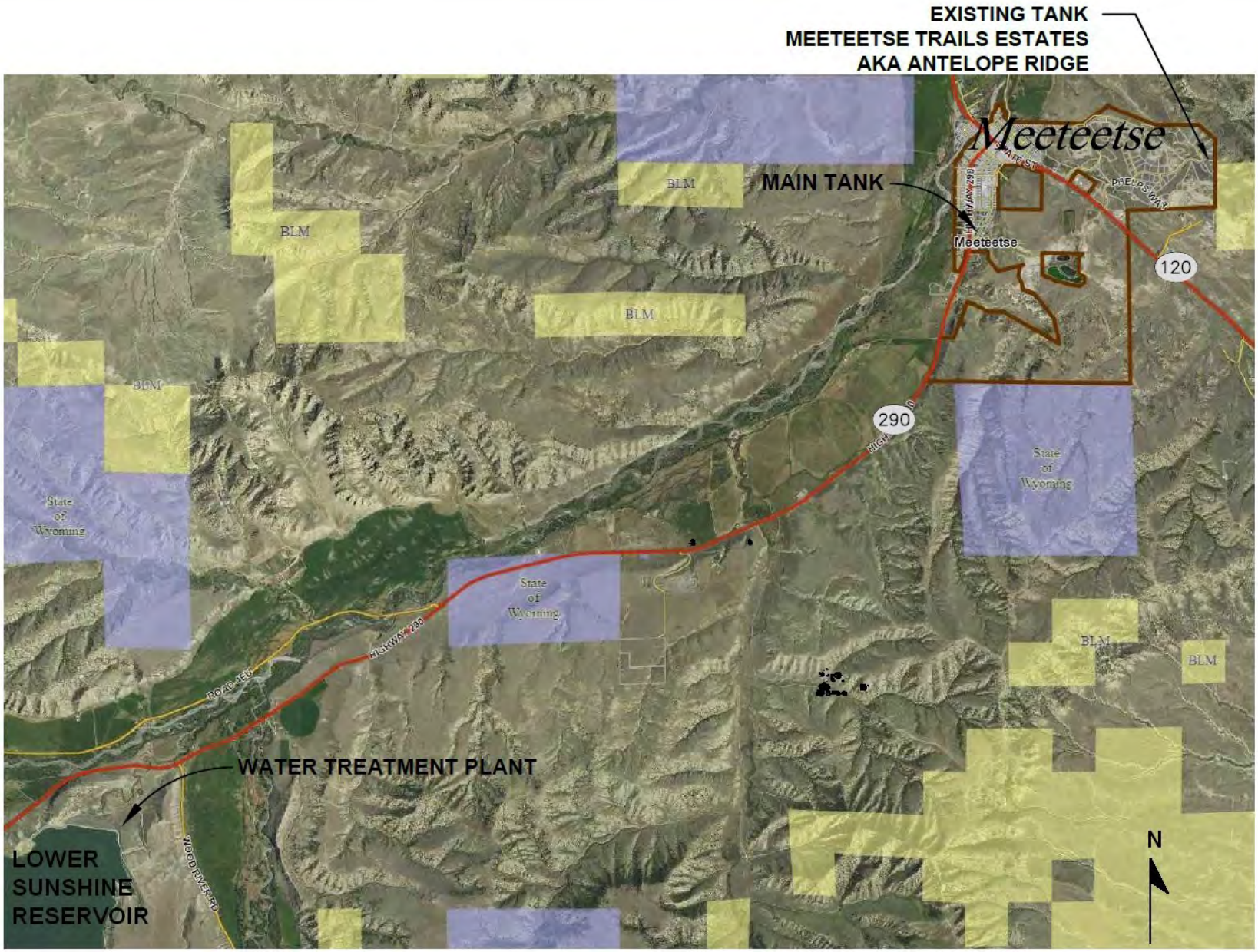
10. What water conservation measures are employed by the sponsor? Yes, tiered rates and meters

11. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

12. Will the project consider regional solutions? No

13. Can the project be delayed or staged? Yes Should it be? Yes, until the existing 500,000-gallon tank can no longer be maintained.

14. Basis for the funding recommendation: No study provided to support work being proposed, 2014 Meeteetse Master Plan Level I Study indicates sufficient storage and lists no issues with the Antelope Ridge Storage Tank. The 2014 Study also indicates that the Town has over twice the amount of storage needed. Majority of the work is related to water quality and treatment. The Town does have DWSRF funds $1,678,838 and SLIB-MRG funds $324,581, which can be used for water treatment.


EXISTING TANK
MEETEETSE TRAILS ESTATES
AKA ANTELOPE RIDGE
MAIN TANK
WATER TREATMENT PLANT
LOWER
SUNSHINE
RESERVOIR
Meeteetse
Meeteetse
BLM
BLM
BLM
BLM
BLM
BLM
State
of
Wyoming
State
of
Wyoming
State
of
Wyoming
120
290
HIGHWAY 290
HIGHWAY 290
ROAD 14
WOOD WATER RD
N

Resolution No. 2024-05

Entitled: A RESOLUTION AUTHORIZING SUBMISSION OF A LEVEL III CONSTRUCTION PROJECT GRANT APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION ON BEHALF OF THE GOVERNING BODY OF THE TOWN OF MEETEETSE.

FOR THE PURPOSE OF: MEETEETSE TRAILS ESTATES/TOWN WATER PLANT WATER TANKS PROJECTS FOR THE TOWN OF MEETEETSE.

WITNESSETH

WHEREAS, the Governing Body of the TOWN OF MEETEETSE desires to participate in the GRANT funded through Wyoming Water Development Commission whom will assist in financing this project; and

WHEREAS, the Governing Body of the TOWN OF MEETEETSE recognizes the need for the project; and

WHEREAS, the Project requires that certain criteria be met, as described in the Wyoming Water Development Commission's Project Rules, and to the best of our knowledge this application meets those criteria, and

WHEREAS, the Governing Body of the TOWN OF MEETEETSE plans to match the requested Project Grant from the following sources:(s): STATE OF WYOMING SRF-DW- $1,678838.00, SLIB-MRG- $324,581.00.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE TOWN OF MEETEETSE that a firm commitment is made to submit a Level III Project Grant to Wyoming Water Development Commission in the amount of $324,581.00. .

BE IT FURTHER RESOVLED, that J. W. Yetter, Mayor and Angela R. Johnson, Clerk/Treasurer are hereby designated as the authorized representatives of the TOWN OF MEETEETSE to act on behalf of the Governing Body on all matters relating to this grant application.

PASSED, APPROVED AND ADOPTED THIS 7TH day of August, 2024.

Mayor

Councilman

Councilman

Councilman

Councilman

ATTEST:

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Rawlins Sage Creek Pipeline 2025 **Program:** Rehabilitation

Project Type: Municipal **County:** Carbon County

Sponsor: City of Rawlins

WWDO Recommendation: Level III **Proposed Budget:** $2,835,000

WWDC Grant[1] (50%)	$ 2,835,000
Other Funding Source[2] (50%)	$ 2,835,000
Total	$ 5,670,000

[1] Not to exceed 50% of eligible costs.
[2] Sponsor or other funding source.

Project Manager: Moser/Mitchell

Project Description: The Sage Creek Transmission Pipeline project is a replacement/modification of 16 blow-offs, 97 air and vacuum stations, and 12 in-line valves. In addition, this project will restore cathodic protection to the pipeline.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2008	L-I Rawlins Master Plan	$ 150,000
2009/10	L-III Rawlins Atlantic Rim Pipeline	$ 3,900,000
2010/11	L-III Rawlins Pipeline & Atlantic Rim Reservoir	$ 6,600,000
2011	L-I Rawlins Operations Study	$ 200,000
2023	L-I Rawlins Water Master Plan	$ 250,000

2. **Describe existing water supply using information in the application.**
   The City of Rawlins receives water from the Sage Creek Springs, located approximately 30 miles south of the City. In addition, three wells (completed in the Nugget Sandstone), supply water to the shared transmission line. Finally, Rawlins utilizes a surface-water intake from the North Platte, which is a common point of diversion for Sinclair water rights, and subject to an Agreement between Rawlins and Sinclair to exchange water rights for treated municipal water. While the North Platte intake can supply water to the treatment plan, it is predominantly used to supply raw water to the golf course for large-scale landscape watering.

3. **Summarize the request.**
   This request is for funding to rehabilitate the Sage Creek transmission line which provides water from both the Sage Creek Springs and the Nugget Sandstone wells. The project will consist of replacing leaking blow-off valves and restoring the cathodic protection for the transmission line.

4. **Summarize the reasons for the request.**
   The 2024 Rawlins Water Master Plan identified the Sage Creek transmission line as the highest priority project to secure reliable water for Rawlins. The transmission line conveys water from two critical sources to the water treatment plant. Without restoring the failing components of this transmission line, Rawlins is vulnerable to supply deficiencies and at risk of not supplying water to the users.

Estimated Level III WWDC Ineligible Costs:

Preparation of Final Designs and Specifications (5%)	$ 206,733	
Site Access Permit Fees (BOR, USFS, etc.)	$ 5,000	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 5,000	
Pre-Construction Costs (Subtotal # 1)		$ 221,733
Cost of Project Components		
Mobilization and Bonds (30%)	$ 954,150	
Replace Blow-off Valve Bolts (2)	$ 138,000	
Remove Blow-off Piping and Valve, Install Blind Flange (6)	$ 480,000	
Removal of Blow-off Valve and Install New 6" Blow-off (8)	$ 792,000	
Install 20" and 18" Line Valve (4 new, 3 replacement) (7)	$ 336,000	
Install 24" Line Valve (4 new, 1 replacement) (5)	$ 310,000	
Replace 3" Air-Vacuum Valve (97)	$ 824,500	
Corrosion Protection – deep anode groundbed, test station repairs, joint bonds	$ 250,000	
Reclamation	$ 50,000	
Construction Cost (Subtotal #2)		$ 4,134,650
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 413,465
Components and Engineering Costs (Subtotal # 3)		$ 4,548,115
Contingency (Subtotal #3 x 15%)		$ 682,217
Construction Cost Total (Subtotal #4)		$ 5,230,332
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 5,452,065
Inflation Costs (4% per one year)		$ 218,083
Total Project Costs		**$ 5,670,148**
Total Project Costs Rounded		**$ 5,670,000**
Level III Recommended Funding @ 50% Grant:		**$ 2,835,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2010 Census) 9,001 (Current Estimate) 8,916

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 10,123

	Pre-Project	Post-Project
c. Taps served within the entity boundaries?	3,800	3,800
d. Taps outside the entity boundaries?	2	2

e. Names of other water systems served? Town of Sinclair

2. Water Usage (Potable water system only)	Pre-Project	Post-Project
a. Total number of gallons produced by the water sources annually:	690MG	690MG
b. Gallons used <u>per capita</u> per day:		
Average Day:	212 gal	212 gal
Peak Day:	400 gal	400 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system Gallons per day:	4MGD	4MGD
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Treatment	Treatment
c. Increased capacity needed:		
Acre feet per day	0	0
Gallons per day	0	0
d. Estimated system water losses (percentage):	22%	20%

4. Does the entity have an independent raw water irrigation system? Yes, for the golf course

a. Raw water system capacity (acre feet per day & gallons per day): 1.4MGD

b. Average annual raw water usage (acre feet & gallons): 420 Acre-Feet

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 1,000	$ 1,000
Commercial:	$ 7,999	$ 7,999
b. Average monthly water bill:	$ 76.06	$ 76.06
c. Water Rates		
Monthly Rate by Meter:		

Water Utility: Inside Corporate Limits Type	Meter	Pre Amount	Post Amount
Displacement	0.625"	29.48	53.06
Displacement	0.75"	29.48	53.06
Displacement	1"	32.96	59.33
Displacement	1.5"	38.77	69.79
Displacement	2"	45.75	82.34
Displacement	2.5"	56.19	101.14
Singlet	3"	64.32	115.78
Compound, Class I	3"	64.32	115.78
Turban, Class I	3"	67.81	122.06
Singlet	4"	85.23	153.41
Compound, Class I	4"	85.32	153.58
Turban, Class I	4"	99.17	178.51
Singlet	6"	143.31	257.96
Compound, Class I	6"	143.51	258.32
Turban, Class I	6"	178.15	320.67
Compound, Class I	8"	213.00	383.40
Turban, Class I	8"	352.39	634.30
Turban, Class III	10"	515.00	927.00

Usage Charges:

Type		Pre Amount	Post Amount
Monthly Commodity Charge (all types)	Per 1,000 Gallons	3.48	4.63
Glenn Addition Fixed Rate	Per Month	47.00	62.51
Construction Water - Treated	Per 1,000 Gallons	8.70	11.57
RPZ Meter Fire Hydrant Assemble Deposit	Each	2,800.00	2,800.00
RPZ Meter Fire Hydrant Usage Fee	Per Day	10.00	10.00
Delinquent Fee	Per Month	10.00	10.00
Delinquent Reconnect Water Fee	Per Facility	60.00	60.00
Shut-Off Notice Fee	Per Facility	5.00	5.00
Non-Emergency Shut-off Request	Per Request	Minimum One Hour	Minimum One Hour
After Hours Shut Off	Per Request	Actual Cost	Actual Cost
Raw Water from North Platte River	Per 1,000 Gallons	5.00	5.00

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 4,483,131	$ 4,483,131
Annual revenues from tap fees:	$ 1,500	$ 1,500
Annual revenues from other sources:	$ 620,000	$ 620,000
Total annual revenues:	$ 5,104,631	$ 5,104,631
Annual budget for operation and maintenance expenses:	$ 1,977,653	$ 1,977,653
Annual payments for debt retirement:	$ 598,978	$ 598,978
Annual payments to a repair and replacement fund:	$ 0	$ 0
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 2,528,000	$ 2,528,000
Total annual payments:	$ 5,104,631	$ 5,104,631
Balance in repair and replacement fund:	$ 1,274,440	$ 1,274,440
Balance in emergency fund:	$ 2,307,933	$ 2,307,933
Annual cost of water quality testing:	$ 8,000	$ 8,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 10 replacement of water system controls & control valves

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes

3. Will the project serve at least 15 water taps? Yes Number of taps 3,800

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No

5. Does anyone in the service area haul water? No

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: DWSRF, SLIB, USDA

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $76.21 20,000 gallons? $145.66

9. Theoretical reasonable monthly water bill ($68,996 (AMHI) x 2.5%/12) $143.74
(*AMHI from City of Rawlins 2021 Data Based on American Community Survey 5-Year Estimates)

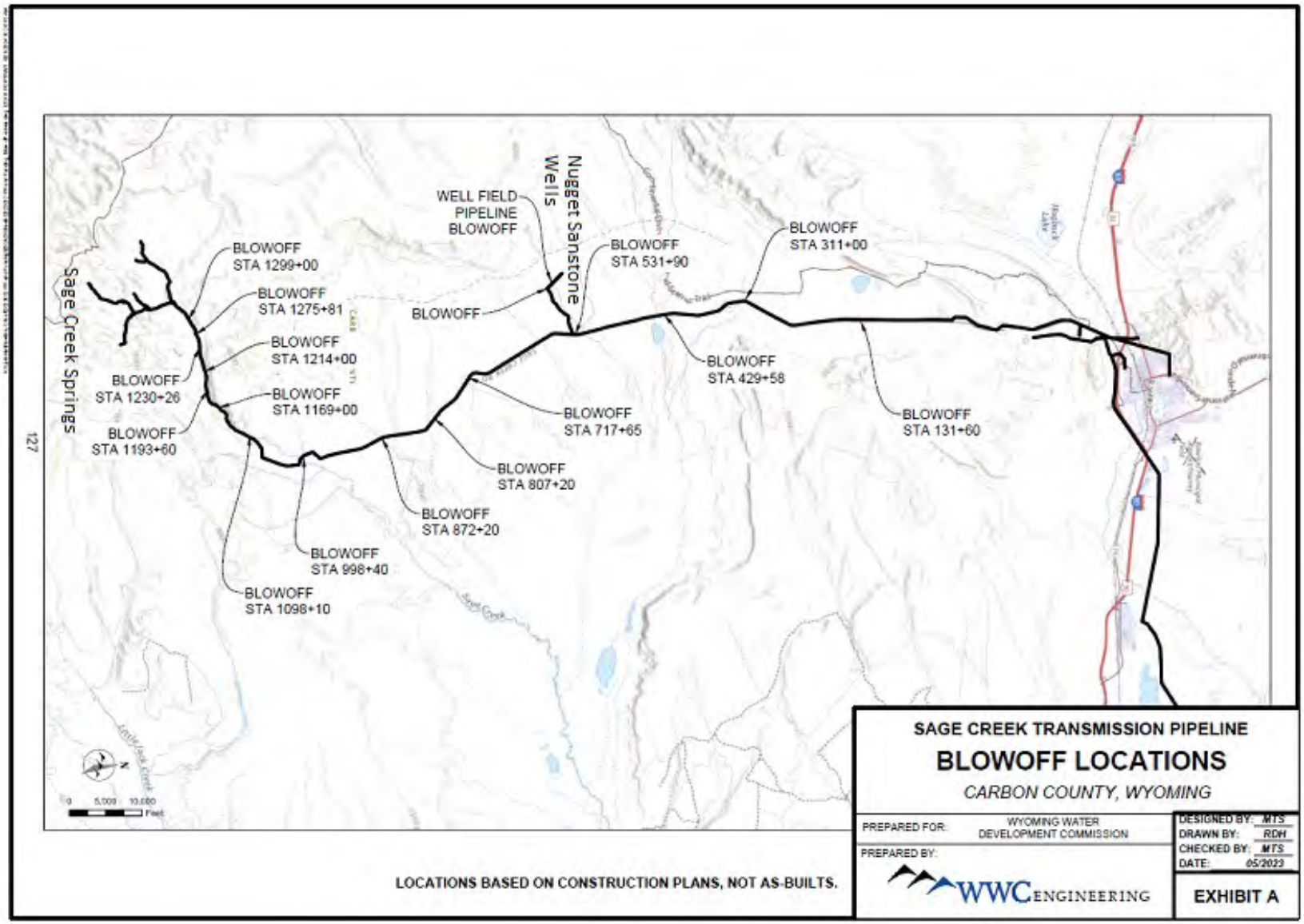
10. What water conservation measures are employed by the sponsor? Tiered rates and watering restrictions as needed.

11. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

12. Will the project consider regional solutions? No, Rawlins is currently part of a regional system in coordination with the Town of Sinclair

13. Can the project be delayed or staged? Yes Should it be? No, the costs related to mobilization and demobilization for this type work will likely increase the overall costs considerably if phased.

14. Basis for the funding recommendation: The components have reached end of life, while the main pipeline remains viable. Replacing the components and installing proper cathodic protection will increase the overall longevity of the pipeline.


Sage Creek Springs
Nugget Sanstone Wells
WELL FIELD PIPELINE BLOWOFF
BLOWOFF STA 1299+00
BLOWOFF STA 1275+81
BLOWOFF STA 1214+00
BLOWOFF STA 1169+00
BLOWOFF STA 1230+26
BLOWOFF STA 1193+60
BLOWOFF
BLOWOFF STA 531+90
BLOWOFF STA 311+00
BLOWOFF STA 429+58
BLOWOFF STA 131+60
BLOWOFF STA 717+65
BLOWOFF STA 807+20
BLOWOFF STA 872+20
BLOWOFF STA 998+40
BLOWOFF STA 1098+10
SAGE CREEK TRANSMISSION PIPELINE
BLOWOFF LOCATIONS
CARBON COUNTY, WYOMING
PREPARED FOR: WYOMING WATER DEVELOPMENT COMMISSION
PREPARED BY: WWC ENGINEERING
DESIGNED BY: MTS
DRAWN BY: RDH
CHECKED BY: MTS
DATE: 05/2023
EXHIBIT A
LOCATIONS BASED ON CONSTRUCTION PLANS, NOT AS-BUILTS.

DETAILS

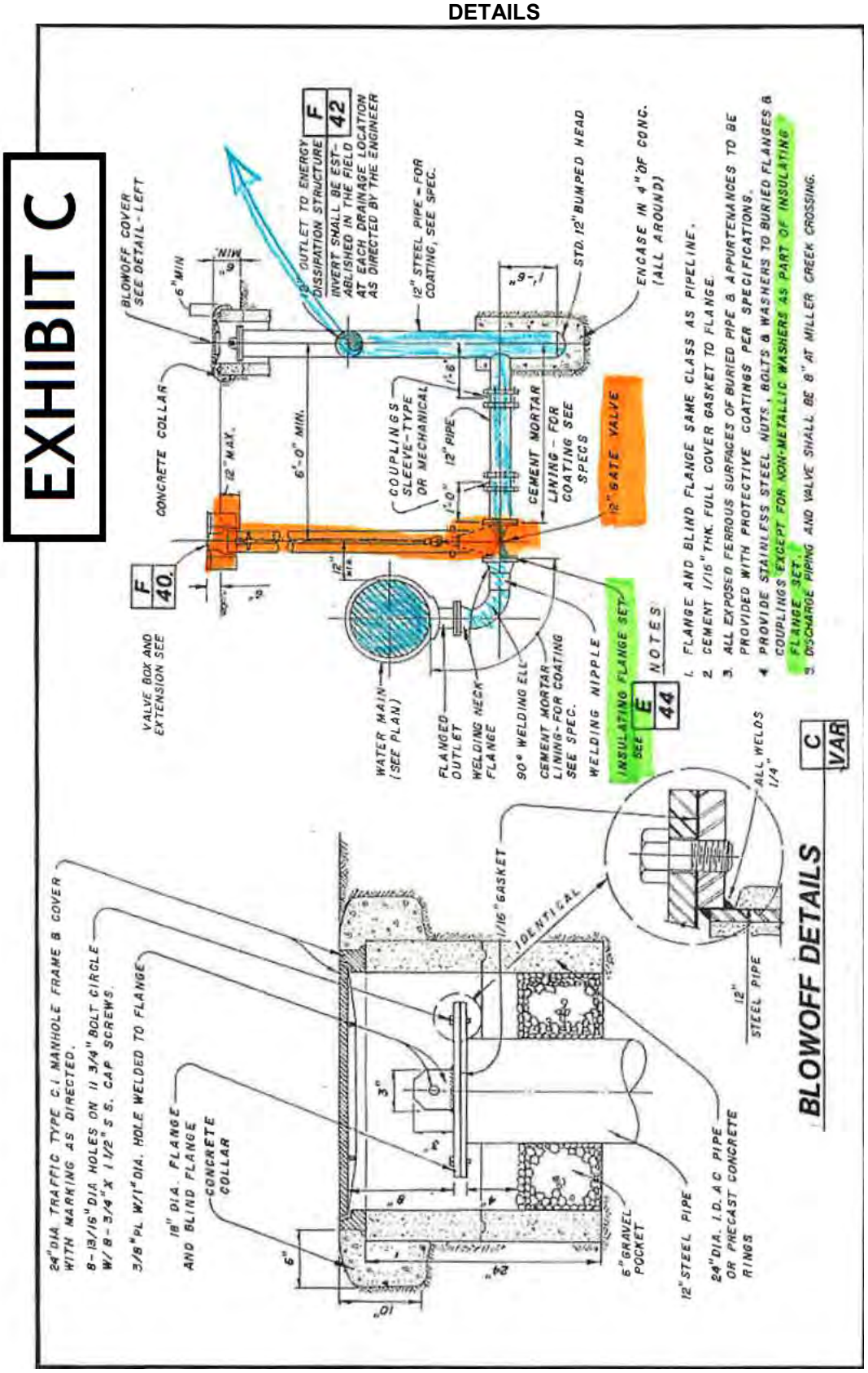


EXHIBIT C
BLOWOFF DETAILS
NOTES
1. FLANGE AND BLIND FLANGE SAME CLASS AS PIPELINE.
2. CEMENT 1/16" THK. FULL COVER GASKET TO FLANGE.
3. ALL EXPOSED FERROUS SURFACES OF BURIED PIPE & APPURTENANCES TO BE PROVIDED WITH PROTECTIVE COATINGS PER SPECIFICATIONS.
4. PROVIDE STAINLESS STEEL NUTS, BOLTS & WASHERS TO BURIED FLANGES & COUPLINGS EXCEPT FOR NON-METALLIC WASHERS AS PART OF INSULATING FLANGE SET.
5. DISCHARGE PIPING AND VALVE SHALL BE 8" AT MILLER CREEK CROSSING.
24"DIA. TRAFFIC TYPE C.I. MANHOLE FRAME & COVER WITH MARKING AS DIRECTED.
8-13/16"DIA HOLES ON 11 3/4" BOLT CIRCLE W/ 8-3/4"X 1 1/2" S.S. CAP SCREWS.
3/8"PL W/1"DIA. HOLE WELDED TO FLANGE
18" DIA. FLANGE AND BLIND FLANGE
CONCRETE COLLAR
6"
3"
5"GRAVEL POCKET
12" STEEL PIPE
24"DIA. I.D. A.C. PIPE OR PRECAST CONCRETE RINGS
1/16" GASKET
IDENTICAL
ALL WELDS 1/4"
12" STEEL PIPE
INSULATING FLANGE SET SEE E 44
BLOWOFF COVER SEE DETAIL - LEFT
CONCRETE COLLAR
6"MIN
12" MAX.
6'-0" MIN.
VALVE BOX AND EXTENSION SEE F 40
WATER MAIN (SEE PLAN)
FLANGED OUTLET
WELDING NECK FLANGE
90° WELDING ELL
CEMENT MORTAR LINING - FOR COATING SEE SPEC.
WELDING NIPPLE
12" OUTLET TO ENERGY DISSIPATION STRUCTURE
INVERT SHALL BE ESTABLISHED IN THE FIELD AT EACH DRAINAGE LOCATION AS DIRECTED BY THE ENGINEER
F 42
12" STEEL PIPE - FOR COATING, SEE SPEC.
COUPLINGS SLEEVE-TYPE OR MECHANICAL
12" PIPE
1'-0"
CEMENT MORTAR LINING - FOR COATING SEE SPECS
12" GATE VALVE
STD. 12" BUMPED HEAD
ENCASE IN 4" OF CONC. (ALL AROUND)

PHOTOGRAPHS

Leaking Blow-off Valves

RESOLUTION

WHEREAS, the City of Rawlins strategic planning process has identified the need to invest in infrastructure of the water service delivery system that supplies the City of Rawlins and the Town of Sinclair by repairing and replacing certain aspects of the water service delivery system; and,

WHEREAS, the Wyoming Water Development Commission (WWDC) provides the enabling legislation for this funding program; and,

WHEREAS, the Wyoming Water Development Commission (WWDC) requires that certain criteria be met, as described in the application governing the Level III Construction funding and to the best of the knowledge of the City of Rawlins, this application meets the criteria; and,

WHEREAS, the City of Rawlins agrees to work in cooperation through an agreement with the Wyoming Water Development Commission (WWDC) to meet established deadlines for the project.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF RAWLINS, WYOMING, that an application for the Water Development Commission (WWDC) be submitted on behalf of the City of Rawlins, Wyoming.

BE IT FURTHER RESOLVED BY THE GOVERNING BODY OF THE CITY OF RAWLINS, WYOMING, that Mayor Terry L Weickum, as the chief elected official is authorized to execute all documents relating to this grant application.

BE IT FURTHER RESOLVED BY THE GOVERNING BODY OF THE CITY OF RAWLINS, WYOMING, that City Manager Thomas E Sarvey is hereby designated to act as the authorized representatives on matters relating to this grant application.

PASSED, APPROVED AND ADOPTED this 30th, day of August, 2024.

CITY OF RAWLINS, a
Wyoming Municipal Corporation

Terry L Weickum, Mayor

ATTEST:

Lynn M Shearer, City Clerk

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Saratoga Water Tank 2025

Program: New Development

Project Type: Municipal

County: Carbon

Sponsor: Town of Saratoga

WWDO Recommendation: Do Not Fund

Proposed Budget: $0

WWDC Grant[1] (50%)	$ 1,200,000
Other Funding Source[2] (50%)	$ 1,200,000
Total	$ 2,400,000

[1] Not to exceed 50% of eligible costs
[2] Sponsor or other funding source

Project Manager: Verplancke

Project Description:
When the Saratoga Water Master Plan, Level I Study was completed in 2019, the Town had two existing tanks. The oldest was a welded steel tank built in 1979, and the other was a bolted steel tank constructed in 2002. The 2019 Master Plan recommended removing the bolted steel tank, which was dismantled in 2023.

The existing 1MG welded steel tank can only provide a useful storage volume of 600,000 gallons and was last rehabilitated in 2005. A major issue with the welded tank is its water age, as it floats within the system—meaning it has only one line serving both as the inlet and outlet.

The 2019 Master Plan recommended the construction of a new 750,000-gallon tank located on the transmission line at a higher elevation, while the existing welded tank remains in service. Building this new tank would help the Town maintain redundancy in storage, while also providing further backup by positioning storage on both sides of the river, a desire of the Town. This new tank is the second priority outlined in the Master Plan.

The Town has already completed the rehabilitation of the well field, which was the first priority. The third priority in the 2019 Master Plan involves adding mixers to the existing tanks, which would also help mitigate the water age issue. According to the WWDO, a mixer has not yet been added to the existing welded tank.

The Town is now requesting funding to construct the new 750,000-gallon storage tank along the existing transmission line from the well field to the Town, in addition to the current 1MG storage tank.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2018	L-I, Saratoga Water Master Plan	$ 175,000

2. **Describe existing water supply using information in the application.**
   The Town has 5 municipal wells in the North Park Formation ranging in depths from 305 to 430 feet. The design capacity is 925 GPM for the total field. The water reaches the Town's transmission/distribution system by means of a 3.8-mile transmission line. The Town's transmission/distribution system includes three river crossings. The system is all in one pressure zone

controlled by the existing storage tank. The Town currently has one storage tank as described previously. Per the 2019 Master Plan, the existing 1MG welded tank meets required storage for its current and forecasted water demands, and with the proper upkeep, is in a good position to remain adequate for at least the next 10-15 years.

3. Summarize the request.
The Town is requesting funding to build a new 750,000-gallon storage tank along the existing transmission line from the well field to Town.

4. Summarize the reasons for the request.
Building this new tank would help the Town retain its redundancy with storage while also providing further redundancy by having storage located on both sides of the river. The Town also believes it would help with water age problems.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 165,500	
Site Access Permit Fees (BOR, USFS, etc.)	$ 7,500	
Title Opinion	$ 5,000	
Acquisition of Access and Rights of Way	$ 22,500	
Pre-Construction Costs (Subtotal # 1)		$ 200,500
Cost of Project Components		
General-Mobilization, Bonds, etc.	$ 94,000	
Site Work	$ 79,000	
750,000-Gallon Steel Tank with Mixer	$ 1,408,000	
Piping	$ 56,000	
Reclamation	$ 18,000	
Construction Cost (Subtotal #2)		$ 1,655,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 165,500
Components and Engineering Costs (Subtotal # 3)		$ 1,820,500
Contingency (Subtotal #3 x 15%)		$ 273,075
Construction Cost Total (Subtotal #4)		$ 2,093,575
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 2,294,075
Inflation Costs (4% for 1year)		$ 91,763
Total Project Costs		**$ 2,385,838**
Total Project Costs Rounded		**$ 2,400,000**
Level III Recommended Funding @ 50% Grant:		**$ 1,200,000**
Ineligible Expenses		
Mixer for existing tank		$ 50,000
Total Ineligible Project Costs		**$ 50,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2010 Census) 1,702 (Current Estimate) 1,752

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 1,771

	Pre-Project	Post-Project
c. Taps served within the entity boundaries?	1,098	1,128
d. Taps outside the entity boundaries?	30	30

e. Names of other water systems served? Old Baldy Club, Medicine Waters Trailer Park

2. Water Usage (Potable water system only)	Pre-Project	Post-Project
a. Total number of gallons produced by the water sources annually:	158,267,000	158,267,000
b. Gallons used per capita per day:		
Average Day:	274	274
Peak Day:	1,414	1,414

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system Gallons per day:	1,332,000	1,332,000
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Storage, Distribution	Distribution
c. Increased capacity needed: Gallons per day	0	0
d. Estimated system water losses (percentage):	18%	18%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day):	NA
b. Average annual raw water usage (acre feet & gallons):	NA

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 3,500	$ 3,889
Commercial: Dependent on Size	$4,000-7,500	$4,444-8,333
b. Average monthly water bill:	$ 43.75	$ 47.80

c. Water Rates

Meter Size	Tap Fee
5/8", 3/4", or 1"	$3,500.00
1-1/2"	$4,000.00
2"	$4,500.00
3"	$5,000.00
4"	$6,500.00
6"	$7,500.00

Meter Size	Base Rate
5/8", 3/4", or 1"	$33.99
1-1/2"	$90.64
2"	$135.96
3"	$396.55
4"	$679.80
6"	$1,642.85
8"	$2,266.00
10"	$3,399.00

Water Usage (gallons)	Water Usage Rate (per 1,000 gallons)
0 - 2,000	$0.00
2000 - 5,000	$1.31
5,000 - 10,000	$1.96
10,000 - 20,000	$2.94
20,000 - 50,000	$3.91
50,000 - 100,000	$5.21
100,000 and greater	$7.17

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 722,259	$ 789,232
Annual revenues from tap fees:	$ 30,698	$ 33,545
Annual revenues from other sources:	$ 54,063	$ 59,076
Total annual revenues:	$ 807,020	$ 881,853
Annual budget for operation and maintenance expenses:	$ 568,217	$ 585,264
Annual payments for debt retirement:	$ 108,677	$ 142,315
Annual payments to a repair and replacement fund:	$ 102,606	$ 112,684
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 779,500	$ 840,263
Balance in repair and replacement fund:	$ 223,352	$ 112,110
Balance in emergency fund:	$ 990,648	$ 1,317,307
Annual cost of water quality testing:	$ 6,500	$ 7,102

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 4 Level III potable water storage tanks

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes

3. Will the project serve at least 15 water taps? Yes Number of taps 1,128

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No

5. Does anyone in the service area haul water? No

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: RUS, SLIB, SRF

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $39.23 20,000 gallons? $78.43

9. Theoretical reasonable monthly water bill ($80,234 (AMHI) x 2.5%/12) $167.15

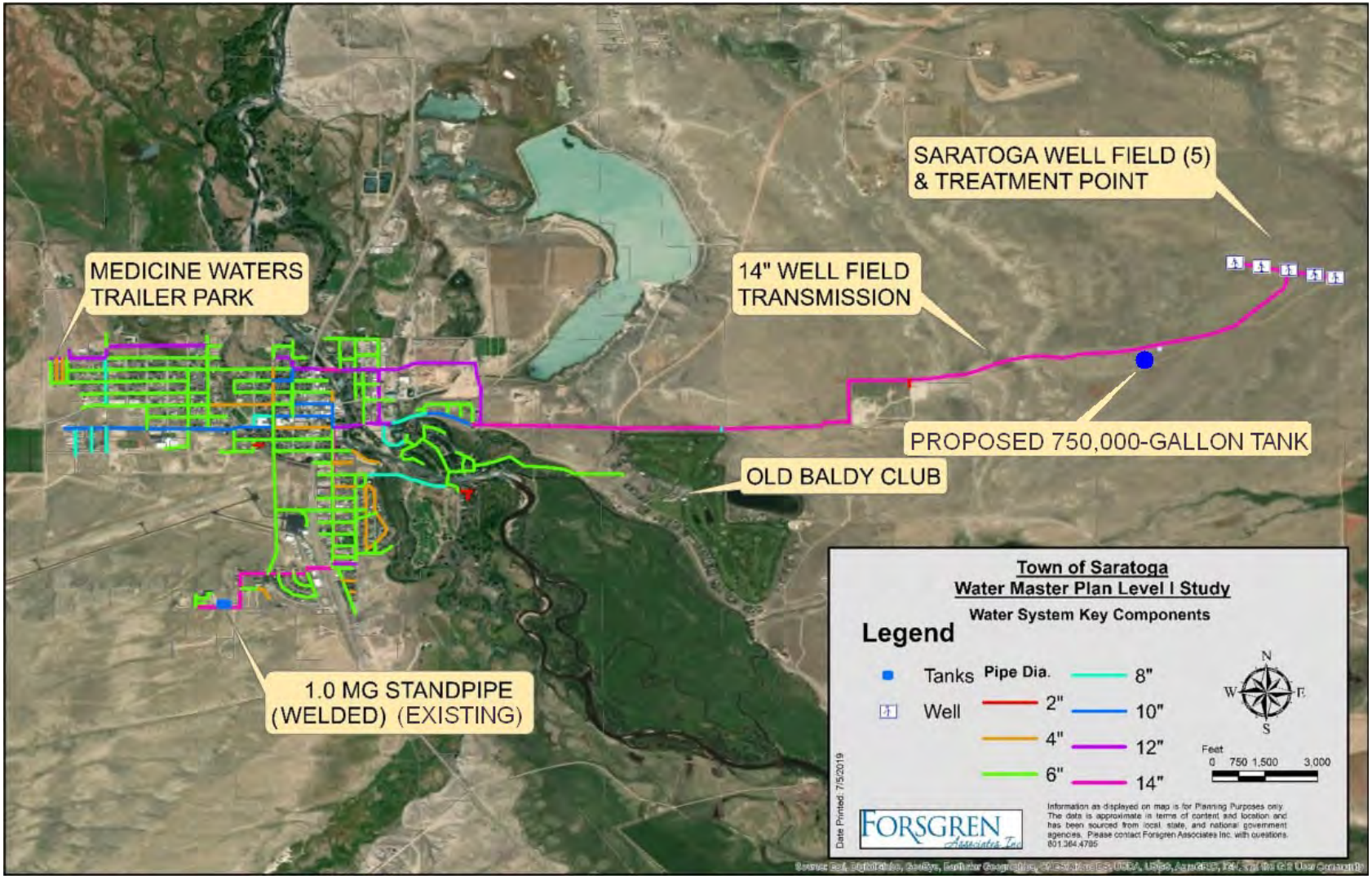
10. What water conservation measures are employed by the sponsor? Yes, meters and tiered water rates

11. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

12. Will the project consider regional solutions? Yes, the 2019 Master Plan considered regionalization, but the only area that appeared to viable was Mountain View Estates. Currently the residents of Mountain View Estates utilize individual wells and the cost for transmission and distribution system would be immense, therefore it was not a recommendation of the Plan.

13. Can the project be delayed or staged? Yes Should it be? Yes, until the existing tank can no longer be maintained

14. Basis for the funding recommendation: Per the 2019 Master Plan, the existing 1MG welded tank meets required storage for the Town's current and forecasted water demands, and with the proper upkeep, is in a good position to remain adequate for at least the next 10-15 years. The Town could add a mixer to the existing tank to improve water quality.


SARATOGA WELL FIELD (5)
& TREATMENT POINT
MEDICINE WATERS
TRAILER PARK
14" WELL FIELD
TRANSMISSION
PROPOSED 750,000-GALLON TANK
OLD BALDY CLUB
1.0 MG STANDPIPE
(WELDED) (EXISTING)
Town of Saratoga
Water Master Plan Level I Study
Water System Key Components
Legend
Tanks
Well
Pipe Dia.
2"
4"
6"
8"
10"
12"
14"
N
W
E
S
Feet
0 750 1,500 3,000
Date Printed: 7/5/2019
FORSGREN
Associates Inc
Information as displayed on map is for Planning Purposes only.
The data is approximate in terms of content and location and
has been sourced from local, state, and national government
agencies. Please contact Forsgren Associates Inc. with questions.
801.364.4795

Proposed Tank Site.

Existing Welded Steel Tank

TOWN OF SARATOGA
RESOLUTION NO. 2024-02

AS PURPOSE AND NEED HAS BEEN ESTABLISHED BY PRIOR STUDIES THE TOWN OF SARATOGA TOWN COUNCIL MAKES THE FOLLOWING RESOLUTION; A RESOLUTION IN SUPPORT OF FILING AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR A LEVEL 3 CONSTRUCTION PROJECT AND FUNDING APPLICATION FOR IMPROVEMENTS TO TOWN'S TREATED WATER STORAGE FACILITIES.

WHEREAS, the governing body of the Town of Saratoga supports filing a Level 3 Construction and Funding application to the Wyoming Water Development Commission.

WHEREAS, it has been determined by prior WWDC studies that it is beneficial for the Town of Saratoga to seek funding from the Wyoming Water Development Commission to make improvements to its treated water storage facilities.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE TOWN OF SARATOGA, WYOMING, that an application be submitted to the Wyoming Water Development Commission for a Level 3 Construction and Funding application for improvements to the Town's treated water storage facilities.

PASSED, APPROVED AND ADOPTED THIS 20TH DAY OF AUGUST, 2024.

ATTEST:

Jennifer Anderson, Clerk

Chuck Davis, Mayor

STATE OF WYOMING)
) ss.
County of Carbon)

On this 21st day of August 2024, before me, a Notary Public in and for said State, personally appeared Chuck Davis, known or identified to me to be the Mayor of the Town of Saratoga that executed the said instrument, and acknowledged to me that such Town of Saratoga executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

BRENDA MISTELSKE
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 153586
MY COMMISSION EXPIRES: 12/02/2029

Brenda Mistelske
Notary Public for Wyoming
Residing at: Saratoga Wyoming
My commission expires: 12/2/2029

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Shoshone 7C Lateral 2025

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Fremont

Sponsor: Shoshone Irrigation District

WWDO Recommendation: Do Not Fund

Proposed Budget: $0

WWDC Grant[1] (50%)	$ 3,693,500
WWDC Loan[2] (50%)	$ 3,693,500
Total	$ 7,387,000

[1] Not to exceed 50% of eligible costs
[2] 50% loan at 4% interest and a term of 20 years

Project Manager: Mitchell

Project Description: Update the Line 1 pickup adding a screen and piping the portion to 7C Lateral and convert 7C Lateral from open ditch to pipe. These structures provide irrigation water to roughly 700 acres.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2006	Level II, Shoshone ID Rehabilitation and GIS	$ 300,000
2015	Level III, Shoshone Irrigation District Rehabilitation 2015	$ 290,000*
2017	Level III, Shoshone Irrigation District Rehabilitation 2017	$ 234,000*
2019	Level III, Shoshone Irrigation District Rehabilitation 2019	$ 181,000*

   *100% Materials Only

2. **Describe existing water supply using information in the application.**
   The current water system pulls water from the Shoshone River and distributes the water through a system of canals.

3. **Summarize the request.**
   The goal of this project is to install a screen in Line 1 pickup, pipe Line 1 pickup to the 7C junction, and convert open ditch into pipe for the 7C Lateral.

4. **Summarize the reasons for the request.**
   The Line 1 Pickup has sedimentation issues and some evaporation/leakage in the section to 7C junction. 7C Lateral is experiencing leaching and evaporation losses during the irrigation season.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 519,200	
Site Access Permit Fees (BOR, USFS, etc.)	$ 8,000	
Title Opinion	$ 1,500	
Acquisition of Access and Rights of Way	$ 6,000	
Pre-Construction Costs (Subtotal # 1)		$ 534,700
Cost of Project Components		
Mobilization	$ 475,000	
Removal of Structures & Obstructions	$ 10,000	
Underground Utility Locates	$ 10,000	
Seeding	$ 29,000	
Silt Fence	$ 3,000	
Type 2 Pipe Bedding	$ 17,000	
18” Nominal Riprap-Class 2	$ 30,000	
Concrete Inlet Structure	$ 320,000	
Concrete Outlet Structure	$ 97,000	
48” PVC (2,060 LF)	$ 952,000	
42” PVC (5,360 LF)	$ 1,790,000	
36” PVC (2,620 LF)	$ 762,000	
48” Fittings	$ 152,000	
42” Fittings	$ 126,000	
36” Fittings	$ 13,000	
36” Gate Valve (1)	$ 43,000	
1’ x 1’ FTO Assembly (10)	$ 323,000	
Riser Bowl Assembly (10)	$ 32,000	
Vent Assembly (1)	$ 3,000	
Utility Marker (20)	$ 5,000	
Construction Cost (Subtotal #2)		$ 5,192,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 519,200
Components and Engineering Costs (Subtotal # 3)		$ 5,711,200
Contingency (Subtotal #3 x 15%)		$ 856,680
Construction Cost Total (Subtotal #4)		$ 6,567,880
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 7,102,580
Inflation Costs (4% per one year)		$ 284,103
Total Project Costs		**$ 7,386,683**
Rounded		**$ 7,387,000**
Level III Recommended Funding @ 50% Grant:		**$ 3,693,500**
Level III Recommended Funding @ 50% Loan:		**$ 3,693,500**
Ineligible Expenses		
None		$ 0
Total Ineligible Project Costs		**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	36,009	36,009
b. Assessed acres?	35,750	35,750
c. Irrigated acres?	35,600	35,600
d. Average annual water delivery (acre-feet/acre assessed)?	5	5
e. How many individual landowners receive water?	1,868	1,868

f. What type(s) of on-farm irrigation water application is used? Flood and Center Pivot

g. Briefly describe the main crops and cropping patterns: Sugar beets, Malt Barley, Dry Beans, Grain Corn, Silage Corn, Alfalfa Seed, Grass Seed, Hay

h. Describe the water measuring devices currently in use: Parshall Flumes, Rectangular Weirs, Cipolletti Weirs, Ramp Flumes, Electronic Flow Metering Devices, Rated Canal Sections

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	270,000	270,000
b. Average Day Demand (AF):	1,400	1,400
c. Peak Day Demand (AF):	1,800	1,800

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	1,800	1,800
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Capacity of Corbett Tunnel and	Garland Canal
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	15	15

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? Number of water righted acres

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$30.10	$30.10
d. If there is a basic service charge in addition to assessments, how much is it?	$300.00	$300.00

5. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 1,440,918	$ 1,440,918
Annual revenues from other sources:	$ 674,020	$ 674,020
Total annual revenues:	$ 2,114,938	$ 2,114,938
Annual budget for operation and maintenance expenses:	$ 2,114,938	$ 2,114,938
Annual payments for debt retirement:	$ 75,000	$ 75,000
Annual payments to a repair and replacement fund:	$ 000,000	$ 000,000
Annual payments to an emergency fund:	$ 000,000	$ 000,000
Annual payments for other purposes:	$ 24,000	$ 24,000
Total annual payments:	$ 2,213,938	$ 2,213,938
Balance in repair and replacement fund:	$ 249,000	$ 249,000
Balance in emergency fund:	$ 75,000	$ 75,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 2 rehabilitation of existing irrigation canals

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 35,600

3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? WaterSmart

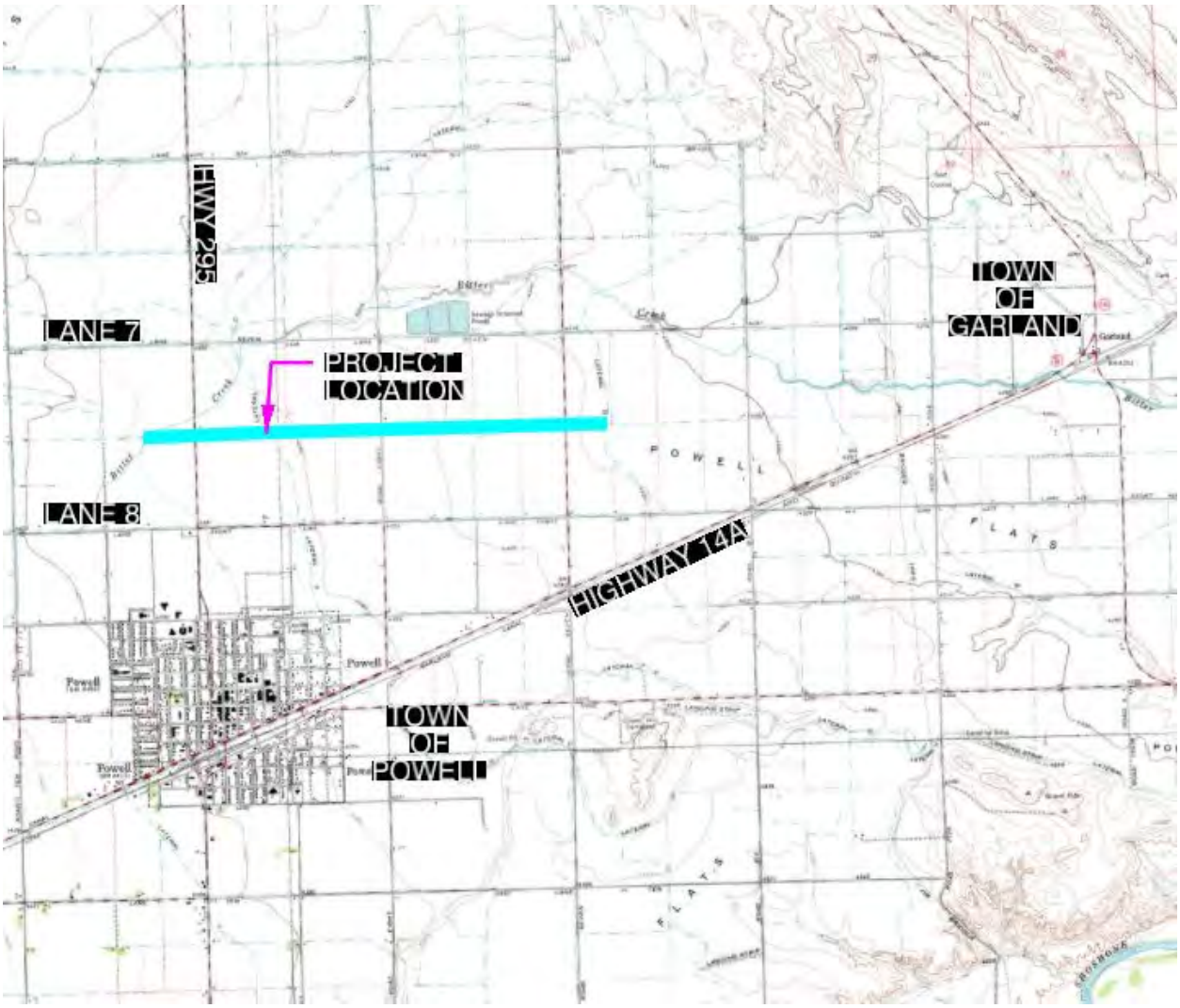
4. What water conservation measures are employed by the sponsor? Canal to pipe, water measurement, education of water use to users, picking up return flows from farm units

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes Should it be? Yes. The primary basis for the project request is due to leaching and evaporation losses. However, the most recent study was completed in 2008 and did not include this lateral as a priority. There is no documentation on how much loss is seen in the section of lateral, or if it is the best location to convert to pipe.

7. Basis for the funding recommendation: This project is not recommended for funding due to the most recent study (2008 Shoshone Irrigation District Rehabilitation and GIS Level II Study) not mentioning the requested lateral or listing it as a priority project for the District.

A new Level II Study would be beneficial to provide a list of priority projects. The study should analyze any water loss related to leaching, seepage, and evaporation. By identifying specific areas of concern, a Level III could be requested to correct those deficiencies and lead to an overall reduced budget. At this time the application is showing a 15% loss of water before and after the project is completed.


HWY 295
LANE 7
PROJECT LOCATION
LANE 8
TOWN OF GARLAND
POWELL
FLATS
HIGHWAY 14A
TOWN OF POWELL
FLATS

SHOSHONE
IRRIGATION DISTRICT
337 East First
Powell, WY 82435-2016
Phone: (307) 754-5741
Fax: (307) 754-3135

August 29, 2024

Resolution

THEREFORE, the Shoshone Irrigation District Board of Commissioners, on August 29, 2024, during a special meeting, by formal resolution, made a motion to support the application WWDC grant for the Line 1 pickup and Lateral 7C pipeline project. The amount being requested in the Line 1 pickup and 7C pipeline project is $7,083,256.00. This amount will be a cost share with USBR WaterSmart energy and efficiency grant

Attested to this day _____ of _____

_____
Bill Cox
President

Notary: _____

Commission Expires: _____

A signed copy of the Resolution was requested on multiple occasions, but not provided.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Sidon ID Canal Crossing 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Big Horn

Sponsor: Sidon Irrigation District

WWDO Recommendation: Level III **Proposed Budget:** $432,000

WWDC Grant[1]	$ 432,000
Sponsor[2]	$ 463,110
Total	$ 895,110

[1] 100% materials only grant, not to exceed $432,000
[2] Sponsor's share will include engineering, labor, consumables, and equipment, plus materials in excess of $432,000.

Project Manager: Russell / Jones

Project Description: This is a materials only project to support the installation of culverts at five locations where the Sidon Canal intersects Big Horn County managed roads. The Irrigation District and County share management responsibility for the crossings. Sidon Irrigation District has a cooperative working relationship with Big Horn County to remedy the issues at these crossings.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2014	L-III, Sidon Irrigation District Rehabilitation 2014	$ 109,000
2016	L-III, Sidon Irrigation District Rehabilitation 2016	$ 352,500
2017	L-III, Sidon Irrigation District Rehabilitation 2017	$ 483,000
2018	L-III, Sidon Irrigation District Rehabilitation 2018	$ 823,000
2020	L-III, Sidon Irrigation District Sidon Canal 2020	$ 1,060,000
2021	L-III, Sidon Irrigation District Rehabilitation 2021	$ 576,000
2023	L-III, Sidon Irrigation District Sidon Canal 2020	$ 651,000
2023	L-I, Sidon Irrigation District Master Plan	$ 177,000

2. **Describe existing water supply using information in the application.**
   Direct flow diversions of 380 cfs from the Shoshone River and Bitter Creek.

3. **Summarize the request.**
   This is a materials only grant application for the installation of culverts at five locations where the Sidon Canal crosses under Big Horn County roads. Both Sidon Irrigation District and Big Horn County will provide labor and equipment to support the installation of the box culverts.

4. **Summarize the reasons for the request.**
   The existing culverts restrict the water flow in the canal at each crossing location. These restrictions cause the water level to increase on the upstream side which creates higher water loss to percolation and potential for over topping the canal bank. The velocity of the water increases when passing through the culverts causing more erosion and sedimentation on the downstream side. Most of the culverts also show signs of rusting and deterioration. One culvert has been identified where failure is imminent.

Estimated Level III WWDC Eligible Costs:

Cost of Project Components			
Culverts	$	300,000	
Concrete Footers	$	40,000	
Concrete Wing Walls	$	7,700	
Rebar Steel	$	9,500	
Rip Rap	$	600	
Backfill	$	2,900	
Construction Cost (Subtotal #1)			$ 360,700
Contingency (Subtotal #1 x 15%)			$ 54,105
Construction Cost Total (Subtotal #2)			$ 414,805
Inflation Costs (4% per one year)			$ 16,592
Total Project Costs			**$ 431,397**
Level III Recommended Funding @ 100% Grant (Rounded Total):			**$ 432,000**

Ineligible Expenses

Mobilization, Insurance and Traffic Control	$	63,800
Construction Labor and Consumables	$	311,310
Construction Engineering	$	70,000
Preparation of Final Designs and Specifications	$	15,000
Title Opinion	$	3,000
Total Ineligible Project Costs	**$**	**463,110**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	13,600	13,600
b. Assessed acres?	13,341	13,341
c. Irrigated acres?	13,232	13,232
d. Average annual water delivery (acre-feet/acre assessed)?	11	11
e. How many individual landowners receive water?	580	580

f. What type(s) of on-farm irrigation water application is used? Flood, gated pipe and center pivot

g. Briefly describe the main crops and cropping patterns: Primary crops include sugar beets, corn, grains, hay and beans.

h. Describe the water measuring devices currently in use: Crested weirs and water meters

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	150,845	150,845
b. Average Day Demand (AF):	668	668
c. Peak Day Demand (AF):	670	670

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	1,000	1,000
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Sedimentation in Canals	
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	15%	15%

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Assessment is based on acres.

b. How is voting authority delegated to water users? Voting authority is based on acres owned.

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$35.00	$35.00
d. If there is a basic service charge in addition to assessments, how much is it?	$100.00	$100.00

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 525,565	$ 525,565
Annual revenues from other sources:	$ 124,239	$ 124,239
Total annual revenues:	$ 649,804	$ 649,804
Annual budget for operation and maintenance expenses:	$ 490,504	$ 490,504
Annual payments for debt retirement:	$ 0	$ 0
Annual payments to a repair and replacement fund:	$ 33,425	$ 33,425
Annual payments to an emergency fund:	$ 13,000	$ 13,000
Annual payments for other purposes*:	$ 112,875	$ 112,875
Total annual payments:	$ 649,804	$ 649,804
Balance in repair and replacement fund:	$ 0	$ 0
Balance in emergency fund:	$ 130,000	$ 130,000

*Annual payments for other purposes are for annual oil royalty payments Sidon Irrigation District is required to pay by court decree.

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 2 - Level III rehabilitation of existing irrigation canal

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 13,341

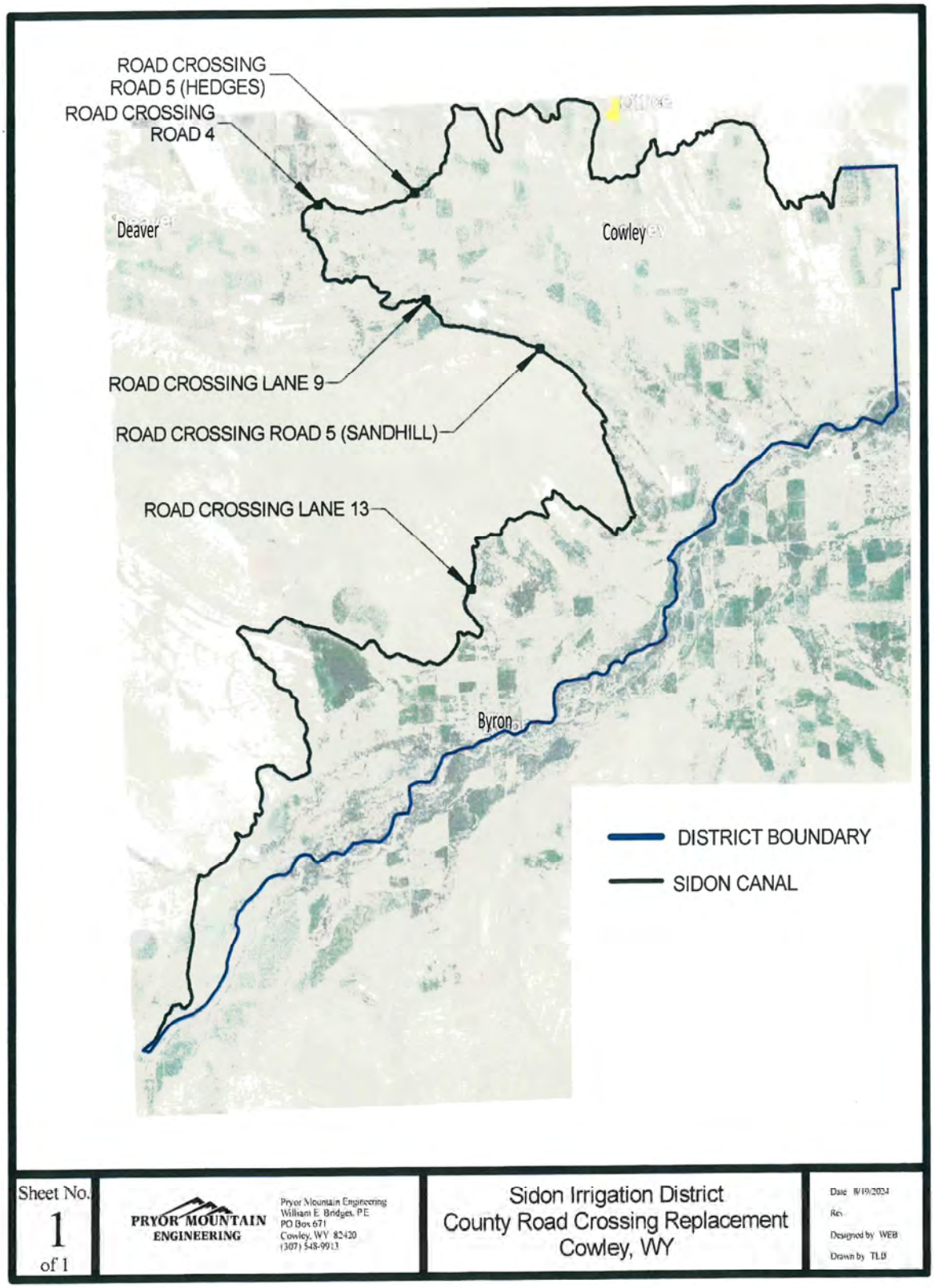
3. Is the sponsor eligible for funding from other state or federal programs? Not State or Federal, but County is assisting with engineering costs, labor and equipment.
If so, what are they? County assistance

4. What water conservation measures are employed by the sponsor? Laterals are concrete lined and/or piped

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes Should it be? No. Given that one of the culverts is at risk of imminent failure, the most cost-effective solution is to address rehabilitation of all the culvert crossings at the same time rather than reacting to an emergency (emergencies).

7. Basis for the funding recommendation: This is an eligible project and was identified in the 2024 Master Plan (Sidon Irrigation & Drainage District Level 1 Study). Under WWDO Project Priorities, rehabilitation of existing irrigation canals is a Priority 2. The Master Plan states the crossing at Lane 13 is corroding and failing, and crossings at Sandhill, Hedges, Road 4, and Lane 9 are only slightly better and should be replaced. The Irrigation District will partner with the County to complete this construction project in-house to stretch funding to address all of the culverts.


ROAD CROSSING
ROAD 5 (HEDGES)
ROAD CROSSING
ROAD 4
Deaver
Cowley
ROAD CROSSING LANE 9
ROAD CROSSING ROAD 5 (SANDHILL)
ROAD CROSSING LANE 13
Byron
DISTRICT BOUNDARY
SIDON CANAL
Sheet No.
1
of 1
PRYOR MOUNTAIN ENGINEERING
Pryor Mountain Engineering
William E. Bridges, P.E.
PO Box 671
Cowley, WY 82420
(307) 548-9913
Sidon Irrigation District
County Road Crossing Replacement
Cowley, WY
Date 8/19/2024
Rev.
Designed by WEB
Drawn by TLB

Road 4 Culvert (Top Left), Road 5 Culvert (Top Right) and Lane 13 Culvert (Bottom)

Office of The County Commissioners

P.O. Box 31
Basin WY
82410

COUNTY COMMISSIONERS
Bruce H Jolley, Chairman
David Neves
Deb Craft

Lori Smallwood, County Clerk
Nicole Vigil, Treasurer
Gina Anderson, Assessor
Marcia Bean, Prosecuting Attorney
Serena Lipp, Clerk of District Court
Kenneth Blackburn, Sheriff
Michael Jameson, Coroner

Phone: 307-568-2357 Fax 307-568-9375
www.bighorncountywy.gov

August 15, 2024

Jason Mead, PE
Wyoming Water Development
6920 Yellowtail Road
Cheyenne, WY 82002

RE: Sidon Irrigation District County Road Crossing Project

Dear Mr. Mead,

This letter is to confirm Big Horn County's support for the Sidon Irrigation District's 2024 County Road Crossings Project. Those crossings listed in the project are causing restrictions in the water flow and most are showing signs of fatigue and rusting therefore calling for replacements that correct the issues. The County will use its own resources of labor and equipment in the construction of these crossings to assist Sidon Irrigation in the installation.

If you have any questions, please don't hesitate to call.

Sincerely,

B Jolley

Bruce Jolley, Chairman
Big Horn County Commissioners

Resolution No. 2024-2

Entitled: A RESOLUTION AUTHORIZING SUBMISSION OF A WYOMING WATER DEVELOPMENT GRANT APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION ON BEHALF OF THE GOVERNING BODY FOR THE SIDON IRRIGATION DISTRICT
(name of applicant)

FOR THE PURPOSE OF (state purpose of project):
REPLACING COUNTY ROAD CROSSING PIPE WITH ALUMINUM BOX CULVERTS AT 5 LOCATIONS ALONG THE SIDON CANAL IN THE 2024 SIDON CANAL COUNTY ROAD CROSSINGS PROJECT TO DECREASE RESTRICTIONS IN THE WATER FLOW AND INCREASE OPERATIONAL EFFICIENCY AS WELL AS AID IN EFFICIENT TRANSMISSION AND MAINTENANCE OF THE SYSTEM.

W I T N E S S E T H

WHEREAS, the Governing Body for the SIDON IRRIGATION DISTRICT
(name of applicant)
desires to participate in the WYOMING WATER DEVELOPMENT GRANT program to assist in financing this project; and

WHEREAS, the Governing Body of the SIDON IRRIGATION DISTRICT
(name of applicant)
recognizes the need for the project; and

WHEREAS, the WYOMING WATER DEVELOPMENT Grant program requires that certain criteria be met, as described in the Wyoming Water Development Commission's Rules and Regulations governing the program, and to the best of our knowledge this application meets those criteria.

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

SIDON IRRIGATION DISTRICT, that a grant application in the amount of $ 414,800.00
(name of applicant)
be submitted to the Wyoming Water Development Commission for consideration to assist in funding the 2024 SIDON CANAL COUNTY ROAD CROSSINGS PROJECT
(name of project)

BE IT FURTHER RESOLVED, that MARVIN B. RAGETH, CHAIRMAN
(name and title of persons)
is hereby designated as the authorized representative of the SIDON IRRIGATION DISTRICT
(name of applicant)
to act on behalf of the Governing Body on all matters relating to this grant application.

PASSED, APPROVED AND ADOPTED THIS 12th day of August, 2024.

M. B. Rageth
Marvin B. Rageth, Chairman

C. R. Crosby
Christopher R. Crosby, Secretary/Treasurer

Kenneth G. Blackburn, Board Memeber

Attest

L. Mayes
Leslie Mayes, Office Secretary

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Sidon ID North Lateral Project 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Big Horn

Sponsor: Sidon Irrigation District

WWDO Recommendation: Do Not Fund **Proposed Budget:** $0

Pre-Construction Recommendation:	
WWDC Grant[1] (50%)	$ 206,850
Other Funding Source[2] (50%)	$ 206,850
Total	$ 413,700
Construction Recommendation:	
General Fund Grant[1] (50%)	$ 1,258,150
Sponsor[2] (50%)	$ 1,258,150
Total	$ 2,516,300
Funding for Total Project:	
WWDC & General Fund Grants[1]	$ 1,465,000
Sponsor[2]	$ 1,465,000
Total	$ 2,930,000

[1] Not to exceed 50% of eligible project costs
[2] Sponsor or other funding source

Project Manager: Russell / Jones

Project Description: Pre-Construction funding for a conversion of 30,000-foot section of the Byron North Lateral from an open ditch to a closed pressurized pipe. If the project is to move forward into construction, it should be broken up into at least two phases to maximize potential WaterSmart funding which is limited to 50% cost share, not to exceed a maximum $2 million dollar grant.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2016	L-III, Sidon Irrigation District Rehabilitation 2016	$ 352,500
2017	L-III, Sidon Irrigation District Rehabilitation 2017	$ 483,000
2018	L-III, Sidon Irrigation District Rehabilitation 2018	$ 823,000
2020	L-III, Sidon Irrigation District Sidon Canal 2020	$ 1,060,000
2021	L-III, Sidon Irrigation District Rehabilitation 2021	$ 576,000
2023	L-III, Sidon Irrigation District Sidon Canal 2020	$ 651,000
2023	L-I, Sidon Irrigation District Master Plan	$ 177,000

2. **Describe existing water supply using information in the application.**
   Direct flow diversions of 380 cfs from the Shoshone River and Bitter Creek.

3. **Summarize the request.**
   This project will involve pre-construction costs for converting the Byron North Lateral from an open ditch to a closed, pressurized pipe system on the north side of the Town of Byron. Approximately six miles of pipe ranging from 12 to 48 inches are anticipated. A screen structure and flow measurement are also proposed.

4. Summarize the reasons for the request.

The Byron North Lateral open ditch system has significant water loss. One set of flow measurements estimated the seepage losses over a 1.6-mile length of the lateral at 39%. Additionally, approximately 5 cfs of water is wasted past the last turnout, further contributing to water loss. The lateral contributes to the high sediment levels in the Lower Shoshone River, which has significant impacts on fish and wildlife habitats in the project area. The sediment also contributes to the ongoing accumulation on the south end of Bighorn Lake. Both the Shoshone River and Bighorn Lake are listed as impaired by the Wyoming Department of Environmental Quality, primarily due to sedimentation. The water bodies downstream of the Irrigation District are designated blue-ribbon fisheries and critical habitats for numerous aquatic species and could potentially benefit from sediment control measures. This project will increase water use efficiency, reduce the introduction of sediment, and provide benefits to aquatic communities.

Estimated Level III WWDC Eligible Costs:		
Preparation of Final Designs and Specifications	$ 412,700	
Site Access Permit Fees (BOR, USFS, etc.)	$ 0	
Title Opinion	$ 1,000	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 413,700
Cost of Project Components		
Mobilization	$ 200,000	
Pipe	$ 2,093,500	
Fittings	$ 328,000	
Turnouts	$ 1,224,000	
Other Structures (Screens, Meter Station, Drain)	$ 63,000	
Miscellaneous (Earthwork, etc.)	$ 218,500	
Construction Cost (Subtotal #2)		$ 4,127,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 412,700
Components and Engineering Costs (Subtotal # 3)		$ 4,539,700
Contingency (Subtotal #3 x 15%)		$ 680,955
Construction Cost Total (Subtotal #4)		$ 5,220,655
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 5,634,355
Inflation Costs (4% per one year)		$ 225,374
Total Project Costs		**$ 5,859,729**
Total Project Cost Rounded		**$ 5,860,000**
Level III Recommended Funding @ 50% Grant-Total Costs:		**$ 2,930,000**
Level III Recommended Funding @ 50% Grant – Pre-Construction Only:		**$ 206,850**
Ineligible Expenses		
NEPA Analysis		$ 60,000
Total Ineligible Project Costs		**$ 60,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project

a. Total acres are in the District?	13,600	13,600
b. Assessed acres?	13,341	13,341
c. Irrigated acres?	13,232	13,232
d. Average annual water delivery (acre-feet/acre assessed)?	11	11
e. How many individual landowners receive water?	580	580

f. What type(s) of on-farm irrigation water application is used? Flood, gated pipe and center pivot

g. Briefly describe the main crops and cropping patterns: Primary crops include sugar beets, corn, grains, hay and beans.

h. Describe the water measuring devices currently in use: Crested weirs and water meters

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	150,845	150,845
b. Average Day Demand (AF):	668	668
c. Peak Day Demand (AF):	670	670

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	1,000	1,000
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Canal Seepage	None
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	15%	15%

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Assessment is based on acres.

b. How is voting authority delegated to water users? Voting authority is based on acres owned.

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$35.00	$35.00
d. If there is a basic service charge in addition to assessments, how much is it?	$100.00	$100.00

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 525,565	$ 525,565
Annual revenues from other sources:	$ 124,239	$ 124,239
Total annual revenues:	$ 649,804	$ 649,804

Annual budget for operation and maintenance expenses:	$ 490,504	$ 490,504
Annual payments for debt retirement:	$ 0	$ 0
Annual payments to a repair and replacement fund:	$ 33,425	$ 33,425
Annual payments to an emergency fund:	$ 13,000	$ 13,000
Annual payments for other purposes*:	$ 112,875	$ 112,875
Total annual payments:	$ 649,804	$ 649,804
Balance in repair and replacement fund:	$ 0	$ 0
Balance in emergency fund:	$ 130,000	$ 130,000

*Annual payments for other purposes are for annual oil royalty payments Sidon Irrigation District is required to pay by court decree.

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 2. Level III rehabilitation of existing irrigation canals.

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 13,341

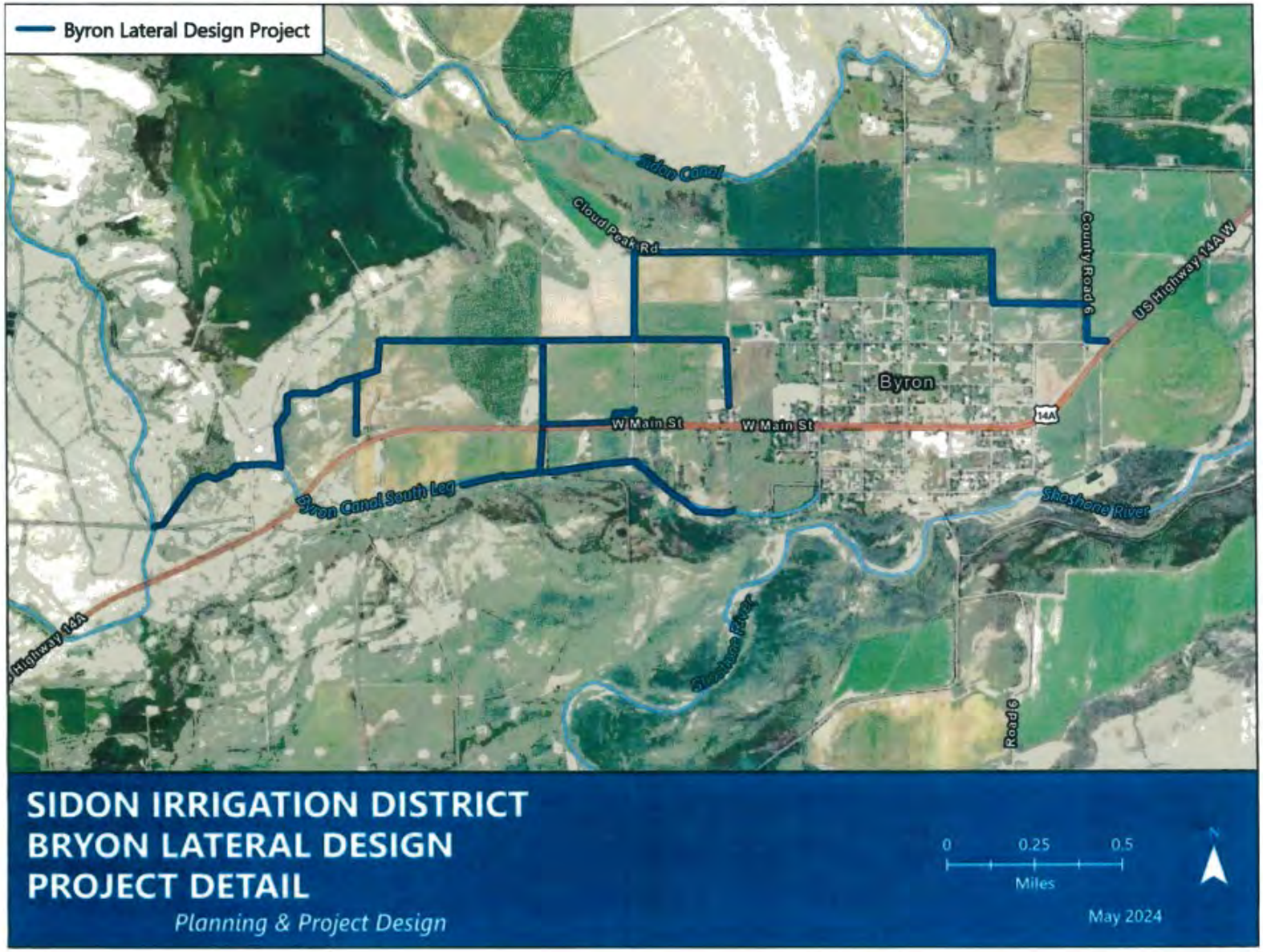
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? Bureau of Reclamation WaterSmart

4. What water conservation measures are employed by the sponsor? Some of the ditches fed by the lateral are lined.

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes, Should it be? Yes, the timing of this project should be such that the Sponsor can take full advantage of WaterSmart funds if they are awarded. WaterSmart grants are a 50% cost share, not to exceed a maximum of $2 million dollar grant. If the project is bid as requested, the District would need to come up with around $1 million in other funds on their own. If the project is broken up into two or more parts, there is the possibility of getting two or more separate WaterSmart grants that have the potential to reduce the Districts share of costs.

7. Basis for the funding recommendation: This is an eligible project under the Wyoming Water Development Commission Criteria. Under WWDO Project Priorities, rehabilitation of existing irrigation canals is a Priority 2. In the 2024 Sidon Irrigation District Master Plan Level I, the Byron Lateral was ranked as priority number 4 out of 52 projects. The recommendation to not fund this project is based on the fact that the District has a current Level III project with existing funding as well as there being a recommendation to fund another Sidon ID 2025 (materials only) project.


Byron Lateral Design Project
Sidon Canal
Cloud Peak Rd
County Road 6
US Highway 14A W
Byron
W Main St
W Main St
14A
Byron Canal South Leg
Shoshone River
Highway 14A
Shoshone River
Road 6
SIDON IRRIGATION DISTRICT
BRYON LATERAL DESIGN
PROJECT DETAIL
Planning & Project Design
0
0.25
0.5
Miles
N
May 2024

Resolution No. 2024-3

Entitled: A RESOLUTION AUTHORIZING SUBMISSION OF A WYOMING WATER DEVELOPMENT GRANT APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION ON BEHALF OF THE GOVERNING BODY FOR THE SIDON IRRIGATION DISTRICT
(name of applicant)

FOR THE PURPOSE OF (state purpose of project):
DESIGN ONLY OF THE BYRON NORTH LATERAL THAT CONSISTS OF BURYING 30,000 FEET OF OPEN LATERAL IN PVC PIPE TO CREATE A PRESSURE SYSTEM TO DECREASE WATER LOSS IN THE SYSTEM, LOWER SEDIMENTATION BACK INTO THE SHOSHONE RIVER AND INCREASE OPERATIONAL EFFICIENCY AS WELL AS AID IN EFFICIENT TRANSMISSION AND MAINTENANCE OF THE SYSTEM.

WITNESSETH

WHEREAS, the Governing Body for the SIDON IRRIGATION DISTRICT
(name of applicant)
desires to participate in the WYOMING WATER DEVELOPMENT GRANT program to assist in financing this project; and

WHEREAS, the Governing Body of the SIDON IRRIGATION DISTRICT
(name of applicant)
recognizes the need for the project; and

WHEREAS, the WYOMING WATER DEVELOPMENT Grant program requires that certain criteria be met, as described in the Wyoming Water Development Commission's Rules and Regulations governing the program, and to the best of our knowledge this application meets those criteria.

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

SIDON IRRIGATION DISTRICT, that a grant application in the amount of $ 206,500.00
(name of applicant)
be submitted to the Wyoming Water Development Commission for consideration to assist in funding the DESIGN ONLY BYRON NORTH LATERAL PROJECT
(name of project)

BE IT FURTHER RESOLVED, that MARVIN B. RAGETH, CHAIRMAN
(name and title of persons)
is hereby designated as the authorized representative of the SIDON IRRIGATION DISTRICT
(name of applicant)
to act on behalf of the Governing Body on all matters relating to this grant application.

PASSED, APPROVED AND ADOPTED THIS 14th day of August, 2024.

Marvin Brent Rageth
Marvin B. Rageth, Chairman

Christopher R. Crosby, Secretary/Treasurer

Kenneth G. Blackburn, Board Member

Attest

Leslie Mayes, Office Secretary

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Upper Bluff Pump Plant No. 1 Pipeline 2025

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Washakie

Sponsor: Upper Bluff Irrigation District

WWDO Recommendation: Level III

Proposed Budget: $356,750

WWDC Grant[1] (50%)	$ 356,750
Sponsor[2] (50%)	$ 356,750
Total	$ 713,500

[1] 50% of eligible construction expenses
[2] Sponsor or other funding source

Project Manager: Brewer

Project Description: Replace the Upper Bluff Pumping Plant No. 1 pipeline to the discharge point. The project will likely be constructed in two phases, phase one from the pump station to the railroad crossing easement (2025) due to multiple recent leaks in this section of the 67-year-old concrete pipeline, and then from the end of phase one to the discharge point into Canal No. 1 (2026). The plan is to repair the phase one section late spring/early summer 2025, before water delivery in 2025, and then complete the phase two portion fall 2025 into winter 2026.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2006	L II Worland Area Irrigated Lands GIS	$ 200,000
2019	L-III, Bluff / Upper Bluff System Improvements 2019	$ 245,220

2. **Describe existing water supply using information in the application.**
   The Districts (Bluff and Upper Bluff) are located in the Big Horn Basin near Worland, within Washakie County, Wyoming. The Districts share a diversion and the first three miles of Hanover Canal with the Hanover and Highland Hanover Irrigation Districts. There are 1,678 acres served by the Upper Bluff District south of the Town of Worland and west of Highway 20.

3. **Summarize the request.**
   The Upper Bluff District is seeking Level III funding to replace the pipeline from Pumping Plant No. 1 to Upper Bluff Canal No. 1. The project may be constructed in two phases to meet immediate needs in the pipeline section from the pumping plant to the railroad right-of-way, and then from that point on to the discharge point into Upper Bluff Canal No. 1. This will avoid any delays with obtaining a railroad easement while fixing the section of pipeline with the most current issues.

4. **Summarize the reasons for the request.**
   Over the last two years multiple leaks have occurred in the 67-year-old pipeline. Most of those leaks have occurred in the first section between the pumping plant and the railroad crossing, but others have occurred in the remaining section as well. This may be the result of an earthquake that occurred in the fall of 2022 within 5 miles of the pipeline, the age of the pipeline, or likely a combination of the two.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 49,300	
Site Access Permit Fees (BOR, USFS, etc.)	$ 10,000	
Title Opinion	$ 3,000	
Acquisition of Access and Rights of Way	$ 0	
Pre-Construction Costs (Subtotal # 1)		$ 62,300
Cost of Project Components		
Mobilization, Bonds, Insurance	$ 65,000	
Connect to existing steel "Y"	$ 15,000	
F&Y 24" DR21 HDPE	$ 276,000	
F&Y Open Air Vent at Outlet	$ 5,000	
F&Y 3 bends (2 vertical & 1 horizontal)	$ 22,500	
F&Y casing rollers or spacers	$ 7,000	
Demolition of 2,300' P.C.P. & Structure	$ 74,000	
Pipe bedding	$ 11,500	
Erosion control & revegetation	$ 12,000	
Pipe Testing	$ 5,000	
Construction Cost (Subtotal #2)		$ 493,000
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 49,300
Components and Engineering Costs (Subtotal # 3)		$ 542,300
Contingency (Subtotal #3 x 15%)		$ 81,345
Construction Cost Total (Subtotal #4)		$ 623,645
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 685,945
Inflation Costs (4% per one year)		$ 27,438
Total Project Costs		$ 713,383
Total Project Costs (Rounded)		**$ 713,500**
Level III Recommended Funding @ 50% Grant:		**$ 356,750**

Ineligible Expenses

None

Total Ineligible Project Costs	**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	1,678	1,678
b. Assessed acres?	1,678	1,678
c. Irrigated acres?	1,678	1,678

d. Average annual water delivery (acre-feet/acre assessed)?	3.4	3.4
e. How many individual landowners receive water?	38	38

f. What type(s) of on-farm irrigation water application is used? Center pivot and flood

g. Briefly describe the main crops and cropping patterns: Rotational crops – sugar beets, barley corn, beans, alfalfa, pasture and grass

h. Describe the water measuring devices currently in use: Flow sensor at pump station

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	5,705	5,705
b. Average Day Demand (AF):	5	5
c. Peak Day Demand (AF):	6	6

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	6	6

b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.): Seepage, pump efficiency and structure deficiencies

c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	10%	10%

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Acres

b. How is voting authority delegated to water users? Number of acres

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$ 40/acre	$ 40/acre
d. If there is a basic service charge in addition to assessments, how much is it?	$ 0	$ 0

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 69,766	$ 69,766
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 69,766	$ 69,766
Annual budget for operation and maintenance expenses:	$ 26,500	$ 26,500
Annual payments for debt retirement:	$ 5,500	$ 5,500
Annual payments to a repair and replacement fund:	$ 0	$ 0

Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 0	$ 0
Total annual payments:	$ 32,000	$ 32,000
Balance in repair and replacement fund:	$ 17,117	$ 17,117
Balance in emergency fund:	$ 2,308	$ 2,308

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 3 Level III replacement of existing transmission pipelines

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 1,678

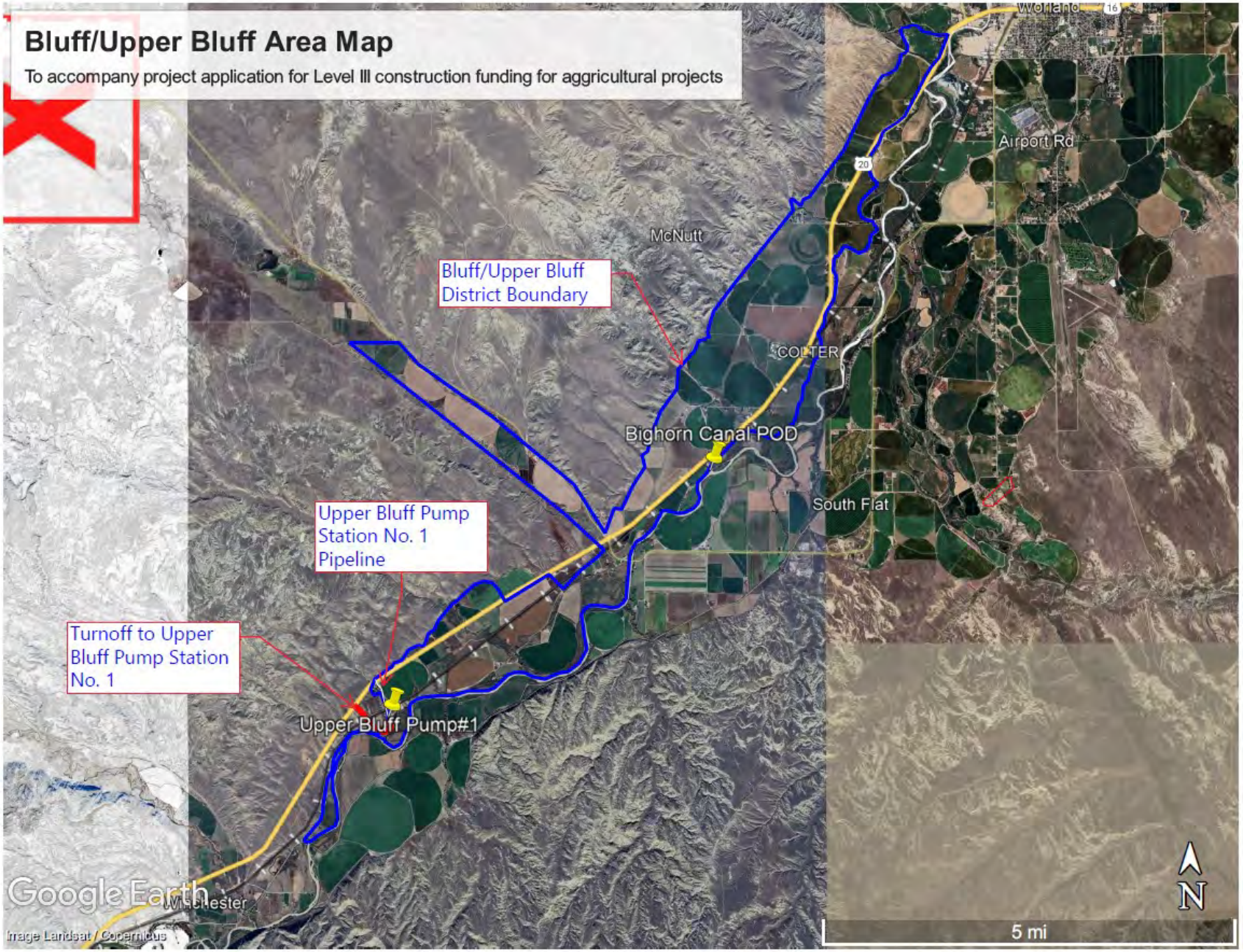
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? BOR, NRCS

4. What water conservation measures are employed by the sponsor? On-farm pivots, VFDs operating in relation to amount of water in the downstream canal.

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? No. Should it be? No. This portion of the pipeline has experienced multiple failures in the past year and has reached the end of its useful life. The District has nearly exhausted their repair and replacement funds dealing with this one section of pipe in the last year.

7. Basis for the funding recommendation: Pipeline has reached the end of its useful life. Normal maintenance on this section of pipe can no longer keep up with failures. The District needed to reduce flows to ~1/2 of normal to finish the 2024 irrigation season. An earthquake in the fall of 2022 may be a contributing factor to the recent string of failures, or it could just be the age of the pipe.


Bluff/Upper Bluff Area Map
To accompany project application for Level III construction funding for aggricultural projects
Airport Rd
McNutt
Bluff/Upper Bluff District Boundary
COLTER
Bighorn Canal POD
South Flat
Upper Bluff Pump Station No. 1 Pipeline
Turnoff to Upper Bluff Pump Station No. 1
Upper Bluff Pump#1
Google Earth
Image Landsat / Copernicus
5 mi
N

WESTERN HERITAGE
CONSULTING ENGINEERING
307.215.7430
PO BOX 2117
info@westernhce.com
Mills, WY 82644
UPPER BLUFF PUMP STATION No. 1
PIPELINE
CONCEPT PLAN & PROFILE
WASHAKIE COUNTY, WYOMING
2024P035
C3.0
CONCEPT DESIGN
PLAN VIEW
PROFILE VIEW
PIPELINE TYPICAL SECTION

RESOLUTION NO. 03-24

Entitled: A RESOLUTION AUTHORIZING APPROVAL TO PURSUE A GRANT FROM THE WYOMING WATER DEVELOPMENT COMMISSION FOR THE UPPER BLUFF IRRIGATION DISTRICT NEAR WORLAND, WYOMING.

WITNESSETH

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE UPPER BLUFF IRRIGATION DISTRICT IN WORLAND WYOMING:

1. The Upper Bluff Irrigation District Board accepts the financing package through the Wyoming Water Development Commission for a Level III Construction Project of the above-mentioned irrigation district. The Upper Bluff Irrigation District Board confirms they have the funds necessary for their portion in the repair and maintenance account.

BE IT FURTHER RESOLVED that John Snyder, Jr., President is hereby designated as the authorized representative of the Upper Bluff Irrigation District, to act on behalf of the Governing Body on all matters relating to this Emergency funding request.

PASSED, APPROVED AND ADOPTED THIS 7th DAY OF November 2024

John Snyder, Jr.
District President

Attest:

Gary Throntveit
Secretary

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: West Afton ID Phase I Project 2025 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Lincoln

Sponsor: West Afton Irrigation District

WWDO Recommendation: Do Not Fund **Proposed Budget:** $0

WWDC Grant[1] (50%)	$ 658,500
WWDC Loan[2] (50%)	$ 658,500
Total	$ 1,317,000

[1] Not to exceed 50% of WWDC eligible costs
[2] 50% loan with a term of 20 years @ 4% interest

Project Manager: Jones/Mitchell

Project Description: This is a pipeline replacement project for the West Afton Irrigation District located near the Town of Afton in Lincoln County.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2022	L-I West Afton/Nield String Irrigation Master Plan	$ 88,000

2. **Describe existing water supply using information in the application.**
   The West Afton system was originally constructed in 1976 using 24” to 14” welded steel pipe and 12” and smaller PVC pipe. Since completion of the original construction, private individuals have installed additional lines on the system. The District receives direct flow diversion of 14 cfs from Swift Creek.

3. **Summarize the request.**
   The West Afton Irrigation District services approximately 933 acres and 87 water users and needs a mainline replacement. The project will include final design work for and replacement of 3,700 linear feet of the existing 24” steel pipeline which extends from the diversion structure on Swift Creek to the west.

4. **Summarize the reasons for the request.**
   The system was installed in the 1970's and has functioned well, but is now showing indications of failure in steel lines. Inspection and condition assessment completed as part of the 2024 master planning effort suggests all of the 16,600 feet of steel lines are experiencing significant corrosion. This proposed project will address sections of lines with the highest consequence of failure and need for repair.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$	92,400	
Site Access Permit Fees (BOR, USFS, etc.)	$	0	
Title Opinion	$	5,000	
Acquisition of Access and Rights of Way	$	0	
Pre-Construction Costs (Subtotal # 1)			$ 97,400
Cost of Project Components			
Mobilization	$	45,000	
Traffic Control	$	13,000	
Subsurface Investigation	$	4,000	
24" PVC Pipe (3,700 LF)	$	711,000	
Connect to Existing Pipe	$	76,000	
3" Air/Vacuum Relief Valves	$	15,000	
4" Gate Valve	$	1,000	
4" Riser Installation	$	4,000	
Open excavation, backfill, surface restoration	$	55,000	
Construction Cost (Subtotal #2)			$ 924,000
Construction Engineering Costs (Subtotal # 2 x 10%)			$ 92,400
Components and Engineering Costs (Subtotal # 3)			$ 1,016,400
Contingency (Subtotal #3 x 15%)			$ 152,460
Construction Cost Total (Subtotal #4)			$ 1,168,860
Total Project Cost (Subtotal #1 + Subtotal #4)			$ 1,266,260
Inflation Costs (4% per one year)			$ 50,650
Total Project Cost			**$ 1,316,910**
Total Project Cost (Rounded)			**$ 1,317,000**
Level III Recommended Funding @ 50% Grant:			**$ 658,500**
Level III Recommended Funding @ 50% Loan:			**$ 658,500**
Ineligible Expenses			
None			$ 0
Total Ineligible Project Costs			**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	933	933
b. Assessed acres?	933	933
c. Irrigated acres?	933	933

d. Average annual water delivery (acre-feet/acre assessed)? Note* The annual water delivery is estimated, not measured.	3	3
e. How many individual landowners receive water?	87	87

f. What type(s) of on-farm irrigation water application is used? Hand lines and side roll

g. Briefly describe the main crops and cropping patterns: Primary crops are alfalfa, grass and grains. There are also multiple fields used for pasture for cattle and horses. Cropping patterns include crop rotation and rotational fallowing.

h. Describe the water measuring devices currently in use: Currently, no measuring devices are in place. A flat fee assessment of $100/landowner plus $10/acre

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	2,900	2,900
b. Average Day Demand (AF):	20	20
c. Peak Day Demand (AF):	27	27

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	27	27

b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.): Failing pipes result in leakage and create downtime for irrigators while repairs are made. This project is focusing on the upper portion of the system. Pipe failure in other parts of the system will still be a challenge but are easier for the District maintain and fix.

c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	15	12

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? Based on acres owned

b. How is voting authority delegated to water users? One vote per acre of real property in the area served by the Irrigation District.

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	$10	$13.50
d. If there is a basic service charge in addition to assessments, how much is it?	$100	$125

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 17,207	$ 23,470
Annual revenues from other sources:	$ 0	$ 0

Total annual revenues:	$	17,207	$	23,470
Annual budget for operation and maintenance expenses:	$	10,000	$	6,500
Annual payments for debt retirement:	$	0	$	15,000
Annual payments to a repair and replacement fund:	$	7,207	$	1,970
Annual payments to an emergency fund:	$	0	$	0
Annual payments for other purposes:	$	0	$	0
Total annual payments:	$	17,207	$	23,470
Balance in repair and replacement fund:	$	35,550	$	37,520
Balance in emergency fund:	$	10,000	$	10,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 3 replacement of existing transmission pipelines

2. Will the project serve at least 1,000 water righted acres? No Number of acres 933

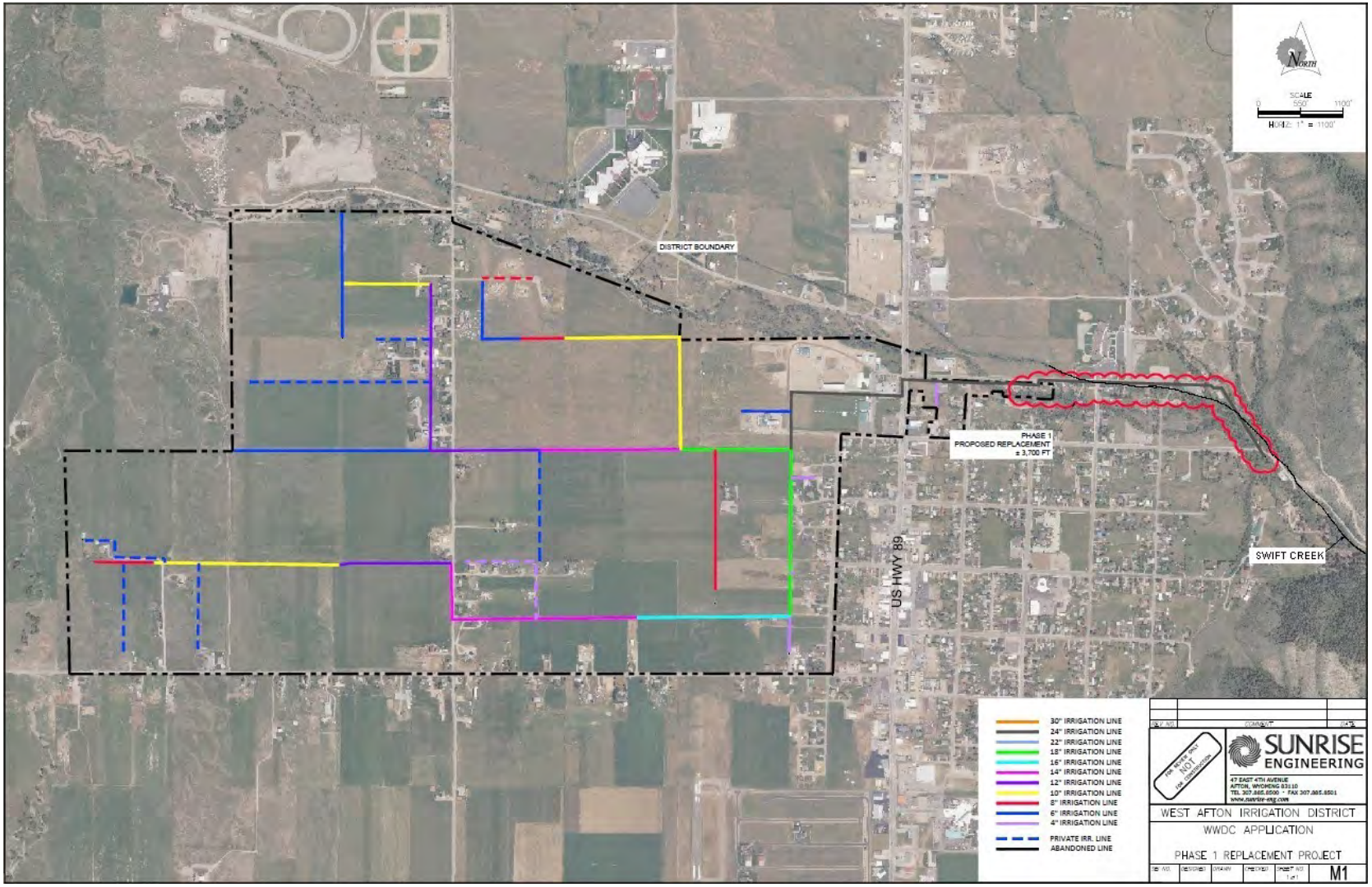
3. Is the sponsor eligible for funding from other state or federal programs? Yes If so, what are they? The Irrigation District has submitted an application to the BOR for WaterSMART Planning and Project Design funds ($400,000). Notice of selection is anticipated in January 2025 with funds becoming available spring of 2025.

4. What water conservation measures are employed by the sponsor? Irrigators are encouraged to maintain their on farm systems so they use water efficiently.

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? Yes. Should it be? Yes. A delay in the project should occur until the Irrigation District can meet WWDC acreage eligibility requirements.

7. Basis for the funding recommendation: This project was identified as the highest priority in the West Afton/Nield String Master Plan Level I study, specifically for the West Afton portion of the project area. The scope of the project is eligible for WWDC funding. However, the Irrigation District does not meet the minimum eligibility requirement of 1,000 acres for funding defined in the WWDC criteria.


DISTRICT BOUNDARY
PHASE 1
PROPOSED REPLACEMENT
± 3,700 FT
US HWY 89
SWIFT CREEK
SCALE
HORIZ: 1" = 1100'
30" IRRIGATION LINE
24" IRRIGATION LINE
22" IRRIGATION LINE
18" IRRIGATION LINE
16" IRRIGATION LINE
14" IRRIGATION LINE
12" IRRIGATION LINE
10" IRRIGATION LINE
8" IRRIGATION LINE
6" IRRIGATION LINE
4" IRRIGATION LINE
PRIVATE IRR. LINE
ABANDONED LINE
FOR REVIEW ONLY
NOT
FOR CONSTRUCTION
SUNRISE
ENGINEERING
47 EAST 4TH AVENUE
AFTON, WYOMING 83110
TEL 307.885.0500 · FAX 307.885.8501
www.sunrise-eng.com
WEST AFTON IRRIGATION DISTRICT
WWDC APPLICATION
PHASE 1 REPLACEMENT PROJECT
M1

Pipe Conditions (top photos) and extent of ground disturbance typically required to repair leaks (bottom photo)

RESOLUTION

The Board of Directors of the West Afton Irrigation District hereby resolve that on August 20, 2024, proceed with an application for a Level III Construction Funding for Agricultural Projects through the Wyoming Water Development Commission to replace a portion of the 24-inch steel pipe.

Dated this 21st day of August, 2024

Jody Kennington, President

Matt Kallgren, Commissioner

Josh Nield, Commissioner

STATE OF WYOMING:

:ss.

COUNTY OF LINCOLN:

Subscribed and sworn to in my presence this 21st day of August, 2024.

STELLA MACKEY
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 145868
MY COMMISSION EXPIRES: 7/1/2027

Notary Public

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Wheatland Well No. 3 Replacement 2025 **Program:** Rehabilitation

Project Type: Municipal **County:** Platte

Sponsor: Town of Wheatland

WWDO Recommendation: Do Not Fund **Proposed Budget:** $0

WWDC Grant[1] (50%)	$ 901,500
Other Funding Source[2] (50%)	$ 901,500
Total	$ 1,803,000

[1] Not to exceed 50% of eligible costs
[2] Sponsor or other funding source

Project Manager: Moser/Mitchell.

Project Description: The Town of Wheatland desires to offset and replace the Wheatland No. 3 well. The well is 88 years old and the water exceeds EPA maximum contaminant level (MCL) for uranium. This project will investigate the existing well in an effort to identify zones responsible for uranium and construct a replacement No. 3 well which will avoid those zones.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2015	L-III Wheatland No. 7 Well	$ 502,500
2016	L-III Wheatland Pipelines	$ 522,600
2017	L-III Wheatland Wells 2017	$ 994,950
2021	I-I Wheatland Water Master Plan	$ 125,000
2024	L-III Wheatland Tank Replacement 2024	$ 2,685,500

2. **Describe existing water supply using information in the application.**
   The Town of Wheatland has eight active water supply wells. These wells produce from the Arikaree Formation. Wheatland's Well No. 1 and Well No. 2 pump to the north settling basin, while Wells 5, 6, and 7 pump to the south settling basin. Water from the north and south settling basins are pumped to the storage tanks on the east side of Town. The Black Mountain wells 2, 3, and 4 pump to a storage tank on the west side of Town.

3. **Summarize the request.**
   The Town of Wheatland desires to replace the aging Wheatland No. 3 well with a new well which will serve the east side of Town.

4. **Summarize the reasons for the request.**
   The Wheatland Well No. 3 has reached the end of its service life. Additionally, the well contains problematic levels of uranium. A replacement Wheatland Well No. 3 would provide additional capacity in the east side of Wheatland and additional insurance against failure of Wheatland Wells No. 1 and No. 2.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$ 126,625	
Title Opinion	$ 5,000	
Pre-Construction Costs (Subtotal # 1)		$ 131,625
Cost of Project Components		
Phase I – Well Drilling		
Mobilization, Bonds, Insurance		$ 120,000
Video Log existing well		$ 20,000
Drilling, geophysical logging, constructing, and developing		$ 510,800
Standby Time		$ 8,800
Test Pumping		$ 85,100
Abandonment of old well		$ 15,000
Phase I – Well Drilling Subtotal		$ 759,700
Phase II – Well Completion		
Mobilization, Bonds, Insurance		$ 120,000
Trenching and backfilling		$ 14,400
Pipe, connection, tees, fittings		$ 34,800
Well House, piping and electrical		$ 220,000
Pump, motor, panel, and telemetry		$ 110,000
Reclamation and landscaping		$ 7,350
Phase II – Well Completion Subtotal		$ 506,550
Construction Cost (Subtotal #2)		$ 1,266,250
Construction Engineering Costs (Subtotal # 2 x 10%)		$ 126,625
Components and Engineering Costs (Subtotal # 3)		$ 1,392,875
Contingency (Subtotal #3 x 15%)		$ 208,931
Construction Cost Total (Subtotal #4)		$ 1,601,806
Total Project Cost (Subtotal #1 + Subtotal #4)		$ 1,733,431
Inflation Costs (4% per one year)		$ 69,337
Total Project Costs		**$ 1,802,768**
Total Project Costs Rounded		**$ 1,803,000**
Level III Recommended Funding @ 50% Grant:		**$ 901,500**
Total Ineligible Project Costs		**$ 0**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information

a. Population (2010 Census) 3,575 (Current Estimate) 3,481

b. Does the entity have a comprehensive planning boundary? Yes
If so, what is the estimated additional population that could be served in the future? 295

	Pre-Project	Post-Project
c. Taps served within the entity boundaries?	1,842	1,842
d. Taps outside the entity boundaries?	52	52
e. Names of other water systems served? Not Applicable		

2. Water Usage (Potable water system only)	Pre-Project	Post-Project
a. Total number of gallons produced by the water sources annually:	365MG	498MG
b. Gallons used per capita per day:		
Average Day:	293 gal	293 gal
Peak Day:	870 gal	870 gal

3. System capacity (Potable water system only):	Pre-Project	Post-Project
a. Maximum capacity of the water supply system Gallons per day:	4.3MGD	5.0MGD
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Supply	Treatment if uranium levels remain
c. Increased capacity needed: Gallons per day	309,000	309,000
d. Estimated system water losses (percentage):	7%	7%

4. Does the entity have an independent raw water irrigation system? No

a. Raw water system capacity (acre feet per day & gallons per day):	0
b. Average annual raw water usage (acre feet & gallons):	0

5. Rates	Pre-Project	Post-Project
a. Tap fees:		
Residential:	$ 1,500	$ 1,500
Commercial:	$ 1,500	$ 1,500

b. Average monthly water bill: $ 40.00 $ 42.00

c. Water Rates

Town Ordinance #851 prescribes service fees and tiered rates which increase associated with higher categories of water use. Base residential rates for 2024 are $2.75 plus $32.50 for the first 10,000 gallons. The Ordinance also prescribes increases in base and water usage rates for both 2025 and 2026 in increments over the years.

6. Financial Statement

	Pre-Project	Post-Project
Annual revenues generated from water sales:	$ 811,788	$ 852,378
Annual revenues from tap fees:	$ 2,000	$ 2,000
Annual revenues from other sources:	$ 32,559	$ 40,000
Total annual revenues:	$ 846,347	$ 894,378
Annual budget for operation and maintenance expenses:	$ 369,374	$ 517,437
Annual payments for debt retirement:	$ 0	$ 0
Annual payments to a repair and replacement fund:	$ 0	$ 30,000
Annual payments to an emergency fund:	$ 0	$ 0
Annual payments for other purposes:	$ 476,973	$ 346,941
Total annual payments:	$ 846,347	$ 894,378
Balance in repair and replacement fund:	$ 104,960	$ 164,960
Balance in emergency fund:	$ 0	$ 0
Annual cost of water quality testing:	$ 4,689	$ 10,000

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 1 Level III rehabilitation of water diversion or control structures

2. Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes. Resolution #11-2024 was passed by the Governing Body for the Town of Wheatland in support of the application.

3. Will the project serve at least 15 water taps? Yes Number of taps 1,894

4. Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): Yes, overflow piping on North and South Settling Basins.

5. Does anyone in the service area haul water? No

6. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: SRF, SLIB and RUS

7. Is water metered? Yes Are billings based on meter readings? Yes

8. What is monthly water bill for 5,000 gallons? $35.25 for residential 20,000 gallons? $43.25

9. Theoretical reasonable monthly water bill ($58,813 (AMHI) x 2.5%/12) $122.53

10. What water conservation measures are employed by the sponsor? Tiered water rates and year-round water restrictions.

11. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

12. Will the project consider regional solutions? No, a regional solution does not apply to this specific project.

13. Can the project be delayed or staged? Yes Should it be? Yes, Well 3 was not identified in the 2023 Wheatland Master Plan Level I as a priority. The well currently has water quality issues, and the proposed location for the new well does not seem feasible for correcting the water quality issues.

14. Basis for the funding recommendation:

As described, the project would obtain authorization from the State Engineer's Office / Board of Control to relocate existing water rights from the High Plains Aquifer System, within the Platte County Groundwater Control Area. Because the applicant is not proposing to develop additional water rights or additional supply, the project is most appropriately categorized as Rehabilitation.

The Wheatland Water Master Plan Level I Study (February 2023) identified recommended improvements for the Town of Wheatland. The Study recommended replacement of Wheatland Well No. 1 due to the age and risk of failure. Wheatland Well No. 1 is the oldest well, and the recommendation to replace this well was suggested as a means to help maintain capacity and water rights. The Study further found that the capacity of all wells together was sufficient to meet the Town's 2040 projected water demands, even if the Wheatland Well No. 1 and No. 2 were to fail. That analysis was performed at a time when the Wheatland Well No. 3 was not in service.

The average day demand and maximum day demand for Wheatland (as a whole) is 0.99MGD (687gpm) and 2.96MGD (2,056gpm), respectively. Functionally, Wheatland Wells No.1, 2, 5, 6, and 7 supply the "Town Zone" of Wheatland, with a combined reported flow rate of 2,295gpm.

While planning for future well replacement is commendable, it does not appear that Wheatland is critically deficient in supply. In addition, WWDO staff are concerned that a replacement well in the vicinity of the Wheatland Well No. 3 will face challenges related to uranium in the groundwater. Therefore, the Water Development Office notes concerns in the following order:

1. The Office does not fully understand the operational history associated with the Wheatland Well No. 3; however, it is our understanding that this well has been idle for some time. The Sponsor may be able to obtain a "Temporary Relocation" from the Water Division I Superintendent; however, the process to petition for a permanent relocation of this water right will require consideration by the Board of Control, which frequently requires recent production information for justification of the relocation. In addition, the petition will require consideration and recommendation by the Platte County Control Area Advisory Board, which adds an additional review layer to the process. Due to these intricacies, it is not immediately clear if the Superintendent will grant a "Temporary Relocation" to authorize the drilling.
2. The 2023 Water Master Plan identifies that Wheatland can meet projected water demands even if Wheatland Wells No. 1 and No. 2 fail. Therefore, Wheatland does not need additional redundancy at this time.
3. Even if Wheatland needs additional supply related to the main pressure zone, there are some risks associated with drilling near the Wheatland Well No. 3. These challenges are great enough that the Office would recommend a Level II (Feasibility) study to more adequately characterize the groundwater production zones (quality and quantity), evaluate reasonable alternatives, and more fully develop costs associated with construction.

Well No. 3
N
South St
W Johnston Ave
Maverik Adventure's First Stop
Subway
Johnston St
Fat Boys Tire & Auto
Platte County Memorial Hospital
Lewis Park
Zorn St
W Basin St
Brice St
Wheatland Town Pool
Western Sky's Family Diner
Loomis St
Exxon
Mitchell St
Mountain View Park
W Ponderosa St
Cole St
Wheatland Golf Club
E Cole
Wheatland Fire Training Center
Laramie Peak Veterinary Associates
W Frontage Rd
Rock Creek
14th St
15th St
16th St
S Wheatland Hwy
BreezAutoShine
Wheatland Cemetery
Image © 2024 Airbus

RESOLUTION #11-2024

A RESOLUTION AUTHORIZING SUBMISSION OF A WYOMING WATER COMMISSION LEVEL III CONSTRUCTION FUNDING APPLICATION ON BEHALF OF THE GOVERNING BODY FOR THE TOWN OF WHEATLAND FOR THE

Wheatland Well #3 Replacement

WHEREAS, the Governing Body for the Town of Wheatland desires to participate in the State of Wyoming's Water Development Commission Level III Construction Funding for Municipal and Rual Domestic Projects program; and

WHEREAS, the Governing Body for the Town of Wheatland recognizes the need for the request; and

WHEREAS, the Governing Body for the Town of Wheatland recognizes there are certain requirements which must be met for the application to be complete and that funding for projects are based on WWDC recommendations and is appropriated by the legislature from the Water Development Accounts.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE Town of Wheatland that an application in the amount of $1,174,798.94 be submitted to the Wyoming Water Development Commission for consideration at their next board meeting to assist in funding the Wheatland Well #3 Replacement.

BE IT FURTHER RESOLVED, that Candy Wright, Clerk/Treasurer for the Town of Wheatland is hereby designated as the authorized representative of the Town of Wheatland to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED AND ADOPTED THIS 12th day of August 2024.

Braden R Graves

Brandon Graves, Mayor

STATE OF WYOMING)
) SS.
COUNTY OF PLATTE)

The foregoing RESOLUTION was acknowledged before me this 12 day of August, 2023 by Brandon Graves

WITNESS MY HAND AND OFFICIAL SEAL

Tabitha Enniss

Notary Public

My Commission expires: 04/04/2028

TABITHA ENNISS
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 161312
MY COMMISSION EXPIRES: 04/04/2028

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Willwood ID Willwood Chute 2025

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Park and Big Horn

Sponsor: Willwood Irrigation District

WWDO Recommendation: Level III

Proposed Budget: $1,698,000

WWDC Grant[1] (47%)	$ 798,000
WWDC Loan[2] (53%)	$ 900,000
Total	$ 1,698,000

[1] Not to exceed 47% of eligible costs
[2] 53% loan at 4% interest and a term of 20 years

Project Manager: Tavelli / Kaiser

Project Description: The design and construction of a replacement irrigation chute and appurtenances necessary to make the project function in the manner intended.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

Year	Project	Appropriation
2014	L-I, Willwood ID Master Plan	$ 160,000
2014	L-III, Willwood ID Rehab 2014	$ 164,000
2016	L-III, Willwood ID Rehab 2016	$ 533,000
2023	L-II, Willwood ID Rehab 2023	$ 346,000

2. **Describe existing water supply using information in the application.**
   The existing water supply system consists of a gravity weir dam diverting water from the Shoshone River into open and piped canals. The direct flow diversion right is 74 cfs to serve approximately 11,595 acres. The water supply system has 120,000 acre-feet in stored water at the Buffalo Bill Reservoir.

3. **Summarize the request.**
   Funding is being requested to reconstruct the Willwood Chute to replace the existing chute that is failing. The sponsor has secured $900,000 in NRCS EQIP funding for the project. The EQIP payments are made available upon completion of phases of the project. As the project phases are completed the District will receive payment from the NRCS and will use those payments to pay back the loan component of the project.

4. **Summarize the reasons for the request.**
   Failing control structure is deteriorating, and water is undermining the structure causing potential catastrophic failure. Failure of this structure would leave 2/3 of the Willwood Irrigation District without irrigation water and result in a complete shutdown of the Willwood Canal, which would impact the entire District.

Estimated Level III WWDC Eligible Costs:

Preparation of Final Designs and Specifications	$	118,755	
Site Access Permit Fees (BOR, USFS, etc.)	$	0	
Title Opinion	$	2,000	
Acquisition of Access and Rights of Way	$	10,000	
Pre-Construction Costs (Subtotal # 1)			$ 130,755
Cost of Project Components			
Mobilization	$	95,000	
Erosion and Sediment Control Plan	$	2,500	
72" RCP Pipe	$	374,400	
Modify Existing Inlet Structure	$	25,000	
Modify Existing Outlet Structure	$	25,000	
Inlet Structure	$	65,000	
Outlet Structure	$	475,000	
Clear and Grub	$	10,000	
Dewatering	$	10,000	
Drainage Pipe and Structures	$	25,000	
Surface Restoration	$	40,000	
Roadbase, Bedding, Backfill, and Foundation	$	40,650	
Construction Cost (Subtotal #2)			$ 1,187,550
Construction Engineering Costs (Subtotal # 2 x 10%)			$ 118,755
Components and Engineering Costs (Subtotal # 3)			$ 1,306,305
Contingency (Subtotal #3 x 15%)			$ 195,946
Construction Cost Total (Subtotal #4)			$ 1,502,251
Total Project Cost (Subtotal #1 + Subtotal #4)			$ 1,633,006
Inflation Costs (4% per one year)			$ 65,320
Total Project Costs			**$ 1,698,326**
Total Project Costs (Rounded)			**$ 1,698,000**
Level III Recommended Funding @ 47% Grant:			**$ 798,000**
Level III Recommended Funding @ 53% Loan:			**$ 900,000**
Ineligible Expenses			
NRCS NEPA			$ 50,000
Total Ineligible Project Costs			**$ 50,000**

PROJECT INFORMATION:

A. FINANCIAL INFORMATION

1. Service Area Information.	Pre-Project	Post-Project
a. Total acres are in the District?	11,595	11,595
b. Assessed acres?	11,595	11,595

c. Irrigated acres?	11,595	11,595
d. Average annual water delivery (acre-feet/acre assessed)?	10	10
e. How many individual landowners receive water?	204	204

f. What type(s) of on-farm irrigation water application is used? Tubes, center pivots, wheel lines, flood, gated pipe, drip system

g. Briefly describe the main crops and cropping patterns: Alfalfa, corn, sugar beets, malt barley, grass seed

h. Describe the water measuring devices currently in use: Pressure sensor at the diversion dam, lookdown sensor at main canal, Cipolletti weirs on laterals, Parshall flumes at turnouts, electronic flow meters at turn outs, staff gages, 4 Rubicon gates with discharge and canal flow

2. Water Usage	Pre-Project	Post-Project
a. Total water (AF) provided by the system annually:	120,000	120,000
b. Average Day Demand (AF):	635	635
c. Peak Day Demand (AF):	833	833

3. System Capacity:	Pre-Project	Post-Project
a. Maximum capacity of the water supply system (acre feet per day)	833	833
b. What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.):	Aging Infrastructure	Same
c. Increased capacity needed (acre feet per day):	0	0
d. Estimated system water losses (percentage):	15	15

4. District Financing

a. Is the assessment based on acres, acre-feet delivered, acre-feet of storage space, or other? acres

b. How is voting authority delegated to water users? Number of water-righted acres

	Pre-Project	Post-Project
c. What is the per unit amount of the current assessment?	31.50	39.50
d. If there is a basic service charge in addition to assessments, how much is it?	100	200

5. Financial Statement	Pre-Project	Post-Project
Annual revenues generated from assessments:	$ 385,202	$ 428,764
Annual revenues from other sources:	$ 0	$ 0
Total annual revenues:	$ 385,202	$ 428,764

Annual budget for operation and maintenance expenses:	$	10,000	$	10,000
Annual payments for debt retirement:	$	43,894	$	43,894
Annual payments to a repair and replacement fund:	$	0	$	0
Annual payments to an emergency fund:	$	0	$	0
Annual payments for other purposes[4]:	$	331,308	$	374,870
Total annual payments:	$	385,202	$	428,764
Balance in repair and replacement fund:	$	70,000	$	70,000
Balance in emergency fund:	$	0	$	0

[4]NOTE: WID has 3 accounts: general budget, equipment depreciation, and system rehabilitation

B. COMPARISON WITH OPERATING CRITERIA

1. Project Priority according to the Criteria? Account II, Priority 1 Rehabilitation of water diversion or control structures

2. Will the project serve at least 1,000 water righted acres? Yes Number of acres 11,595

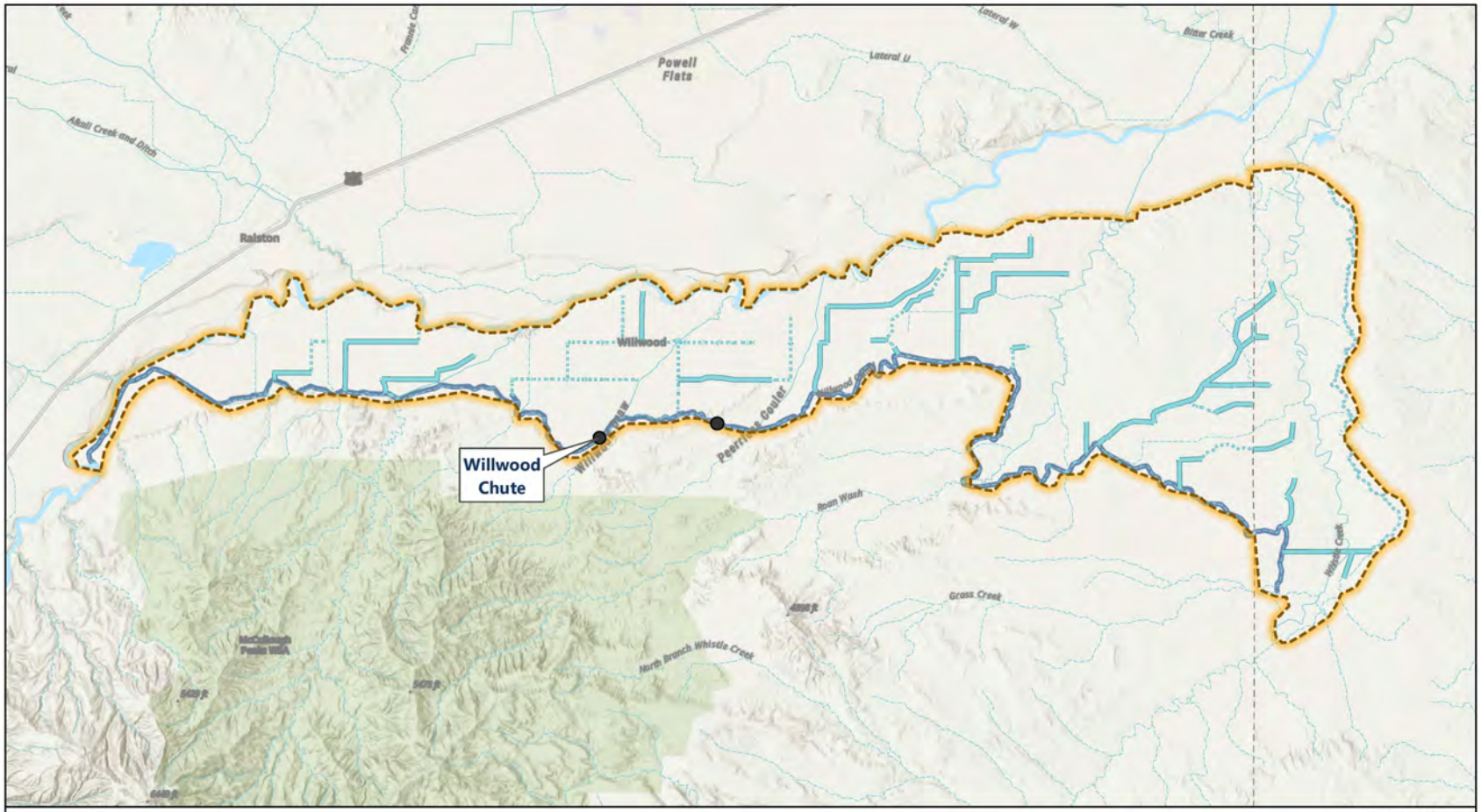
3. Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they? NRCS, BOR

4. What water conservation measures are employed by the sponsor? Canal cleaning, canal lining in seepage areas, pivots, gated pipe, open dirt lateral to closed pipe systems

5. Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

6. Can the project be delayed or staged? No. Should it be? No. Failure of this structure would leave 2/3 of the Willwood Irrigation District without irrigation water and result in a complete shutdown of the Willwood Canal, which would impact the entire District.

7. Basis for the funding recommendation: This is the number one concern of the Level II study. The chute is at risk of catastrophic failure due to seepage underneath the structure allowing water to surface in areas outside of the structure.



CANAL SYSTEM & CHUTE

Willwood Irrigation

0 1 2
Miles

Open Ditch
Pipeline
Willwood Canal
Chute
Willwood ID Boundary

October 2024

J-U-B ENGINEERS, INC.

Willwood Chute

Figures 1-3 provided courtesy of Willwood Irrigation District Rehabilitation Level II Study; JUB Engineers, Inc.

Figure 1. Observed water leaking through the chute wall

Figure 2. Movement in the drop structure walls

Figure 3. Large portions of the drop structure have broken

Willwood Irrigation District
1306 Road [illegible] WY 82435 • 307-754-3931 • willwoodirrigationoffice.com

A RESOLUTION AUTHORIZING THE WILLWOOD IRRIGATION DISTRICT TO SPONSOR A WYOMING WATER DEVELOPMENT PROGRAM LEVEL III FEASIBILITY STUDY.

WITNESSETH

Whereas, the Willwood Irrigation District Board of Commissioners is the Governing Body of the Willwood Irrigation District and desires to participate in the Wyoming Water Development Program by submitting a Level III Feasibility Study and application: and

Whereas, the Willwood Irrigation District Board of Commissioners recognizes the need for the project to convert Willwood Chute from an open chute to reinforced concrete pipe; and

Whereas, the application and project were discussed at the regular monthly meeting held on August 8, 2024, at the Willwood Irrigation District office in Powell, Wyoming; and

Whereas, the Willwood Irrigation District Commissioner Harold Stromberger moved to approve sponsorship for the Wyoming Water Development Program Level III Feasibility Study application and Willwood Irrigation District Commissioner Cody Easum seconded the motion; no discussion followed, and all ayes carried the motion; and

Whereas, the Willwood Irrigation Commissioners states that Travis Moger is hereby designated as an authorized representative of the Willwood Irrigation District to act on behalf of the Governing Body on matters relating to this grant application that do not need Board approval; and

Whereas, the Wyoming Water Development Program requires certain criteria be met, as described in the Wyoming Water Development Commission rules and regulations governing the program, and to the best of the Willwood Irrigation District's knowledge the proposed application meets those criteria; and

Now, therefore be it resolved, that the Willwood Irrigation District Board of Commissioners sponsors the submittal of the Wyoming Water Development Program Level III Feasibility Study application.

Passed, approved this 8th day of August 2024.

Troy Pimentel
Chairman
Willwood Irrigation District

Subscribed and sworn to before me this 8th day August, 2024, by Troy Pimentel.

(SEAL)

KATIE STROMBERGER NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID# 166530
MY COMMISSION EXPIRES: JANUARY 27, 2028

My commission expires: January 27, 2028

KATIE STROMBERGER NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID# 166530
MY COMMISSION EXPIRES: JANUARY 27, 2028

Katie Stromberger
Notary Public

Office of The County Commissioners

P.O. Box 31
Basin WY
82410

COUNTY COMMISSIONERS
Bruce H Jolley, Chairman
David Neves
Deb Craft

Lori Smallwood, County Clerk
Nicole Vigil, Treasurer
Gina Anderson, Assessor
Marcia Bean, Prosecuting Attorney
Serena Lipp, Clerk of District Court
Kenneth Blackburn, Sheriff
Michael Jameson, Coroner

Phone: 307-568-2357 Fax 307-568-9375
www.bighorncountywy.gov

September 20, 2024

Director Jason Mead
Wyoming Water Development Office
6920 Yellowtail Rd
Cheyenne, WY 82002

Subject: Willwood Chute Construction Application to Wyoming Water Development Office

We are pleased to submit this letter on behalf of the Big Horn County Commissioners in support of the Level III Construction Application submitted by Willwood Irrigation District on August 29, 2024, to the Wyoming Water Development Office.

Willwood Irrigation District is in both Big Horn and Park Counties and supplies water to over 200 water users across 11,595 acres. The Willwood Chute structure is a critical feature of the Willwood Irrigation District and approximately two-thirds of the District's water users are located past this structure. The Willwood Chute is over 50 years old, and the integrity of the structure is deteriorating. When the structure fails it will not only affect water users past this point but the entire District as the whole canal will need to be shut off.

Should Willwood Irrigation District be successfully chosen to receive Level III Construction Funding, farmers and ranchers in both counties will be able to irrigate their crops and pastures without worrying about a structure failing and water being shut off.

Thank you for your time and consideration. Should you have any questions, please feel free to contact Bruce Jolley, Chairman at 307-568-2357.

Sincerely,

B Jolley

Bruce Jolley, Chairman

September 18, 2024

Director Jason Mead
Wyoming Water Development Office
6920 Yellowtail Rd
Cheyenne, WY 82002

Subject: Willwood Chute Construction Application to Wyoming Water Development Office

We are pleased to submit this letter on behalf of the Park County Commissioners in support of the Level III Construction Application submitted by Willwood Irrigation District on August 29, 2024, to the Wyoming Water Development Office.

Willwood Irrigation District is in both Big Horn and Park Counties and supplies water to over 200 water users across 11,595 acres. The Willwood Chute structure is a critical feature of the Willwood Irrigation District and approximately two-thirds of the District's water users are located past this structure. The Willwood Chute is over 50 years old, and the integrity of the structure is deteriorating. When the structure fails it will not only affect water users past this point but the entire District as the whole canal will need to be shut off.

As referenced in the Park County Land Use Plan, Park County is a major producer of numerous crops including seed crops, sugar beets, hay, oats, and barley. Park County farms account for 18% of the statewide acres used for growing oats and 30% of the statewide acres used to produce barley. Water and irrigation infrastructure are vital to agriculture.

Should Willwood Irrigation District be successfully chosen to receive Level III Construction Funding, farmers and ranchers in both counties will be able to irrigate their crops and pastures without worrying about a structure failing and water being shut off.

Thank you for your time and consideration. Should you have any questions, please feel free to contact our office at 307-527-8510.

Sincerely,

Dossie Overfield
Chairman, Board of Park County Commissioners

September 23, 2024

Director Jason Mead

Wyoming Water Development Office

6920 Yellowtail Rd

Cheyenne, WY 82002

Subject: Willwood Chute Construction Application to Wyoming Water Development Office

I am pleased to submit this letter in support of the Level III Construction Application submitted by Willwood Irrigation District on August 29, 2024, to the Wyoming Water Development Office.

Willwood Irrigation District is in both Big Horn and Park Counties and supplies water to over 200 water users across 11,595 acres. The Willwood Chute structure is a critical feature of the Willwood Irrigation District and approximately two-thirds of the District's water users are located past this structure. The Willwood Chute is over 50 years old, and the integrity of the structure is deteriorating. When the structure fails it will not only affect water users past this point but the entire District as the whole canal will need to be shut off.

As referenced in the Park County Land Use Plan, Park County is a major producer of numerous crops including seed crops, sugar beets, hay, oats, and barley. Park County farms account for 18% of the statewide acres used for growing oats and 30% of the statewide acres used to produce barley. Water and irrigation infrastructure are vital to agriculture.

Should Willwood Irrigation District be successfully chosen to receive Level III Construction Funding, farmers and ranchers in both counties will be able to irrigate their crops and pastures without worrying about a structure failing and water being shut off.

Thank you for your time and consideration. Should you have any questions, please feel free to contact me at 307-254-2090 or yakred@tritel.net

Sincerely,

Paul V. Hoeft

Paul V. Hoeft

Representative Elect

Wyoming Legislature – House District 25

LEVEL III PROJECTS -AMENDMENTS

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Eden Valley Irrigation District System Improvements 2019

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Sweetwater County

Sponsor: Eden Valley Irrigation & Drainage District

Sponsor's Request: Project Modification, and Additional Time

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2026 to July 1, 2028 and modify the project to complete the work within the existing budget.

Previously Approved Budget: $ 351,000

WWDC Grant[1] (25%)	$ 351,000
Sponsor[2] (75%)	$ 1,053,000
Total	$ 1,404,000

[1] Not to exceed 25% of eligible costs
[2] Sponsor or other funding source

Project Manager: Mitchell

Project Description: The original project included design and construction of a portion of the Eden Canal lining, and a sand trap structure. The project went out to bid in May of 2022. The low bid received was 65% over the engineer's estimate. As a result, the bids were rejected and the project was put on hold to determine the best way to move forward.

The project's 46% co-funding was being provided by the Bureau of Reclamation Water and Efficiency Grant. That specific grant has been terminated, and the District has included this project in another grant package from the NRCS. The District has secured the NRCS funding with a request of WWDC co-funding at 25% of eligible construction costs. All future pay requests will be requested at a 25% WWDC cost share. The NRCS also covers 100% of costs related to engineering services (i.e. design changes, construction management, amendments etc.)

The District is requesting to remove 750 LF of concrete lining from the Eden Canal as a modification to the scope of work, and they are also requesting a time extension to allow time to re-bid and construct the project. It is the WWDO's recommendation to approve the changed scope of work and time extension request, while reducing the WWDC Grant amount to 25% of eligible construction costs.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Enterprise WID Canal Lining 2020

Program: Rehabilitation

Project Type: Agricultural Irrigation

County: Fremont

Sponsor: Enterprise Watershed Improvement District

Sponsor's Request: Additional Time

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2027.

Previously Approved Budget: $ 610,000

WWDC Grant[1] (67%)	$ 408,700
WWDC Loan[2] (33%)	$ 201,300
Total	$ 610,000

[1] Not to Exceed 67% of eligible costs.
[2] 33% loan at 4% interest and a term of 50 years

Project Manager: Mallo

Project Description: The 2008 Level II Enterprise Conservation Program study identified the upper Sawmill reach of the Enterprise Ditch as having significant seepage approximately three times higher than leakage on other areas of the system. This seepage represents approximately 50 percent of the total seepage loss on the entire system.

Lining or piping this section is needed to reduce losses. The original scope of the project was for lining, but given the nature of the area it was believed that lining wouldn't last and the Engineer believed that they could pipe the ditch for a similar cost. The District requested the Engineer to move forward with a design for piping the ditch, but costs for piping started to escalate beyond expectations. The District is exploring a durable spray type liner with engineering resources from NRCS, but is encountering issues with the access to its remote location.

The District is seeking more time to find a durable lining product to fit within budget that can be used in the project's remote location. WWDO is recommending a time extension for this project.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Laramie Valley Diversion Structure 2020 **Program:** Rehabilitation

Project Type: Agricultural Irrigation **County:** Albany County

Sponsor: Laramie Valley Municipal Irrigation District

Sponsor's Request: Additional Time **Proposed Budget Increase:** $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2027. **Previously Approved Budget:** $ 1,850,000

WWDC Grant[1] (67%)	$ 1,239,500
WWDC Loan[2] (33%)	$ 610,500
Total	$ 1,850,000

[1] Not to exceed 67% of eligible costs.
[2] 33% loan at 4% interest and a term of 20 years

Project Manager: Mallo

Project Description: In 2020, the project was funded in the amount of $1,150,000 with a 67% grant and 33% loan, to reconstruct the diversion structure in the same location. During the initial phases of the Level III design, there were several factors that led Laramie Valley Municipal Irrigation District (LVMID) to reassess the project. Sink holes developed behind the head gate, and a section of the main river channel upstream of the diversion washed out into an adjacent inactive river channel. A LIDAR topographic survey showed that there was a potential for the main river channel to continue to breach its banks in multiple places, which could cause the river to bypass the existing diversion structure. Based on these factors, the LVMID sought technical assistance from the Natural Resources Conservation Service (NRCS). The NRCS funded a small study to evaluate the alternatives of rehabilitating the existing structure versus locating an entirely new diversion structure upstream. The LVMID determined that constructing a new diversion approximately one mile upstream of the existing structure better served their needs relative to long-term efficiency, longevity of the structure, and more efficient operation and maintenance.

Discussion with the landowner at that time led LVMID to believe they had a willing and cooperative entity to facilitate the relocation. So, an amendment was proposed to add $700,000 to the original appropriation to fund the construction of a new point of diversion upstream of the existing structure. During the easement negotiations the landowner sold the parcel on which the relocation was proposed and the new landowner is not open to the relocation. Therefore, LVMID is going back to replacing the diversion at the existing location and is asking for additional time to complete the project. WWDO is recommending approval of a time extension as LVMID is making progress with the diversion replacement at its existing location and is working to finalize funding from other sources. LVMID is confident it can complete the project within the requested additional time.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS
Small Water Projects Program

Project Name: Small Water Project Program **Program:** Rehabilitation

Project Type: Multipurpose **County:** Statewide

Sponsor: WWDC

WWDO Recommendation: Level III (continuing) **Proposed Budget Increase:** $500,000

	Rehabilitation (WDA II)
Presently available (as of 11/1/2024)	$ 559,395
Proposed budget increase	$ 500,000
Revised available	$1,059,395

Project Description: This program provides funding for the rehabilitation of small water projects including small reservoirs, wells, pipelines and conveyance facilities, springs, solar platforms, irrigation works, windmills, environmental, rural community fire suppression, recreational, and wetland developments.

1. Description of the existing status in the program and previous appropriations.

EXISTING LEGISLATION-Rehabilitation

Purpose	Chapter	Session	Account	Appropriation
Small Projects	88	2002	II	$500,000
Small Projects	118	2004	II	$750,000
Small Projects	114	2005	II	$500,000
Small Projects	32	2010	II	-$200,000
Small Projects	14	2014	II	$300,000
Small Projects	100	2015	II	$400,000
Small Projects	100	2016	II	$300,000
Small Projects	121	2018	II	$100,000
Small Projects	55	2019	II	$700,000
Small Projects	113	2020	II	$701,795
Small Projects	12	2021	II	$500,000

2. Summary of the request.

The WWDO is recommending $500,000 be appropriated to meet project application demands.

3. Summary Statistics:

Current Active Account II Projects: 36
Application History:

Year	# of Account II Applications	Total # of Project Applicants (between both accounts)	Estimated WWDC Account II Project Cost
2012	3	5	$ 75,000
2013	10	6	$250,000
2014	19	7	$337,190
2015	14	8	$276,580
2016	11	6	$230,000
2017	11	9	$273,461
2018	19	10	$529,000
2019	18	14	$480,910
2020	33	17	$939,150
2021	9	12	$268,050

2022	15	17	$394,150
2023	18	13	$494,775
2024	18	20	$480,000

LEVEL I PROJECTS

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Pioneer Canal Lake Hattie Irrigation District Master Plan **Program:** Rehabilitation

Project Type: Agricultural Irrigation Supply **County:** Albany

Sponsor: Pioneer Canal Lake Hattie Irrigation District

WWDO Recommendation: Level I **Proposed Budget:** $236,000

Basis for the Funding Recommendation:

The most recent master plan study for the Pioneer Canal Lake Hattie Irrigation District (PCLHID) was in 1991, after the formation of the District in 1988. Over the past 33 years, and since the original 1991 study, PCLHID has made several repairs, replacements and completed suggested improvement projects. Enough time has passed that the District is needing an updated comprehensive master plan to inventory the system, assess the condition of components and prioritize options for keeping the system operational.

PCLHID continues to be involved in a lawsuit with landowners regarding the operational reservoir levels at Lake Hattie. At this time, no resolution has been reached and there is no pending date for when the courts plan to reach a final decision. **With respect to the current lawsuit, the Master Plan would focus primarily on PCLHID's aging infrastructure, conveyance losses, and a full system evaluation, without addressing specific operations strategies for Lake Hattie Reservoir.**

Project Manager: Cheyenne Love

I. PROJECT DESCRIPTION

The PCLHID is governed by a five-officer board, and includes one ditch rider. The District stores and diverts water from both the Laramie and Little Laramie Rivers. Water is stored within Sodergreen Lake and Lake Hattie, then diverted through the Pioneer Canal and North Canal, serving 46 landowners and 17,920 acres. Flows are monitored by Parshall flumes on main canals and most individual laterals. The beneficial use of water stored is for purposes of irrigation primarily (grass hay and alfalfa).

The Master Plan study would inventory and assess all PCLHID canal systems, all infrastructure, 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 would be included as part of the study as would be providing guidance to the District in applying for additional planning and construction funding through federal funding programs.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Pioneer Canal Rehabilitation	II	123	1990	II	$ 125,000	1992
Lake Hattie Outlet Works	III	118	2004	II	$ 163,000	2010
Lake Hattie Dam	III	14	2012	II	$ 840,000	2017

2. Describe the location of the project:

The PCLHID is located near the City of Laramie in Albany County, Wyoming, within the North Platte River Basin. The District serves approximately 17,920 acres within an area west of Laramie, east of Sheep Mountain, south of Highway 130 and north of Highway 230. Water is diverted from the Little Laramie River (by Highway 130) and Laramie River (by Highway 230) and stored in Sodergreen Lake and Lake Hattie. There are two canals, Pioneer Canal and North Canal, and a small "cut-off" between the two canals for redundancy of water accessibility from the Laramie River, if needed.

3. Summarize the request:

The PCLHID is requesting funding for a Level I Study to inventory and assess the infrastructure and operations of the irrigation system. The irrigation system provides water to approximately 17,920 acres and 46 landowners. The study will investigate conveyance losses, diversion structures, identify and prioritize improvement projects, provide cost estimates for projects, investigate funding opportunities, and include both a total and phased approach to construction, replacement, and upgrades through a recommended rehabilitation schedule. A GIS system will be produced to provide irrigation system and land mapping.

4. Summarize the reasons for the request:

The PCLHID's most recent master plan study was completed over 30 years ago, in 1991. Since then, the District has completed many repairs, replacements and improvements to the system. Aging infrastructure and system concerns have arisen. Ditches, canals and headgates are significantly aging, particularly the headgate on the Little Laramie River for the inlet to Sodergreen Lake. There are several areas across the system where corner erosion needs to be reduced through a series of checks. A primary concern is the diversion on the Little Laramie River (which supplies water to Lake Hattie). Although the Pioneer Canal diversion on the Laramie River was worked on and repair in the 1990's, it is in need of evaluation again.

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: 17,920

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

    A. If so, what are they? NRCS – EQIP; BOR – WaterSmart

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 District is not part of a regional system; however, the system is very large spatially and complex utilizing multiple sources, multiple storage facilities, and multiple conveyance types.

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): 71.43 and 155.14

(2) Direct Flow Source (Name of River, Stream, etc.): Laramie River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Pioneer Canal and North Canal

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): Lake Hattie

(2) Location: Albany County

(3) Amount of Stored Water Right (Acre-Feet): 1908 - 28,126 AF, 1986 - 36,834 AF, 300 AF for Twin Buttes

(4) Is any of the stored supply obtained from a federal facility? N/A

a. Percent of Total Supply from Federal Facility: 0

b. Amount of Stored Supply from Federal Facility (Acre-Feet): 0

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): 800-1250 CFS

(2) Increased Capacity Needed (If Known) (Acre-Feet per Day or CFS): None

F. Water Usage

(1) Estimate of Total Water Provided by the System Annually (Acre-Feet per Year): 35,000

(2) Average Day Demand (Acre-Feet per Day or CFS): 48 CFS

(3) Maximum Day Demand (Acre-Feet per Day or CFS): About 200 CFS

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 17,920

(2) How many acres are assessed? 17,920

(3) How many acres are irrigated? 17,920

(4) What is the annual water delivery in acre-feet per acre assessed? 1.0

(5) How many individual land owners receive water? 46

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? May thru mid-July

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Flood and center pivot

(3) Briefly describe the main crops and cropping patterns:

Grass hay and alfalfa; typically one cutting in July

(4) Describe the water measuring devices currently in use:

Parshall flumes on main canals and most individual laterals

(5) Percentage of Farm Turnouts with Measuring Devices: 95%

(6) Are water deliveries recorded? Yes

(7) Estimated System Water Losses (Percentage): 30%

(8) What water conservation measures are employed by the Sponsor? N/A

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?

A & N Shares - $5.62/acre
B Shares - $3.87/acre
D Shares - $1.00/acre
AD Shares - $5.62/acre
C & Parker Shares - $3.38/acre

(4) Is there is a basic service charge or first acre assessment in addition to assessments? If so, specify amount: None

B. Financial Statement

(1) Revenues

a. Annual Revenues Generated from Assessments:	$	98,000
b. Annual Revenues from Other Sources:	$	4,000
c. Total Annual Revenues:	$	102,000

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	49,935
b. Annual Payments for Debt Retirement:	$	40,000
c. Annual Payments to a Repair and Replacement Fund:	$	N/A
d. Annual Payments to an Emergency Fund:	$	N/A
e. Annual Payments for Other Purposes:	$	N/A
f. Total Annual Payments:	$	89,935

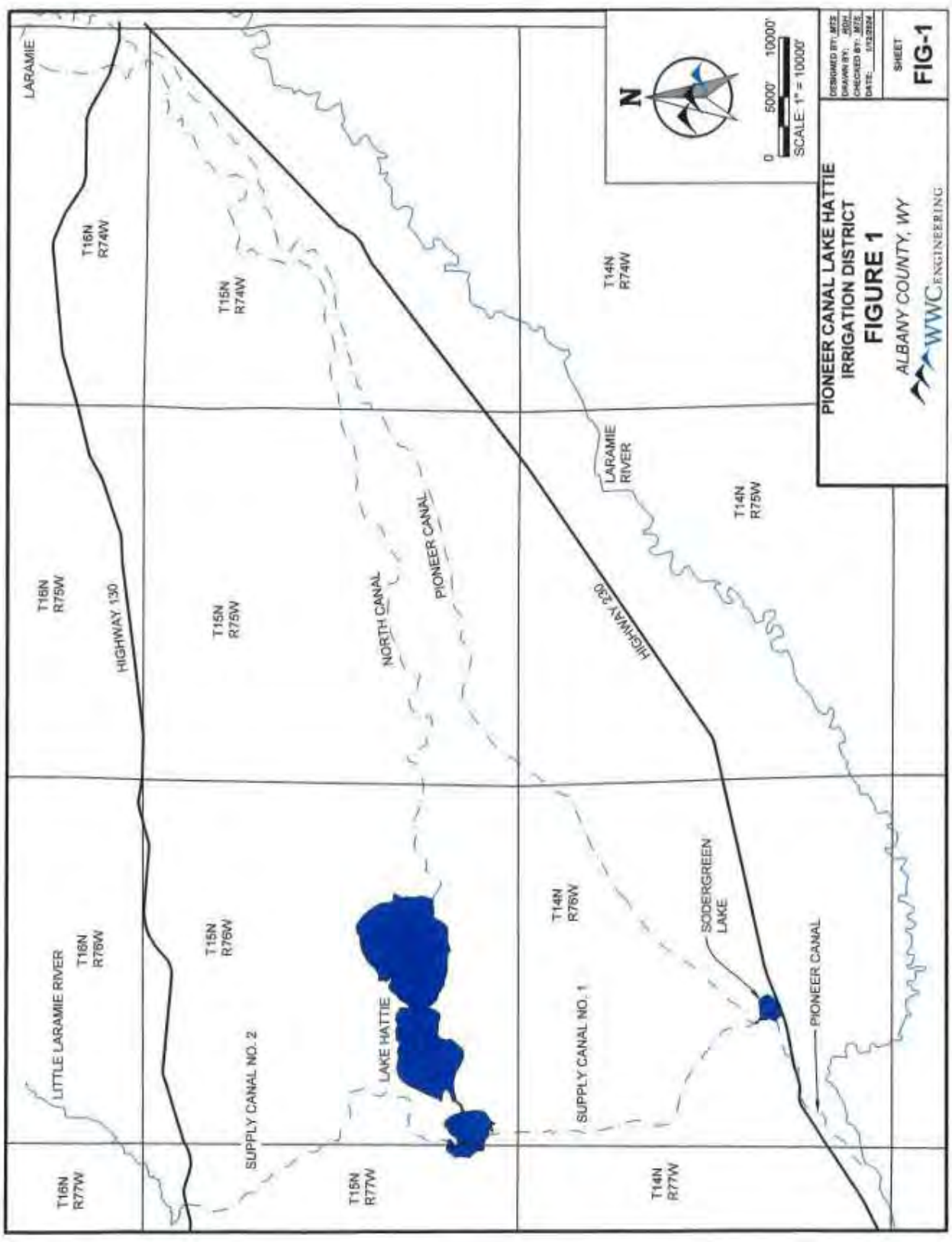
(3) Other

a. Balance in Repair and Replacement Fund:	$	N/A
b. Balance in Emergency Fund:	$	N/A

c. Explanation (If Needed):

(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



PHOTOS

RESOLUTION

RESOLUTION OF THE COMMISSIONERS
OF PIONEER CANAL-LAKE HATTIE IRRIGATION DISTRICT

The Board of Commissioners of Pioneer Canal-Lake Hattie Irrigation District, an irrigation district duly organized and existing under Wyoming law (herein "District"), have determined, in a meeting of the District Board held on January 9, 2024 at which a quorum of District Commissioners was present, that it would be in the best interest of the District to apply to the Wyoming Water Development Commission (WWDC) for the Water Development Program Application- Agricultural Water Projects and/or any other funding assistance in a water project for fixing and/or checking the canal under the Highway 230 bridge, ditch and headgates that are aging infrastructure, headgate on the Little Laramie River for the inlet into Sodergreen Lake, several checks throughout the system to reduce corner erosion, erosion of edges within Lake Hattie and the need for maintenance there, looking into spillway levels on Lake Hattie in the master plan.

Upon motion duly made by Commissioner Jay Talbott, seconded by Commissioner Tim Carpenter and unanimously passed by all Commissioners in attendance at said meeting, the following resolution was adopted:

RESOLVED, that the District President & Chair Cody Humphrey, together with Megan Overmann Goetz, attorney for the District to notify the WWDC that the District hereby applies to the WWDC for funding assistance as more specifically described in the Program Application of even date herewith, a copy of which is attached hereto and incorporated herein by this reference and to authorize payment of funds in the amount of $3,000.00 by the District to the WWDC for the Program Application.

PIONEER CANAL-LAKE HATTIE IRRIGATION DISTRICT, a Wyoming Irrigation District

By: Cody Humphrey, President/Chair

Attest:

Tammy J. Powell, Secretary-Treasurer

STATE OF WYOMING)
) ss.
COUNTY OF ALBANY)

On this 19th day of April, 2024, before me personally appeared Cody Humphrey, to me personally known, who, being by me duly sworn, did say that he is the President and Chair of Pioneer Canal Lake Hattie Irrigation District, a Wyoming statutory irrigation district, and that the foregoing resolution was signed on behalf of said District by authority of its Board of Commissioners and the aforesaid District Secretary acknowledged said instrument to be the free act and deed of said District.

Witness my hand and official seal.

My Commission expires: 8/2/2028

Signature of Notarial Officer
Title: Notary Public

KAREN E. HOUGHTON
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 150102
MY COMMISSION EXPIRES: 08/02/2028

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Smith's Fork Irrigation District Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Lincoln

Sponsor: Smith's Fork Irrigation District

WWDO Recommendation: Level I

Proposed Budget: $272,000

Basis for the Funding Recommendation:

The Smith's Fork Irrigation District is requesting funding to develop a Level I Master Plan. A Cooperative Irrigation Water Conservation Study prepared by the SCS (NRCS) in 1990 inventoried infrastructure and recommended improvements. High priority recommendations were implemented through WWDC Level II and III projects. The District needs a current, comprehensive inventory of the system, assessment of condition of components and prioritized options for keeping the system operational. This study will provide guidance for the District.

Project Manager: Mabel Jones

I. PROJECT DESCRIPTION

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Smiths Fork Irrigation Project	II	123	1990	II	$ 75,000	1992
Smiths Fork Water Supply	III	231	1991	II	$ 340,000*	1995
Smiths Fork Flumes	III	69	2003	II	$ 15,000	2008

*50% grant 50% Loan

2. Describe the location of the project:

This Smith's Fork Irrigation District includes agricultural land adjacent to and south of the Town of Cokeville, in Lincoln County, Wyoming. U.S. Highway 30 provides access to the area. The District is served by the Covey and Mau canals which flow in a southerly direction. The river diversion for the Covey Canal is located on the Smith's Fork which is a tributary of the Bear River. The Mau Canal is supplied by a spring creek and water released from the Covey Canal. The District provides irrigation for 30 landowners who are irrigating approximately 5,000 acres of small grains, alfalfa, grass hay and pasture.

3. Summarize the request:

The District is requesting a study to determine the current condition and future needs for agricultural water delivery to 30 landowners. 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 Soil Conservation Service completed an Irrigation Study in 1990 which provided an inventory of structures and recommended improvements. This was followed up by WWDC Level II and III projects to address the issues with

the diversion and canals. The District followed up with projects including replacement of headgates on the Mau Canal, installation of flumes, automation of headgates and routine maintenance. This study will provide the District with an inventory of infrastructure rehabilitation needs and options for addressing erosion, water efficiency and water control. A high priority of the District is an assessment of rehabilitation alternatives for the Covey Canal. In addition, water supply is a challenge for all users and especially for those users on the lower end of the canals. The District is interested in options which could create efficiencies and/or supplement supplies.

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: 4980

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

    A. If so, what are they? Bureau of Reclamation grants (e.g., WaterSMART), NRCS, USFWS and possibly others

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 Sponsor is not served by a regionalized water supply system and currently does not think there are opportunities to pursue this.

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): 71 CFS

(2) Direct Flow Source (Name of River, Stream, etc.): Smith's Fork of the Bear River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canals

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): 150 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): 18,960 Acre-Feet/Year

(2) Average Day Demand (Acre-Feet per Day or CFS): 50-100 CFS

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 100 CFS

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 4,980 Acres

(2) How many acres are assessed? 4,980 Acres

(3) How many acres are irrigated? 4,980 Acres

(4) What is the annual water delivery assessed (acre-feet per acre)? 1.0

(5) How many individual land owners receive water? 30 Individuals

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? May 1 - October 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, handline sprinkler, gated pipe and flood irrigation.

(3) Briefly describe the main crops and cropping patterns:

Small grains, alfalfa, grass hay, and pasture

(4) Describe the water measuring devices currently in use:

Water measuring devices are at the head of the Covey Canal, Spring Creek Diversion, Brunner Creek Headgate and Spring Creek Headgate

(5) Percentage of Farm Turnouts with Measuring Devices: None

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): 15 to 20%

(8) What water conservation measures are employed by the Sponsor?

Automatic headgates at the inlet to the Covey Canal and Spring Creek Diversion.

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? $6.85/acre

(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:	$	34,097.71
b. Annual Revenues from Other Sources:	$	0
c. Total Annual Revenues:	$	34,097.71

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	14,500.00
b. Annual Payments for Debt Retirement:	$	8,224.84
c. Annual Payments to a Repair and Replacement Fund:	$	11,372.87
d. Annual Payments to an Emergency Fund:	$	0
e. Annual Payments for Other Purposes:	$	0
f. Total Annual Payments:	$	34,097.71

(3) Other

a. Balance in Repair and Replacement Fund:	$	14,776.00
b. Balance in Emergency Fund:	$	8,628.00

c. Explanation (If Needed):

N/A

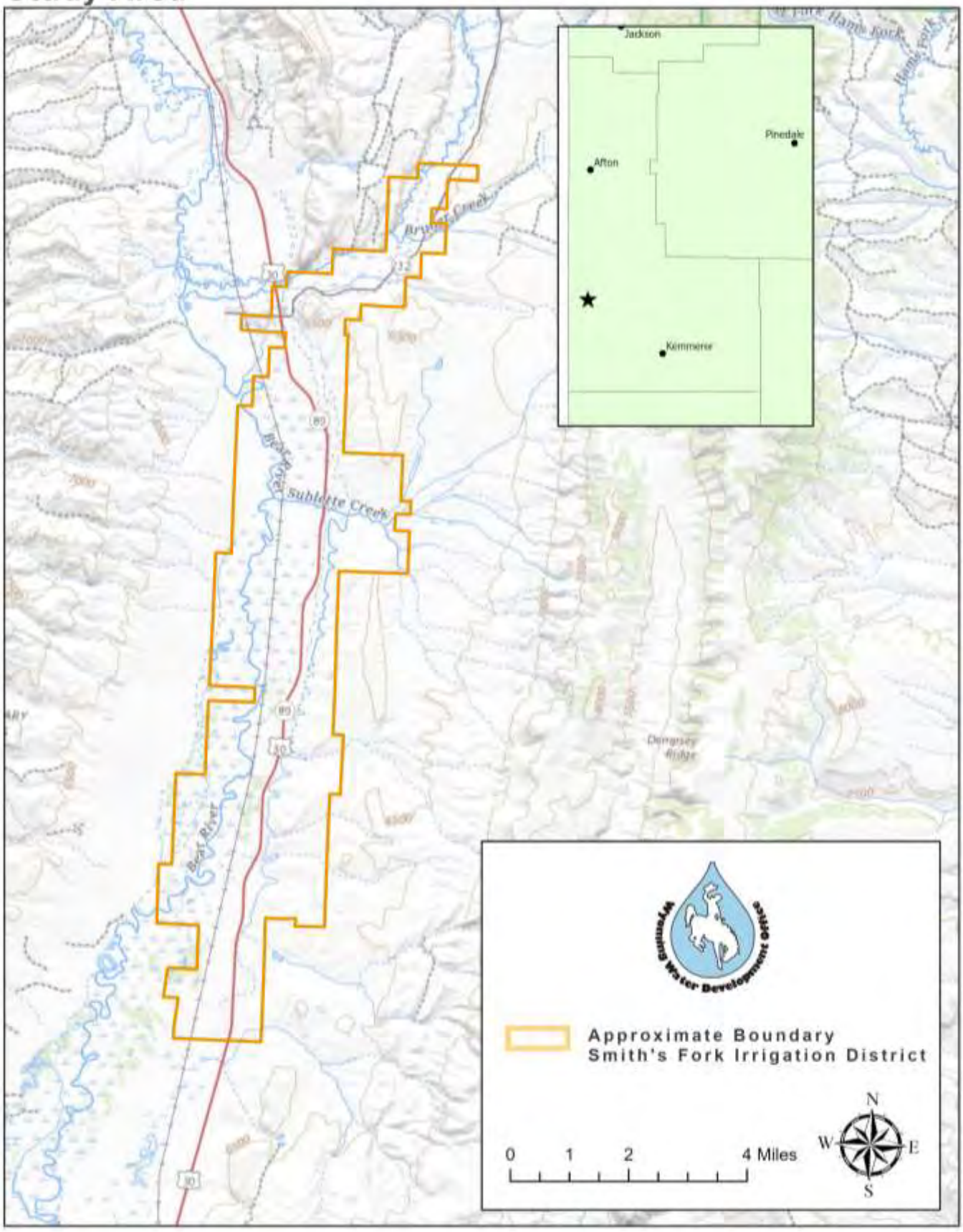
(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.?

Yes

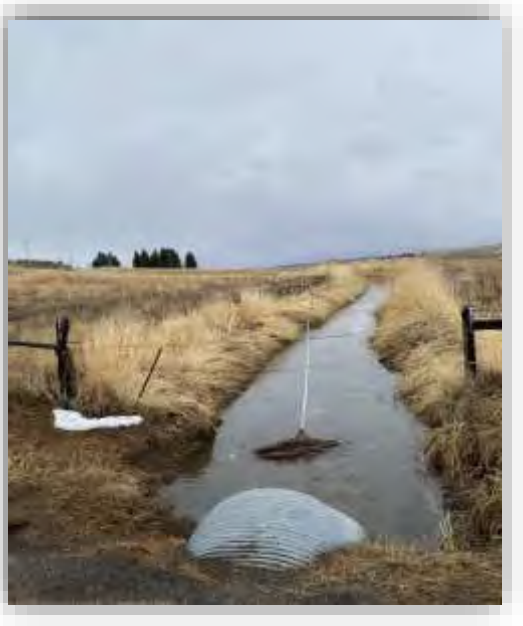
a. If not, how is the difference subsidized?

N/A

Smith's Fork Irrigation District
Study Area



PHOTOS



The Covey and Mau Canals (above) provide irrigation for approximately 5,000 acres of alfalfa, hay and pasture. The Covey Canal (left) is fed by a diversion off the Smith's Fork and the Mau Canal (right) is supplied by water released from the Covey Canal and a spring creek.

The headgate on the Mau Canal (above) was replaced in the 1990s and is considered to be in excellent condition. A prominent local landmark (Big Hill) is in the background.

Covey Canal is in the foreground. The spring creek which partially feeds Mau Canal is at the base of the hill in the background.

Looking west of Highway 30 near the end of the Covey Canal.

RESOLUTION

SMITHS FORK IRRIGATION DISTRICT

RESOLUTION NO. 01-2024

Whereas, the Smiths Fork Irrigation District (SFID) has a need to upgrade their Covey and Mau Canal irrigation water delivery system to district members and;

Whereas, the SFID needs to understand opportunities for improvement to their irrigation water delivery system and;

Whereas, the SFID needs to develop solutions to address water loss within their irrigation water delivery system and;

Whereas, the SFID needs to increase water efficiencies by better water control headgates and measuring devices and;

Whereas, the SFID needs to obtain financial support to improve their irrigation water delivery system and;

Therefore, be it resolved the SFID will apply for a hybridize Level I and Level II Feasibility Study With Updated Cost Estimates for improvements through the Wyoming Water Development Commission's (WWDC) Water Development Program, to identify irrigation system infrastructure rehabilitation needs, better water control measures, and increased water efficiencies throughout the SFID Canal delivery system.

Approved at a SFID member meeting 2/7/24
Date

Signed by: K. Clark Print Name Kim Clark
Authorized SFID Commissioner

Please note the attached Notary Acknowledgment for this resolution.

Notary Acknowledgment

State of Wyoming

County of Lincoln

Kim Clark Appeared before me and personally known to me
on 8 day of Feb 2024

Joselyn M Harmon
Notary

Commission expires 1-25-2030

JOSELYN M. HARMON
Notary Public - State of Wyoming
Commission ID 91054
My Commission Expires 01-25-2030

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Wheatland Irrigation District Master Plan

Program: Rehabilitation

Project Type: Agricultural Irrigation Supply

County: Albany, Carbon, Platte

Sponsor: Wheatland Irrigation District

WWDO Recommendation: Level I

Proposed Budget: $472,000

Basis for the Funding Recommendation:

The WWDC completed a master plan for the Wheatland Irrigation District in 2011. The District stated that they have completed 215 of the 450 projects that were recommended in that master plan. The District's GIS is outdated as well due to the updates to the system. Considering the previous master plan is 14 years old, the amount of change due to implementation of the 2011 master plan, and new challenges, an updated master plan is recommended.

Project Manager: Chace A. Tavelli \ Cheyenne Love

I. PROJECT DESCRIPTION

The Wheatland Irrigation District is requesting a Level I master plan. This master plan will review existing information, update the inventory of the infrastructure, update the existing GIS, evaluate infrastructure for rehabilitation or replacement needs, and identify areas in the system that could be improved for efficiency and managing water deliveries more effectively.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Wheatland Irrigation District Master Plan	I	66	2009	II	$ 300,000	2010
Wheatland Irrigation District Rehabilitation	III	63	2011	II	$ 723,600	2016
Wheatland Irrigation District Rehabilitation 2015	III	23	2015	II	$ 874,350	2020
Wheatland Irrigation District Tunnel Dam Rehabilitation	II	65	2017	II	$ 150,000	2020
Wheatland Irrigation District Tunnel Dam Rehabilitation 2019	III	55	2019	II	$ 388,000	2024
Wheatland Irrigation District Tunnel Dam Rehabilitation 2019	III	113	2020	II	$ 5,538,000*	2024

* The 2019 appropriation of $388,000 was increased to $5,538,000

2. Describe the location of the project:

The project extends from Sand Lake, in the Medicine Bow Mountain range above Arlington, east through Albany County, and into Platte County where the irrigation is near Wheatland, Wyoming, all in the North Platte River Drainage. (see map)

3. Summarize the request:

The request is for a Level I Master Plan. 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.

4. Summarize the reasons for the request:

The District has seen significant change to their system due to completing over 200 projects recommended in the 2011 master plan. An updated inventory and GIS of their infrastructure is needed, as well as updated recommendations for improvements to the system. Additionally, there are challenges such as improving efficiency and identifying areas where changes could be made so water deliveries can be managed more effectively to help conserve and better use water.

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: 54,100

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

    A. If so, what are they? NRCS – EQIP; BOR – WaterSmart

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 District is not part of a regional system; however, the system is very large spatially and complex utilizing multiple sources, multiple storage facilities, and multiple conveyance types such as canals and natural stream channels. Improving the efficiency of the District's water delivery system could benefit not only the District, but other water users on the Laramie River and its tributaries who have water rights junior to the District's during times of regulation.

6. Can the project be delayed or staged? Yes, it can be delayed.

    A. Should it be? No, the District's previous master plan was completed in 2011. The District stated that they have completed 215 of the 450 projects identified in that master plan. With many changes and the need for an updated GIS, the District is due for a master plan.

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 633

(2) Direct Flow Source (Name of River, Stream, etc.): Laramie River

(3) Type of Diversion (Headgate, Pump, etc.): Headgate

(4) Water Transmission System (Canal, Pipeline, etc.): Canals and streams channels

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): See Attached

(2) Location: See map

(3) Amount of Stored Water Right (Acre-Feet): 186,482

(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: 0

(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): 810 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): 60,000

(2) Average Day Demand (Acre-Feet per Day or CFS): 265 cfs

(3) Maximum Day Demand (Acre-Feet per Day or CFS): 366 cfs

2. Existing Service Area and On-Farm Information

A. Service Area Information

(1) How many total acres are in the district? 54,100

(2) How many acres are assessed? 54,100

(3) How many acres are irrigated? 50,930

(4) What is the annual water delivery in acre-feet per acre assessed? 1.0

(5) How many individual land owners receive water? 360

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? May 15 – 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, flood, underground drip

(3) Briefly describe the main crops and cropping patterns:

Alfalfa, wheat, grass hay, corn, beans, oats, barley, and sugar beets

(4) Describe the water measuring devices currently in use:

Automated elevation and flow measuring devices, Parshall Flumes, Weirs

(5) Percentage of Farm Turnouts with Measuring Devices: 90%

(6) Are water deliveries recorded? Yes

(7) Estimated System Water Losses (Percentage): 25%

(8) What water conservation measures are employed by the Sponsor?

Two re-regulation ponds near the end of the system. Frequent adjustments of water deliveries to ensure water is not being wasted.

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? $18.00

(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:	$	973,800
b. Annual Revenues from Other Sources:	$	480,414
c. Total Annual Revenues:	$	1,454,214

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	1,295,884
b. Annual Payments for Debt Retirement:	$	153,978
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:	$	1,449,862

(3) Other

a. Balance in Repair and Replacement Fund:	$	160,000
b. Balance in Emergency Fund:	$	960,000

c. Explanation (If Needed):

The Repair and Replacement Fund and Emergency Fund are already funded and restricted for use.

(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

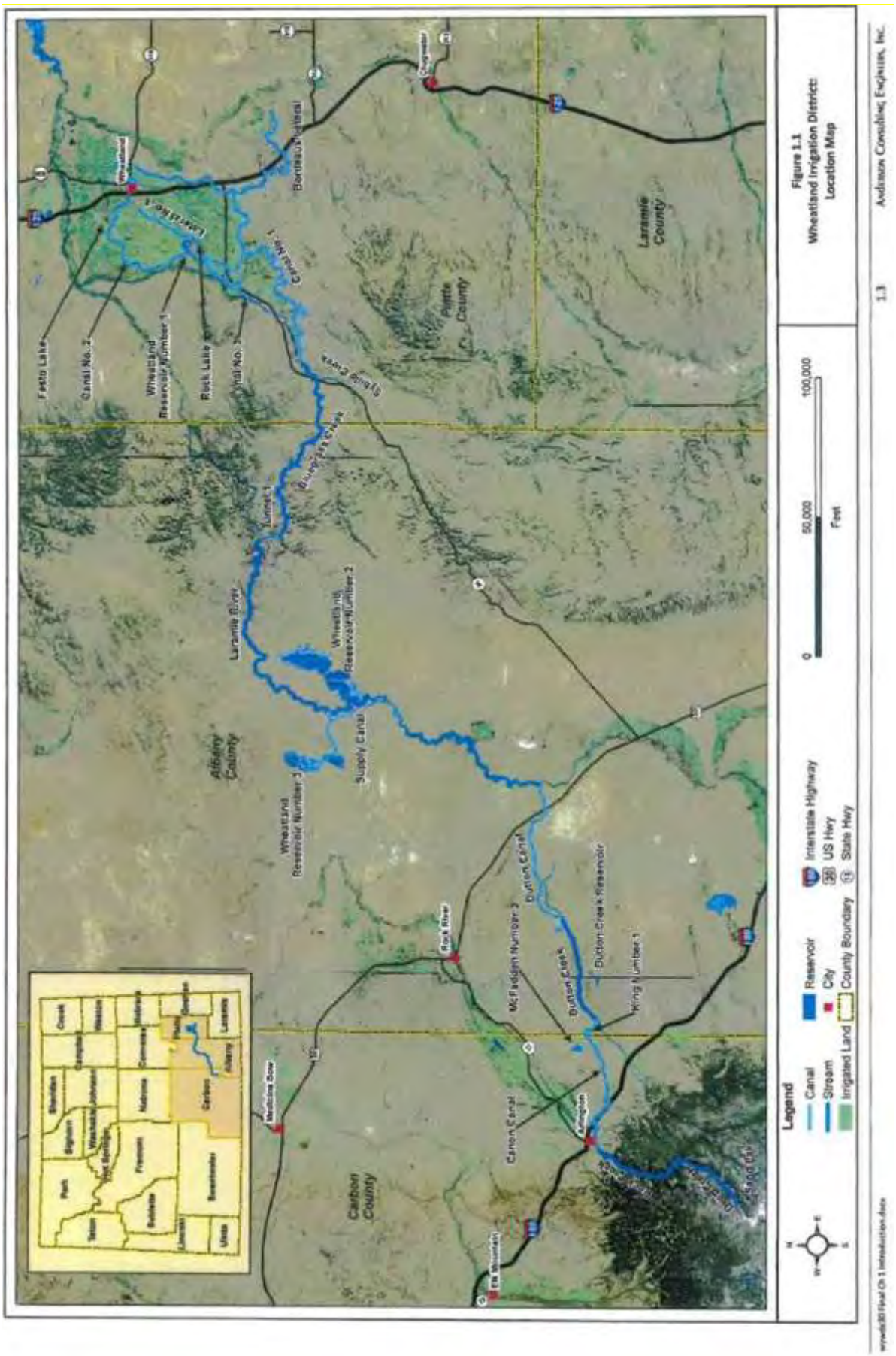
a. If not, how is the difference subsidized?

N/A

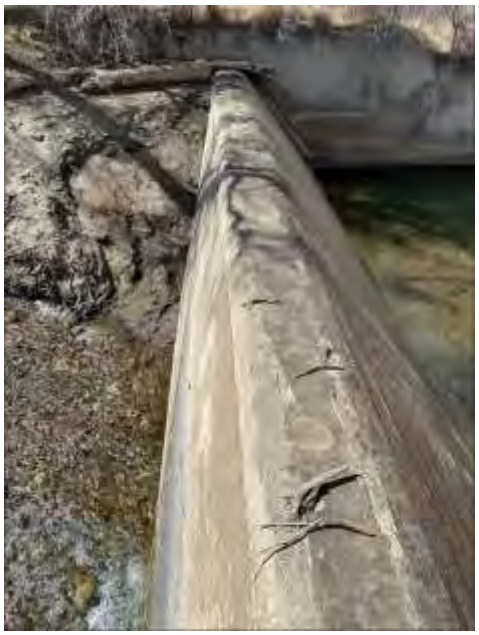
Attachment: Major Reservoir Permits and Other Major Water Rights

MAJOR RESERVOIR PERMITS						
Source	*Permit No.*	*Description*	*Priority*	*Permitted Uses*	*Amount (cfs/af)*	*Acres*
Sybille Creek	19 5387R 6470R	Wheatland Reservoir No. 1	03-00-1897 08 18-1938 07-10 1958	D,I,S	9,369.75 af	
Laramie River	1724	Wheatland Reservoir No. 2	01-29-1898	D,I	98,934 af	
Dutton Creek	528R 1215R 2375R	Dutton Creek Reservoir	07-01-1904 02 17-1908 08-02 1912	I	2,566 af	
Three Mile Creek	646R	McFadden No. 3 Reservoir	02-23-1905	F, S, Rec	40 af	
Seepage Creek	2484R	Seepage Reservoir	06-03-1911	I	145.6 af	
Dutton Creek	3547R 15469	Rainey Reservoir	05-23-1919	I	536.7 af	
Seepage, One Mile & Rock Creeks	3617R 4090E 4091E	King Reservoir	02-07-1920	I	2,216 af	
Laramie River	4978R	Wheatland Reservoir #3	05-31-1929	I,S	71,318.8 af	
Canal #1	4451R	Rock Lake Res.	11-24-1930	I	249.5 af	
Deep Creek	6136R	Sand Lake	04-29-1954	D, I, S, Ind.	1,105 af	
OTHER MAJOR WATER RIGHTS						
Rock, One Mile, and Three Mile Creek	Terr.	Canon Ditch	04-01-1882 01-07-1944	N/A	263.76 cfs	
Laramie River & Little Laramie River	17, 5319E, 5967E, 6399E, 6346E, 5287E	Tunnel Ditch, Tunnel, Canal Nos 1 & 2	05-23-1883 01-29-1898 07-10-1958 04-22-1968 11-22-1968 01-02-1941 04-16-1982	D,I, MUN	624.45 cfs	57,671.28
Sybille Creek	Terr.	Canal No. 1	05-23-1883	D,I,MUN	135 cfs	57,671.28
Laramie River	8531	Wheatland Industrial Co. Canal	01-29-1898	N/A	Secondary Supply	N/A
Laramie River, Sybille Creek	5969E	Enl. Canal #3	07-10-1958	N/A	Reservoir Supply	N/A
Laramie River, Sybille Creek	6400E	Enl. Canal No. 1 and 2	04-22-1968	I	SS	3,442.18
One Mile Creek	Terr.	One Mile Creek into Canon Ditch	06-01-1888 02-07-1970	N/A	68.08 cfs	
Three Mile Creek	Terr.	Three Mile Creek into Canon Ditch	04-01-1884 12-30-1905	N/A	13.19 cfs	
Transbasin Water from Rock Creek Drainage	22840	Lower Dutton Creek — Laramie River Canal	04-25-1957	N/A		

PROJECT AREA MAP



PHOTOS



Spillway Diversion on Sybille Ck
Backs up water for Canal 1 Headgate

Canal 1 Headgate off Sybille Ck

Wheatland #1 Reservoir (1 of 11 reservoirs)

Canal 2 / Laramie Peak

Canal 3 to Wheatland #1 from Sybille Ck.

Chase Chute

RESOLUTION

RESOLUTION

BE IT RESOLVED by the Board of Commissioners of the Wheatland Irrigation District ("District") during the Board meeting on February 21, 2024 that Daniel Melcher, President of the Board of Commissioners, is hereby authorized and directed, on behalf of the District, to sign the application and authorize the payment of the required application fees for a grant from the Wyoming Water Development Commission (WWDC) for a Level I master plan.

BE IT FURTHER RESOLVED that David Hinman, Secretary of the District, is hereby authorized and directed to attest the documents and to affix the District's seal thereto.

Dated this 21st day of February, 2024.

Daniel Melcher, President
Wheatland Irrigation District

Certificate of Secretary

I, David Hinman, being duly sworn on oath according to law, depose and say that:

I am the Secretary/Treasurer of the Wheatland Irrigation District, Wheatland, Wyoming;

The foregoing Resolution is a full, true, and correct copy of a Resolution that was adopted by the Board of Commissioners of the Wheatland Irrigation District at a meeting of the Board held February 21, 2024, at Wheatland, Wyoming, at which a quorum of the duly elected commissioners was present and voting;

The meeting was held in conformity with the Bylaws of the District;

The Resolution has not been revoked or amended.

IN WITNESS WHEREOF, I have hereunto affixed my hand and seal of the Wheatland Irrigation District of Wheatland, Wyoming, this 21st day of February, 2024.

David Hinman, Secretary/Treasurer

Subscribed and sworn to before me this 21st day of February, 2024.

PIPER WHITNEY - NOTARY PUBLIC
COUNTY OF PLATTE
STATE OF WYOMING
My Commission Expires April 5, 2024

Notary Public
My commission expires: April 5, 2024

GENERAL/ OTHER

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Sponsor's Contingency Fund – Account II

Program: Rehabilitation

Project Type: Multipurpose

County: Statewide

Sponsor: WWDC

Uncommitted Budget: $ 2,182,443.19

WWDO Recommendation: Extend the reversion date from July 1, 2027 to July 1, 2028 and Increase Acct. II Funding

Requested Funding: $ 2,900,000.00[1]

[1] Requested funding is contingent on the Legislature approving a $1,500,000 transfer of funds from WDA I to WDA II.

The WWDC is authorized to consider supplemental funding to complete existing water development program Level III construction projects any time during the calendar year. Funds from the sponsor's contingency accounts, Account I (new development) and Account II (rehabilitation), cover construction costs exceeding the project appropriation. The funds allocated to projects from these accounts typically have the same grant and loan financing plan as the original project appropriation, but could be altered based upon the WWDC's consideration of current Program funding.

From mid-2020 through the present time, there has been unforeseen volatility in global and local economies due to the COVID-19 pandemic, supply shortages, worker shortages and other issues that have influenced the bidding climate. The WWDO anticipates increased use of this fund to continue as construction bid prices continue to be higher than normal inflation factors would account for. Additionally, forecasts across the nation are anticipating continued growth in the construction sector due to an influx of Federal funds for construction projects. This generally leads to increasing construction costs.

EXISTING ACCOUNT II CONTINGENCY LEGISLATION

Purpose	Chapter	Session	Account		Appropriation
Sponsor's Contingency	105	2006	II	$	500,000
Sponsor's Contingency	75	2008	II	$	500,000[2]
Sponsor's Contingency	68	2010	II	$	0[3]
Sponsor's Contingency	14	2012	II	$	300,000
Sponsor's Contingency	167	2015	II	$	500,000
Sponsor's Contingency	75	2017	II	$	0[3]
Sponsor's Contingency	55	2019	II	$	700,000
Sponsor's Contingency	113	2020	II	$	1,000,000
Sponsor's Contingency	12	2021	II	$	1,500,000
Sponsor's Contingency	180	2023	II	$	1,200,000

APPROPRIATED TO DATE (SUBTOTAL #1) **$ 6,200,000**

[2] This appropriation was separate and not linked to the 2006 original appropriation
[3] Time Extension Only

PROJECT APPROPRIATIONS

Project	Expended or Encumbered
Ranchester Storage Tank	$ 59,581.77
Sheridan Pipeline Rehabilitation	$ 196,982.19
Gooseberry Rehabilitation	$ 17,766.74
Cody Canal Chute	$ 28,243.84
Little Snake Diversions	$ 427,502.67
Lake Hattie Dam	$ 243,172.21
Kirby Rehabilitation 2011	$ 77,009.94
Shoshone Irrigation District Rehab 2013	$ 32,245.00
Big Horn Canal Underway	$ 24,306.10
Dull Knife Reservoir Spillway Rehab	$ 35,064.48
Leiter Ditch Rehabilitation 2016	$ 117,445.12
Casper CY Booster Station Replacement	$ 563,177.79
Wheatland Irrigation District Tunnel Dam	$ 520,452.79
Piney & Cruse Canal Piping	$ 508,606.17
Goshen ID 29.4 Pipeline Phase II 2022	$ 115,000.00
Owl Creek Irrigation District System Improvements	$ 1,051,000.00

EXPENDED OR ENCUMBERED TO DATE (SUBTOTAL #2): $ 4,017,556.81

UNCOMMITTED FUNDS (SUBTOTAL #3, SUBTOTAL #1 – SUBTOTAL #2): $ 2,182,443.19

SPONSOR'S ACCOUNT II CONTINGENCY FUND REQUEST: $ 2,900,000.00
Request will be $1,400,000 without Legislature approving a $1,500,000 transfer of funds from WDA I to WDA II. Request will be $2,900,000 with Legislature approving a $1,500,000 transfer of funds from WDA I to WDA II.

LEVEL III PROJECTS -AMENDMENTS

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Alkali Creek Reservoir

Program: Dams and Reservoirs

Project Type: Multipurpose

County: Big Horn

Sponsor: Nowood Watershed Improvement District

Sponsor's Request: Time Extension

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2029.

Previously Approved Budget: $ 59,000,000

WWDC Grant[1] (96.4%)	$ 56,900,000.00
WWDC Loan[2] (3.6%)	$ 2,100,000.00
Total	$ 59,000,000.00

[1] 2017 Appropriation of $35,000,000; 2020 Appropriation of $24,000,000.
[2] 50-year loan at 4% interest

Project Manager: Russell

Project Description: The Nowood Watershed Improvement District (District) is committed to constructing Alkali Creek Reservoir to provide late season supplemental irrigation water to the Nowood River Valley, tributary to the Big Horn River. The proposed reservoir, located off-channel, could be filled with flows from Paint Rock and Medicine Lodge Creeks through expansion of the existing Anita Ditch and use of the Anita Supplemental Ditch. The reservoir will have a total capacity of approximately 8,965 acre-feet, of which 6,070 acre-feet will serve as a supplemental irrigation supply, leaving a 2,895 acre-foot conservation pool for habitat, fishing, recreational use, and supporting downstream flows.

The proposed reservoir lies partially on lands managed by the Bureau of Land Management (BLM) and involves Waters of the United States, therefore requiring a BLM issued Right of Way permit and a United States Army Corps of Engineers (USACE) 404 permit. The NEPA process has been followed and a final Environmental Impact Statement (EIS) was published by the BLM in May 2019, to address the issues and analyze a range of alternatives for Alkali Creek Reservoir in order to fully meet Federal requirements. A positive record of decision for a Right of Way permit was received from the BLM in October 2019. The compensatory mitigation plan (CMP) for aquatic resource impacts was completed and accepted by the USACE. A favorable record of decision on the 404 permit was received in May 2021.

Final design is approximately 50% complete. To date, the District has secured easements or purchased property encompassing the majority of the proposed reservoir footprint, staging areas, stream and wetland mitigation areas, and borrow areas, and for approximately 86% of the affected Anita Ditch length. However, the District is still working with landowners to secure the remaining easements necessary for the construction of the project. Due to the extended easement negotiations, the District is requesting a change in the funding reversion date.

If completed, the District would own, operate, and maintain Alkali Creek Reservoir for the life of the project to reduce irrigation shortages and provide a more reliable water supply to irrigated lands in the Nowood River Valley. In regards to secondary benefits, the reservoir would have public access and as stated, a conservation (environmental/recreation) pool that could provide fisheries, wildlife, and recreational uses in addition to supporting downstream flows. Diversions out of Paint Rock and Medicine Lodge Creeks to fill the reservoir during spring runoff would have some flood control benefits. Flood benefits to the Alkali Creek drainage and downstream could be provided by the reservoir itself. Wetlands created as part of the project would have water quality and wildlife benefits. Late season irrigation releases out of the reservoir would enhance downstream riparian areas, improve fish habitat, and have indirect benefits to wildlife provided through additional agricultural yields and winter pasture.

2025 RECOMMENDATION-CONSTRUCTION PROJECTS

Project Name: Middle Piney Reservoir

Program: Dams and Reservoirs

Project Type: Agricultural Irrigation

County: Sublette County

Sponsor: State of Wyoming

Sponsor's Request: Time Extension

Proposed Budget Increase: $0

WWDO Recommendation: Extend the reversion date from July 1, 2025 to July 1, 2027

Previously Approved Budget: $16,953,000

WWDC Grant (100%)	$16,953,000
Total	$16,953,000

Project Manager: Kaiser

Project Description: The project was considered substantially complete in the fall of 2023. The first fill of the reservoir started in June 2024 and ended in July 2024 obtaining about 67% of the capacity due to lower snow pack levels. With some additional remote controls installed during the summer of 2024, the filling of the dam will commence earlier in 2025 as the gates will be able to be closed remotely. It is anticipated the reservoir will be completed and turned over to the District for operation and maintenance following the filling of the reservoir in 2025.

LEVEL II PROJECTS

2025 WATER DEVELOPMENT PROGRAM RECOMMENDATION

AGRICULTURAL WATER PROJECTS

Project Name: Middle Popo Agie River Level II Storage Feasibility Study

Program: Dams and Reservoirs

Project Type: Multipurpose

County: Fremont

Sponsors: Enterprise and Taylor Watershed Improvement Districts

WWDO Recommendation: Level II, Phase I

Proposed Budget: $551,000

Basis for the Funding Recommendation:

The Middle Popo Agie River frequently experiences low flows and water shortages. The Enterprise and Taylor Watershed Improvement Districts (WIDs) are requesting a Level II study focused on enhancing storage capacity, understanding water management opportunities, and providing drought resiliency in their community. They would like an evaluation of the impacts of drought and prospects for ensuring a sustainable water supply for the variety of stakeholders within the watershed. They envision an expansion of Worthen Meadow Reservoir (WMR) and efficiencies in the management of Frye Lake could be a solution to address limited late season stream flows and agricultural water shortages. Other potential benefits include providing a regional municipal water source, improve water quality down river, improve fish and wildlife habitat, increase recreation benefits, and aid in emergency management (fire suppression/flood control).

Project Manager: Cindy Hernandez

I. PROJECT DESCRIPTION

Enterprise and Taylor WIDs, subdivisions of the Popo Agie Conservation District (PACD), were formed in 2006 and 2004, respectively. The WIDs, along with other irrigators in the Popo Agie River basin, the City of Lander, PACD, Natural Resources Conservation Service (NRCS), U.S. Forest Service, Wyoming Game and Fish Department, U.S. Fish and Wildlife Service, the Nature Conservancy, Bureau of Land Management, and others have collaborated through the Healthy Rivers Initiative (HRI). HRI was established in 2016 to build a working group that encompassed all stakeholders interested in water resources with the long-term goal of improving water quality and quantity within the Popo Agie River Watershed.

Enterprise WID operates and maintains Frye Lake, all segments of the main Enterprise Ditch, and appurtenant laterals which comprise the Enterprise Ditch System. Frye Lake is located 1.8 miles east of WMR and is supplied by a diversion off of Roaring Fork Creek, a tributary to the Middle Popo Agie River. Diverted water is conveyed via a 4,000-foot long canal to the Lake. Frye Lake has a capacity of 1,697.5 acre-feet (AF) and provides irrigation water to the Enterprise WID. Enterprise WID serves 3,660 acres of irrigated agricultural land used to grow native grass and alfalfa for pasture and hay production. The Enterprise WID entity is utilized for larger projects executed by contractors, while the Enterprise Irrigation and Power Company entity is utilized for annual operation and maintenance of the ditch system and Frye Lake.

Taylor WID irrigates land using direct diversion from the Middle Fork of the Popo Agie River. The Taylor Ditch irrigates 2,079 acres. The Taylor WID operates similarly where annual operation and maintenance activities are completed through the Taylor Ditch Company. Taylor WID, along with other Middle Fork irrigators besides the Enterprise WID, do not have any supplemental water supply from reservoir storage and rely on the natural runoff cycle of the river.

WMR was originally constructed by the City of Lander in 1960 for the purpose of a long-term City water supply. The reservoir stores approximately 1,500 AF of water that is exclusively available to the City for municipal use. In addition to WMR, the City holds various direct flow water right appropriations of varying priority dates allowing for

the City diversion of surface water from the Middle Popo Agie River, as well as a number of well permits for groundwater use.

Several past studies have looked at water resources and storage opportunities within the Popo Agie River Watershed. In 2003, a Level I, Phase I, Watershed Study for PACD determined that the watershed's water supply was not capable of fully satisfying the requirements of all water users, especially those in the Middle Popo Agie River. In 2019, a Level I, Phase II, Watershed Study was conducted as a follow up to the 2003 study and had three explicit focus areas: (1) a water budget investigation and irrigation infrastructure assessment, (2) microstorage facilities investigation, and (3) aquifer storage and recovery. The Level I, Phase I study recommended several irrigation improvements and analyzed a total of 33 potential storage sites throughout the Popo Agie River Watershed. WMR enlargement was identified as one of the 33 sites. In regards to storage, the Level I, Phase II study focused on microstorage sites, with a target volume of 300 acre-feet, to provide alternatives that supplement the larger structures in the Phase I study.

A Level I Water Master Plan was prepared for the City of Lander in August 2023. It was determined that the water rights and associated supply of Lander's existing water system are adequate to meet the City's needs. However, the service area Maximum Day Demand is set to exceed the total water rights through the City's treatment plan within forty (40) years if no changes are made. Additionally, the existing water system may not be adequate for future service area expansion or regionalization. An enlargement of WMR was briefly analyzed as a potential solution for future water shortages. Based on preliminary analysis, it was concluded that it is theoretically feasible to enlarge WMR and the concept should be analyzed further through a Level II water feasibility study.

As stated, the Enterprise and Taylor WIDs are requesting a Level II study focused on enhancing storage capacity, understanding water management opportunities and building drought resiliency in their community. They would like an evaluation of the impacts of climate variability and prospects for ensuring a sustainable water supply for the variety of stakeholders within the watershed. They envision an expansion of WMR and efficiencies in the management of Frye Lake could be a solution to address limited late season stream flows and agricultural water shortages. It could also potentially provide a regional municipal water source, as well as improve water quality down river, improve fish and wildlife habitat, increase recreation benefits, and aid in emergency management (fire suppression/flood control). The Level II feasibility study has the support from the entities involved in HRI, as described above.

1. Existing and Prior Legislation:

Project	Level	Chapter	Session	Account	Appropriation	Reversion Year
Lander Rehabilitation Project	II	49	1987	II	$ 175,000	1988
Popo Agie River Watershed Study (Phase I)	I	86	2001	II	$ 200,000	2002
Enterprise Conservation Program	II	85	2007	II	$ 100,000	2008
Taylor Ditch Siphon	III	75	2008	II	$ 496,915	2009
Popo Agie Watershed Study, Phase II	I	94	2018	II	$ 235,000	2021
Lander Test Well Study	II	94	2018	I	$ 2,340,000	2021
Enterprise WID Sawmill Project	III	113	2020	II	$ 610,000	2025
Lander Water Master Plan	I	11	2021	I	$ 208,000	2024
Enterprise WID Calvert Lateral 2023	III	180	2023	II	$ 626,400	2028

2. Describe the location of the project:

The Popo Agie River Watershed is located on the eastern slope of the Wind River Range in Fremont County, Wyoming and can be subdivided into three principal subbasins: (1) the North Popo Agie River, (2) the Middle Popo Agie River, and (3) the Little Popo Agie River. WMR is located on Roaring Fork Creek, a tributary to the Middle Popo Agie River in the Shoshone National Forest and is approximately 12 miles southwest of the City of Lander. Frye Lake is located 1.8 miles east of WMR and is also supplied by Roaring Fork Creek.

3. Summarize the request:

The Enterprise and Taylor WIDs are requesting a Level II study focused on enhancing storage capacity, understanding water management opportunities, and providing drought resiliency in their community. They would like an evaluation of the impacts of drought and prospects for ensuring a sustainable water supply for the variety of stakeholders within the watershed.

4. Summarize the reasons for the request:

The existing water supply from the Popo Agie River Watershed is not capable of fully meeting the requirements of all water users, especially in the Middle Popo Agie River. It was determined that the Middle Popo Agie drainage frequently experiences low flows and water shortages during the middle to late summer months. From 2009 through 2020 the Middle Fork of the Popo Agie River was managed by ditch companies in a shared collaborative management approach in order to work together to meet the water demands and to avoid any formal regulation by the Wyoming State Engineer's Office. Despite best efforts, the Middle Fork of the Popo Agie River has experienced calls for water regulation two times in the last ten years. Low flows have also led to impacts on water quality, recreation, and fish and wildlife habitat.

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 (Yes)

2. Project Priority According to WWDO Criteria: Acct III - Priority 4: LII Feasibility Studies

3. Will the project serve at least 1,000 water righted acres? Yes

   A. Number of Acres: 3,660 (Enterprise WID) and 2,079 (Taylor WID); 10,943 (Total acres served by the Middle Fork of the Popo Agie River)

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

   A. If so, what are they? Potentially NRCS, USBR, USACE and/or SRF

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, but the Sponsors view this project as an opportunity to provide benefit to multiple irrigation entities as well as the potential regionalization of the City of Lander and surrounding municipal water users.

6. Can the project be delayed or staged? Yes

   A. Should it be? In March 2022, the City of Lander requested funding from the NRCS PL566 Watershed and Flood Prevention Operations program. Based on the project application, the project could evaluate: (1) potential infrastructure needs and coordinated agricultural management for WMR and Frye Lake to assist in drought protection and annual late season water shortages; and (2) the potential to achieve significant agricultural water savings through infrastructure improvements throughout the watershed, with particular emphasis on the Middle Fork Popo Agie system. Due to the limited NRCS program funds, the City of Lander was not awarded any funds in 2024. It is unclear if the application will be approved and funds awarded in 2025.

   The existing water supply from the Popo Agie River Watershed is not capable of fully meeting the requirements of all water users, especially in the Middle Popo Agie River. The Middle Popo Agie River has experienced regular low flows and water shortages. Completing the WWDC Level II storage feasibility study could streamline NRCS Watershed Planning (NEPA) should funds be awarded in the future.

III. PERTINENT INFORMATION

1. Existing Water Supply System

A. Description of Direct Flow Supply

(1) Direct Flow Diversion Right (CFS): 52.28 (Enterprise WID) and 29.06 (Taylor WID)

(2) Direct Flow Source (Name of River, Stream, etc.): Middle Fork Popo Agie River

(3) Type of Diversion (Headgate, Pump, etc.): Headgates

(4) Water Transmission System (Canal, Pipeline, etc.): Canal and pipelines

B. Description of Stored Water Supply

(1) Name(s) of Storage Facility (Reservoir): Worthen Meadow Reservoir and Frye Lake

(2) Location: See maps

(3) Amount of Stored Water Right (Acre-Feet): 1,697.5 (Frye Lake) and 1,500 (WMR)

(4) Is any of the stored supply obtained from a federal facility? No

C. Description of Groundwater Supply

(1) Number of Wells: 5 (City of Lander)

(2) Primary Supply Aquifer(s) or Formation(s): Alluvial aquifer

(3) Total Average Production Yield of All Wells (GPM): 1,750 GPM

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): 3,350 - 5,200 ac-ft (Enterprise WID) and 2,000 ac-ft (Taylor WID)

(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? 3,660 (Enterprise WID) and 2,079 (Taylor WID)

(2) How many acres are assessed? 3,660 (Enterprise WID) and 2,079 (Taylor WID)

(3) How many acres are irrigated? 3,660 (Enterprise WID) and 2,079 (Taylor WID)

(4) What is the annual water delivery assessed (acre-feet per acre)? Unknown

(5) How many individual land owners receive water? 100 Shareholders (Enterprise WID) and 19 Shareholders (Taylor WID)

B. On-Farm Information

(1) What is the normal irrigation season (e.g., May 1 – Sept. 30)? June 1 – August 15

(2) What type(s) of on-farm irrigation water applications is used (e.g., center pivot, side roll, flood, etc.)?

Flood, gated pipe, and center pivot

(3) Briefly describe the main crops and cropping patterns:

Grass, alfalfa, and grass-alfalfa mix

(4) Describe the water measuring devices currently in use:

Measuring sticks at various location

(5) Percentage of Farm Turnouts with Measuring Devices: 25 measuring devices for Enterprise WID and 27 measuring devices for Taylor WID

(6) Are water deliveries recorded? No

(7) Estimated System Water Losses (Percentage): 33% (Enterprise WID) and 6% (Taylor WID)

(8) What water conservation measures are employed by the Sponsors?

Liner, pipe, gated pipe, and pivots

3. Financial Information

A. District Financing

(1) Is the assessment based on acres, acre-feet delivered, acre-feet of storage, or other (specify)?

Shares (Enterprise WID), Acres (Taylor WID)

(2) How is voting authority delegated to water users (e.g., shares, individuals, number of acres, etc.)?

Shares (Enterprise WID)

One vote per share (Taylor WID)

(3) What is the per-unit amount of the current assessment? $29.00 per share (Enterprise WID) and $3.00 per acre (Taylor WID)

(4) Is there a basic service charge or first acre assessment in addition to assessments? If so, specify amount:

Yes, the first-acre assessment is $110.00 (Enterprise WID).

No (Taylor WID).

B. Financial Statement

(1) Revenues

		Enterprise WID	Taylor WID
a. Annual Revenues Generated from Assessments:	$	14,812	6,552
b. Annual Revenues from Other Sources:	$	30,000	0
c. Total Annual Revenues:	$	44,812	6,552

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	$	31,300	O&M paid for as needed
b. Annual Payments for Debt Retirement:	$	0	0
c. Annual Payments to a Repair and Replacement Fund:	$	0	0
d. Annual Payments to an Emergency Fund:	$	0	0
e. Annual Payments for Other Purposes:	$	0	0
f. Total Annual Payments:	$	31,300	0

(3) Other

a. Balance in Repair and Replacement Fund:	$	0	0

b. Balance in Emergency Fund: $ 0 0

c. Explanation (If Needed):

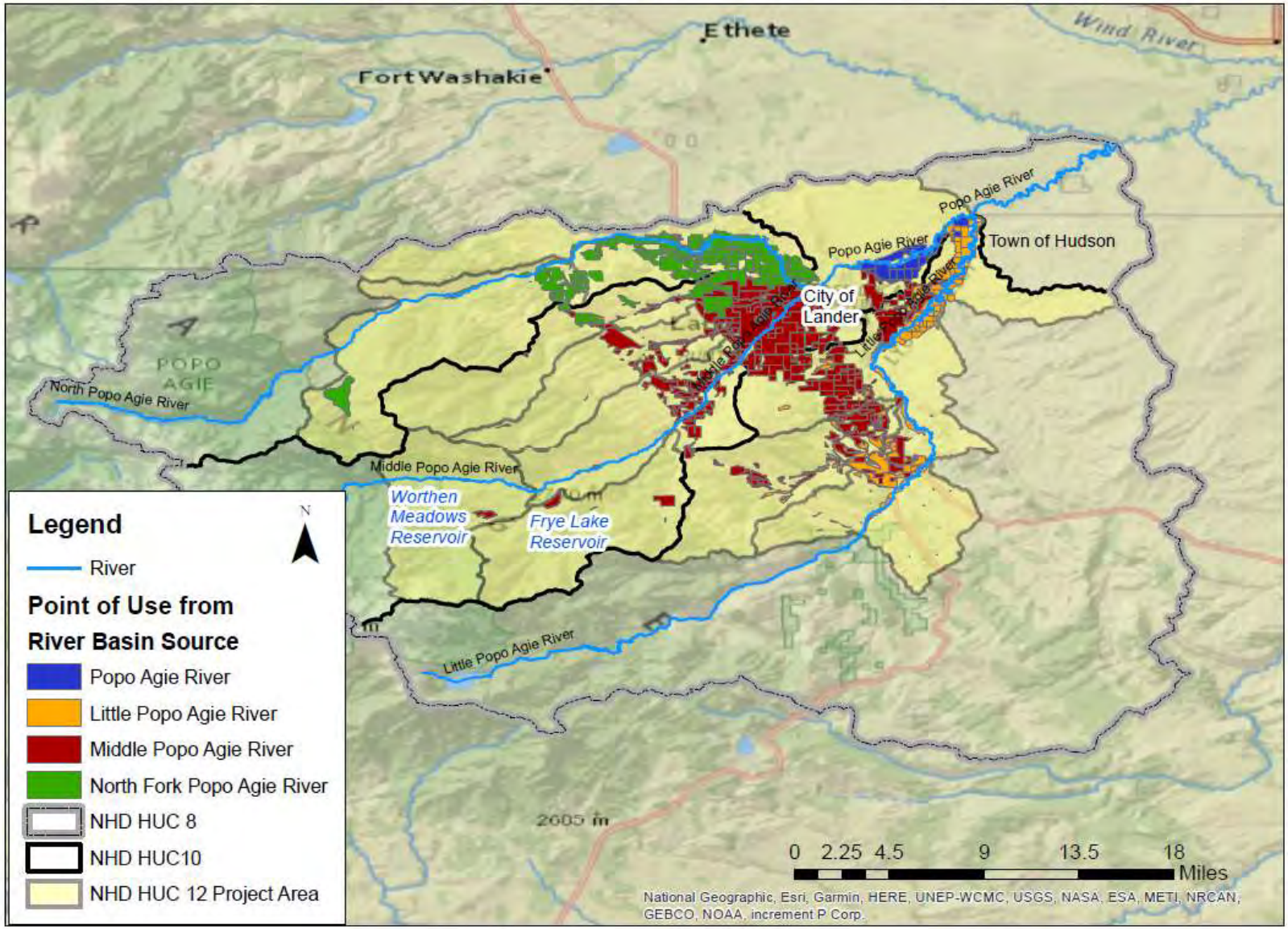
Enterprise and Taylor WIDs also have their main ditch companies that manage a separate budget.

(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.?

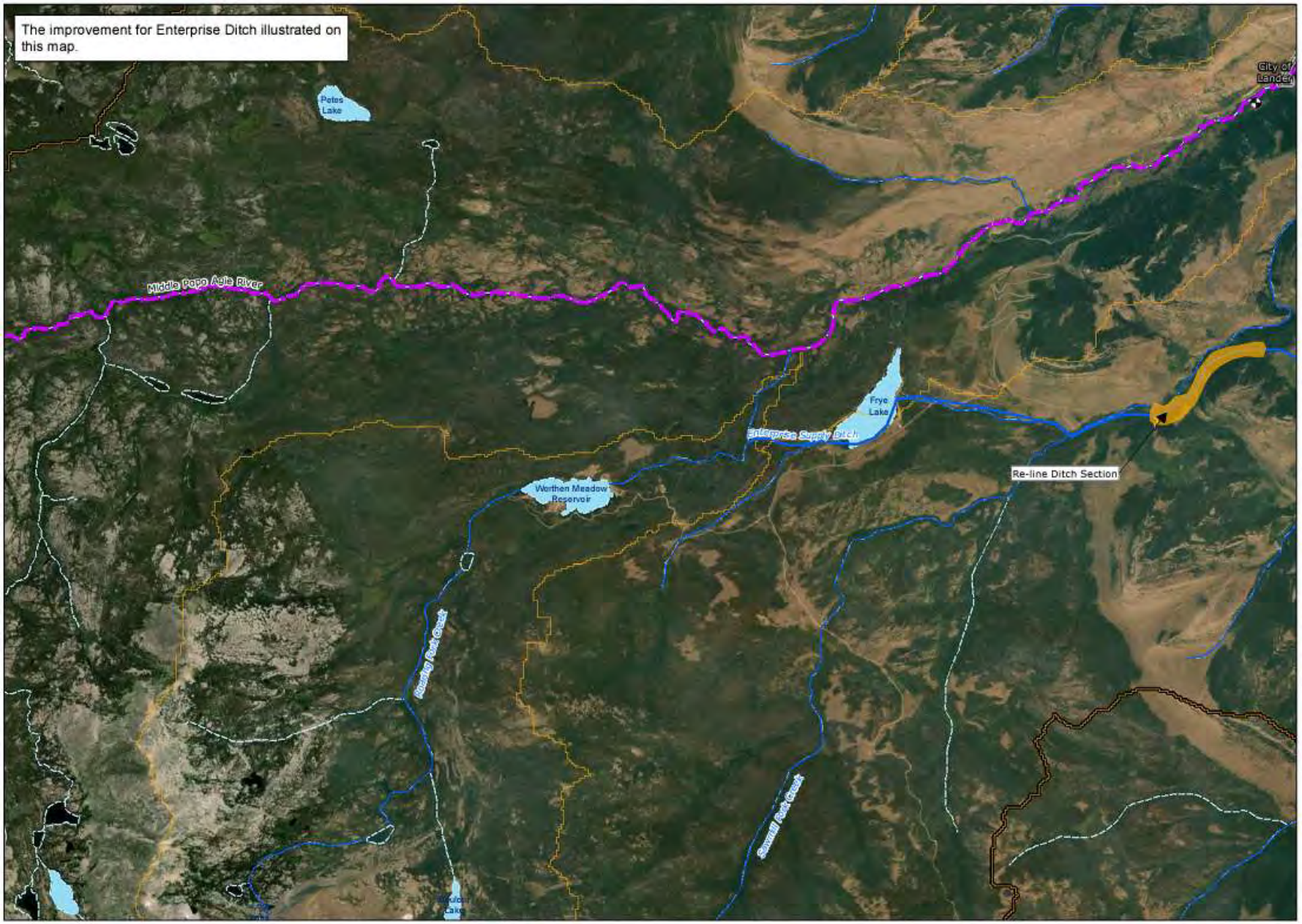
Yes

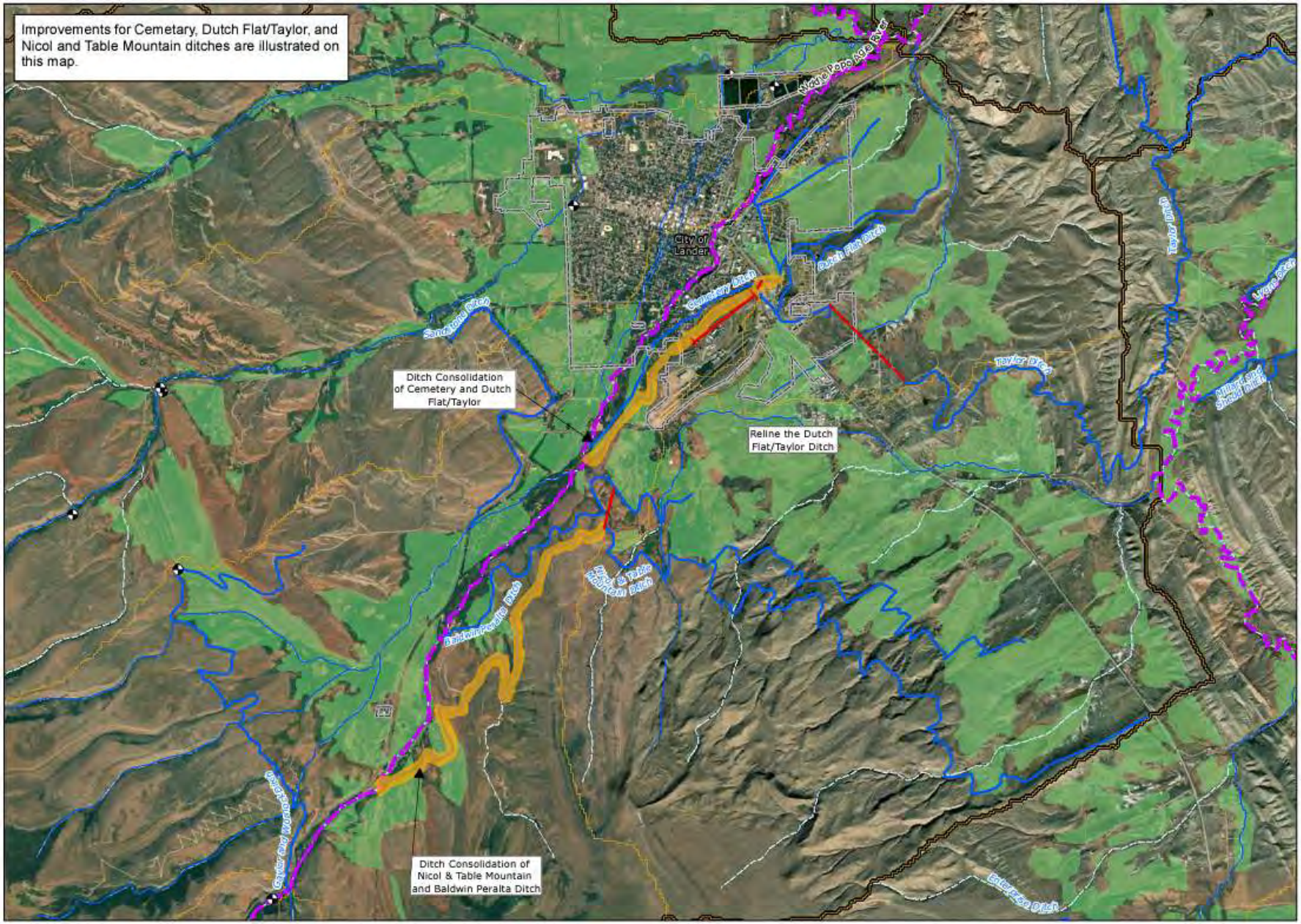
a. If not, how is the difference subsidized? N/A

Middle Fork of Popo Agie Rivers Serves 10,943 Acres



Worthen Meadow Reservoir and Frye Lake




Improvements for Cemetary, Dutch Flat/Taylor, and Nicol and Table Mountain ditches are illustrated on this map.
City of Lander
Cemetery Ditch
Dutch Flat Ditch
Taylor Ditch
Sandhills Ditch
Ditch Consolidation of Cemetery and Dutch Flat/Taylor
Reline the Dutch Flat/Taylor Ditch
Nicol & Table Mountain Ditch
Baldwin Peralta Ditch
Ditch Consolidation of Nicol & Table Mountain and Baldwin Peralta Ditch

Photos

Photo 1. An aerial overview of Worthen Meadow Reservoir.

Photo 2. Overview of Frye Lake.

Photo 3. View of Frye Lake after drawdown.

Photo 4. Middle Popo Agie River late season low flows.

Enterprise Watershed Improvement District Resolution

RESOLUTION

Resolution: Application for Grant to Examine Storage Capacity Enhancement and Climate Resiliency for Worthen Meadows Reservoir and Frye Lake

Whereas, the Enterprise Watershed Improvement District recognizes the importance of sustainable water management and enhancing the resilience of water storage systems to address the challenges posed by a changing climate; and

Whereas, the Worthen Meadows Reservoir and Frye Lake are vital components of our water storage infrastructure, serving as critical resources for our community's agricultural, recreational, and ecological needs; and

Whereas, an examination of the storage capacity enhancement and climate resiliency measures for these reservoirs will contribute significantly to ensuring a reliable and resilient water supply for our stakeholders, mitigating potential risks associated with climate variability and extreme weather events; and

Whereas, seeking external funding support through grants is instrumental in undertaking comprehensive studies and implementing sustainable solutions that will benefit our community and the environment;

Be it hereby resolved that the Enterprise Watershed Improvement District formally applies for a grant from Wyoming Water Development Commission or any suitable funding body to conduct a detailed study on storage capacity enhancement and climate resiliency measures for the Worthen Meadows Reservoir and Frye Lake.

This study aims to:

1. Evaluate the current storage capacity of Worthen Meadows Reservoir and Frye Lake.
2. Assess the impact of climate change on water availability and storage in these reservoirs.
3. Identify and explore feasible strategies to enhance storage capacity and improve climate resilience.
4. Develop a comprehensive plan outlining recommended measures for implementation.

Be it further resolved that the Enterprise Watershed Improvement District pledges its commitment to collaborating with relevant stakeholders, experts, and the community to ensure the successful execution of this study and subsequent implementation of recommended measures.

Be it further resolved that the Enterprise Watershed Improvement District designates Doug Thompson to oversee the application process, act as the point of contact, and represent the company's interests throughout the grant application and project implementation phases.

Resolved this 19th day of December, 2023, at a duly convened meeting of the Enterprise Watershed Improvement District Board of Directors.

Signed:

Jim Hellyer, President

Jake Small

Todd Sutton

Carl Calvert

George Kerst

DIANA P. OLSON
Notary Public - State of Wyoming
Commission ID: 157363
My Commission Expires Jan. 14, 2029

Taylor Watershed Improvement District Resolution

RESOLUTION

Resolution: Support for Application to Wyoming Water Development Commission for a Level II Feasibility Study on Storage Capacity Enhancement and Climate Resiliency for Worthen Meadows Reservoir and Frye Lake

Whereas, the Taylor Watershed Improvement District recognizes the critical importance of sustainable water management and the preservation of water resources for the welfare of our community and the environment; and

Whereas, Worthen Meadows Reservoir and Frye Lake stand as integral components of our water storage infrastructure, providing essential water supplies for agricultural, municipal, recreational, and environmental purposes within our watershed; and

Whereas, the impacts of climate change pose significant challenges to our water storage systems, necessitating a thorough assessment of storage capacity enhancement and the implementation of climate-resilient measures to ensure long-term sustainability; and

Whereas, seeking funding support through grants and partnerships is crucial for undertaking detailed feasibility studies and implementing necessary measures to fortify our water storage infrastructure against the impacts of a changing climate;

Be it hereby resolved that the Taylor Watershed Improvement District extends its full support for the application submitted to the Wyoming Water Development Commission for a Level II Feasibility Study focusing on storage capacity enhancement and climate resiliency for Worthen Meadows Reservoir and Frye Lake.

This Level II Feasibility Study aims to:

1. Assess the current storage capacities of Worthen Meadows Reservoir and Frye Lake.
2. Analyze historical and projected climate data to understand the potential impact of climate change on water availability and storage within these reservoirs.
3. Explore and evaluate feasible strategies and technologies aimed at enhancing storage capacity and fortifying climate resilience.
4. Develop a comprehensive plan outlining recommended measures for implementation.

Be it further resolved that the Taylor Watershed Improvement District pledges its commitment to actively participate in and contribute to this study, collaborating with stakeholders, experts, and the community to ensure the successful execution of the study and the subsequent implementation of recommended measures.

Be it further resolved that the Taylor Watershed Improvement District authorizes Doug Thompson to provide necessary information, represent the District's interests, and actively engage in discussions with the Wyoming Water Development Commission regarding this Level II Feasibility Study application.

Resolved this 7th day of February, 2026 at a duly convened meeting of the Taylor Watershed Improvement District Board of Directors.

Angie McConnell President, Taylor Watershed Improvement District

Approved and adopted:

Signed:

Anjie McConnell, President

(unavailable for signature)
Keith McPhearson

(unavailable for signature)
Tom Jones

Pat Realing

Bryan Hamilton

DIANA P. OLSON
Notary Public - State of Wyoming
Commission ID: 157363
My Commission Expires Jan. 14, 2029

Letters of Recommendation

POPO AGIE CONSERVATION DISTRICT
221 South 2nd, Lander, WY 82520 Phone: 307-332-3114

February 22, 2024

Wyoming Water Development Commission
6920 Yellowtail Road
Cheyenne, Wyoming 82002

Subject: Letter of Support for Level II Feasibility Study for Worthen Meadows Reservoir and Frye Lake

Dear Wyoming Water Development Commission,

I am writing on behalf of the Popo Agie Conservation District to express our support for the proposed Level II Feasibility Study. This study would focus on storage capacity enhancement on Worthen Meadows Reservoir, identify improvements along the conveyance system between Worthen and Frye Lake, and provide recommendations to Frye Lake (which is an agricultural reservoir owned by Enterprise). We understand that this study aims to explore the potential establishment of a conservation pool, which will include establishing new water rights for agriculture on Worthen Meadows Reservoir. It is important to address these two storage systems together as Worthen flows into Frye Lake via Roaring Fork Creek.

The Popo Agie Conservation District recognizes the significance of this project, as it holds the potential to address critical water management challenges and enhance the resilience of our region. The benefits that may arise from this study are numerous and will have a positive impact on various aspects of our community.

One of the primary advantages of this project is the insight it will provide into the additional water storage capacity and its potential utilization in a conservation pool. This reservoir enhancement will not only accommodate new water rights for agriculture but will also contribute to recreation and municipal use. Understanding the amount of water that can be captured and stored is crucial for sustainable resource management.

Furthermore, the project's potential to provide water during low-flow periods, particularly in the months of July and August, is of great significance. The Middle Fork of the Popo Agie River, flowing through the town of Lander, experiences reduced water flows during this period. Currently, 96% of water rights on the river are allocated for agricultural use. The proposed study's outcomes will contribute to maintaining adequate flows, benefiting fisheries, wildlife, recreational activities, and supporting agriculture.

The Popo Agie Conservation District believes that this Level II Feasibility Study aligns with our shared goals of responsible water management, environmental conservation, and community development. We appreciate the Wyoming Water Development Commission's dedication to exploring innovative solutions for water challenges, and we are confident that the outcomes of this study will have a lasting positive impact on the Popo Agie River basin.

Thank you for considering our endorsement of this vital project. We look forward to collaborating with the Wyoming Water Development Commission to ensure the success of the Level II Feasibility Study.

Sincerely,

Brandon Reynolds
Chair, Popo Agie Conservation District

CITY OF LANDER, WYOMING

OFFICE OF THE MAYOR

February 9, 2024

Wyoming Water Development Office
6920 Yellowtail Road
Cheyenne, WY 82009

RE: Support and Concurrence for 2024 Level 2 Application from Taylor Ditch and Enterprise Ditch Watershed Improvement Districts.

The City of Lander wholly supports the subject application submitted for the feasibility level study to increase watershed storage in Worthen Reservoir and Frye Lake.

Worthen Reservoir storage is currently allocated for 100% municipal water supply, but we operate it in tandem with releases to Frye Lake which is fully designated for agricultural storage. While both of those purposes are served minimally, there are no additional storage options for resiliency in agriculture, conservation, recreation, nor flooding. Through our active participation in the Healthy Rivers Initiative, the City made late season releases in 2018 and 2019 under a cooperative effort to test the enhancement of agriculture production, City Park Recreation, and City Lagoon effluent mixing. Data collection and analysis preliminarily showed that additional storage high in our watershed could benefit all water users in the following manner:

1. increasing our agricultural drought resilience and ag production economy,
2. relieving some of the over appropriation of water rights,
3. extending our recreation season for both City Park and the USFS,
4. ensuring the biological health of the Popo Agie River, and
5. managing spring runoff events to reduce the potential for flooding.

With those wholistic benefits in mind, the City is willing to participate in both the construction and the long-term management of an increased Worthen storage pool for the betterment of the entire watershed and the Lander economy. We applaud the efforts of the Healthy Rivers Initiative and the two Watershed Irrigation Districts to expand and explore innovative ways to improve both water quality and quantity in the Popo Agie River system and lend whole-hearted support to this grant application.

Sincerely,

Monte Richardson

THE REAL WEST

April 16, 2024

Wyoming Water Development Office
6920 Yellowtail Road
Cheyenne, WY 82002

Dear Members of the Wyoming Water Development Commission,

I am writing to provide you with important information regarding the Healthy Rivers Initiative (HRI) and its efforts to address water quality and late-season water quantity concerns in the Middle Fork of the Popo Agie watershed. As leaders within the conservation community, we greatly value your attention to this matter and request your favorable consideration of the proposed project for a Level II feasibility study to evaluate the feasibility of expanding capacity at Worthen Meadows Reservoir and examine efficiencies to Frye Lake and the conveyance system between the two lakes.

Established in 2016, the Healthy Rivers Initiative is a collaborative effort comprised of various stakeholders, including members from the agriculture, recreation, and conservation sectors, as well as agency partners. Led by the Popo Agie Conservation District, HRI has garnered widespread support within the community and is committed to developing community-driven solutions to enhance the health and sustainability of our water resources.

One of our highest priorities within the initiative is the expansion of Worthen Reservoir, which serves as a critical component of our efforts to better manage the Popo Agie watershed. Through experimental late-season releases of storage water from Worthen, we have been able to address the needs of both urban and agricultural users, fostering discussions on collective water management and potential formation of Watershed Improvement Districts.

Expanding Worthen Reservoir aligns with Wyoming's 2015 Water Strategy "Leading the Charge" and addresses the state's imperative to store headwaters to protect long-term water supplies. By increasing reservoir capacity, we can provide greater flexibility to support domestic water supply, irrigation needs, and ecosystem health throughout the Middle Fork watershed and beyond.

Healthy Rivers
Popo Agie Watershed Initiative

The recent completion of a Level I planning project, supported by the WWDC, underscored the importance of increasing storage at Worthen Reservoir to improve water quality and quantity for all users. This finding, coupled with our assessment of various watershed management strategies, reaffirms the significant benefits of expanding Worthen Reservoir's capacity.

In light of these findings, we respectfully urge the Wyoming Water Development Commission to approve the proposed project to evaluate the feasibility of expanding Worthen Meadows Reservoir and examine efficiencies to Frye Lake and the conveyance between the two bodies of water. Your support is crucial in advancing our collective efforts to ensure the long-term sustainability of Wyoming's water resources.

Thank you for your attention to this matter, and we appreciate the leadership you provide to Wyoming's water programs.

Sincerely,

Amanda Small, Healthy Rivers Initiative Coordinator

Healthy Rivers

Healthy Partnerships Support Healthy Rivers

USDA United States Department of Agriculture | Forest Service | Washakie Ranger District
333 East Main St.
Lander, WY 82520-3409
Voice: 307-332-5460
Fax: 307-578-1204

File Code: 2520/2720
Date: February 8, 2024

Wyoming Water Development Commission
6920 Yellowtail Road
Cheyenne, Wyoming 82002

Subject: Acknowledgment of Proposed Level II Feasibility Study for Worthen Meadows Reservoir and Frye Lake Storage Capacity Enhancement and Climate Resiliency Measures

Dear Wyoming Water Development Commission,

We recognize the value of collaborative efforts and appreciate Enterprise and Taylor Watershed Improvement District's commitment to sustainable resource management. We have been informed and are aware of the feasibility study's goal. If the project progresses to the construction phase, we anticipate further engagement and coordination to address environmental considerations and ensure alignment with our mission and regulations.

We understand the significance of the proposed Level II feasibility study and commend Enterprise and Taylor Watershed Improvement District for undertaking this initiative. We remain open to discussions and future collaboration, with the understanding that our formal support is contingent upon the completion of a thorough evaluation process.

While the United States Forest Service (USFS) acknowledges the importance of addressing storage capacity and climate resiliency in our natural resources, we must clarify that, at this time, we are unable to formally support or endorse the proposed project. As an agency, we must adhere to a rigorous process of evaluation, considering various factors such as environmental impact, public input, and regulatory compliance before offering formal support for a project.

Thank you for your understanding, and we look forward to continued communication on this matter.

Sincerely,

Steven J. Schacht
District Ranger, Shoshone NF,
Washakie RD