AGENDA

IDAHO WATER RESOURCE BOARD

Finance Committee Meeting No. 5-25
September 9, 2025
3:00 PM (Mountain Time) / 2:00 PM (Pacific Time)

Water Center
Conference Room 602 C & D
322 E. Front St.
BOISE

Livestream available at https://www.youtube.com/@iwrb

1. Introductions and Attendance
2. Governor's Executive Order No. 2025-05
3. Ground Water to Surface Water Conversion Grants Funding Recommendations *
4. Regional Sustainability Water Project Proposals
    a. Mountain Home Aquifer Stabilization Project Elmore County *
    b. Milner Dam Rehabilitation Project *
    c. Nampa Meridian Irrigation District—Ridenbaugh Canal Diversion Modernization Project *
5. Water Management Account Spending Plan *
6. Secondary Fund Budget *
7. Marsh Center Irrigating Company Loan Request *
8. Other Items
9. Adjourn

Committee Members: Chair Jo Ann Cole-Hansen, Jeff Raybould, Marc Gibbs, Dale Van Stone, and Dean Stevenson.

* Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item. **Americans with Disabilities:** The meeting will be held in person and online. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.

Gov. Little signs executive order to further streamline government, support public schools

Friday August 15, 2025

Boise, Idaho – Governor Brad Little signed Executive Order 2025-05 today, "The Idaho Act," creating even more efficiencies in state government to balance the budget and make way for President Donald Trump's tax cuts while supporting public schools.

> "Idaho's economy is the strongest in the nation, and we continue to move in the right direction. It's in our DNA here in Idaho to balance the budget, cut taxes, and right-size government so we can continue to make public schools our top priority. My executive order today delivers on our promise to Idahoans that we will implement President Trump's tax cuts for Idahoans and make the best use of their hard-earned money while putting public schools first," Governor Little said.

The executive order creates lasting efficiencies in state government by ordering state executive branch agencies to take the following actions in Fiscal Year 2026, which ends June 30, 2026. K-12 public schools are excluded.

- To further increase efficiencies, examine potential consolidation of services or agencies
- Revert positions that have gone unfilled
- Identify cost reductions in existing contracts
- Streamline boards and commissions
- Reduce General Fund spending by 3%
- Reduce travel spending

The executive order also highlights that Idaho leaders have delivered historic tax relief to working families over the past six years – including a 23 percent decrease in income taxes and billions of dollars in rebates and property tax relief – while making unprecedented investments in school facilities, teacher pay, and literacy. Idaho public schools now receive a billion dollars more per year in funding than when Governor Little took office. State support for Idaho public schools has never been higher, with a 63 percent increase in General Fund appropriations over the past six years and remarkable gains in student reading scores over the past year.

Governor Little highlighted Idaho's strong economy, noting the following facts:

- Idaho's economy is strong, resilient, and growing rapidly, fueled by smart fiscal management, a strong labor market, and record-setting gains in personal income, jobs, and GDP
- In June, Fitch Ratings reaffirmed Idaho's "AAA" credit rating – the highest possible – because of our strong reserves, low debt, and responsible budgeting, giving Idaho the flexibility to absorb tax cuts while still making critical investments in Idaho's future.
- Civilian labor force and overall unemployment rate remain stable year over year
- Job postings and hiring remain stable, showing no signs of slowdown
- Layoffs are at their lowest level in three years, a clear sign of economic health
- Idaho's population growth ranked third in the nation since 2020 and grew nearly 28% since 2010, almost three times the national rate, helping drive our economic evolution
- Idaho's personal income is projected to grow 32% over the next five years and wages are expected to grow 15% over the next five years.

View the full executive order at this link: **https://gov.idaho.gov/wp-content/uploads/2025/08/eo-2025-05.pdf** (https://links-2.govdelivery.com/CL0/https:%2F%2Fgov.idaho.gov%2Fwp-content%2Fuploads%2F2025%2F08%2Feo-2025-05.pdf%3Futm_medium=email%26utm_source=govdelivery/1/01010198af1cdf47-4354323e-af62-4100-b5a0-fd83f8b13eba-000000/xX6H0CytXHS0jTo5UJtjoI7jJBis3rLXKA9O43k-7Hs=418)

Idaho elected leaders express support for Governor Little's executive order

Leaders in the Idaho House and Senate, along with the co-chairs of the Joint Finance and Appropriations Committee (JFAC) issued the following statements in support of Governor Little's executive order today:

> "Idaho's leaders are laser focused on making sure taxpayers are getting the most bang for their buck. The Governor's executive order today further reinforces our strong track record of living within the people's means and making government as efficient as possible so we can continue to prioritize education," Senate President Pro Tempore Kelly Anthon said.
>
> "This isn't the government's money; it's the people's money. Unlike Left Coast states, Idaho leaders routinely give back what the people have earned, and our focus on the taxpayer is what makes our state such a desirable place to live and do business. The Governor's actions today build on our already strong reputation for running government as efficiently as possible," House Speaker Mike Moyle said.
>
> "Idaho's commonsense approach to budgeting means we aren't growing government beyond Idahoans' ability to pay for it. Year after year, Idaho demonstrates we can have it all – we can make investments to keep up with record growth while giving back what the people have earned," JFAC co-chairs Senator Scott Grow and Representative Wendy Horman said.

Executive Department
State of Idaho

State Capitol
Boise

EXECUTIVE DEPARTMENT
STATE OF IDAHO
BOISE

EXECUTIVE ORDER No. 2025-05

THE IDAHO ACT

WHEREAS, Idaho's economy is the strongest in the nation, and in recent years we have made historic investments in public education, transportation, water, and other infrastructure while delivering historic tax relief to the people of Idaho; and

WHEREAS, Idaho continues to attract people and businesses from other states because of our relentless focus on upholding the values of freedom, limited regulation, and lean government so we can prioritize what matters most to Idahoans, with education topping the list; and

WHEREAS, with the "Big Beautiful Bill," President Donald Trump delivered on his promise to cut taxes for American families, and my administration is dedicated to right-sizing state government to make way for the tax cuts; and

WHEREAS, Idaho leaders have delivered historic tax relief to working families over the past six years – including a 23 percent decrease in income taxes and billions of dollars in rebates and property tax relief – while making unprecedented investments in school facilities, teacher pay, and literacy, demonstrating we have it all: we can simultaneously cut taxes while meeting the needs of a growing state; and

WHEREAS, Idaho public schools now receive a billion dollars more per year in funding than when I took office, and state support for Idaho public schools has never been higher in the history of our great state, with a 63 percent increase in General Fund appropriations over the past six years and remarkable gains in student reading scores over the past year; and

WHEREAS, Idaho balances its budget not just because it is the right thing to do but because it is required by Article 7, Section 11 of the Idaho Constitution, which provides that expenditures of state government must not exceed state government revenue; and

NOW, THEREFORE, I, Brad Little, Governor of the State of Idaho, by virtue of the authority vested in me by the Constitution and laws of this state, do hereby order that:

Idaho will Further Improve Government Efficiency and Reduce Government Spending

1. *To ensure that state government continues to administer its business efficiently and effectively, all executive departments, offices, and institutions of the state (agencies) must follow the steps outlined below:*
    a. *review all current operations and determine if consolidation of services, bureaus, or agencies could improve efficiency and reduce overall spending. Agencies must report their findings to the Governor and the Division of Financial Management (DFM).*
    b. *submit a vacant full-time positions report in accordance with the budget development manual and reduce full-time positions that have been vacant for over six months. Reductions must be submitted in agency budget submissions.*

c. *review and take inventory of all current contracts to identify where contract costs exceeded inflation. Based on results of the inventory, heads of agencies must provide the Governor and DFM with recommendations to reduce increased contract costs.*
d. *review all boards and commissions, whether governing or advisory, to identify (i) the number of members serving on each board and commission; (iii) the number of meetings convened per year by each board and commission; and (iii) agency costs associated with supporting each board and commission. Agencies must report their findings to the Governor and DFM.*
e. *review internal travel policies to confirm alignment with the State Travel Policy; and report all employee travel expenditures in Fiscal Year (FY) 2025 with their budget submission.*
f. *identify and review all unobligated dedicated fund cash balances (cash balances) that are not critical to operations in FY 2026 or FY 2027. Agencies must report cash balances to DFM.*

2. *My administration will continue to collaborate and partner with the Legislature to identify and implement more efficiencies in state government.*
3. *I commend the Legislature and agencies for identifying obsolete, outdated, and unnecessary statutes pursuant to the Idaho Code Cleanup Act passed by the Legislature this year, and I look forward to working with the Legislature to streamline Idaho Code and further Idaho's efforts to reduce regulatory burdens.*

Idaho will Right-size State Government to Match the Means of Idahoans

4. *Except for K-12 public schools, all agencies must reduce their General Fund spending authority on file in the Office of the State Controller by three percent for their FY 2026 General Fund appropriation, pursuant to Section 67-3512A, Idaho Code.*
5. *I invite state constitutional officers, officials of the legislative branch, and officers of the judicial branch to assess and evaluate their FY 2026 General Fund appropriation to determine whether they could reduce government spending to more efficiently and effectively administer their legal duties without impairing the discharge of their constitutional duties.*

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Idaho at the Capitol in Boise on this 15th day of August in the year of our Lord two thousand and twenty-five.

BRAD LITTLE
GOVERNOR

PHIL MCGRANE
SECRETARY OF STATE

Memorandum

To: Idaho Water Resource Board Finance Committee

From: Neeley Miller, Planning & Projects Bureau

Date: September 9th, 2025

Re: Groundwater to Surface Water Conversion Grant Awards

Action: Consider A resolution to award grant funds

Background:

On May 23rd, 2025 the Idaho Water Resource Board (IWRB) adopted resolution no. 19-2025 modifying the Water Management Account spending plan to allocate a portion of the funding appropriated to the IWBB through House Bill 445 (HB 445). The modifications to the spending plan included a $20,000,000 budget for groundwater to surface water conversion grants for projects within the Eastern Snake Plain Aquifer Area of Common Groundwater (ESPA). Criteria for the program was passed via resolution no. 22-2025, also at the May 23rd, 2025 meeting.

The application deadline for the program was August 1st, 2025; Staff received a total of 15 applications requesting approximately $18.7 million in funding.

Key Elements of the Criteria

Eligible Projects: Projects located in eligible geographic areas that propose to convert from groundwater to surface water irrigation.

Eligible Entities: Groundwater Districts, Irrigation Districts, Irrigation Boards of Control, Canal Companies. Individuals must apply through one of the eligible entities.

Eligible Geographic Area: Statewide basins that have been designated Critical Groundwater Areas and Groundwater Management Areas under Idaho Code § 42, Chapters 233a and 233b

Grant Award Limit: $5 million per application (IWRB reserves the right to fully allocate the total budget among the applicants)

- Applicants must agree to cease pumping the proposed portion of groundwater related to project and that delivered conversion water will be used only on lands with an existing groundwater right tied to this project.
- Applications are scored based upon project benefits/effectiveness and proposal clarity.

Staff Recommendation

Staff has evaluated, scored and ranked the applications according to the criteria adopted by IWRB. Staff recommends the IWRB approve grant awards as specified in Attachment A to this resolution.

Attachment(s):
Resolution w/Attachment A

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF GROUNDWATER TO SURFACE WATER CONVERSION GRANTS	RESOLUTION TO AWARD FUNDS

WHEREAS, the Idaho Water Resource Board (IWRB) on May 23, 2025 adopted a resolution (resolution # 19-2025) modifying the spending plan for the Water Management Account; and

WHEREAS, the IWRB's modified spending plan included a budget of $20,000,000 for a Groundwater to Surface Conversion Projects Grant Program; and

WHEREAS, on May 23, 2025, the IWRB adopted criteria for the award of Eastern Snake Plain Aquifer Area of Common Groundwater (ESPA) Groundwater to Surface Water Conversion Grants (resolution # 22-2025) and set an application deadline of August 1, 2025; and

WHEREAS, the IWRB received fifteen ESPA Groundwater to Surface Water Conversion Grant applications by the deadline. The applications were evaluated, scored and ranked according to the criteria adopted by the IWRB; and

WHEREAS, on September 9, 2025, the Finance Committee met and discussed the projects, and recommended the IWRB approve grant awards as specified in Attachment A to this resolution; and

NOW, THEREFORE BE IT RESOLVED that the IWRB approves the award of ESPA Groundwater to Surface Water Grants from the Water Management Account as specified in Attachment A to this resolution.

DATED this 12th day of September 2025.

_____
JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

ATTACHMENT A

2025 ESPA GW to SW Conversion Grant Applications

Entity	Project	Funds Requested	Total Project Costs	Ranking	Points	Funds Awarded
MVGWD	Large Conversion Project*	$12,060,935.80	$34,121,871.00	1	81	$12,060,935.80
SWID	Mathews Conversion Project	$40,402.00	$80,804.00	2	77	$40,402.00
MVGWD	Brown Family Conversion Project	$618,723.84	$1,237,447.68	3	63	$618,723.84
BGWD	Josh Morris Conversion Project	$49,197.90	$98,395.80	4	60	$49,197.90
BGWD	Christiansen Family Land LLC Warnett Pump Conversion Project	$78,261.00	$156,522.00	5	59	$78,261.00
BLRGWD/BLRID	3 in 1 Conversion Project	$2,510,118.50	$5,020,237.00	6	58	$2,510,118.50
BGWD	Global Ag/Bentley Wray Conversion Project	$81,452.06	$162,904.12	7	57	$81,452.06
BGWD	Ron Gentillon Conversion Project	$46,260.65	$95,521.31	8	55	$46,260.65
BGWD	Thompson Brothers LLC Conversion Project 1	$56,405.32	$112,816.65	9	54	$56,405.32
BLRGWD/BLRID	Darlington Canal Conversion Project	$2,000,000.00	$10,000,000.00	10	54	$2,000,000.00
BLRGWD/BLRID	B&J Canal Piping Project	$689,500.00	$1,379,000.00	11	53	$689,500.00
BGWD	Shandon Carter Conversion Project	$29,826.00	$59,652.00	12	51	$29,826.00
BGWD	Christiansen Family Land Conversion Project	$93,768.50	$186,537.00	13	49	$93,768.50
BGWD	Thompson Brothers LLC Conversion Project 2	$29,110.00	$58,220.00	14	48	$29,110.00
City of Rexburg	Porter Park Conversion Project	$302,975.00	$605,950.00	15	45	$302,975.00
	Total Funds Requested	**$18,686,936.57**	**$53,375,878.56**			**$18,686,936.57**

MEMO

To: Idaho Water Resource Board Finance Committee

From: Neeley Miller & Justin Ferguson

Date: September 9th, 2025

Subject: Regional Water Sustainability List – Update List

REQUESTED ACTION: Consider Adding Projects To The Regional Sustainability Priority List

The Idaho Water Resource Board (IWRB) maintains a list of projects intended to help achieve water supply sustainability on a regional, basin, or statewide scale. The Regional Water Sustainability Priority List is used to help guide spending from IWRB allocated funding sources for large, regional water sustainability projects.

Two project proposals were received for consideration for inclusion in the Idaho Water Resource Board's Regional Water Sustainability Priority List, a proposal from Milner Dam Inc. to rehabilitate the existing emergency spillway and from the Nampa-Meridian Irrigation District to repair, modernize, and automate the Ridenbaugh Canal.

Attachments:

Milner Dam Inc. – Project Proposal
Nampa-Meridian Irrigation District – Project Proposal
Draft Resolution – *Add The Milner Dam Rehabilitation Project & Ridenbaugh Project to the Regional Water Sustainability Priority List*

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE REGIONAL WATER SUSTAINABILITY PRIORITY LIST	RESOLUTION TO UPDATE THE LIST

WHEREAS, in July 2021, the IWRB adopted an initial Regional Water Sustainability Priority List to help guide the Idaho Water Resource Board's (IWRB's) spending for large, regional water sustainability projects from ARPA funds, state general funds, or other applicable sources; and

WHEREAS, in January 2022, the IWRB adopted a threshold criteria indicating that for a project to be included on the Regional Water Sustainability Priority List (List), it must "help achieve water supply sustainability on a regional, basin-wide, or state-wide basis;" and

WHEREAS, on October 26th, 2022, the IWRB approved Resolution 39-2022 adopting criteria for the inclusion of projects on the List; and

WHEREAS, Idaho Code § 42-1760 authorizes the Idaho Water Resource Board (IWRB) to expend, loan, or grant money from the Water Management Account for water projects that conserve or increase water supply, improve drought resiliency, address water sustainability, or support flood management, including the identification, study, and construction of managed aquifer recharge sites above Milner dam; and

WHEREAS, state general funds made available for regional water sustainability projects are placed into the Water Management Account, which is managed by the IWRB. Idaho Code 42-1760(2)(d) requires that when authorizing the use of funds from the Water Management Account the IWRB "must protect all existing water rights and consider the effects of such projects on other water uses, such as water quality, fish and wildlife, recreation, and hydropower, that provide economic value, stability, water sustainability, drought resiliency, and other benefits to the citizens of the state.;" and

WHEREAS, Milner Dam Inc. (MDI) submitted a request to the IWRB for Regional Water Sustainability funding for the rehabilitation of the emergency spillway at Milner Dam, including the repair and replacement of damaged concrete at the spillway, improved decking across the spillway, and a redesign of the existing plunge pool. The estimated project costs for the repairs and rehabilitation are currently estimated at $9,065,000 and are projected to take several years; and

WHEREAS, the Nampa-Meridian Irrigation District (NMID) submitted a request to the IWRB for Regional Water Sustainability funding for the Ridenbaugh Project intended to replace, modernize, and automate diversion and headworks along the canal. The estimated projects costs for the replacement, modernization, and automation are currently estimated at $20,930,292; and

WHEREAS, on September 9th, 2025, the Finance Committee recommended the Milner Dam Rehabilitation Project and the Nampa-Meridian Irrigation District Ridenbaugh Project be added to the

Regional Water Sustainability Priority List.

NOW THEREFORE BE IT RESOLVED that the Milner Dam Rehabilitation Project and the Ridenbaugh Project are added to the Regional Water Sustainability List.

DATED this 12th day of September, 2025.

_____
JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

Memorandum

To: Idaho Water Resource Board Finance Committee

From: Amy Cassel

Date: September 9th, 2025

Re: Mountain Home Aquifer Stabilization Project - Elmore County – Regional Water Sustainability Project

REQUIRED ACTION: Guidance from IWRB regarding future proposal and request for additional information

Summary

The Mountain Home Plateau – Elmore County Aquifer Stabilization project aims to address critical shortages in the Mountain Home Plateau Aquifer. Groundwater use in the aquifer is approximately 80,000-acre feet per year, and the recharge rate is approximately 40,000-acre feet per year. This results in a 40,000-acre feet per year deficit.

Keri Hill, on behalf of Elmore County, will present on the following:

- Status of Mountain Home aquifer
- Historical context of shift to groundwater resources
- A three-phase “one water” approach
- The importance of alternatives studies and expected results

Elmore County: Aquifer Stabilization Project

SEPTEMBER 9, 2025

PRESENTED BY:
KERI HILL, PANORAMA ENVIRONMENTAL, INC
(CONSULTANT TO ELMORE COUNTY)

KERI.HILL@PANORAMAENV.COM

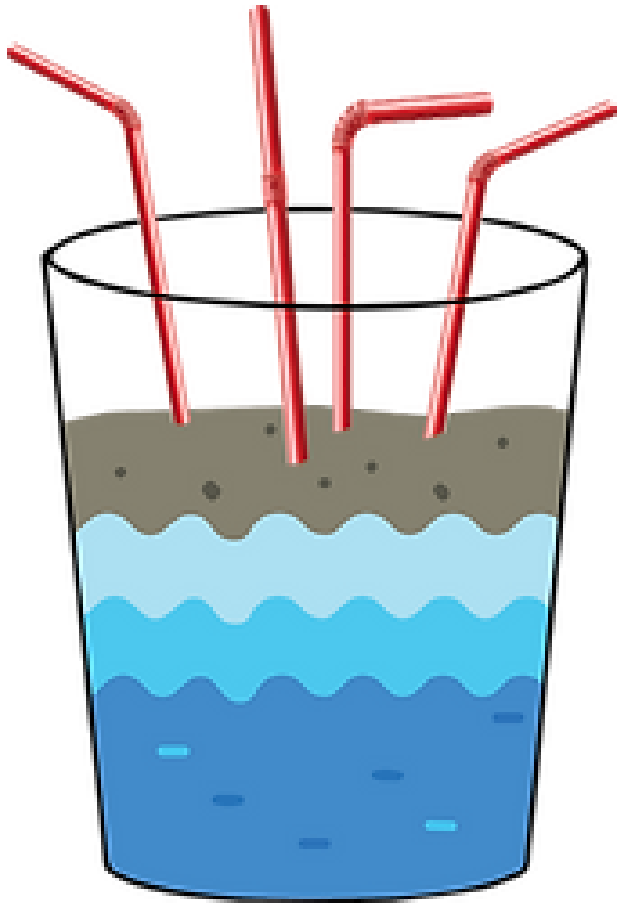
Purpose of Today's Presentation

- Review of Elmore County's Aquifer Stabilization Project
- Progress to-date
- Where we need to go

The Mountain Home Area: An Aquifer at Risk

More water is being pulled from the Elmore County Aquifer each year than can be replenished

- Groundwater use: ~80,000 acre-feet per year (AFY)
- Recharge rate: ~40,000 AFY
- Result: 40,000 AFY annual deficit
- Western Snake Plain Aquifer Model underway to refine numbers

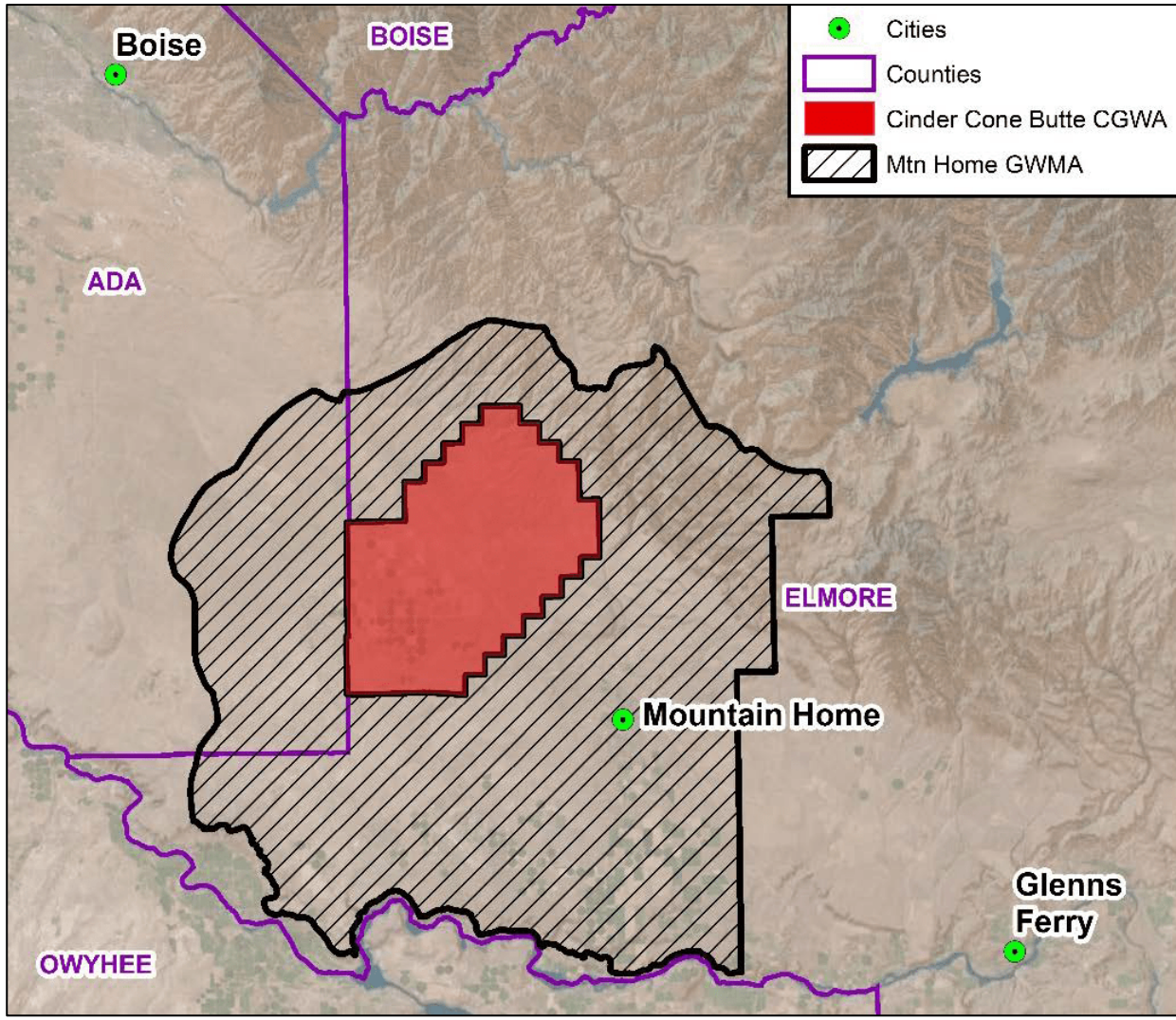


How did we get here?

- Mountain Home Irrigation District (MHID) system developed 1887 – 1910s
- Fourteen separate surface water ideas proposed from 1905 – 1970’s
- Twice Bureau of Reclamation withdrew thousands of acres from Federal ownership for settlement

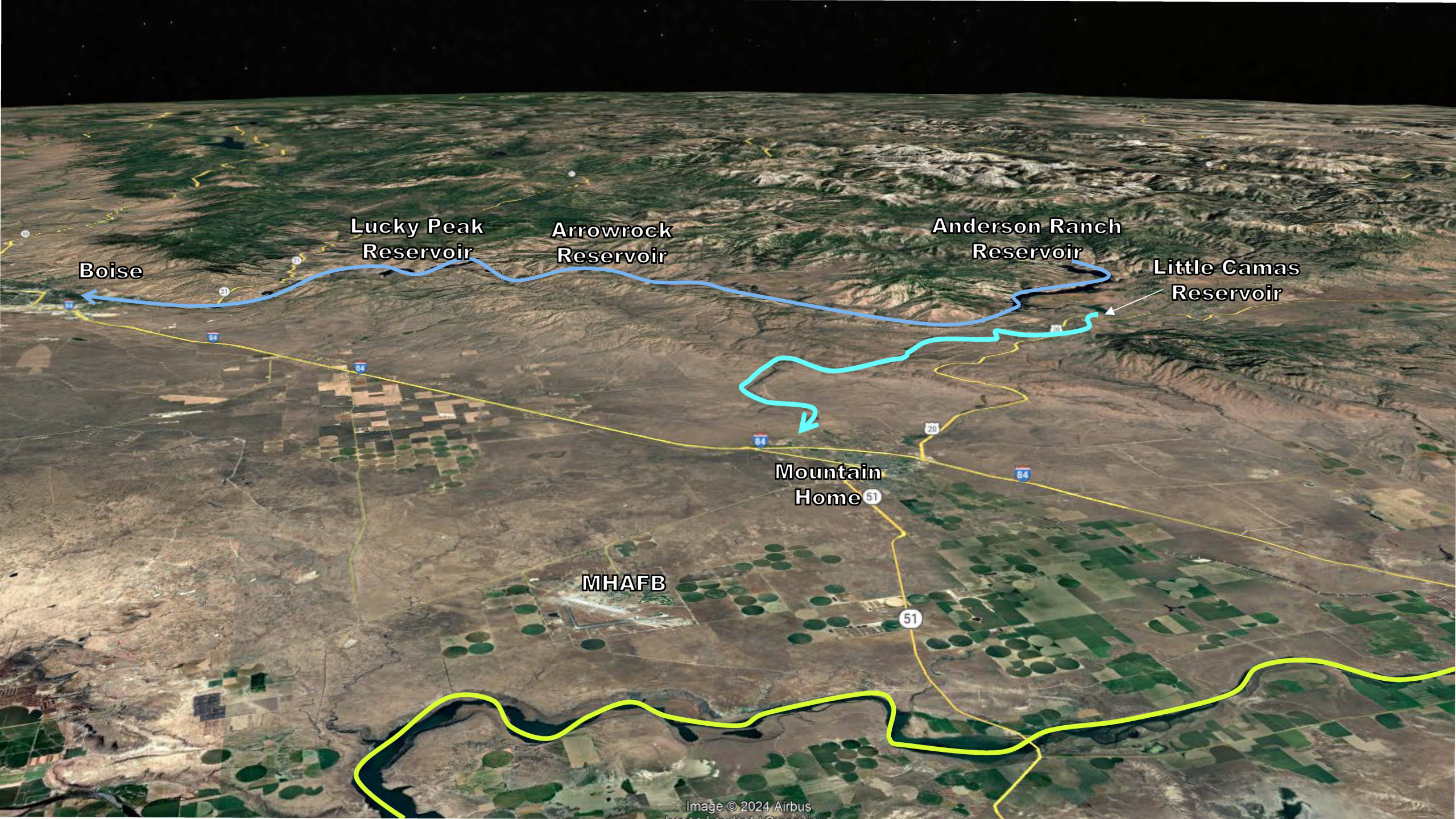
The Shift to Groundwater

- 1943 – Mountain Home Army Air Field opens, becomes Mountain Home AFB in 1948
- 1960s-70s – sharp uptick in groundwater permits approved
- Early 1980s – Critical Groundwater Area and Groundwater Management Area



Renewed Focus

- IWRB Partnerships
  - Canyon Creek Diversion Recharge Project
  - MHID Tunnel Repairs
  - Western Snake River Plain Aquifer Model


Boise
Lucky Peak Reservoir
Arrowrock Reservoir
Anderson Ranch Reservoir
Little Camas Reservoir
Mountain Home
MHAFB
Image © 2024 Airbus

Elmore County Aquifer Stabilization Project

A three-phased approach.

- Phase 1: MHID Canal and Tunnel System Repair and Reliability (0-3 years)
- Phase 2: Snake River Water Delivery (3-5 years)
- Phase 3: South Fork Boise River Diversion (5-10 years)

Phase 1:
MHID Canal and Tunnel System Repair and Reliability

- The Mountain Home area depends on MHID's system
- The canal system is 120+ years old, 13 miles long and includes 15 tunnels
- Current Challenges with the MHID:
  - 2023 Tunnel #9 Collapse
  - Investment beyond IWRB Aging Infrastructure and other small grant programs needed

Phase 2:
Snake River Water Delivery (3-5 years)

- County received a draft Water Right Permit for 20 cfs of year-round diversion from the Snake River
- Diversion location and pipeline route to be optimized
- Exploring mutually beneficial opportunities to share existing agricultural infrastructure

Phase 3:
South Fork Boise River Diversion (5-10 years)

- Building upon multiple sources of surface water import
- Proposed pump station and pipeline from Anderson Ranch Reservoir to Little Camas Reservoir
- 45% preliminary engineering design funded by Elmore County, working toward 60% design
- 200 cfs flood-flow water right in Anderson Ranch Reservoir secured, petitioning for additional storage water

Where we need to go: Alternative Studies

- Phase 1, MHID Canal and Tunnel System Repair and Reliability:
  - Comprehensive analysis and documentation of existing conditions
  - Develop comprehensive solutions vs. piecemealing repairs for localized problems

Where we need to go: Alternative Studies

- Phase 2, Snake River Water Delivery
  - Identify most efficient and cost-effective use and delivery of water from the Snake River
  - Establish cost-benefit framework to leverage federal funds

Expected Benefits of the Alternative Studies

- Preliminary engineering and financial clarity of next steps
- Support state and federal grant and loan applications
- Support mitigation of the aquifer decline
- Security of existing infrastructure investments
- Water security creates economic resilience

Next Steps

Formal request for IWRB funding of Phase 1 and Phase 2 alternative studies

Every year without progress results in further aquifer decline

Thank you

QUESTIONS?

MEMO

To: Idaho Water Resource Board Finance Committee

From: Justin Ferguson

Date: September 9th, 2025

Subject: Regional Water Sustainability Priority List – Milner Dam Rehabilitation

REQUESTED ACTION: Consider A Funding Request For $1,500,000 For Project Design

A project proposal was received from Milner Dam Inc. (MDI) requesting Regional Water Sustainability Funding to rehabilitate the existing emergency spillway, including the restoration of damaged concrete at the existing emergency spillway, the installation of an improved decking across the emergency spillway, and a redesign and rebuilding of the plunge pool downstream. Currently, the estimated cost for the project is $9,065,000; however, further design work is necessary before construction can begin.

At this time, MDI is requesting $1,500,000 in Regional Water Sustainability funding to support the ongoing design work for the Project. When MDI is able to reach a satisfactory level of design with updated project costs, the IWRB will be provided with an additional funding request for consideration for the remaining project costs.

Attachments: MDI Draft Funding Resolution

Milner Dam Inc.
357 6th Avenue West
PO Box 326
Twin Falls, Idaho 83301

Grant Application for:
Idaho Water Resources Board
Regional Water Sustainability Project Priority List

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1.0 Project Summary

Milner Dam Incorporated (MDI) is located in southcentral Idaho, approximately 12 miles west of Burley, Idaho. Milner Dam acts as the initial diversionary structure to deliver water to over 500,000 acres to the surrounding area. The proposed projects are broken into three different areas (phases) and will repair the Service Spillway Plunge Pool, the Emergency Spillway, and concrete and service gates on the Service Spillway. In the record high-water year of 1997, the spillway flows caused basalt and other material that had been placed during the 1992 dam rehabilitation to be transported downstream and away from the concrete service spillway. Observed flows exceeded design criteria and operational considerations at every facility in the mid-Snake River basin. As a result of this event, a "plunge pool" developed downstream of the service spillway's concrete apron. This plunge pool creates the risk that another historic flood flow could substantially impair operations at the dam and risk property and safety downstream. This rehabilitation project is aimed at repairing this plunge pool and securing the operations of Milner Dam into the future.

The Emergency Spillway Bridge Deck was the original primary spillway at Milner Dam from 1903 to the early 1990's when the Service Spillway was constructed. Over the years of operation, the bridge decking has been replaced and repaired. The proposed project would replace the bridge deck with a new galvanized steel bridge deck and provide better structural integrity.

The proposed project is to repair the Service Spillway Concrete and Service Gates that has been determined to have delamination and hairline cracking at Milner Dam. The proposed project would help reduce the hairline cracking and fix the areas of delamination on the service spillway below the ogee weir on the service spillway, and help repair the service spillway gates as needed.

2.0 Project Background Information

Date: September 12, 2025
Applicant Name: Milner Dam Inc.
City, County, State: Twin Falls, Twin Falls, Idaho

Project Manager:
Jason Brown
Engineer/Field Supervisor
208-733-6731
jbrown@tfcanal.com

Application Type: Milner Dam's Spillways Improvement Project – Improve Existing Infrastructure

Total Project Cost: $9,065,000.00

Milner Dam Incorporated (MDI) is located in southcentral Idaho, approximately 12 miles west of Burley, Idaho. The proposed projects will repair the Service Spillway Plunge Pool at Milner Dam, the Emergency Spillway, and concrete and service gates on the Service Spillway.

Service Spillway

In the high-water year of 1997, the spillway flows caused basalt and other material that had been placed during the 1992 dam rehabilitation to be transported downstream and away from the concrete service spillway. As a result of this event, a "plunge pool" developed downstream of the service spillway's concrete apron. The Federal Energy Regulatory Commission (FERC) has voiced concerns regarding the condition of the plunge pool and the possibility that further erosion may occur that could potentially begin undermining and eroding the service spillway. The proposed project would effectively reduce the erosive capacity of the spillway flow and/or increase resistance to erosion in the plunge pool. The most cost-effective approach is likely to include capping the plunge pool area with a durable concrete surface to reduce the potential for additional scour.

Emergency Spillway

The Emergency Spillway Bridge Deck was the original primary spillway at Milner Dam from 1903 to the early 1990's when the Service Spillway was constructed. Over the years of operation, the bridge decking has been replaced and repaired. The FERC has voiced concerns regarding the condition of the bridge decking over the years, and more recently in the 2017 Fifth Part 12 D Safety Inspection of Milner Dam. The proposed project would effectively replace the current wood deck with a new galvanized steel bridge deck. By completing this work, the integrity of Milner Dam emergency spillway bridge deck would be effectively addressed.

Service Spillway Concrete and Service Gate Repair

The proposed project is to repair the Service Spillway Concrete that has been determined to have delamination and hairline cracking at Milner Dam. In 2022 the Federal Energy Regulatory Commission (FERC) voiced concerns regarding the condition of the concrete below the ogee weir on the service spillway. The proposed project would help reduce the hairline cracking and fix the areas of delamination on the service spillway.

By completing this work, the integrity of Milner Dam will be preserved to ensure the delivery of surface irrigation water to 500,000 acres of farmland and provide clean hydropower for electricity users and ensuring the safety of downstream property owners and recreational users.

3.0 Project Sponsor

Type of Organization:

Milner Dam Inc. – A non-profit Idaho corporation, jointly owned by Twin Falls Canal Company and North Side Canal Company, both of which are non-profit corporations.

Brief history and Background:

Milner Dam Inc. is owned and operated in partnership between the Twin Falls Canal Company and the North Side Canal Company. Milner Dam is located in southcentral Idaho about 12 miles to the west of Burley, Idaho. Construction of Milner Dam was completed in 1905 as part of the Carey Act of 1894 and started to divert water that same year. Milner Dam is the diversion structure on the river that provides for the irrigation of more than 500,000 acres in southern Idaho. There are three canal diversions out of Milner Dam: Twin Falls Canal, North Side Canal, and the Milner-Gooding Canal. Two other irrigation entities pump water from the Milner Dam impoundment: A&B Irrigation District and Milner Irrigation District. Milner Dam is one of the most important structures for water diversion on the Snake River. Idaho Power Company also uses water impounded by Milner Dam to operate the Milner hydropower plants.

Revenue Sources:

MDI is funded by both the North Side Canal Company and Twin Falls Canal Company. Idaho Power provides a yearly stipend to help for operational purposes. Both Twin Falls Canal Company and North Side Canal Company levy an annual assessment on each share of water. The assessment rates are discussed during the budget cycle, and the Board's ratify the assessment amounts each year. Annual assessment notices are billed at the beginning of the budget cycle every November.

Current Operations:

Milner Dam Inc. owns and operates Milner Dam in partnership between Twin Falls Canal Company and North Side Canal Company. Milner Dam Inc. does not own or operate any other facilities. Milner Dam is the diversion structure for over 500,000 acres in southcentral Idaho. The North Side Canal Company, Twin Falls Canal Company, and the Milner-Gooding Canal (American Falls Reservoir District #2) all divert into open canal systems. Milner Irrigation District and A&B Irrigation District both pump water from the Milner Dam pool to supply water to agricultural farm ground.

4.0 Project Description

Narrative:

The Milner Dam Regional Water Sustainability Projects are located at Milner Dam. Milner Dam is located approximately 12 miles west of Burley, Idaho along the Snake River. Figure 1 shows a general location of Milner Dam west of Burley, Idaho.

Figure 1: Location of Milner Dam Relative to Burley, Idaho

Milner Dam, which was constructed between 1903 and 1905 and rehabilitated in the early 1990's, impounds 50,000 acre-feet of water in the Snake River to raise the water surface elevation high enough to divert water for irrigation purposes. Figure 2 below also shows the impoundment along with the three canal diversions, and the two spillways (Service and Emergency) are also labeled.

Figure 2: Project Area Map

This application for the Regional Water Sustainability Project List for Milner Dam has three major projects associated with it as well as smaller projects. The three main projects are the Service Spillway Plunge Pool, the Emergency Spillway Bridge Rehabilitation, and Concrete and Service Spillway Gate repair. This application will provide a narrative on each of the projects and incorporate a budget item for each one.

Service Spillway

The service spillway was constructed in 1992 as a Milner Dam rehabilitation project to allow power generation to be possible, and better manage water at Milner Dam. Portions of the north and middle dam embankments were removed, the foundation surface was cleaned down to good quality basalt, and any soil interbeds encountered were treated with filters and/or concrete before constructing the new buttress embankment section on the downstream face of the old dam.

Flow through the spillway chute steps down to a splash pad that was constructed as a part of the 1992 rehabilitation project. The splash pad was constructed level with the ground surface, and an erosion protection trench was excavated to the approximate base of one of the 'soil interbeds' that were identified from field exploration and backfilled with lean concrete. Existing documentation is unclear as to the exact nature of the earthen materials that were left adjacent to and downstream of the "u"-shaped concrete apron, but photographic evidence suggests that the material may have consisted of some native granular material along with basalt rocks.

Figure 2 shows the plunge pool that formed during the high-water year of 1997. Basalt and other material that had been placed during the 1992 dam rehabilitation project was transported downstream as a result of the high flow rate. Since this time, MDI, FERC, and Idaho Power have been monitoring the plunge pool and any issues associated with it. The Service Spillway Plunge Pool project will mitigate against potential additional scour downstream of the service spillway and reduce the associated dam safety risk associated with this critical infrastructure. This project aims to armor the plunge pool to increase the resistance to erosion and maintain the integrity of Milner Dam. Implementation of the project will realize increased resiliency to irrigation water supply above the dam, and hydropower, and public safety below the dam.

Figure 3: Plunge Pool Below the Service Spillway at Milner Dam.

Service Spillway Conceptual Plan and Design Features:

MDI is working with Jacobs Engineering Group (Jacobs) in Boise, Idaho to analyze and design an acceptable solution for the plunge pool. Figure 4 shows the original design of the service spillway at Milner Dam.

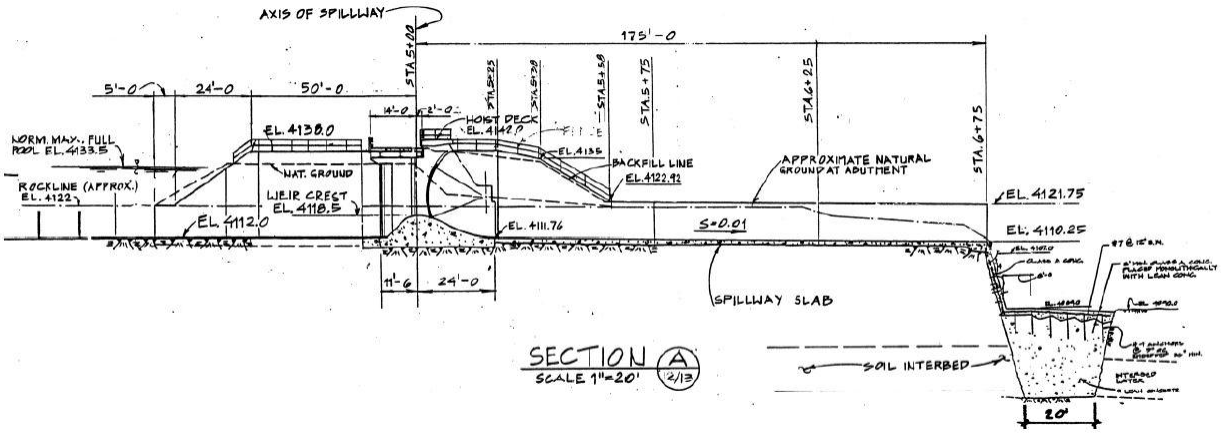
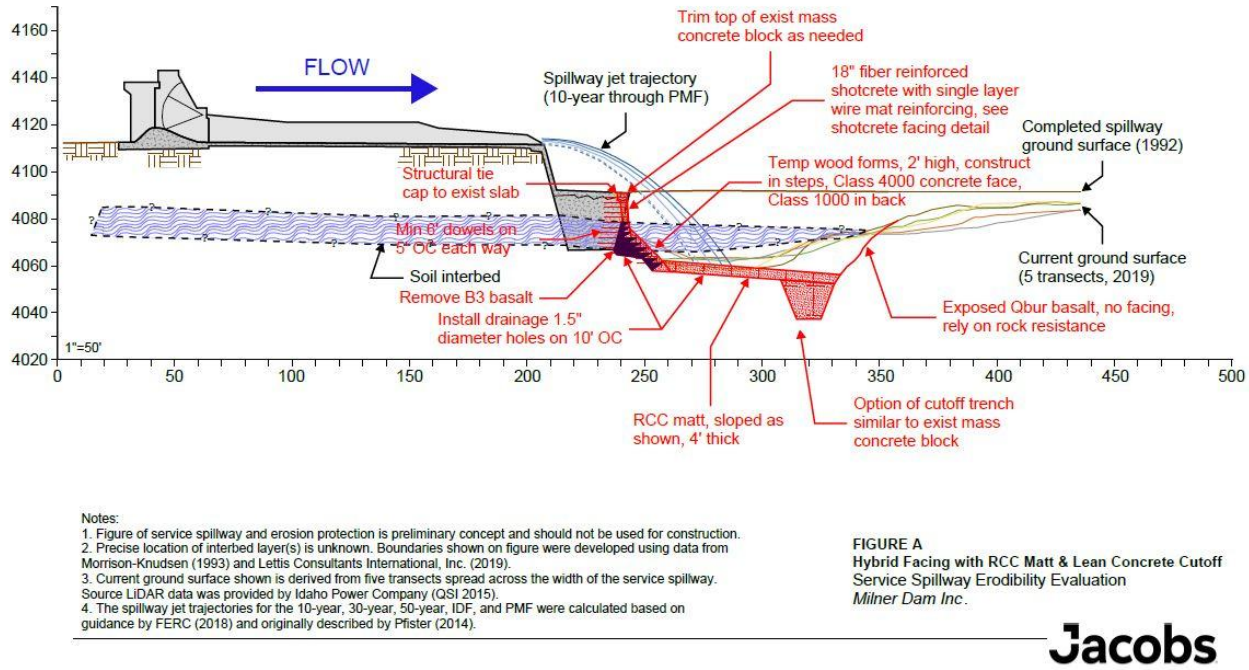


Figure 4: Original 1992 Drawing of the Service Spillway and Plunge Pool.

In consultation with Jacobs, several concepts have been developed, consisting of shotcrete or precast retaining walls and roller-compacted concrete (RCC) matts to provide a durable armor atop the lower-quality rock along the bottom of the plunge pool. Several potential orientations are shown in Figures 5 and 6. Flow over the service spillway chute and into the plunge pool is complex, and scour potential is multi-dimensional and dependent on a variety of factors and external conditions. Part of the funding from the grant will be used for engineering services to complete detailed hydraulic modeling and final design of a long-term durable solution for the

project.

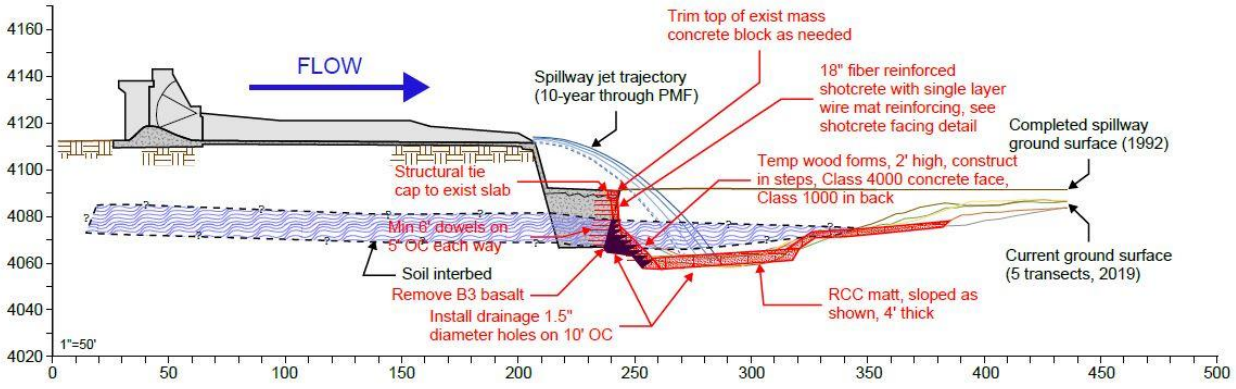


Notes:
1. Figure of service spillway and erosion protection is preliminary concept and should not be used for construction.
2. Precise location of interbed layer(s) is unknown. Boundaries shown on figure were developed using data from Morrison-Knudsen (1993) and Lettis Consultants International, Inc. (2019).
3. Current ground surface shown is derived from five transects spread across the width of the service spillway. Source LiDAR data was provided by Idaho Power Company (QSI 2015).
4. The spillway jet trajectories for the 10-year, 30-year, 50-year, IDF, and PMF were calculated based on guidance by FERC (2018) and originally described by Pfister (2014).

FIGURE A
Hybrid Facing with RCC Matt & Lean Concrete Cutoff
Service Spillway Erodibility Evaluation
Milner Dam Inc.

Jacobs

Figure 5: Plunge Pool with Downslope RCC Matt and Potential Cutoff Trench.



Notes:
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2. Precise location of interbed layer(s) is unknown. Boundaries shown on figure were developed using data from Morrison-Knudsen (1993) and Lettis Consultants International, Inc. (2019).
3. Current ground surface shown is derived from five transects spread across the width of the service spillway. Source LiDAR data was provided by Idaho Power Company (QSI 2015).
4. The spillway jet trajectories for the 10-year, 30-year, 50-year, IDF, and PMF were calculated based on guidance by FERC (2018) and originally described by Pfister (2014).

FIGURE B
Hybrid Facing with Upslope RCC Matt
Service Spillway Erodibility Evaluation
Milner Dam Inc.

Jacobs

Figure 6: Plunge Pool with Upslope RCC Matt.

Emergency Spillway Bridge Decking and Supports

The current emergency spillway was part of the original construction of Milner Dam in 1903 and served as the primary spillway until the 1990's construction of the service spillway. In the 1940's the "emergency" spillway apron was reconstructed, and slight modifications occurred to the bridge crossing.

In the early 1990's Idaho Power and MDI constructed a new service spillway as the primary spillway for the dam. The emergency spillway is now only used in cases of "emergency" flood management. The following photographs (figure 7) show one of the bridge deck repairs and the concrete piers the current bridge decking rests upon. In 2019, MDI hired JUB Engineers to help design a new bridge deck for the emergency spillway. The new design would install a new steel bridge planks and help repair the concrete piers. MDI and JUB continue to modify the design to help support the load rating and help mitigate against ice loading in the winter due to higher pool levels with aquifer recharge now being preformed during the non-irrigation season.

Figure 7: View of the Old Bridge Deck Rails at Milner Dam.

The following is a picture from under the bridge decking that shows the concrete piers and the old steel supports. This project would repair the concrete piers and replace the bridge decking, to better support the equipment used to help operate and maintain the Dam.

Figure 8: View of the Bridge Deck Rails at Milner Dam from Below.

Light equipment can access the dam via the emergency spillway, but MDI has limited any large loads from crossing the bridge. The Emergency Spillway Bridge Deck and Support project will allow MDI to service the dam from either the northside or southside with heavy equipment. This project will also help MDI repair the concrete piers that have been noted in previous safety inspection by FERC. This project aims to help continue to maintain the integrity of Milner Dam. Implementation of the project will realize increased resiliency to irrigation water supply, hydropower, and public safety.

MDI worked with JUB Engineers in 2019 to design a new bridge deck. Attachment B shows the design documents by JUB. It is anticipated that there might be some slight modifications to the design as we continue to move forward with the reconstruction of the bridge deck.

Concrete and Service Spillway Gates Repair

When the service spillway was constructed in 1992, portions of the north and middle dam embankments were removed, the foundation surface was cleaned down to good quality basalt, and any soil interbeds encountered were treated with filters and/or concrete before constructing the

new buttress embankment section on the downstream face of the old dam. The ogee weir and concrete on the downstream slab have started showing signs of hairline cracking and delamination. In the most recent, 2022 Part 12D Safety Inspection and the 2022 Service Spillway Radial Gate Inspection, both noted concrete repair items. The FERC and the Independent Consultant (IC) noted a need to rehabilitate the concrete in these specific areas. MDI has hired Jacobs Engineering to help facilitate a repair method for the concrete. Figure 9 shows one of the areas of concern for FERC and the IC. The Service Spillway Concrete Rehabilitation project will help mitigate against further hairline cracking and repair the delaminated areas. This project aims to repair the delamination to increase the resistance to any further sponge areas and maintain the integrity of Milner Dam. Implementation of the project will realize increased resiliency to irrigation water supply, hydropower, and public safety.

Figure 9: Service Spillway at Milner Dam Area of Delamination and Hairline Cracks.

<u>Conceptual Plan and Design Features of the Concrete Repair</u>:

MDI is working with Jacobs Engineering Group (Jacobs) in Boise, Idaho to analyze and design an acceptable solution for the concrete delamination and hairline cracking. Figure 10 shows the original design of the service spillway at Milner Dam.

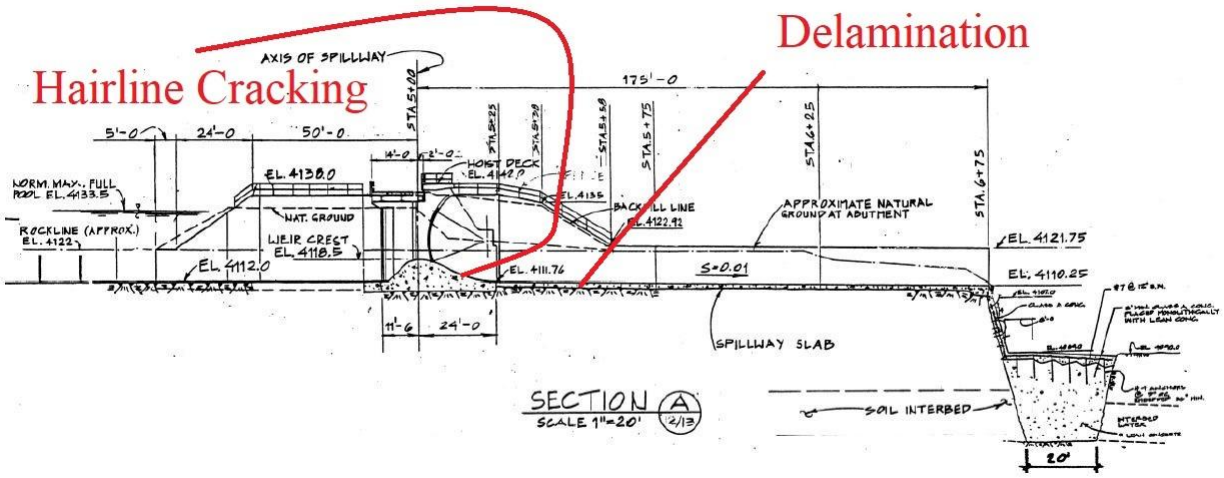

Figure 10: Original 1992 Drawing of the Service Spillway.

In consultation with Jacobs, MDI is working on a solution to rehabilitate these areas. MDI owners and operates the dam. The Federal Government owns the land the dam sites on. MDI will work with the Bureau of Land Management on issues related to Federal funding. MDI is not aware of any environmental issues pertaining to these projects.

5.0 Cost Estimate and Budget

MDI received a preliminary cost estimate from Jacobs Engineering in early 2022. Based on cost of material and availability of material the material cost index (MCI) predicated that there was a 36% increase in construction material from 2022 to 2025. Taking a conservative high range number, this project is estimated to cost $6,000,000.00. Attachment A has the original cost estimate provided to MDI by the engineer. However, constructions cost has increased over the years, and the final design is not completed. MDI and Jacobs will complete a engineers estimate as design is completed.

In 2019 MDI received two construction bids. Based on cost of material and availability of material the material cost index (MCI) predicated that there was a 36% increase in construction material from 2019 to 2025. Taking a conservative high range number, this project is estimated to cost $3,000,000. Attachment C has the original bids provided to MDI. MDI has some design changes, and JUB Engineers has been working on some concrete evaluations to help further design the final reconstruction.

MDI received a scope of work cost estimate from Jacobs Engineering in early 2023. Based on potential concrete repair factors and other acceptable repair practices, MDI has estimated the cost of the Service Spillway Concrete Rehabilitation project to be $65,000.00. Attachment D has the original cost estimate provided by MDI.

6.0 Project Funding Sources

Project Funding Sources

Milner Dam Inc. continues to look for help in funding this rehabilitation project. MDI has been working to secure funding help from our Federal Delegation through an amendment to the Infrastructure Act, addressing the eligibility of Carey Act project rehabilitation. MDI has also been working with the Idaho Department of Water Resources to help secure funding for these projects. Having the ability to use Federal, State, and MDI funds, MDI is hopeful this project will continue through completion. This project is proposed to be funded with both private (MDI) and public (IDWR and Federal) funds. MDI is actively seeking Federal funds through grants or direct appropriations to help assist with funding this project.

7.0 Financial Feasibility Analysis

MDI anticipates this project will take 5 years to complete once the design and FERC approvals have been given. MDI is working with Jacobs Engineering and JUB Engineers to further refine the timeframe for these projects. It is anticipated this will take 18 months to design. Once the design is completed and submitted for approval by the Federal Energy Regulatory Commission (FERC), MDI anticipates this will take another 18 months. Once approval is received, MDI will select a construction firm to complete the project within a 24-month time period. There will be further conversations with the IDWR Board and staff as construction continues to share the project schedule and any situations with water management during construction.

Attachment A – Budget Proposal

TASK ORDER NO. MILNER-03 – SERVICE SPILLWAY EROSION EVALUATION AND FERC COORDINATION

MILNER DAM, INC.

ESTIMATE OF PROBABLE COST – SERVICE SPILLWAY EROSION PROTECTION
RECOMMENDED ALTERNATIVE – SHOTCRETE HYBRID WITH RCC MATT

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
GENERAL REQUIREMENTS					
Scaffold or Elevated Work Platform	MO	$15,000	4	$60,000	Allowance
SUBTOTAL – GENERAL REQUIREMENTS				*$ 60,000*	
EXISTING CONDITIONS					
Trim Existing Mass Concrete Block as Needed	SF	$6	4,485	$27,000	Excavator(s) with Hydraulic Hammer
Haul and Disposal of Demolished Materials	CY	$75	500	$38,000	
SUBTOTAL – EXISTING CONDITIONS				*$ 65,000*	
CONCRETE WORK					
Welded wire fabric, sheets, 6 x 6 - W2.1 x W2.1 (8 x 8) 30 lb. per C.S.F.	CSF	$166	45	$7,500	Includes labor, excludes material for accessories
Shotcrete, wet mix, fiber reinforced, 4000 psi	CY	$185	362	$67,000	
Drill and Epoxy Set Rock Dowels	EA	$105	414	$43,000	
Miscellaneous Items for Shotcrete	LS	$28,000	1	$28,000	Allowance
Temporary Wood Forms	LS	$12,500	1	$12,500	
Pump Place 4000 psi Concrete in 24" Thick Lifts	CY	$160	2,473	$400,000	
Miscellaneous Items for Face Concrete	LS	$33,000	1	$33,000	Allowance
Excavating, bulk bank measure, 1 C.Y. capacity, crawler mounted hydraulic backhoe	CY	$3	1,750	$5,300	Excluding truck loading
Load Excavated Material for Haul Off	CY	$2.50	1,750	$4,400	
Haul off Excavated Spoils	CY	$8	1,750	$14,000	
Pump Place Lean Concrete Cutoff Block	CY	$65	1,750	$115,000	
Miscellaneous Items for Lean Concrete Block	LS	$30,000	1	$30,000	Allowance
Roller compacted concrete, mass placement, non-formed sloped face, 6" lift	CY	$9	2,044	$18,500	Includes spread and compact, excludes material
Roller compacted concrete, conveyance of materials, with 17 C.Y. scraper	CY	$9	2,044	$18,500	
Roller compacted concrete, water cure, large job, more than 500 C.Y.	LS	$12,000	1	$12,000	20 minute cycle, excludes material
Roller compacted concrete, 1.5" - 2" agg., 200 lb. cement/C.Y.	CY	$110	2,044	$220,000	
Miscellaneous Items for Roller compacted concrete	LS	$65,000	1	$65,000	Allowance
Compaction, riding, vibrating roller, 3 passes, 12" lifts	CY	$6	2,044	$12,500	
SUBTOTAL – CONCRETE WORK				*$ 1,106,200*	
EARTHWORK					
Mass Excavation Miscellaneous Items	LS	$10,000	1	$10,000	Allowance
Excavating, bulk bank measure, 1 C.Y. capacity, backhoe, hydraulic, crawler mounted	CY	$3	4,639	$14,000	Excluding truck loading
Load Excavated Material for Haul Off	CY	$2.50	4,639	$11,500	
Haul off Excavated Spoils	CY	$8	4,639	$37,000	
Minor Earthworks as Needed	LS	$70,000	1	$70,000	Allowance
Removal and Control of Water	MO	$25,000	6	$150,000	Allowance
SUBTOTAL – EARTHWORK				*$ 292,500*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering and Design	%	$1,523,700	15%	$230,000	
Surveying and Material Testing	%	$1,523,700	2%	$30,000	
Services During Construction	%	$1,523,700	5%	$76,000	
Construction Contingency	%	$1,523,700	20%	$300,000	
General Conditions	%	$1,523,700	6%	$91,000	
Mobilization/Demobilization	%	$1,523,700	4%	$61,000	
Contractor Overhead & Profit	%	$1,523,700	15%	$230,000	
Bonds & Insurance	%	$1,523,700	2%	$30,000	
SUBTOTAL – ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 1,048,000*	
TOTAL – PROJECT CAPITAL COSTS (CLASS 4/5 ESTIMATE)				***$ 2,571,700***	
LOW RANGE			***-30%***	***$ 1,800,000***	
HIGH RANGE			***+50%***	***$ 3,900,000***	

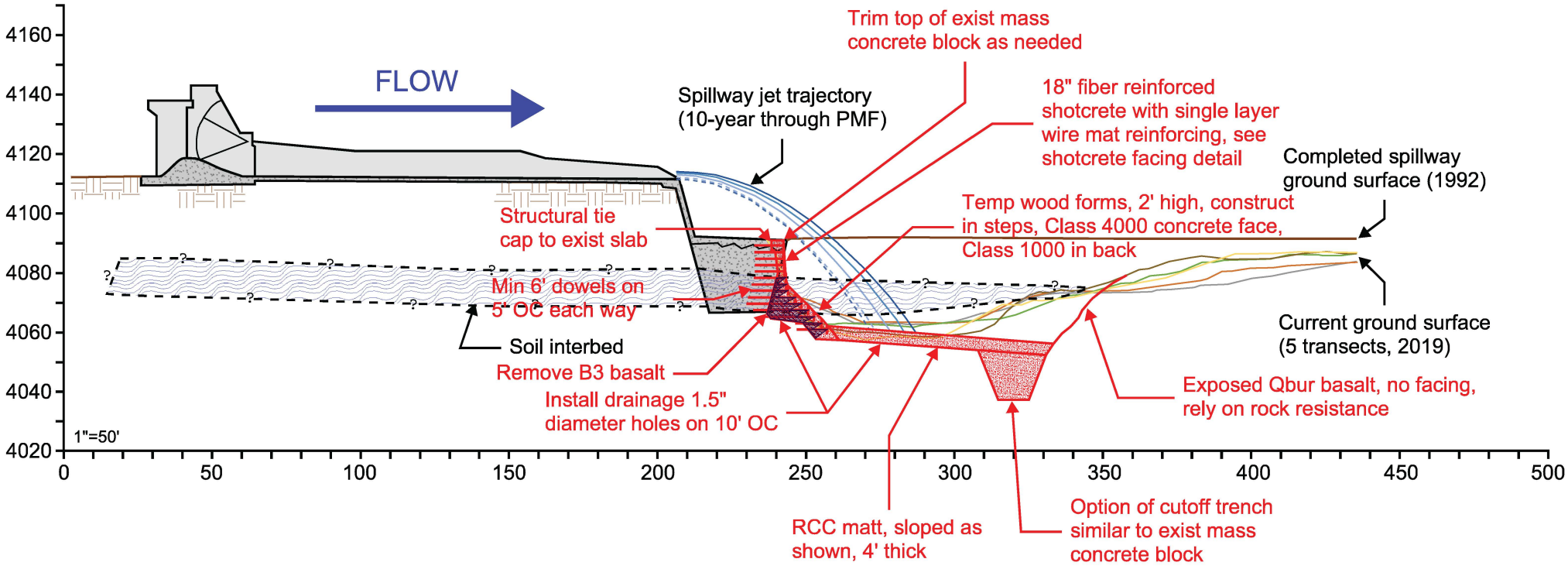

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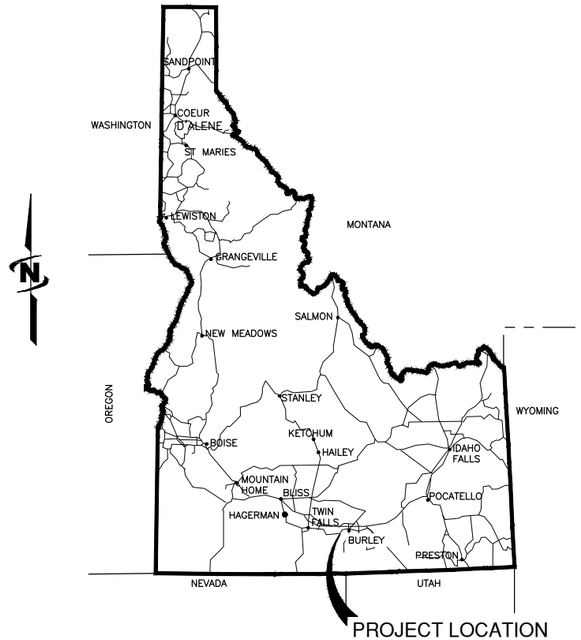
FIGURE A
Recommended Alternative – Shotcrete Hybrid with RCC Matt
Service Spillway Erodibility Evaluation
Milner Dam Inc.

Attachment B – Design Documents

2019
MILNER DAM, INC.
EMERGENCY SPILLWAY BRIDGE DECK REPLACEMENT



OWNER

MILNER DAM, INC.
P.O. BOX 326
TWIN FALLS, IDAHO 83338
TELEPHONE: 208-324-2319

ENGINEER

J-U-B ENGINEERS, INC
115 NORTHSTAR AVENUE
TWIN FALLS, IDAHO 83301
TELEPHONE (208) 733-2414

SHEET LIST

SHEET NO.	SHEET TITLE	DESCRIPTION
1	G-001	COVER SHEET
2	C-101	SITE LAYOUT AND NOTES
3	C-102	BRIDGE PLAN AND ELEVATION
4	C-103	BRIDGE FRAMING PLAN AND SECTION
5	C-501	BRIDGE DETAILS
6	C-502	BRIDGE DETAILS
7	C-503	BRIDGE DETAILS
8	C-504	CONCRETE REPAIR DETAILS

811 Know what's below. Call before you dig.

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J-U-B ENGINEERS, INC.
115 Northstar Ave.
Twin Falls, ID 83301
Phone: 208.733.2414
www.jub.com

ORIGINAL SIGNED BY:
GEORGE M. ANDERSON

PROFESSIONAL ENGINEER REGISTERED 6022 2-12-19 STATE OF IDAHO GEORGE M. ANDERSON

ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

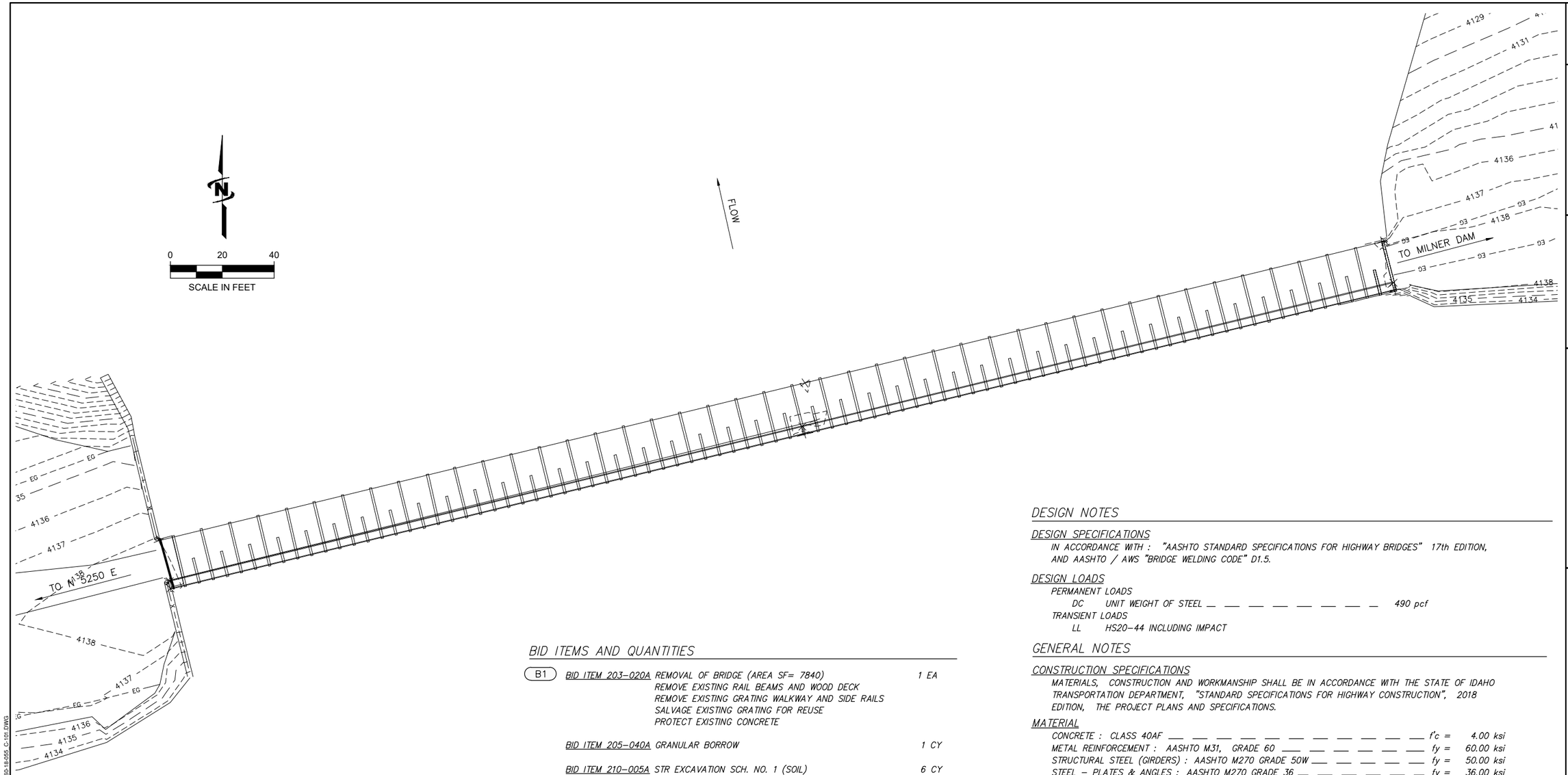
2019 MILNER DAM, INC. - EMERGENCY SPILLWAY BRIDGE DECK REPLACEMNET

COVER SHEET
BID SET

FILE : 60-18-055_G-001
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/6/2019

SHEET 1
TITLE G-001

Plot Date:2/11/2019 1:24 PM Plotted By: Kerry Kirchenwitz
Date Created:7/11/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_G-001.DWG



GENERAL NOTES

1. CONTRACTOR SHALL MAINTAIN THE FUSE PLUG GRAVEL BETWEEN THE CONCRETE PIERS IN ITS CURRENT POSITION (HEIGHT AND CONFIGURATION). AT COMPLETION OF THE PROJECT THE GRAVEL SHALL BE FINE GRADED AND RESTORED TO PRE-CONSTRUCTION POSITION.

2. CONTRACTOR SHALL NOTE THAT THE EXISTING BRIDGE IS POSTED FOR MAXIMUM VEHICLE LOADS:
   - MAX WHEEL LOAD – 4,000 LBS
   - MAX AXLE LOAD – 8,000 LBS
   - MAX VEHICLE LOAD – 10,000 LBS

THESE LOAD LIMITS ARE TO BE MET IN THE USE OF THE EXISTING BRIDGE.

BID ITEMS AND QUANTITIES

B1	BID ITEM 203-020A	REMOVAL OF BRIDGE (AREA SF= 7840) REMOVE EXISTING RAIL BEAMS AND WOOD DECK REMOVE EXISTING GRATING WALKWAY AND SIDE RAILS SALVAGE EXISTING GRATING FOR REUSE PROTECT EXISTING CONCRETE	1 EA
	BID ITEM 205-040A	GRANULAR BORROW	1 CY
	BID ITEM 210-005A	STR EXCAVATION SCH. NO. 1 (SOIL)	6 CY
	BID ITEM 210-015A	COMPACTING BACKFILL	1 CY
B2	BID ITEM 502-140A	CONC CL 40-A SCH NO. 1	6 CY
B3	BID ITEM 503-010A	METAL REINF SCH NO. 1	1506 LB
B4	BID ITEM 503-020A	EPOXY COATED METAL REINF	240 LB
B5	BID ITEM 504-005A	STEEL BRIDGE (APPROX. WT) {LBS= 56800.22}	1 LS
B6	BID ITEM 504-035A	PEDESTRIAN RAILING	490 FT
B7	BID ITEM S501-20A	SP BRIDGE (REPAIR CONCRETE PIER WALL TOPS)	44 EA
B8	BID ITEM S501-30A	SP BRIDGE (COAT EXPOSED REBAR AND STEEL)	46 FT
B9	BID ITEM S501-30B	SP BRIDGE (STEEL CURB)	980 FT
B10	BID ITEM S501-51A	SP BRIDGE (PATCH AND REPAIR OF CONCRETE SURFACE)	56 SF
B11	BID ITEM S501-51B	SP BRIDGE (9 GA STEEL BRIDGE PLANKS)	7840 SF
B12	BID ITEM S501-51C	SP BRIDGE (DECK RUNNER)	2940 SF

DESIGN NOTES

DESIGN SPECIFICATIONS

IN ACCORDANCE WITH : "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" 17th EDITION, AND AASHTO / AWS "BRIDGE WELDING CODE" D1.5.

DESIGN LOADS

PERMANENT LOADS

DC UNIT WEIGHT OF STEEL _ _ _ _ _ _ _ _ _ _ 490 pcf

TRANSIENT LOADS

LL HS20-44 INCLUDING IMPACT

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS

MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STATE OF IDAHO TRANSPORTATION DEPARTMENT, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 2018 EDITION, THE PROJECT PLANS AND SPECIFICATIONS.

MATERIAL

CONCRETE : CLASS 40AF	f'c =	4.00 ksi
METAL REINFORCEMENT : AASHTO M31, GRADE 60	fy =	60.00 ksi
STRUCTURAL STEEL (GIRDERS) : AASHTO M270 GRADE 50W	fy =	50.00 ksi
STEEL – PLATES & ANGLES : AASHTO M270 GRADE 36	fy =	36.00 ksi
STEEL – CURBS : ASTM A500 GRADE B	fy =	46.00 ksi
STEEL – PED RAILS : ASTM A53 GRADE B	fy =	35.00 ksi

BASE METAL & WELD METAL CHARPY V-NOTCH REQUIREMENT SHALL MEET ZONE 2 FOR GIRDERS.
HIGH STRENGTH BOLTS : ASTM F3125 GRADE A325 TYPE 3
CARBON STEEL BOLTS : ASTM A307

PLAN DIMENSIONS AND ELEVATIONS

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1/2" UNLESS NOTED OTHERWISE.
ALL DIMENSIONS TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS NOTED OTHERWISE.
CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR SHALL BE 2", UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

CONSTRUCTION

CONCRETE SUBSTRUCTURES WILL BE RETAINED AND PROTECTED UNLESS NOTED OTHERWISE.
CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER.
WELDED FABRICATION SHALL BE IN ACCORDANCE WITH ANSI/AASHTO/AWS D 1.5 AND ALL INTERIM REVISIONS PUBLISHED BY AASHTO.
GALVANIZE STEEL MATERIAL IN CONFORMANCE WITH ASTM A-123 & A-385.
GALVANIZE BOLTS, ANCHORS, NUTS AND WASHERS IN CONFORMANCE WITH ASTM A-153.
ALL ELEVATIONS ARE BASED ON PROJECT DATUM.

INCIDENTAL ITEMS

ALL ITEMS SHOWN OR NOTED ON PLANS WHICH ARE NOT SPECIFICALLY BID ITEMS ARE CONSIDERED INCIDENTAL ITEMS. THE COST OF FURNISHING AND INSTALLING ALL INCIDENTAL ITEMS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS, UNLESS NOTED OTHERWISE.

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
115 Northstar Ave.
Twin Falls, ID 83301
Phone: 208.733.2414
www.jub.com

ORIGINAL SIGNED BY:
GEORGE M. ANDERSON

PROFESSIONAL ENGINEER REGISTERED 6022 2-12-19 STATE OF IDAHO GEORGE M. ANDERSON

ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

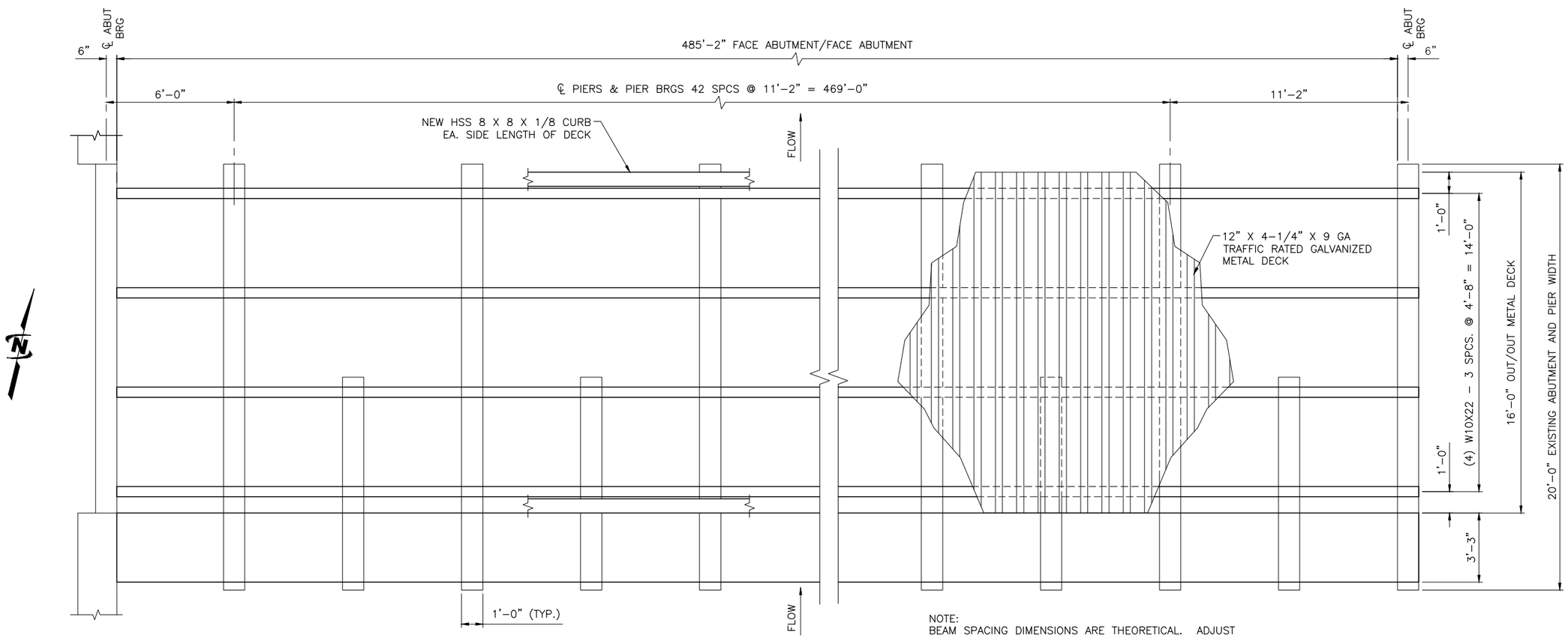
NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY BRIDGE DECK REPLACEMNET

SITE LAYOUT AND NOTES
BID SET

FILE : 60-18-055_C-101
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/7/2019
SHEET 2
TITLE C-101

Plot Date:2/11/2019 1:25 PM, Plotted By: Kerry Kientzwitz
Date Created:7/24/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-101.DWG

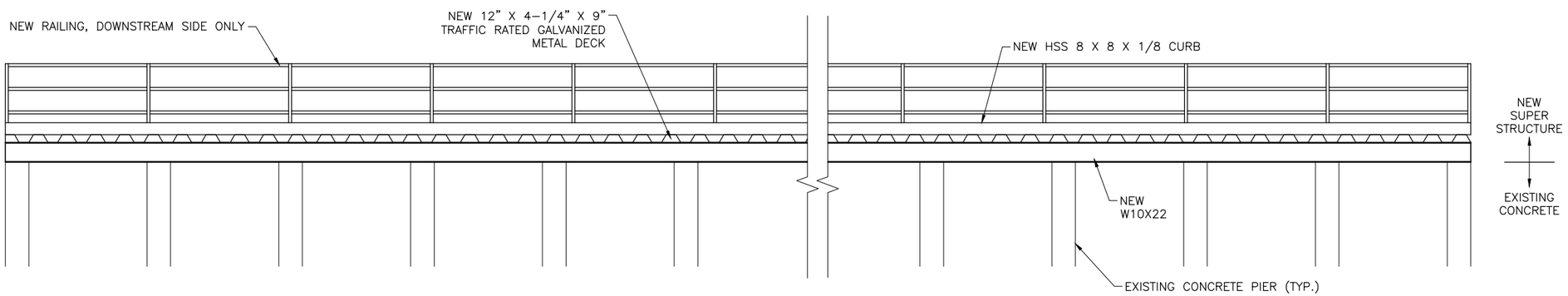


NOTE:
BEAM SPACING DIMENSIONS ARE THEORETICAL. ADJUST SPACINGS AND BEAM BEARING PLATES AS REQUIRED TO ACCOMMODATE LAPPING OF BEAM WEBS OVER THE PIERS.

A BRIDGE PLAN VIEW

SCALE: 0 1'–6" 3'–0" 6'–0"

SCALE: 3/16"=1'–0"



B BRIDGE ELEVATION VIEW

SCALE: 0 1'–6" 3'–0" 6'–0"

SCALE: 3/16"=1'–0"

J-U-B ENGINEERS, INC.

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J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	BY	APP.	DATE
REVISION				

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

BRIDGE PLAN AND ELEVATION
BID SET

FILE :	60-18-055_C-102
JUB PROJ. # :	60-18-055
DRAWN BY:	KCK
DESIGN BY:	GMA
CHECKED BY:	TAA

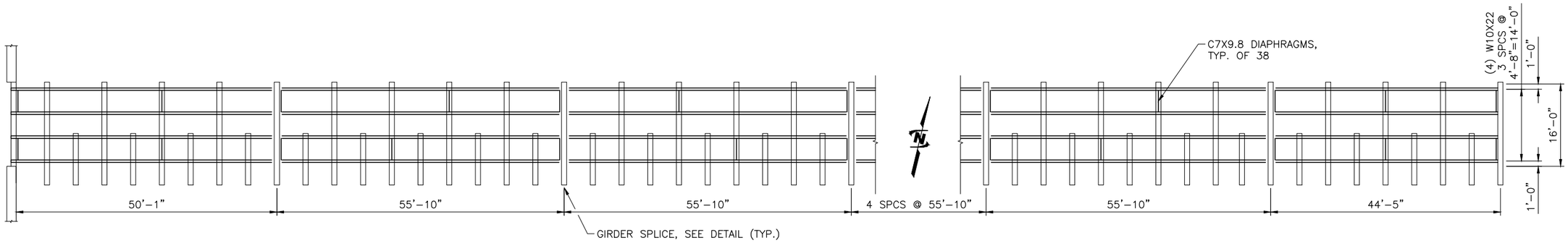
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 2/6/2019

SHEET 3

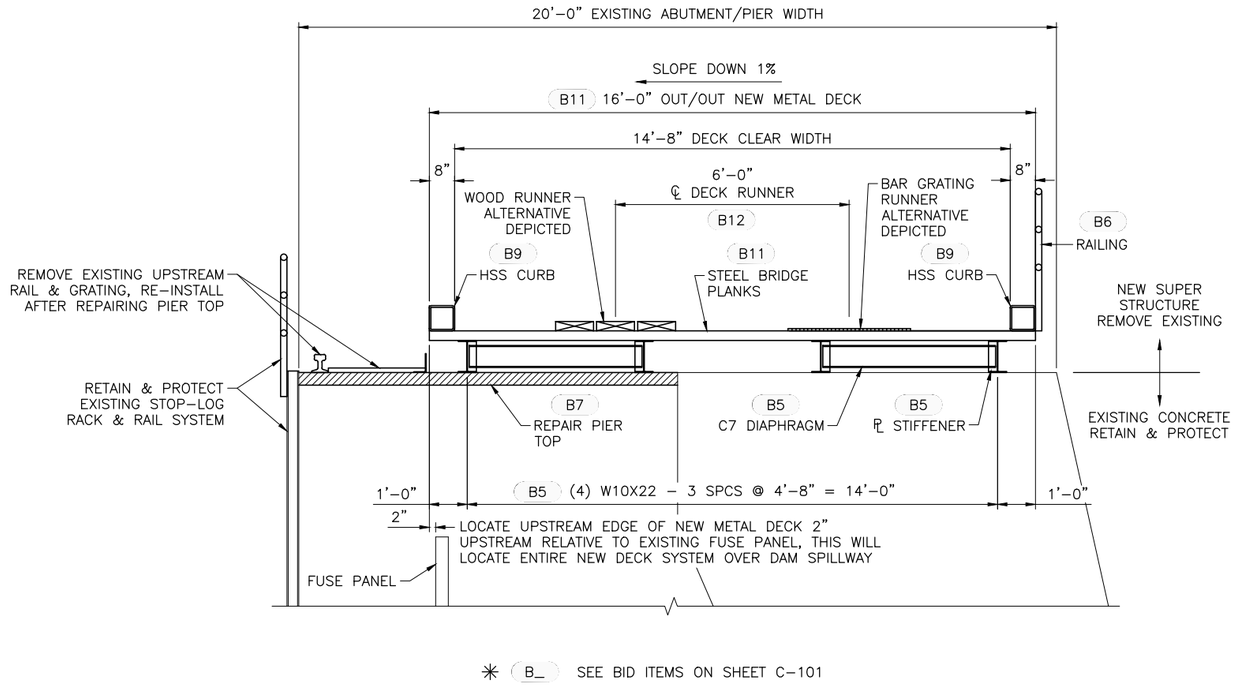
TITLE C-102

Plot Date:2/11/2019 1:26 PM, Plotted By: Kerry Kriechenwitz
Date Created:7/12/2018 F:\PROJECTS\J-U-B\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-102.DWG



A BRIDGE FRAMING PLAN

SCALE: N.T.S.



✳ (B_) SEE BID ITEMS ON SHEET C-101

B BRIDGE SECTION VIEW

SCALE: 0 1' 2' 4'

SCALE: 1/4"=1'-0"

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ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	BY	APP.	DATE
REVISION				

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

BRIDGE FRAMING PLAN AND SECTION
BID SET

FILE : 60-18-055_C-103
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA

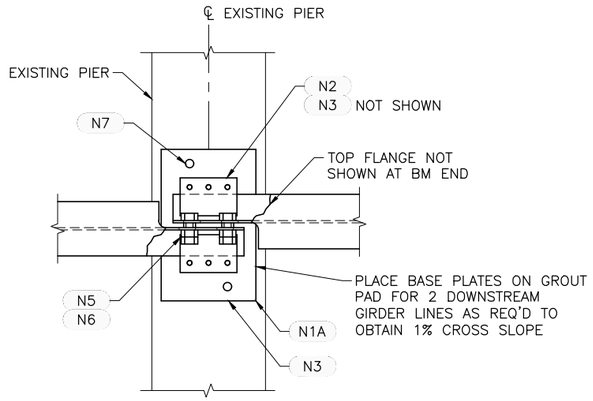
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 2/7/2019

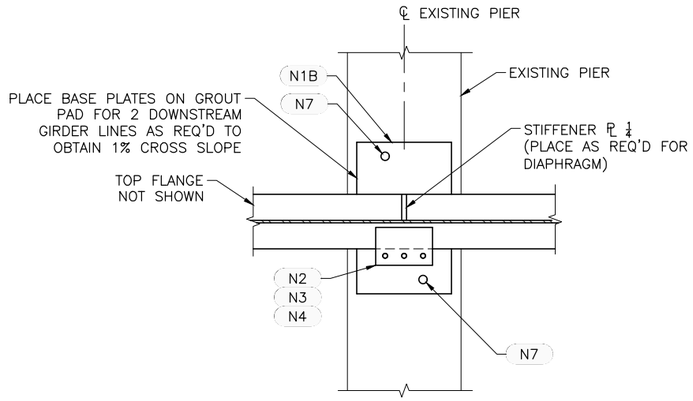
SHEET 4

TITLE C-103

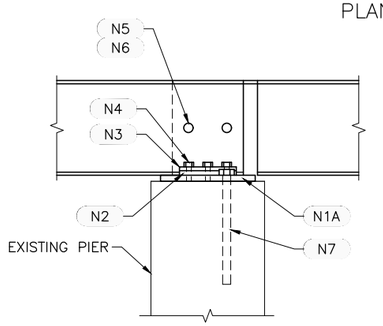
Plot Date:2/11/2019 1:27 PM Plotted By: Kerry Kirchenwitz
Date Created:7/24/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-103.DWG



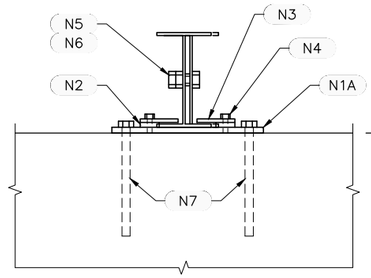
PLAN VIEW



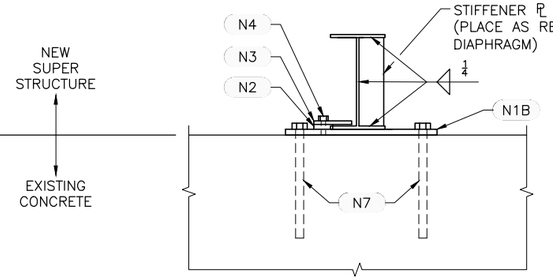
PLAN VIEW



SIDE VIEW



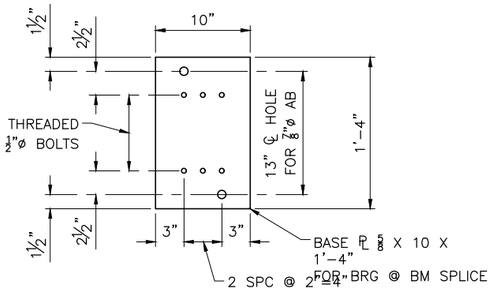
FRONT VIEW



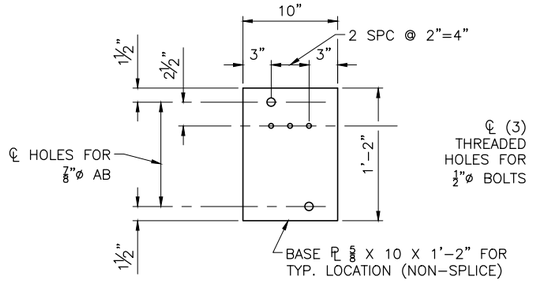
FRONT VIEW

BEAM TO PIER AT SPLICE DETAILS

BEAM TO PIER DETAILS



N1A: BASE PLATE



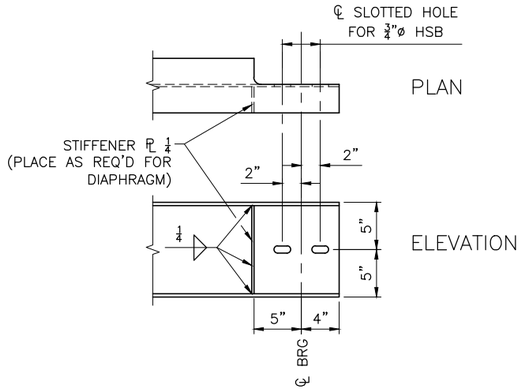
N1B: BASE PLATE

KEY NOTES

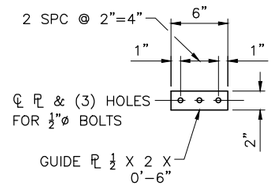
- (N1A) BASE PL AT SPLICE
- (N1B) BASE PL TYP. AND AT ABUTMENT
- (N2) GUIDE PL
- (N3) RETAINER PL
- (N4) (3) ½"ø HSB
- (N5) HARD FLAT WASHER (BETWEEN BM WEBS @ ¾"ø HSB)
- (N6) (2) ¾"ø HSB W/ DBL NUT, FINGER TIGHTEN FIRST NUT AGAINST BM WEB, TIGHTEN SECOND NUT
- (N7) ⅞"ø AB, EMBED 10" TOTAL IN EPOXY & NEW CONCRETE

NOTES:

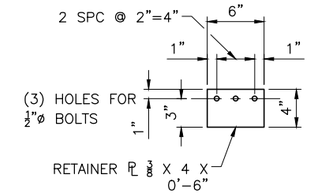
1. GREASE TOP OF BEARING PLATES UNDER BEAM FLANGES.
2. GREASE FLAT WASHERS BETWEEN BEAM WEBS.
3. ALL ITEMS ON THIS SHEET ARE BID ITEM B5, SEE SHEET C–101



TYPICAL END DETAIL OF W10
(EXCEPT AT ABUTMENT)



N2: GUIDE PLATE



N3: RETAINER PLATE

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
115 Northstar Ave.
Twin Falls, ID 83301
Phone: 208.733.2414
www.jub.com

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PROFESSIONAL ENGINEER REGISTERED 6022 2-12-19 STATE OF IDAHO GEORGE M. ANDERSON
ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

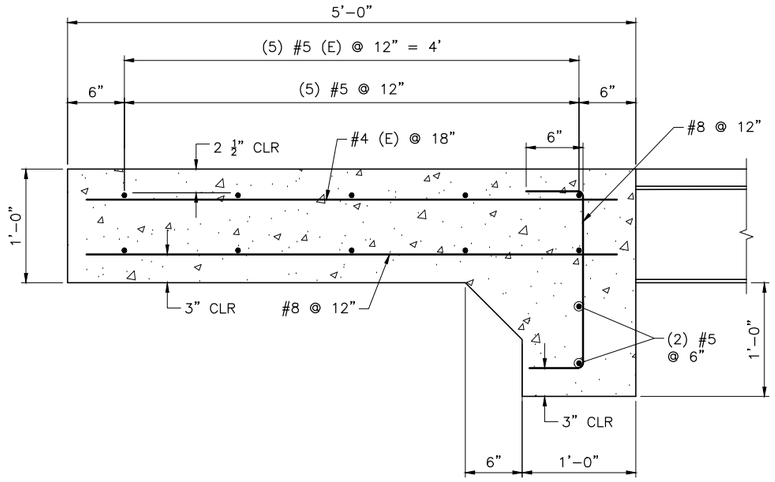
NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

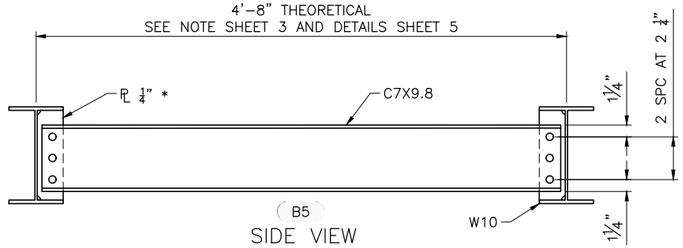
BRIDGE DETAILS
BID SET

FILE : 60-18-055_C-501
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/6/2019
SHEET 5
TITLE C-501

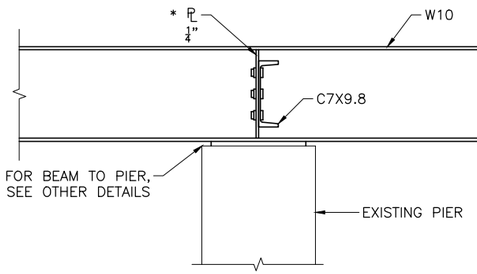
Plot Date:2/11/2019 1:28 PM, Plotted By: Kerry Kirchenwitz
Date Created:7/24/2018 F:\PROJECTS\UJB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-501.DWG



APPROACH SLAB



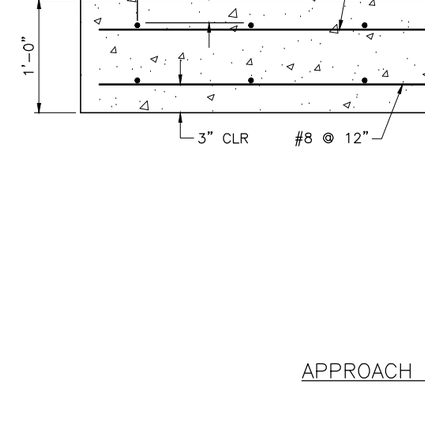
SIDE VIEW



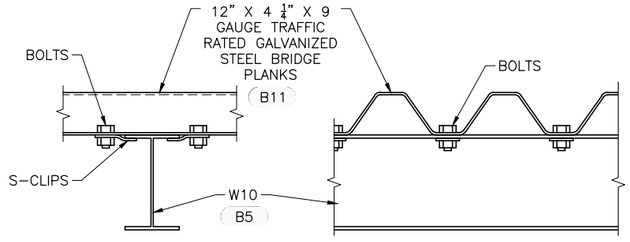
SECTION VIEW

* DIAPHRAGM IS BOLTED TO STIFFENER PLATE LOCATE STIFFENER PLATES AS REQUIRED FOR DIAPHRAGMS WHERE APPLICABLE.

✳ (B_) SEE BID ITEMS ON SHEET C–101



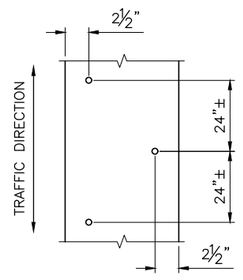
PLAN VIEW



FRONT VIEW SIDE VIEW

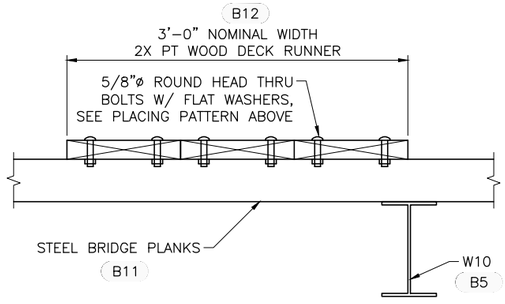
NOTE: DECK MANUFACTURER SHALL DESIGN AND SUPPLY THE BOLTED DECK TO BEAM SYSTEM IN GENERAL CONFORMANCE WITH THESE PLANS AND SPECIFICATIONS

DECK TO GIRDER CONNECTION DETAILS

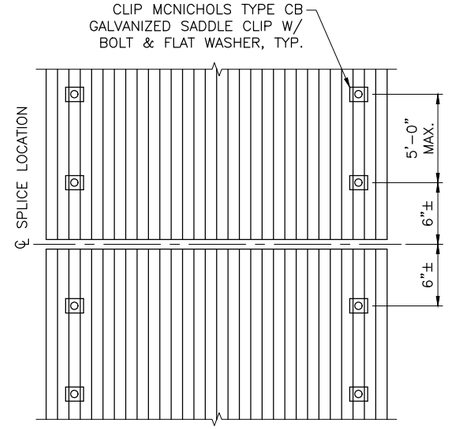


PLAN
BOLT PLACING PATTERN

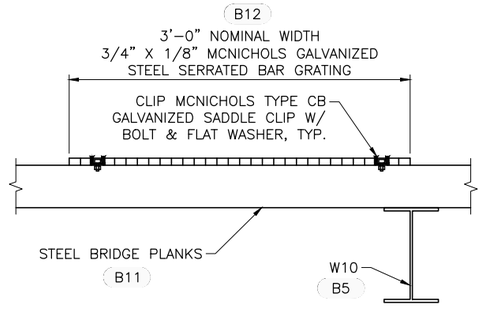
NOTE: ALL BOLTS THAT FASTEN TO WOOD SHALL BE GALVANIZED. THESE BOLTS MAY BE A–307 OR SIMILAR GRADE



RUNNER CONNECTION DETAIL



PLAN
BOLT PLACING PATTERN



RUNNER CONNECTION DETAIL

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
115 Northstar Ave.
Twin Falls, ID 83301
Phone: 208.733.2414
www.jub.com

ORIGINAL SIGNED BY:
GEORGE M. ANDERSON
PROFESSIONAL ENGINEER REGISTERED 6022 2-12-19 STATE OF IDAHO GEORGE M. ANDERSON
ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	DATE	BY	APPR.
	REVISION			

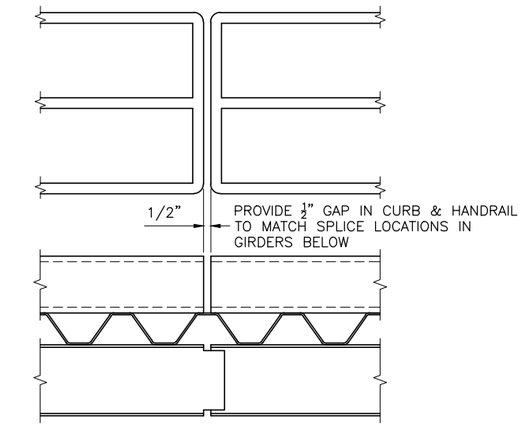
2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

BRIDGE DETAILS
BID SET

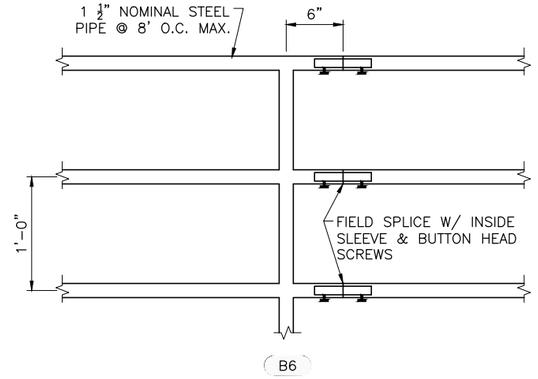
FILE: 60-18-055 C-502
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/6/2019

SHEET 6
TITLE C-502

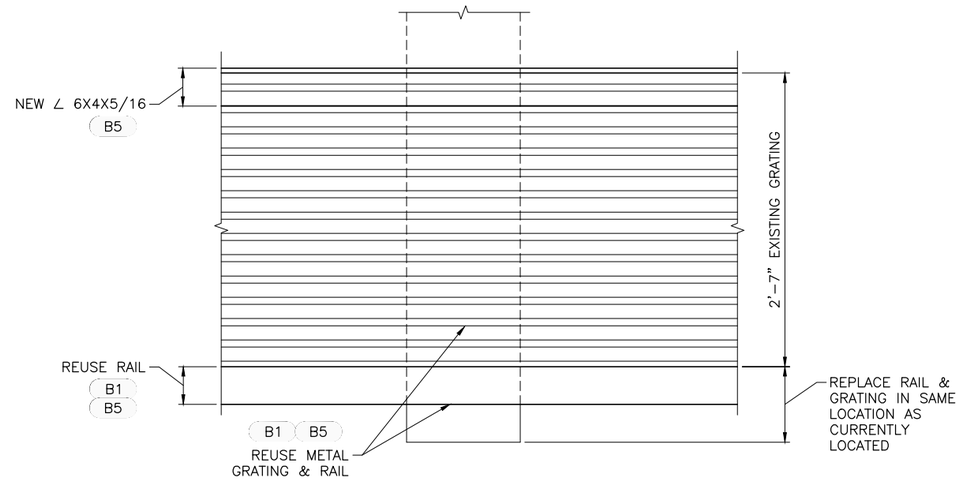
Plot Date:2/11/2019 1:29 PM Plotted By: Kerry Kientzmeitz
Date Created:7/24/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-502.DWG



GAP DETAIL

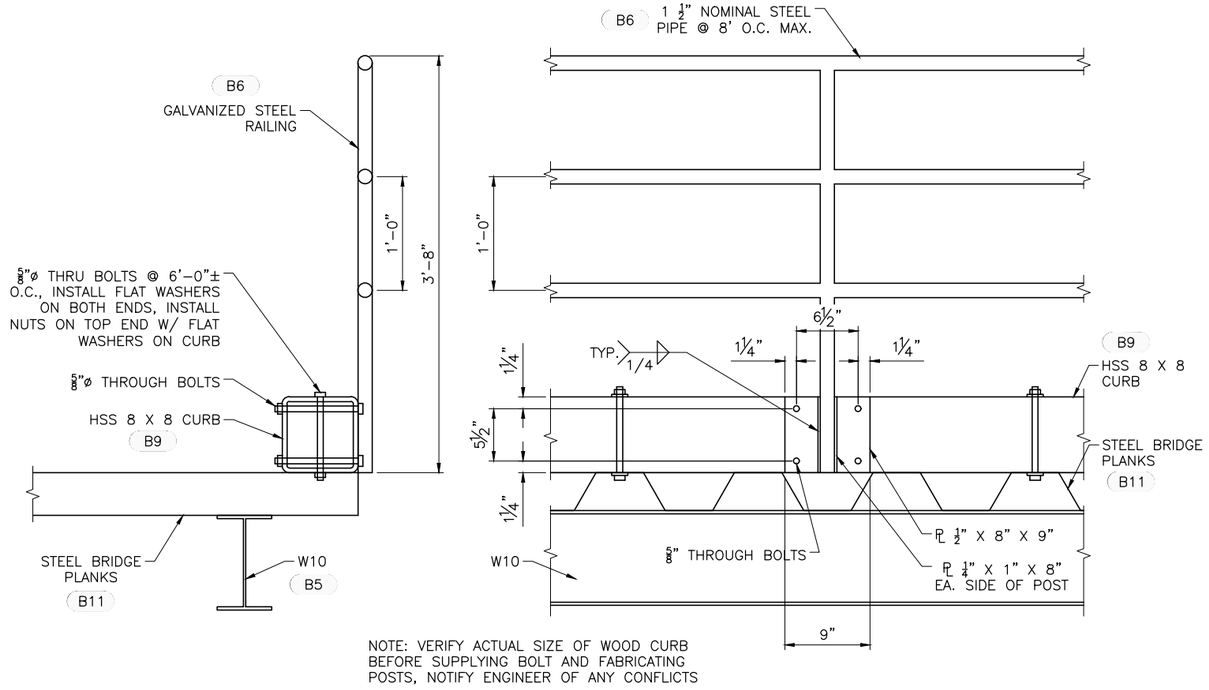


RAILING SPLICE DETAILS

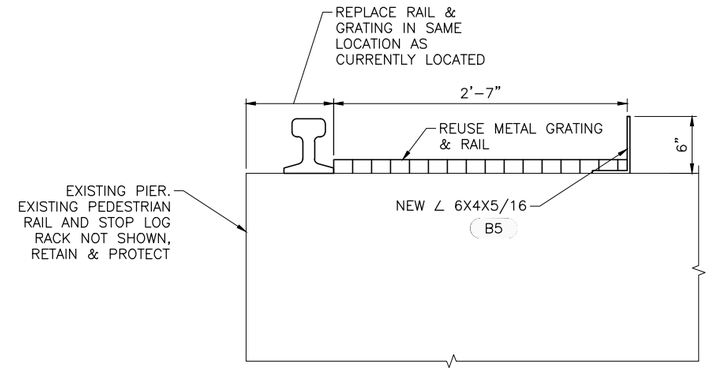


PLAN VIEW

✳ B_ SEE BID ITEMS ON SHEET C-101



FRONT VIEW SIDE VIEW



SECTION VIEW

CURBING AND DOWNSTREAM RAILING CONNECTION DETAILS

N6 N5

GENERAL NOTES FOR STEEL HAND RAIL FABRICATION, ANGLE KICK PLATE, & STEEL CURB

1. PROVIDE STEEL AS SPECIFIED IN THE GENERAL NOTES.
2. ALL WELDING TO CONFORM TO CURRENT AWS D1.1 REQUIREMENTS.
3. COMPLETE ASSEMBLY OR SUB-ASSEMBLIES, BRACKETS, RAILING AND MISCELLANEOUS STEEL PIECES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
4. BOLTS, NUTS & WASHERS SHALL BE HOT-DIP GALVANIZED.
5. FASTEN GRATING, ANGLE, AND SALVAGED RAIL TO CONCRETE PIER USING EITHER CIP ANCHOR BOLTS OR EPOXY ANCHORS, AT CONTRACTORS OPTION. SUBMIT ANCHOR TYPE, NUMBER, AND SIZE FOR ENGINEER APPROVAL.
6. EXPANSION ANCHOR BOLTS, NUTS, & WASHERS SHALL BE STAINLESS STEEL.
7. REFER TO OTHER DETAILS FOR CONCRETE REINFORCING REQUIREMENTS.
8. COORDINATE REBAR PLACEMENT IN CONCRETE TO MISS ANCHOR BOLTS & INSERTS.
9. GALVANIZED AREAS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH A APPROVED COLD-GALVANIZING COMPOUND.
10. EPOXY SET ANCHORS SHALL UTILIZE HILTI HIT HY 150 CONSTRUCTION ADHESIVE AND HAS GALVANIZED OR STAINLESS STEEL THREADED RODS. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. FIELD SPLICES SHALL BE MADE UTILIZING GALVANIZED STEEL PIPE SLEEVE INSERTS AND HOT-DIP GALVANIZED STEEL BOLTS, NUTS, AND WASHERS.

J-U-B ENGINEERS, INC.
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ON FILE AT
J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	DATE	BY	APPR.
	REVISION			

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

BRIDGE DETAILS
BID SET

FILE : 60-18-055 C-503
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/6/2019
SHEET 7
TITLE C-503

Plot Date:2/11/2019 1:30 PM Plotted By: Kerry Kentenwitz
Date Created:7/17/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-503.DWG

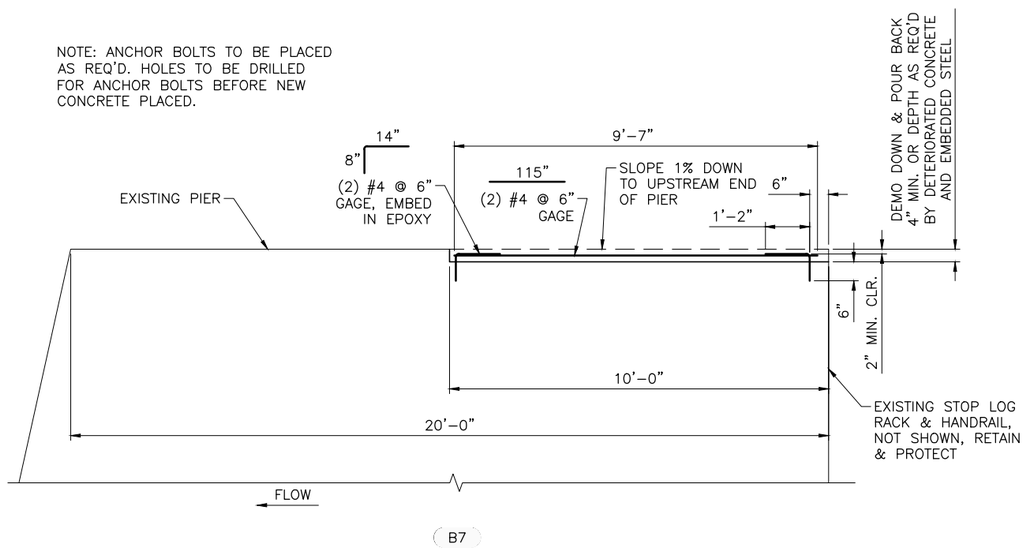
B8

TYPICAL VIEW OF REBAR TO BE COATED PER SPECIAL PROVISION S501–30A

B10

TYPICAL VIEW OF CONCRETE SURFACE TO BE REPAIRED PER SPECIAL PROVISION S501–51A

✳ B_ SEE BID ITEMS ON SHEET C–101



B7

EXISTING PIER REPAIR TO BE COMPLETED PER SPECIAL PROVISION S501–20A

STOP LOG RACK & HAND RAIL
(RETAIN & PROTECT)

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
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Twin Falls, ID 83301
Phone: 208.733.2414
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J-U-B ENGINEERS, INC.
TWIN FALLS, IDAHO

NO.	DESCRIPTION	BY	APPR.	DATE
REVISION				

2019 MILNER DAM, INC. - EMERGENCY SPILLWAY
BRIDGE DECK REPLACEMNET

CONCRETE REPAIR DETAILS
BID SET

FILE : 60-18-055_C-504
JUB PROJ. # : 60-18-055
DRAWN BY: KCK
DESIGN BY: GMA
CHECKED BY: TAA
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/6/2019
SHEET 8
TITLE C-504

Plot Date:2/11/2019 1:31 PM Plotted By: Kerry Kirchenwitz
Date Created:7/25/2018 F:\PROJECTS\JUB\60-18-055 MILNER DAM-2018 BRIDGE DECK REPLACEMENT\CAD\SHEET\60-18-055_C-504.DWG

Attachment C – Bid Estimates in 2019

PROJECT: Milner Dam, Inc.
2019 Emergency Spillway Bridge Deck Replacement

ENGINEERS: J-U-B Engineers, Inc.
115 Northstar Ave.
Twin Falls, Idaho 83301

BID DATE: March 28, 2019

BID SCHEDULE - BASE BID				JC Constructors, Inc.		McAlvain Civil Constructors, Inc.	
PAY ITEM REF.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
203-020A	REMOVAL OF BRIDGE {AREA SF=7840}	1	EACH	$60,850.00	$60,850.00	$92,509.00	$92,509.00
205-040A	GRANULAR BORROW	1	CY	$2,300.00	$2,300.00	$694.71	$694.71
210-005A	STR EXCAVATION SCH NO. 1{SOIL}	6	CY	$550.00	$3,300.00	$308.76	$1,852.56
210-015A	COMPACTING BACKFILL	1	CY	$1,670.00	$1,670.00	$617.51	$617.51
502-140A	CONC CL 40-A SCH NO.1	6	CY	$2,340.00	$14,040.00	$1,260.00	$7,560.00
503-010A	METAL REINF SCH NO. 1	1,506	LB	$5.00	$7,530.00	$4.58	$6,897.48
503-020A	EPOXY COATED METAL REINF	240	LB	$8.00	$1,920.00	$4.63	$1,111.20
504-005A	STL BRIDGE (APPROX WT){LBS=56,800}	1	LS	$220,000.00	$220,000.00	$306,346.00	$306,346.00
504-035A	PEDESTRIAN RAILING	490	FT	$175.00	$85,750.00	$245.94	$120,510.60
S501-20A	SP BRIDGE {REPAIR CONCRETE PIER WALL TOPS}	86	EACH	$1,400.00	$120,400.00	$3,360.42	$288,996.12
S501-30A	SP BRIDGE {COAT EXPOSED REBAR AND STEEL}	46	FT	$100.00	$4,600.00	$183.89	$8,458.94
S501-30B	SP BRIDGE {WOOD CURB}	980	FT	$50.00	$49,000.00	$153.36	$150,292.80
S501-51A	SP BRIDGE {PATCH AND REPAIR OF CONCRETE SURFACE}	56	SF	$105.00	$5,880.00	$162.10	$9,077.60
S501-51B	SP BRIDGE {9 GA STEEL BRIDGE PLANKS} (BOLTED)	7,840	SF	$33.00	$258,720.00	$23.99	$188,081.60
S501-51C	SP BRIDGE {WOOD DECK RUNNER} (BAR GRATING)	2,940	SF	$18.00	$52,920.00	$13.97	$41,071.80
Z629-05A	MOBILIZATION	1	LS	$32,000.00	$32,000.00	$16,939.02	$16,939.02
	Total Bid Schedule - Base Bid:				$920,880.00		$1,241,016.94

BID SCHEDULE - ALTERNATIVE BID ITEM(S)				JC Constructors, Inc.		McAlvain Civil Constructors, Inc.	
PAY ITEM REF.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
S501-51B	SP BRIDGE {9 GA STEEL BRIDGE PLANKS} (WELD/FASTEN)	7,840	SF	$26.00	$203,840.00	$17.69	$138,689.60
S501-51C	SP BRIDGE {WOOD DECK RUNNER} (WOOD)	2,940	SF	$16.00	$47,040.00	$15.12	$44,452.80

Notes:

1. *These tables are a tabulation of the unit prices and total prices received from Bidders during the bidding process. It does not indicate nor convey the responsiveness of the Bid.*
2. *The highlighted cells denote that there was a mathematical error or omission in the written bid tab received from the Bidder.*

Total Bid Schedule - Base Bid:		$920,880.00		$1,241,016.94
Total Bid Schedule - Base Bid + Alt S501-51B	($54,880.00)	$866,000.00	($49,392.00)	$1,191,624.94
Total Bid Schedule - Base Bid + Alt S501-51C	($5,880.00)	$915,000.00	$3,381.00	$1,244,397.94
Total Bid Schedule - Base Bid + Alt S501-51B & S501-51C	($60,760.00)	$860,120.00	($46,011.00)	$1,195,005.94

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF REGIONAL WATER SUSTAINABILITY LIST	RESOLUTION TO AWARD REGIONAL WATER SUSTAINABILITY FUNDING TO MILNER DAM INC

WHEREAS, in July 2021 the IWRB adopted an initial Regional Water Sustainability Priority List to help guide the Idaho Water Resource Board's (IWRB) spending for large, regional water sustainability projects from ARPA funds, state general funds, or other applicable sources; and

WHEREAS, Idaho Code § 42-1760 authorizes the Idaho Water Resource Board (IWRB) to expend, loan, or grant money from the Water Management Account for water projects that conserve or increase water supply, improve drought resiliency, address water sustainability, or support flood management, including the identification, study, and construction of managed aquifer recharge sites above Milner dam; and

WHEREAS, Milner Dam Inc. (MDI) submitted a request on September 2, 2025, to the IWRB for its Milner Dam Rehabilitation project (Project) to be added to the Priority List; and

WHEREAS, the Project is for the rehabilitation of the emergency spillway at Milner Dam which includes the restoration of damaged concrete at the existing emergency spillway, the installation of an improved decking across the emergency spillway, and a redesign and rebuilding of the plunge pool downstream. The estimated project costs for the repairs and rehabilitation are currently estimated at $9,065,000 and are projected to take several years; and

WHEREAS, On September 9th 2025, representatives from MDI presented the project to the IWRB and requested funding in the amount of $1,500,000 to support the design work for the Project; and

WHEREAS, on September 9th, 2025, the Finance Committee recommended that the IWRB approve the requested funds.

NOW THEREFORE BE IT RESOLVED, the IWRB approves $1,500,000 in Regional Water Sustainability funding from the Water Management Account to MDI to pursue design work to a 100% level for the Project.

BE IT FURTHER RESOLVED, staff is directed to work with the project sponsor on a draft contract for the Project, including appropriate terms and conditions.

BE IT FURTHER RESOLVED that the IWRB authorizes its Chairman or designee, to execute the necessary agreements or contracts for the purpose of this resolution.

BE IT FURTHER RESOLVED, that upon the accomplishment of a satisfactory level of design,

representatives from MDI will provide the IWRB with an updated funding request, with updated project costs for construction, for the consideration of additional funding.

DATED this 12th day of September, 2025.

_____
JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

MEMO

To: Idaho Water Resource Board

From: Neeley Miller

Date: September 9th, 2025

Subject: Funding Request for Ridenbaugh Canal Diversion Modernization Project

REQUESTED ACTION: Make a funding recommendation to the IWRB

A project proposal was received from Nampa & Meridian Irrigation District (NMID) for the Ridenbaugh Canal Diversion Modernization Project. NMID is requesting Regional Water Sustainability Funding to replace, modernize and automate NMID's Boise River diversion and headworks

Representatives from NMID are here today to provide information on the project and funding request.

Staff has prepared a draft funding resolution for your consideration.

Attachment(s):

Draft Resolution

Project Proposal

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF REGIONAL WATER SUSTAINABILITY LIST	RESOLUTION TO AWARD REGIONAL WATER SUSTAINABILITY FUNDING TO NAMPA & MERIDIAN IRRIGATION DISTRICT FOR RIDENBAUGH DIVERSION MODERNIZATION PROJECT

WHEREAS, in July 2021 the IWRB adopted an initial Regional Water Sustainability Priority List to help guide the Idaho Water Resource Board's (IWRB) spending for large, regional water sustainability projects from ARPA funds, state general funds, or other applicable sources; and

WHEREAS, Idaho Code § 42-1760 authorizes the Idaho Water Resource Board (IWRB) to expend, loan, or grant money from the Water Management Account for water projects that conserve or increase water supply, improve drought resiliency, address water sustainability, or support flood management, including the identification, study, and construction of managed aquifer recharge sites above Milner dam; and

WHEREAS, Nampa & Meridian Irrigation District (NMID) submitted a request on August 18, 2025, to the IWRB for its Ridenbaugh Canal Diversion Modernization Project (Project) to be added to the Priority List; and

WHEREAS, the Project will replace, modernize and automate NMID's Boise River diversion and headworks. The estimated project costs for the repairs and rehabilitation are currently estimated at $20,903,292 and are projected to take several years; and

WHEREAS, On September 9th 2025, representatives from NMID presented the project to the IWRB and requested funding in the amount of $_____ to construct the Project; and

WHEREAS, on September 9th, 2025, the Finance Committee recommended that the IWRB approve the requested funds.

NOW THEREFORE BE IT RESOLVED, the IWRB approves $_____ in Regional Water Sustainability funding from the Water Management Account to NMID to construct the Project.

BE IT FURTHER RESOLVED, staff is directed to work with the project sponsor on a draft contract for the Project, including appropriate terms and conditions.

BE IT FURTHER RESOLVED that the IWRB authorizes its Chairman or designee, to execute the necessary agreements or contracts for the purpose of this resolution.

DATED this 12th day of September, 2025.

_____
JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

Nampa & Meridian Irrigation District

1503 First Street South
Nampa, ID 83651-4395

Website: nmid.org

Office: (208) 466-7861
Shop: (208) 466-0663

August 18, 2025

Sent via email to: Neeley.Miller@idwr.idaho.gov

Neeley Miller
Idaho Department of Water Resources
PO Box 83720
Boise, Idaho 83702

Re: Nampa & Meridian Irrigation District (NMID) Regional Water Sustainability Priority List Request

Dear Neeley:

NMID respectfully requests that the Idaho Water Resource Board (IWRB) include NMID's Ridenbaugh Canal Diversion Modernization Project (Ridenbaugh Project) on the Regional Water Sustainability Priority List (Priority List). NMID is also requesting an additional grant of $6,765,481 to fund the completion of this regionally-critical irrigation project. The document enclosed with this letter provides the information required by the IWRB's May 2025 project list criteria and details regarding project construction, cost estimate, budget and funding.

As explained in greater detail in the enclosure, the Ridenbaugh Project will replace, modernize and automate NMID's Boise River diversion and headworks to:

- more efficiently impound, divert and convey the quantity of water required by NMID landowners;
- eliminate the time, fuel consumption and safety risks associated with manual adjustment of the diversion by NMID O&M staff;
- maintain a more consistent diversion pool level that saves water and reduces fluctuations in Boise River flows.

The benefits of this project extend well beyond the District's operations. This project meets all the considerations for inclusion in the Priority List. The January 13, 2023 IWRB, Finance Committee Meeting No. 1-23 meeting attachments include this project on the Priority List and recommends removal due to receiving an Aging Infrastructure Grant (AIG). At the time, the AIG grant met the State funding cost share caps based on the projected project costs at that time.

The Ridenbaugh Canal system is an integral component of the Treasure Valley water supply. Continued use of water delivered through the Ridenbaugh Canal system is vital to the Treasure Valley economy and reduces groundwater demands from the Treasure Valley Aquifer System. Incidental recharge from the Ridenbaugh Canal system replenishes the shallow aquifer and maintains drain flows that support water reuse and downstream Boise River flows.

The April 2023 AIG totaled $3,686,164 and a Reclamation WaterSMART grant was received totaling $4,722,000 for the Ridenbaugh Project. These grants were based on a project cost estimate of $13,388,370. A copy of the AIG application is enclosed. The grant funding was critical to NMID's willingness to contract with an engineering firm to design the project.

Significant progress has been made on the project. The design will be final in September 2025, with construction set to begin in October 2025. Through the design process, NMID has gained confidence that the constructability and long-term stability of this design will meet NMID's water delivery needs for the next 100+ years. NMID, in consultation with the engineering design team at HDR Engineering, Inc. (HDR), entered into a Construction Management/General Contractor Contract with Record Steel and Construction, Inc. (RSCI), a local vendor. This process provides the District cost certainty as the contractor cannot exceed the Gross Maximum Price (GMP) which will be negotiated in September 2025 prior to beginning construction.

As the Ridenbaugh Project details and design matured, costs have increased to $20,693,870. This cost increase is due to several factors including project complexity, unanticipated costs, Boise construction market conditions, and inflation. The updated construction costs provided in this application have been developed by RSCI, and they reflect accurate current market conditions. It should also be noted that NMID has worked with RSCI to control costs by identifying almost $500,000 of the project work to be performed by NMID staff. NMID will not seek grant reimbursement for in-house work.

Our team would be happy to meet with the IWRB to describe the regional nature of the Ridenbaugh Project benefits and answer other questions you may have. Thank you for considering adding the project to the Priority List and for IWRB's continuing support for water sustainability in Idaho.

Sincerely,

Lorri J. Gray
Secretary/Treasurer
Nampa & Meridian Irrigation District

Enclosures

Ridenbaugh Canal Diversion Modernization Project

Idaho Water Resource Board
Regional Water Sustainability Projects Priority List

Nampa & Meridian Irrigation District
1503 First Street South
Nampa, ID 83651

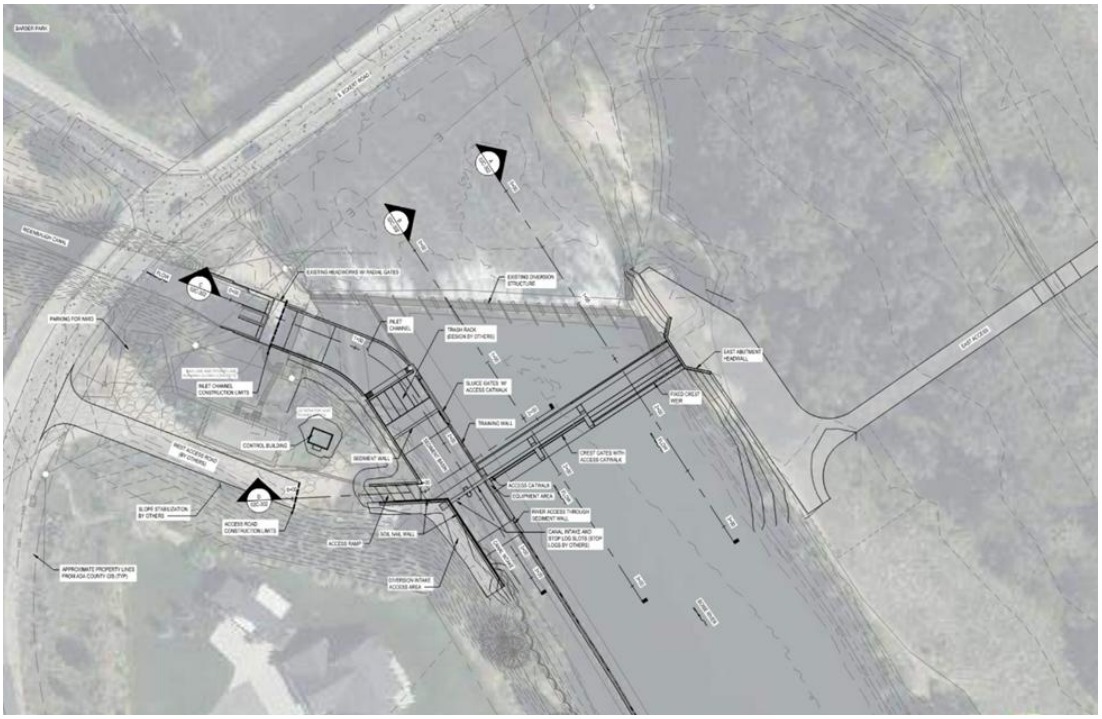


Table of Contents

Project Background Information

Date: August 15, 2025

Applicant: Nampa & Meridian Irrigation District (NMID)

Project Title: Ridenbaugh Canal Diversion Modernization Project

Reimbursable Project Cost: $20,903,292

Regional Water Sustainability Projects Priority List Funding Request: State Cost Share Contribution totaling 50% - Expenditure of all State Funds is expected to occur by early 2027

Construction Period: October 1, 2025 – December 31, 2027

IDWR District: District No. 2

Project Supporters: Water District 63, City of Boise, City of Nampa, City of Meridian, Boise River Flood Control District No. 10, Ada County Highway Department, Idaho Fish and Game, Boise Project Board of Control

Nampa & Meridian Irrigation District (NMID) is requesting that the Idaho Water Resource Board (IWRB) add the Ridenbaugh Canal Diversion Modernization Project (Ridenbaugh Project) to the Regional Water Sustainability Projects Priority List (Priority List), as the project meets all of the Board's considerations for inclusion on the list. NMID is seeking a 50% State cost share match totaling $10,451,645 of which $3,686,164 has been granted through an Aging Infrastructure Grant which leaves $6,765,481 of additional funding being sought.

Considerations for Inclusion on IWRB's Regional Water Sustainability Projects List

The IWRB has specific considerations for including a project on the Priority List, including broad stakeholder support, need for the project to address or avoid water conflicts, regional-scale benefits of the project, benefits to groundwater, and the economic and public benefits. The Ridenbaugh Project meets all considerations for inclusion in this list, as described in the following sections of this application, and therefore merits inclusion in the program.

Broad Stakeholder Support

The Ridenbaugh Project has broad stakeholder support. There is a general recognition of the value of Ridenbaugh delivered surface water to Treasure Valley communities. The Ridenbaugh Canal system delivers water to a myriad of land uses in the Treasure Valley including farms, subdivisions, schools and parks. Public support for the project comes from many different sources. The following is a list of entities that have provided letters of support (attached) describing project benefits to the public and the Valley as a whole:

Idaho Department of Fish & Game
Boise Project Board of Control
Ada County Highway District

Previous letters of support from the following organizations can be found in the attached 2022 AIG Application:

Water District No. 63
City of Boise
City of Nampa
City of Meridian
Boise River Flood Control District #10

Contributes to the Resolution of Long-Standing Water Supply Challenges or Anticipated Water Use Conflicts; Provides Benefits at a Regional Scale; Leads to Stabilization and Recovery of Groundwater Levels in Basins where Groundwater Declines are Occurring

Surface water irrigation led to the development of the Treasure Valley's economy, groundwater resources, and communities over the last 120 years. The region's imminent water challenges associated with providing water for a rapidly growing population require judicious management of surface water to avoid further straining groundwater resources, which could result in a water-related conflict. Therefore, this project, which allows for continued surface water irrigation, addresses these interrelated considerations.

The Ridenbaugh Project has a long-term beneficial effect on the Treasure Valley water supply. NMID diverts and delivers for beneficial use approximately 144,000 acre-feet a year (April-October) from the Boise River. Excess surface runoff and shallow groundwater is collected in the drain network within the District and reused resulting in deliveries of approximately 200,000 acre-feet of surface irrigation water for use on over 46,000 acres across two counties.

The existing Ridenbaugh Diversion is nearing the end of its usable life. Without a functioning diversion, NMID would not be able to deliver water through the Ridenbaugh Canal and the rest of the District's delivery system. Farms and homeowners would need to consider other sources of irrigation water. For homeowners, a viable source of water is treated city water, which comes largely from groundwater. Both the City of Nampa and the City of Caldwell have cautioned that the use of municipal water for irrigating yards and gardens puts a strain on the city's water treatment and delivery infrastructure. This would counteract the cities' efforts to become more drought resilient by straining water delivery infrastructure and the Treasure Valley Aquifer System. Individual users (farmers and residents) could also develop wells, which would be costly for residents while again increasing strain on the Treasure Valley Aquifer System. Studies completed by Ada County indicate that the Treasure Valley Aquifer System is already experiencing declines in some areas. Increased groundwater use would be expected to exacerbate these declines and lead to water conflicts. It is important to note that an increase in the utilization of wells would also place additional demands on the Valley's power supply.

The surface water delivery system also provides incidental recharge and use of drain water. Without surface water irrigation, incidental shallow groundwater recharge from flood irrigation and canal flow would be reduced. The drains have provided a source of water reuse within the District. The District captures and delivers water in the drain network to provide an additional 56,000 acre-feet. Unused drain water contributes natural flow to the

Boise River downstream, which has been the source for downstream irrigators for more than 100 years. Loss of recharge and flow in the drains would not only impact NMID patrons but would reduce water available to downstream irrigation districts and canal companies. These drains have already experienced declines in recent years. Further declines could lead to water conflicts.

The benefits of the Ridenbaugh Project extend well beyond the District, as this project will maintain a surface water irrigation delivery system that reduces the need to use groundwater for irrigation and provides recharge, which contributes to surface water and groundwater resources regionally. The Ridenbaugh Canal, fed by its aging headworks facility, contributes to sustainable water management in the region. Therefore, modernizing the Ridenbaugh Canal headworks is a regionally important water project that contributes to the ongoing sustainability of water resource utilization in the Treasure Valley.

The Ridenbaugh Project reduces water loss, improves efficiency and reduces operational losses. Automated control of the Ridenbaugh Diversion Dam will reduce operational inefficiency in the Boise River by up to an estimated 1,000 acre-feet every year. Additionally, losses due to seepage and over delivery could be reduced by an estimated 12-15 acre-feet annually. Over delivery is a results from Barber Dam flow disruptions. The water savings calculations are provided in the attached AIG Application, Attachment B. The water savings from automation benefits all storage accounts in the Boise River Storage System and reduces the use of storage water.

Provides Economic and Public Benefits

Economic Benefits

The Ridenbaugh Canal is the second largest irrigation conveyance system in the Treasure Valley, diverting over 500 cfs from the Boise River to deliver water to over 46,000 Ridenbaugh and Project acres located in Ada and Canyon Counties, including lands in or near the cities of Boise, Meridian, Kuna, Nampa and Caldwell. NMID serves diverse agricultural, urban, suburban, commercial, residential, and industrial land uses. Increasing the reliability and efficiency of NMID's diversion as described throughout this proposal will benefit all of these land uses.

Public Safety- Reducing Risks to NMID Workers and Boise River Recreationists

Operating the existing diversion requires manual installation, removal, and adjustment of groups of 20-foot long check boards. Installing each board requires teams of three staff members to access the structure using a wooden access platform and insert the boards forcefully by hand and with hand tools. Installing and using an automated weir will significantly improve worker safety conditions by avoiding the need to regularly have staff access the dam and install check boards to adjust the structure. Other irrigation districts in the region have had near-miss events related to operating similar structures. Replacing the existing structure with an automated structure is an important part of NMID's plan to continuously improve worker safety.

The Boise River is used by recreationists including floaters, kayakers, and anglers. The existing structure is unsafe at water level for a recreationist. Improvements to the facility will help exclude the public trespassing on this facility, and the new structure's design, with a gate and ogee weir, will improve safety for in the event of an encounter with the diversion by creating safer flow conditions and improving warning signage at the diversion.

Fish and Wildlife

NMID has been in coordination with Idaho Department of Fish and Game (IDFG) to review design elements considering Boise River fish and wildlife. One of the benefits this project will provide is a traveling screen. This screen spacing will exclude adult age-class sportfish from entrainment into the Ridenbaugh Canal, which is an improvement over existing conditions. This is expected to provide a moderate long-term benefit to adult fish populations.

Flood Operations Benefits

Replacing the existing diversion with automated gates will allow for better response and management of flow conditions in the event of flood conditions. The existing diversion can become inaccessible during high flows and flood conditions as it did in 2017. Depending on the time the District is given to respond to changes in flood releases, it has not always been possible to pull all the stop logs at the existing structure. The automated gate can be quickly lowered during high flow conditions to reduce flood risks and impacts, pass debris, and limit excess flow diverted into the Ridenbaugh Canal.

A detailed list of project benefits is provided in the attached AIG application.

Ridenbaugh Canal Diversion Modernization (Ridenbaugh Project)

The Ridenbaugh Canal Diversion Dam extends approximately 220 feet across the Boise River and is used to raise the upstream water level, allowing water to be diverted from the Boise River to the Ridenbaugh Canal. The existing diversion dam structure consists of concrete piers that create 11 bays in which NMID operations and maintenance (O&M) staff install stop-logs via access from a wood walkway. An 80-foot-long, wide-bar trash rack in the canal inlet channel adjacent to the river is used to keep large debris from entering the canal and collects some aquatic weeds that O&M staff manually remove via access from a walkway. An 18-inch-tall and approximately 500-foot-long concrete wall was installed as a sediment and debris wall parallel to the river in 1936-1937 with the ability to create an opening in the wall at mid height to reduce the amount of debris and sediment diverted into the canal. The Ridenbaugh Canal headgate structure consists of three radial arm gates and the canal has a capacity of 550 cubic feet per second (cfs). Water is typically delivered to NMID water users from April 1 through the first or second week of October (Figures 1, 2, and 3).

Figure 1 Current Ridenbaugh Diversion taken from left side of the river

Figure 2 Current Ridenbaugh Diversion taken from downstream left side of the river

Figure 3 Ridenbaugh Radial Gates

NMID plans to modernize the Ridenbaugh Canal Diversion by: replacing the check boards with two 40' crest gates and an 80' ogee weir stretching across the Boise River; replacing the 550' sediment control structure and catwalk; replacing the weed rack to manage debris mechanically and reduce the number of fish that can move from the Boise River into the canal system, and installing the necessary electrical, and mechanical systems to operate the automated diversion structure (Figure 4). Modernizing and automating the Ridenbaugh Canal Diversion will significantly improve the timing and precision of NMID's operation and adjustment of the diversion structure to:

- more efficiently impound, divert and convey the quantity of water required by NMID landowners;
- eliminate the time, fuel consumption and safety risks associated with manual adjustment of the diversion by NMID O&M staff;
- maintain a more consistent diversion pool level and reduce fluctuations in Boise River flows, and thereby;
    - reduce Boise River system operational losses and storage account reductions by up to 1,000 acre-feet annually;
    - reduce seepage loss from the diversion pool;
    - reduce water losses from flow disruptions caused by malfunctions of the upstream Barber Dam (currently the subject of a water delivery call and violation notices issued by the Idaho Department of Water Resources);
    - preserve storage held by Reclamation for streamflow maintenance and flow augmentation for ESA-listed salmon and steelhead;
    - improve instream aquatic habitat, aesthetics, and recreational uses;

- enhance water right administration by the Boise River Watermaster;
- reduce the risk of water delivery calls by downstream senior water right holders diverting from the Boise River below the Middleton Gage;
- eliminate adult fish from entering the canal thus staying in the Boise River; and
- reduce flood risk.

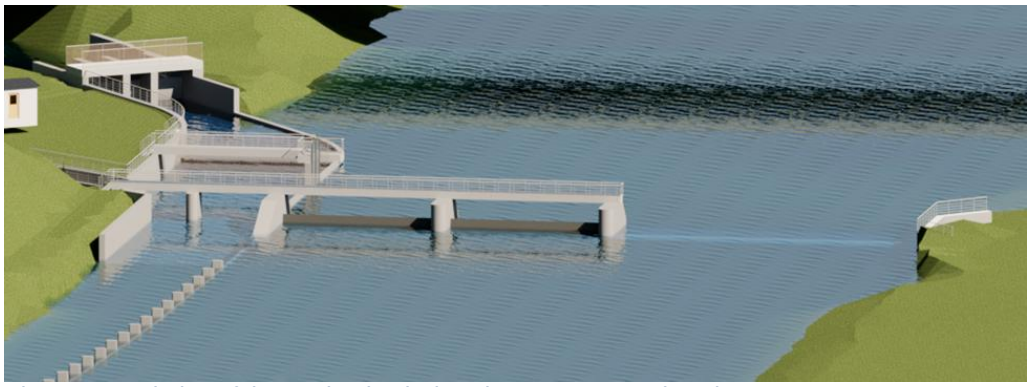


Figure 4 Rendering of the Modernized Diversion Structure and Intake Structure

Ridenbaugh Contributions to the Valley

NMID was formed in 1904 to acquire, improve, and operate the Ridenbaugh Canal system to deliver water to NMID lands. The primary source of revenue for NMID operations, maintenance, and replacement is assessments of NMID lands. NMID is a large, diverse irrigation district, whose board of directors and staff operate and maintain extensive, intricate canal and drainage systems to deliver irrigation water and provide drainage for 40,867 tracts of land consisting of approximately 60,000 acres south of the Boise River in the heart of the Treasure Valley. The Ridenbaugh Canal is the second largest irrigation conveyance system in the Treasure Valley, diverting over 550 cfs from the Boise River to deliver water to over 46,300 acres located in Ada and Canyon Counties, including lands in or near the cities of Boise, Meridian, Kuna, Nampa, and Caldwell. NMID's service area is highlighted in green (Figure 5).

Figure 5 NMID service begins with the Ridenbaugh Headworks located at Boise River mile 61.2 in Boise, ID

Rapidly changing land uses within NMID run the gamut, from traditional agriculture to Idaho's most populated urban settings. The water delivery benefits NMID provides to these lands are based on substantial, early priority natural flow rights in the Boise River, and storage rights in Arrowrock and Anderson Ranch Reservoirs.

Depending on their locations and development history, individual tracts of land in NMID are entitled to one or more of NMID's irrigation water and drainage benefits. NMID lands are categorized as "Ridenbaugh acres," "Project acres" and "Drainage acres" according to the water right and drainage benefits apportioned to them:

- over 20,000 "Ridenbaugh acres" that are entitled to NMID natural flow and storage rights delivered through the Ridenbaugh Canal system depicted in green in Figure 5;
- over 26,000 "Project acres" lying below the Ridenbaugh Canal system that are entitled to NMID storage rights conveyed from the Boise River by the New York Canal system through feeder canals to the Ridenbaugh Canal system for delivery to the NMID Project acres;
- over 12,000 "Project acres" lying above the Ridenbaugh Canal system that are entitled to NMID storage rights delivered directly from the New York Canal system, and
- Over 59,000 "Drainage acres" that benefit from NMID's drainage system.

In addition to providing water to NMID lands, NMID uses the Ridenbaugh Canal System to deliver water to lands within the New York Irrigation District, Settlers Irrigation District, Boise Kuna Irrigation District, and Reclamation special contract lands.

Approach to Construction

The Ridenbaugh Project will replace the existing 95-year-old diversion structure with a new automated diversion structure, replace the 550' sediment control structure and catwalk, replace the weed rack, and install the necessary electrical and mechanical systems to operate the automated diversion. Two-stage temporary cofferdams will be constructed in the Boise River to dewater one side of the river and allow flow through the other side. A curved concrete intake will be constructed on the left bank, looking down river. The intake structure will include a sediment settling basin, and a sediment gate to minimize sediment going into the canal and allow trapped sediment to reenter the river. Additionally, the intake structure will be fitted with six trash rack screens and a conveyor belt to clean the screens. Trash rack screens will be sized at approximately 2.5" by 2.5" to reduce fish from entering the canal. On the left half of the river two automated 40' crest gates will be mounted to the river bottom allowing floating debris to be flushed downstream in a safe manner. The automation will allow NMID to adjust automated crest gate heights as needed based on changes in river flows. On the right half of the river a 4' ogee weir will span from the crest gate to the right riverbank (Figure 6).

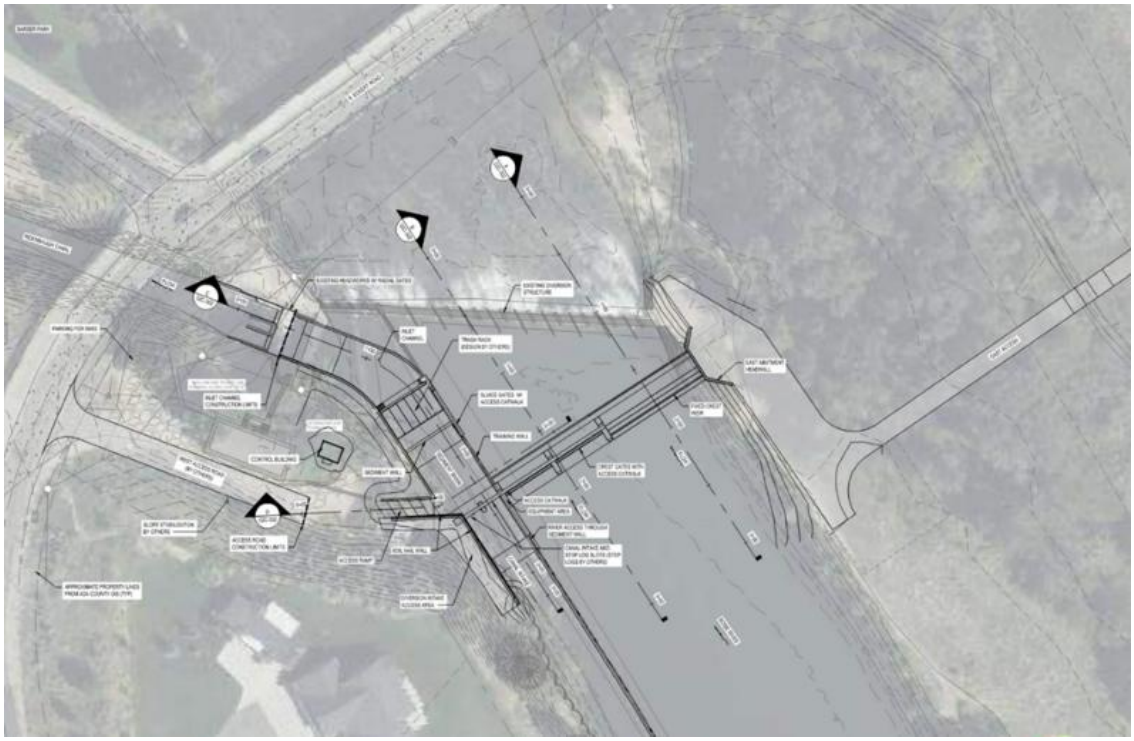


Figure 6 60% Design

In February 2025, NMID installed the PortaDam system which was successfully installed and dewatered in order to drill three 70’ bore holes in the river bottom. The boring data was used to understand the composition of the riverbed materials in which the new diversion structure will be constructed and anchored. This data informed the design and resulted in reducing the number of cutoff walls needed and is allowing us to explore a less expensive type of sheet pile both reduce project costs. The cutoff wall will be installed across the river running 20” deep to avoid structural uplift. This work confirmed that the PortaDam is effective in dewatering in this location (Figure 7).

Figure 7 PortaDam installed across half of the Boise River in February 2025

NMID owns the land beneath the Ridenbaugh Headworks and the eastern portion of Barber Park. In June 2025, the City of Boise granted NMID a permanent easement on the Northeast side of the River. This easement runs through the Alta Harris Property allowing more efficient access to the right side of the diversion structure during construction and supporting future O&M activities. NMID worked closely with the City of Boise, Land Trust of Treasure Valley, Trout Unlimited, and the Idaho Foundation for Parks and Lands to develop an easement agreement across the property and conservation areas which was approved by the City of Boise on June 3, 2025.

Primary Goals and Benefits of the Project

By modernizing and automating the Ridenbaugh Canal Diversion, NMID will significantly improve the timing and precision of the diversion operation to accomplish four primary goals:

1. Replace aging infrastructure, constructed in the 1930s, with a modern, reliable diversion to meet the future needs and demands of NMID. The existing assets have been well-maintained, but the structure is at the end of its usable life. Replacing the structure reduces the risk of loss of service of the Ridenbaugh Canal.
2. More efficiently impound, divert and convey the quantity of water required by NMID landowners and others who rely on the Ridenbaugh Canal.
3. Eliminate the time, fuel consumption and safety risks associated with manual adjustment of the diversion by NMID O&M staff.
4. Maintain a more consistent diversion pool level and reduce fluctuations in Boise River flows to reduce Boise River operational and seepage losses, conserving Boise River System storage.

The 2022 Aging Infrastructure Grant Application for the project (attached), provides a summary description on each of the following topics:

-Urgency of Replacing the Existing Diversion
-Protecting the Aquifer and Potable Systems
-Improving Diversion Operations
-Employee Safety
-Reduced Water Loss and Improved Water Efficiency
-Operational Losses
-Seepage Losses
-Over Delivery During Barber Dam Interruptions
-Summary of Water Savings
-Economic Values Supported by the Ridenbaugh Canal
-Water Supply Stability and Sustainability
-Water Related Conflicts – Impacts from Barber Dam Unauthorized Diversions
-Water District 63 Water Rights Administration
-Drought Resiliency
-Flood Risk Reduction
-Energy Sustainability and Air Quality
-Public Safety – Reducing Risks to NMID Workers and Boise River Recreationists

Fish and Wildlife

Modernizing the Ridenbaugh Canal Diversion to improve the timing and precision of NMID's operation and adjustments of the Ridenbaugh Canal Diversion is expected to improve

aquatic habitat of the Boise River in the diversion pool and downstream from the diversion by reducing instream flow fluctuations. Automated diversion control will allow NMID to operate this pool elevation lower than it currently does. This will reduce the depth and increase the channel complexity in this reach. The City of Boise is completing habitat modeling of the Boise River. Coordination with the City of Boise could assist NMID in determining the degree to which revised operations improve upstream habitat conditions. The size of the trash rack screening will reduce the number of fish entering the canal thus staying in the Boise River.

This project is expected to help preserve storage held by Reclamation for streamflow maintenance and flow augmentation for ESA-listed salmon and steelhead, providing reclamation additional water and flexibility in releasing water for these purposes.

Project Personnel

NMID's Board of Directors has three members, elected to represent landowners in the Boise, Meridian, and Nampa precincts.

In early 2025 NMID conducted a reorganization which benefits this project and reduces the overall project cost. Greg Curtis, Capital Projects Manager, will lead the construction activities for this project working closely with HDR and RSCI. Curtis's 29 years of tenure with the District make him an invaluable asset to this construction project as he has construction experience and knows how the infrastructure must operate to achieve NMIDS mission. Curtis will be available onsite to support decisions that arise during construction and conduct quality control activities.

In 2024, Lorri Gray joined NMID as NMID's Secretary/Treasurer. Gray has worked with water for over 40 years and previously served for 13 years as a Regional Director for the Bureau of Reclamation overseeing many large water infrastructure projects. She will work with Curtis to ensure project construction, procurement, compliance, funding, payment, documentation and grant administration are completed.

Dave Duvall serves as the Water Superintendent and oversees the staff that will be doing the in-kind work on the project. This work includes but is not limited to preparing the road leading to the right side of the construction project, building an equipment building, and some of the dirt work.

NMID has contracted with HDR Engineering, Inc. (HDR) to provide design services and technical support for the Ridenbaugh Project. NMID has contracted with Record Steel and Construction, Inc., (RSCI), a Boise-based construction company founded in 1988, to serve as the Construction Manager/General Contractor. HDR and RSCI have been working closely through the evolution of the design from 30% to 60% to ensure constructability and reduce costs. As we move into construction, RSCI will serve as the General Contractor and oversee any subcontractors. All work packages will be competitively bid under NMID's procurement policy which was developed utilizing applicable Federal and State of Idaho procurement requirements.

Project Implementation Schedule and Costs

Construction of the Ridenbaugh Project is scheduled to begin in October of 2025. The major construction work is expected to be completed by March of 2027. The new infrastructure will operate for the 2027 irrigation session with the existing structures piers still in the river as a backup. NMID will remove the existing piers no later than March of 2028. A 90% design detailed project schedule is available upon request.

Task	Start Date	Comp Date
Advertise construction work packages, open sealed bids, and select construction subcontractors.	7/25	9/25
Phase 1 - Construct the intake infrastructure on the left half of the river looking downstream. This includes purchasing and installing two 40' crest gates in the left half of the river.	10/25	3/26
Phase 2 - Construct an ogee weir on the right half of the river looking downstream.	10/26	3/27
2027 Operating Season – Operate the system to ensure new infrastructure performs properly.	3/27	10/27
Phase 3 - Remove the existing piers across the river. Complete all other construction activities and return the easement on the right side of the river to a more natural state.	10/27	12/27

Environmental Compliance

All environmental compliance work required by the applicant has been completed. NMID is actively working with the City of Boise on two permits which are expected to be issued no later than the end of September. Neither permit is needed for the main construction to begin in October.

Compliance Activity	Status
NEPA and ESA – BOR & FWS	Complete
Section 404 Permit – USACE	Complete
Letter of Map Revision - FEMA	Complete
401 Water Quality Cert - IDWR	Complete
Section 106 - SHPO	Complete
Boise River System – City of Boise	Complete - Planning/Zoning approved on Aug 12, waiting for the 10-day appeal to expire
Floodplain Development – City of Boise	Complete
Commercial Building Permit for Control Building	Application will be submitted and expected to be approved this fall
Grading and Erosion Control Permit – Right side of the River	Application will be submitted and expected to be approved this fall

Cost Estimate and Budget

The project cost estimates in NMID's Rounds 1 and 2 Aging Infrastructure Grant ("AIG") Applications were based on the December 1, 2021, Level 4/5 Preliminary Cost Estimate prepared by Jacobs Engineering Group ("Jacobs"). The project estimate started at $8,445,000 and was adjusted to $9,637,000 and $13,388,370 for inflation. The State and Federal grants applications were based on a $13,388,370 cost estimate and resulted in the following cost share percentages.

Early Project Cost Estimate - $13,388,370		
Grant	Award	Percentage
State AIG Round 1 and 2 Award	$3,686,164	28%
Federal Water Smart Award	$4,743,617	35%
NMID	$4,958,589	37%

The current cost estimate is $21,764302 which was developed in June 2025 based on the 60% design. NMID will not seek reimbursement for early planning work or construction activities that NMID self-performs to reduce the reimbursable project costs to $20,903,292. An example of work NMID can self-perform includes cutting and preparing the construction access road on the east side of the Boise River.

Project costs increased for several reasons. The complexity of the project and working in the Boise River is better understood. Labor and material costs in the Valley have significantly increased due to development and large construction projects like the Micron expansion. As project parts have been identified, capable vendors are located on the East Coast resulting in transportation costs. During the planning and early cost estimates the amount of material needed for the project was underestimated. It has been during the final steps of design and working with the engineer and general contractor that NMID has gained confidence that the constructability and long-term stability of the project will meet the District's water delivery needs for the next 100+ years.

Due to project complexity and unknowns of working in the Boise River, NMID solicited a Construction Manager/General Contractor agreement that was awarded to RSCI. This early award allowed RSCI to have input on the design from a cost and constructability standpoint. This approach provides the District cost certainty as RSCI cannot exceed the project Gross Maximum Price which will be negotiated in September 2025 after the work packages have been competitively bid but before construction begins in October.

If NMID is not considered for additional State funding the cost to water users across the Treasure Valley will jump to 59%. The following is a current project cost share breakdown by entity.

60% Design Project Reimbursable Cost Estimate - $20,903,292		
Grant	Award	Percentage
Federal Water Smart Award	$4,743,617	23%
NMID	$12,473,510	59%
State AIG Round 1 and 2 Award	$3,686,164	18%

NMID is seeking an additional $6,765,481 from the State through the Regional Water Sustainability Priority List. This amount combined with the previously awarded grant from the State will bring the State's cost share to $10,451,645 or 50% of the current design cost estimate. This additional State funding will bring the cost to water users across the Treasure Valley from 59% to 27%.

60% Design Project Cost Estimate - $20,903,292		
State/Federal Funding	Award	Percent age
Federal Water Smart Award	**$4,743,617**	**23%**
NMID	**$5,666,448**	**27%**
State AIG Round 1 and 2 Award	$3,686,164	18%
Regional Water Sustainability List Request	$6,765,481	32%
Total State Funding	**$10,451,645**	**50%**

Breakdown of Funding by Year

NMID expects to exhaust the reimbursement of all three State grants by the Spring of 2027 based on the construction schedule and project outlays by year. To date, NMID has drawn $694,379 from the AIG.

Reimbursable Expenditures by Year - $20,903,292			
Early Project Stage – 9/2025	Phase 1 10/2025-3/2026	Phase 2 10/2026-3/2027	Phase 3 10/2027-12/2027
$1,699,749	$9,654,752	$8,493,565	$1,181,484
Calendar Year			
2024	2025	2026	2027
$1,573,488	**$4,827,376 Fall**	$4,827,376 Spring $4,246,783 Fall **$9,074,160 Total**	$4,246,783 Spring $1,181,484 Fall **$5,428,268 Total**

Resolution from NMID Board of Directors

At the August 5, 2025, meeting of the NMID Board of Directors, NMID authorized and directed the Secretary/Treasurer to submit this application. The resolution is included on the following page.

Letters of Support

Nampa & Meridian Irrigation District

1503 First Street South
Nampa, ID 83651-4395

Website: nmid.org

Office: (208) 466-7861
Shop: (208) 466-0663

Nampa & Meridian Irrigation District
August 5, 2025 Resolution Authorizing and Approving
IWRB Regional Water Sustainability Project Priority List Request

IT IS HEREBY RESOLVED, during the August 5, 2025, meeting of the Board of Directors of the Nampa & Meridian Irrigation District (NMID), that the NMID Secretary/Treasurer is authorized and directed to submit to the Idaho Water Resource Board (IWRB) the Regional Water Sustainability Projects Priority List request to provide additional funding to replace the Boise River headworks and diversion structure for the Ridenbaugh Canal, the main canal in NMID's irrigation system delivering water to approximately 69,000 acres of land in Ada County and Canyon County, Idaho, as described in the request.

Attest:

Donald Barksdale
NMID President

July 18, 2025

To: Whom it May Concern

RE: 2025 Idaho Water Resource Board Aging Infrastructure Grant Application
Support letter for Nampa Meridian Irrigation District

Ada County Highway District is in support of Nampa & Meridian Irrigation District's (NMID) application of the Idaho Water Resources Board (IWRB) Aging Infrastructure Grant to aid in funding the Ridenbaugh Canal headworks modernization project which is just upstream of the Eckert Bridge on the Boise River.

ACHD has been actively working with NMID on this project as the Eckert Bridge emergency fix and permanent replacement has and is evolving. Some of the early money spent by NMID developed a model of the Boise River. ACHD was able to utilize this model at no cost for the bridge project which resulted in cost savings for County taxpayers.

The modernization of the Ridenbaugh headworks allows NMID to continue providing cost effective irrigation water across the valley which assists the valley's economy. ACHD appreciates NMID's collaboration and willingness work with other agencies for the better of Idaho citizens which is why we support that grant application.

Ricardo Calderon
ACHD Projects Supervisor
208-387-6364

IDAHO DEPARTMENT OF FISH AND GAME
SOUTHWEST REGION
15950 N. Gate Blvd.
Nampa, Idaho 83687

Brad Little / Governor
Jim Fredericks / Director

July 8, 2025

RE: 2025 Idaho Water Resource Board Aging Infrastructure Grant Application Support Letter for Nampa Meridian Irrigation District

To whom it may concern,

This letter serves to demonstrate the Idaho Department of Idaho Fish and Game's (IDFG) support for an application by the Nampa Meridian Irrigation District (NMID) for an Idaho Water Resources Board (IWRB) Aging Infrastructure Grant to supplement the Ridenbaugh Canal headworks modernization project just upstream of Eckert Bridge on the Boise River.

The IDFG mission is to preserve, protect, perpetuate, and manage Idaho's fish and wildlife resources for the public interest (Idaho Code § 36-103). IDFG has requirements related to fishways and screening of diverted waters for protection of fish in Idaho Code 36-906. Knowing this, NMID has coordinated with IDFG to refine their proposed actions to ensure compliance with Idaho requirements. NMID has been excellent at notifying and coordinating with IDFG as adjustments and changes to the plan have occurred.

The proposed improvements to the Ridenbaugh Canal headworks will improve NMID's ability to efficiently deliver irrigation water and it will increase protection of the Boise River fishery. The project will reduce maintenance, improve response time and debris management, and increase operational safety by replacing the current stop log diversion structure with a modern automated gate system. It will continue to provide seasonal fish passage, and it will virtually eliminate fish entrainment into the canal by installing an automated self-cleaning trash rack with small screen openings which will replace the existing stationary vertical trash rack bars. These improvements help ensure that fish will stay in the river, available for public use.

NMID's thoughtful approach and willingness to collaborate with state agencies demonstrates their desire to be good stewards of public resources. For these reasons, IDFG supports this application for grant funding from the IWRB. Please feel free to reach out directly with any questions or needs for additional information.

Sincerely,

Josh Royse
Southwest Regional Supervisor

JR/BF
e-file: S:\TECH ASSISTANCE\ADMIN\Support Letters\IDFG letter for NMID_IWRB Aging Infrastructure Grant app_FINAL_07082025

BOISE PROJECT BOARD OF CONTROL

(FORMERLY BOISE U.S. RECLAMATION PROJECT)

2465 OVERLAND ROAD
BOISE, IDAHO 83705-3155

TEL: (208) 344-1141
FAX: (208) 344-1437

July 3, 2025

To Whom It May Concern:

The Boise Board of Control fully supports Nampa & Meridian Irrigation District (NMID) in their efforts to modernize their Ridenbaugh Canal Headworks Structure. The Boise Project Board of Control is the operating agent for five irrigation districts: Boise-Kuna Irrigation District, Big Bend Irrigation District, Nampa & Meridian Irrigation District, New York Irrigation District, and Wilder Irrigation District. Its purpose is to manage the irrigation facilities and other works transferred by the United States Bureau of Reclamation to these five irrigation districts and to deliver water to their landowners. The New York Canal, managed by the Boise Project Board of Control, and the Ridenbaugh Canal, managed by NMID, are the largest suppliers of irrigation water across the Treasure Valley, efficiently and effectively supplying water to as many acres across the valley as possible.

Through this critical infrastructure investment and other investments being made by the Board of Control, these two entities can continue to partner to provide the broadest delivery to patrons across the valley for the next 100 years. Thus, continuing to provide economic value to the valley through farming, saving water supplies, managing flooding in the river, and protecting drinking water needed for the growing valley.

Sincerely,

Bob Carter

Project Manager

Boise Project – Board of Control

December 8, 2022

Sent via email to: Neeley.Miller@idwr.idaho.gov

Neeley Miller
Idaho Department of Water Resources
PO Box 83720
Boise, Idaho 83702

Re: Nampa & Meridian Irrigation District (NMID) Second Round Application for Aging Infrastructure Grant

Dear Neeley:

Please find enclosed NMID's second round Application for an Aging Infrastructure Grant ("AIG") to modernize the Ridenbaugh Canal diversion structure ("Ridenbaugh Project"). This Application has been prepared and is submitted in accordance with the Idaho Water Resource Board's (IWRB) Application Guidelines for the Aging Infrastructure Grant Funding Program and Aging Infrastructure Grant Criteria.

As explained in greater detail in the enclosed Application, the Ridenbaugh Project will: replace the check boards with pneumatic bladder dams; replace the 550' sediment control structure and catwalk; replace the weed rack, and install the necessary electrical, pneumatic, and mechanical systems to operate the automated diversion. The purposes and benefits of this project are fully explained in the enclosed Application.

In round one, IWRB approved an AIG for the Ridenbaugh Project in the amount of $1,820,048, which is approximately 19% of the $9,637,000 inflation-adjusted project cost estimate at the time NMID submitted the round one grant application on August 4, 2022.

Given ongoing inflation in labor and material prices, NMID asked Jacobs Engineering Group ("Jacobs") to update its December 1, 2021 project cost estimate, which was $8,445,000. The inflation-adjusted $9,637,000 cost estimate (for 2024 construction) in NMID's round one AIG Application assumed 4.5% inflation during the three-year project schedule. Jacobs updated, November 28, 2022 project cost estimate is $9,620,000 (in 2022 dollars), reflecting a ***13.9% increase*** from its December 2, 2021 cost estimate of $8,445,000. Jacobs original and updated cost estimates are included with the Application.

Jacobs increased cost estimate is based on data gathered from multiple national sources. Locally, NMID has seen more even dramatic increases in its input costs. Concrete costs, for example are currently up nearly 19% over a year ago, and will be 27% higher year-over-year by end of December. Given these trends, we are now assuming project cost inflation during the construction period of 14% in 2023, 13.3% in 2024, and 11% in 2025. As a result, the updated inflation-adjusted project cost is $13,388,370 for construction in 2025.

In addition to seeking partial funding from IWRB, on June 27, 2022, NMID applied for a federal FY 2023 WaterSMART Water and Energy Efficiency Grant ("WEEG") from the Bureau of Reclamation ("BOR") in the amount of $4,722,000 (49% of previously estimated project costs). A copy of NMID's WEEG Application for the Ridenbaugh Project is also enclosed. Sustainability is a key evaluation criterion in BOR's WEEG program. The water savings and sustainability benefits of the Ridenbaugh Project are discussed at pages 9-19 of NMID's WEEG application.

We anticipate BOR will announce FY 2023 WEEG awards by May of 2023, based on BOR's May 16, 2022 announcement of FY 2022 WEEG awards. A combination of state and federal grant funding is critically important to the financial feasibility of the Ridenbaugh Project.

Total project costs:	$13,388,370	
AIG round 1 award:	$ 1,820,048	13.6% of project cost
AIG round 2 request:	$ 1,866,116	13.9% of project cost
WEEG request:	$ 4,722,000	35.3% of project cost
NMID:	$ 4,980,205	37.2% of project cost

The total of the AIG round 1 award and the AIG round 2 request is $3,686,164, which is 27.5% of updated Ridenbaugh Project cost estimate of $13,388,370.

Project start and end dates: May 2023 and June 2026

Please contact me if you have questions or need further information.

Thank you for your consideration of this application.

Sincerely,

Michael Comeskey, Secretary/Treasurer
Nampa & Meridian Irrigation District

Ridenbaugh Canal Diversion Modernization

Idaho Water Resource Board

2022 Round Two Aging Infrastructure Grant Application

Nampa & Meridian Irrigation District

1503 First St. South

Nampa, ID 83651

Table of Contents

Project Background Information

Date: December 8, 2022

Applicant: Nampa & Meridian Irrigation District (NMID)

Project Title: Ridenbaugh Canal Diversion Modernization

Length of Time: 38 Months

Completion Date: June 2026

Round Two Funding Request: $1,866,116

IDWR District: District No. 2

Project Supporters: Water District 63, City of Boise, City of Nampa, City of Meridian, Boise River Flood Control District No. 10

Ridenbaugh Canal Diversion Modernization

The Ridenbaugh Canal is the second largest irrigation conveyance system in the Treasure Valley, diverting over 500 cfs from the Boise River to deliver water to over 46,300 acres located in Ada and Canyon Counties, including lands in or near the cities of Boise, Meridian, Kuna, Nampa, and Caldwell (see Figure 1).

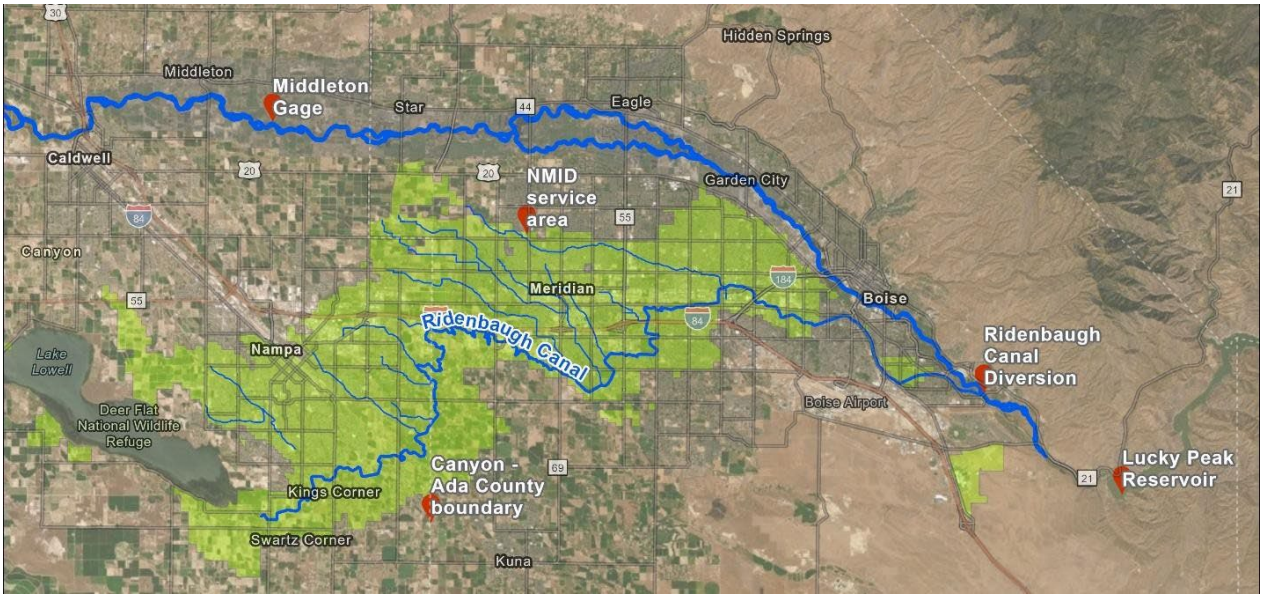


Figure 1 The Ridenbaugh Headworks is located at Boise River mile 61.2 in Boise, ID

The current diversion structure, constructed in the 1930s and depicted in Figure 2, checks the Boise River above Barber Park, just upstream from downtown Boise, to create the pool that feeds the Ridenbaugh Canal. The diversion is constructed of

concrete piers anchored in the riverbed, with slots for check boards to dam the river.

NMID staff adjust the diversion from a wooden walkway by manually placing and removing 20’ long wooden check boards in the slots. This operation is relatively slow, imprecise, and dangerous compared to modern water diversion systems and methods.

Figure 2 Current Ridenbaugh Diversion and Headworks

Figure 3 Photo taken on June 18, 2017. The Diversion structure has collected debris, which cannot be safely removed during flood conditions. The flood risk reduction benefits are the project are detailed in this proposal.

Sustaining water supplies and deliveries to support the rapidly changing land uses and water demand profiles in the Treasure Valley in the era of climate change, recurring drought, and prolonged extreme summer temperatures, requires the use of modern irrigation methods, equipment, and technology. Continuing to operate the 92-year-old Ridenbaugh Canal diversion structure by the manual installation of 20' wooden check boards will not meet the challenges that face NMID, Water District 63 or the communities that depend on the Boise River as the lifeblood of the Treasure Valley.

NMID plans to modernize the Ridenbaugh Canal diversion by: replacing the check boards with pneumatic bladder dams; replacing the 550' sediment control structure and catwalk; replacing the weed rack, and installing the necessary electrical, pneumatic, and mechanical systems to operate the automated diversion. As explained in greater detail throughout this proposal, modernizing and automating the Ridenbaugh Canal diversion will significantly improve the timing and precision of NMID's operation and adjustment of the diversion structure, to:

- more efficiently impound, divert and convey the quantity of water required by NMID landowners;
- eliminate the time, fuel consumption and safety risks associated with manual adjustment of the diversion by NMID operations staff;
- maintain a more consistent diversion pool level and reduce fluctuations in Boise River flows, and thereby;
    - reduce Boise River system operational losses and storage account reductions by up to 1,000 acre-ft annually;
    - reduce seepage loss from the diversion pool;
    - reduce water losses from flow disruptions caused by malfunctions of the upstream Barber Dam (currently the subject of a water delivery call and violation notices issued by the Idaho Department of Water Resources);
    - preserve storage held by Reclamation for streamflow maintenance and flow augmentation for ESA-listed salmon and steelhead;
    - improve instream aquatic habitat, aesthetics, and recreational uses;
    - enhance water right administration by the Boise River Watermaster;
    - reduce the risk of water delivery calls by downstream senior water right holders diverting from the Boise River below the Middleton Gage; and
    - reduce flood risk.

Project Sponsor Description

Nampa & Meridian Irrigation District (NMID) was formed in 1904 to acquire, improve, and operate the Ridenbaugh Canal system to deliver water to NMID lands. The primary revenue source for NMID operations is assessments of NMID lands. NMID is a large, diverse irrigation district, whose board of directors and staff operate and maintain extensive, intricate canal and drainage systems to deliver irrigation water and provide drainage for 40,867 tracts of land consisting of approximately 60,000 acres south of the Boise River in the heart of the Treasure Valley. The major components of NMID's Ridenbaugh Canal system and the land area served by NMID, are depicted in Figure 1. Rapidly changing land uses within NMID run the gamut, from traditional agriculture to Idaho's most populated urban settings. The water delivery benefits NMID provides to these lands are based on substantial, early priority natural flow rights in the Boise River, and storage rights in Arrowrock and Anderson Ranch Reservoirs.

Depending on their locations and development history, individual tracts of land in NMID are entitled to one or more of NMID's irrigation water and drainage benefits. NMID lands are categorized as "Ridenbaugh acres," "Project acres" and "Drainage acres" according to the water right and drainage benefits apportioned to them:

- over 20,000 "Ridenbaugh acres" that are entitled to NMID natural flow and storage rights delivered through the Ridenbaugh Canal system depicted in green in Figure 1;
- over 26,000 "Project acres" lying below the Ridenbaugh Canal system that are entitled to NMID storage rights conveyed from the Boise River by the New York Canal system[1] through feeder canals to the Ridenbaugh Canal system for delivery to the NMID Project acres;
- over 12,000 "Project acres" lying above the Ridenbaugh Canal system that are entitled to NMID storage rights delivered directly from the New York Canal system, and
- Over 59,000 "Drainage acres" that benefit from NMID's drainage system.

In addition to providing water to NMID lands, NMID uses the Ridenbaugh Canal System to deliver water to lands within the New York Irrigation District, Settlers Irrigation District, Boise Kuna Irrigation District, and Reclamation special contract lands.

[1] The New York Canal system is owned by the United States Bureau of Reclamation and operated as transferred works by NMID and four other irrigation districts comprising the Boise Project Board of Control.

Project Description

Project Location

The Ridenbaugh Canal Diversion is located in Ada County, Idaho within City of Boise, at Boise River Mile 61.2, which is 5.4 miles downstream of Lucky Peak Dam, 3.2 miles downstream of Diversion Dam, and 0.6 miles downstream of the Barber Dam. The project latitude is 43°33’56” N and longitude is 116°7’55” W. See Figure 4 for the project location map.

Flow in the Boise River is regulated by three federally-owned dams: Anderson Ranch Dam, Arrowrock Dam, and Lucky Peak Dam. These dams are operated to provide storage for water supply and flood mitigation for the Treasure Valley.

Technical Project Description

The Ridenbaugh Canal Diversion Modernization project (“Ridenbaugh Project”) will modernize the existing 92-year-old diversion structure with a new automated diversion structure, replace the 550’ sediment control structure and catwalk, replace the weed rack, and install the necessary electrical, pneumatic, and mechanical systems to operate the automated diversion. Two-stage temporary cofferdams will be constructed in the Boise River to dewater one side of the river and allow flow through the other side. The riverbed will be prepared, and new concrete piers will be constructed. The piers will have new walkways, safety railings, and anchor points for hoists or lifting equipment to reduce risk to NMID employees in operating the check boards.

NMID will install pneumatic bladder dams and new supporting structures to replace the existing river diversion structure. This project will also replace the 550’ sediment control structure and the weed rack. These were both constructed with the diversion and are at the end of their usable lives. Opportunities to install self-cleaning and fish exclusion features will be evaluated as part of this project. All the necessary electrical, pneumatic, and mechanical systems to operate the automated diversion will be included. The existing diversion is shown in Figure 2. A project layout map is shown in Figure 4 and the concept site plan is shown in Figure 5. A standard detail for the pneumatic bladder dam that would be installed is shown included in Figure 6. Figure 7 is a photo of a similar pneumatic diversion gate.

Figure 4 Project Layout Map

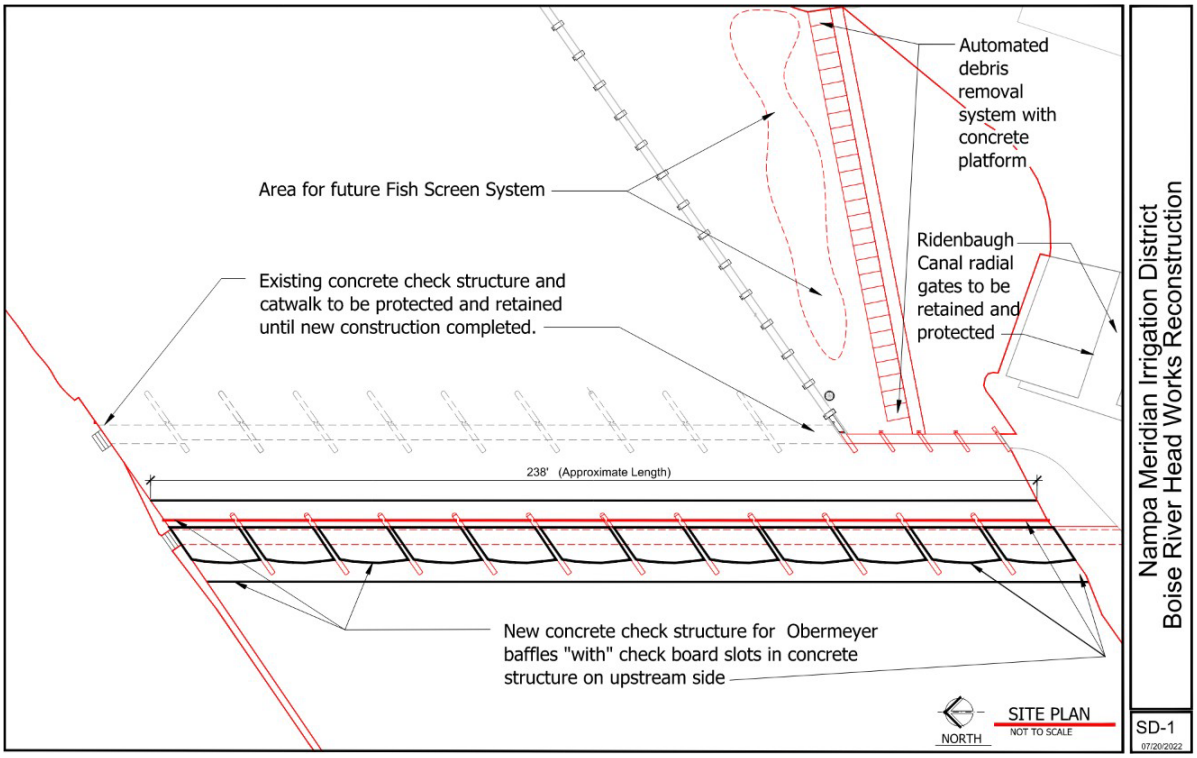


Figure 5 Concept Site Plan

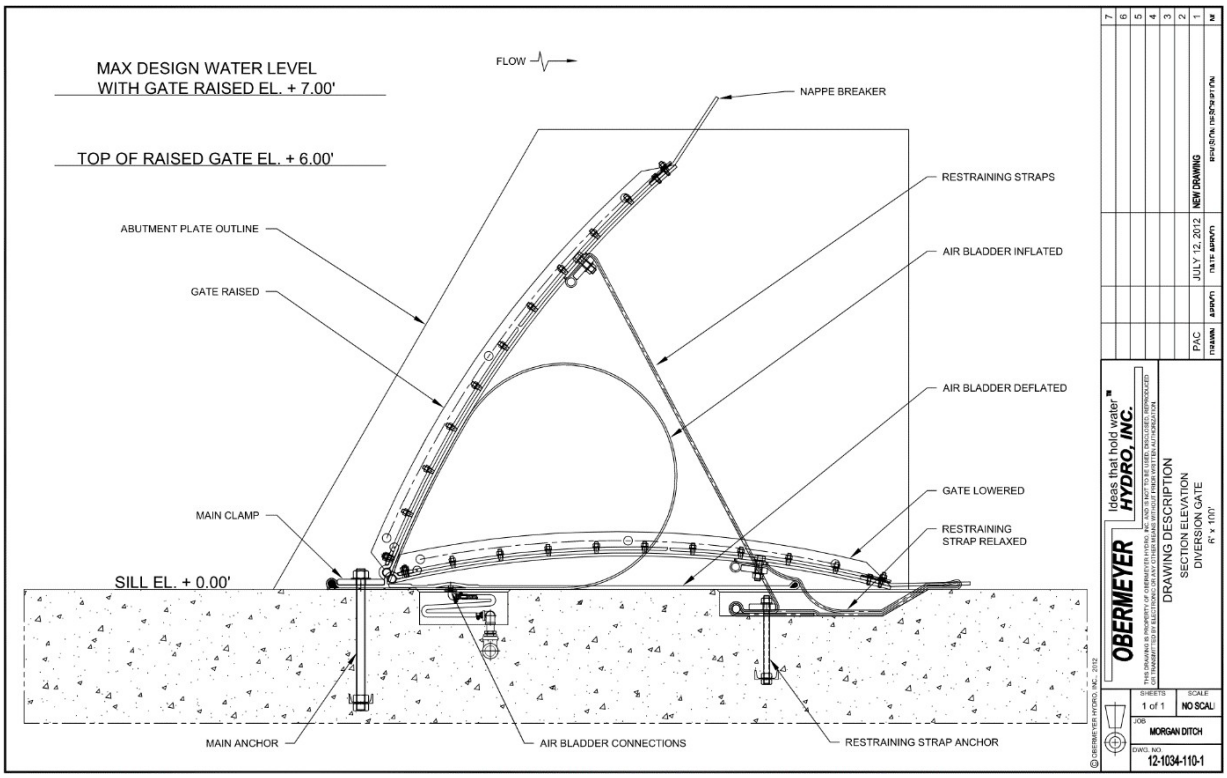


Figure 6 Standard Detail for Pneumatic Bladder Dam

Figure 7 Photo of a Similar Pneumatic Gate Diversion Dam

NMID owns the land beneath the Ridenbaugh Headworks and the eastern portion of Barber Park. Construction will not require the acquisition of additional land or easements.

The schedule for this project starts in May of 2023 and concludes in June of 2026. The schedule for the project and project planning materials are provided in **Attachment A**. The project will include the following elements:

- Site investigation
    - Topographic Survey
    - Geotechnical Investigation
- Engineering design and permitting
    - Concept Design/Value Engineering
    - Hydraulic Analysis
    - 30% Design, 60% Design, 90% Design
    - Final Design
    - Permitting
- Bidding and Construction
    - Bidding
    - Contractor Selection
    - Mobilization
    - Dewatering
    - Demolition
    - Earthwork
    - Site Improvements
    - Concrete
    - Dam installation
    - Demobilization
- Facility Start up

NMID will procure professional services for survey, geotechnical investigation, engineering design, and construction as part of this project. The diversion will be constructed between October of 2025 and March of 2026, with the facility being fully operational for the 2026 irrigation season.

Project Primary Goals and Benefits

By modernizing and automating the Ridenbaugh Canal Diversion, NMID will significantly improve the timing and precision of the diversion operation to accomplish four primary goals:

1. Replace aging infrastructure, constructed in the 1930s, with a modern, reliable diversion to meet the future needs and demands of NMID. The existing assets have been well-maintained, but the structure is at the end of its usable life. Replacing the structure reduces the risk of loss of service of the Ridenbaugh Canal.
2. More efficiently impound, divert and convey the quantity of water required by NMID landowners and others who rely on the Ridenbaugh Canal.
3. Eliminate the time, fuel consumption and safety risks associated with manual adjustment of the diversion by NMID operations staff.
4. Maintain a more consistent diversion pool level and reduce fluctuations in Boise River flows to reduce Boise River operational and seepage losses, conserving Boise River System storage.

There are additional public benefits which are discussed in the “Public Interest and Benefits of Project” Section.

Urgency of Replacing the Existing Diversion

Sustaining water supplies and deliveries to support the rapidly changing land uses and water demand profiles in the Treasure Valley in the era of climate change, recurring drought and prolonged extreme summer temperatures requires the use of modern irrigation methods, equipment and technology. NMID is pursuing this project replace the aging Ridenbaugh Canal diversion and improve reliable service to lands irrigated from the Ridenbaugh Canal. The Ridenbaugh Canal diversion structure is at the end of its useful life. Constructed in 1930 and rehabilitated several times since then, the diversion structure, trash rack, and sediment control structure need to be replaced to continue to provide a reliable source of irrigation water to NMID lands. Continuing to operate the 92-year-old Ridenbaugh Canal diversion structure by the manual installation of 20’ wooden check boards will not meet the challenges that face NMID, Water District 63 or the communities that depend on the Boise River as the lifeblood of the Treasure Valley.

Improving Diversion Operations

The existing Ridenbaugh Canal Diversion structure is operated manually with a series of check boards inserted into piers in the Boise River. Every adjustment of the diversion requires mobilization of NMID staff to adjust the structure. In a typical year, staff will need to adjust the structure 12-14 times. Each mobilization requires a minimum 6 staff (three trucks) to make a 48-mile round trip from the NMID office to the diversion and back. Adjusting the structure currently requires approximately 300 man-

hours and 1,700 to 2,000 vehicle-miles annually. Assuming each truck gets roughly 15 miles per gallon, this equates to 115-135 gallons of gasoline annually. High flow years require several additional trips to mobilize staff to clear debris blockage from the dam. Using an automated gate, NMID will not have to mobilize staff to adjust the diversion, eliminating staff time and annual vehicle miles associated with gate operation entirely. Additionally, the gates and improved trash rack will require significantly less effort to clear during high flow years, likely yielding a similar reduction. NMID staff typically work 50-to 60- hour weeks during the irrigation season. By reducing the staff needed to operate the gate, staff can attend to other operational issues facing the district, such as those resulting from rapid urbanization within portions of the NMID. This project allows NMID to adapt to meet its most pressing needs.

Reduced Water Loss and Improved Water Efficiency

Water District 63 has been tracking operational losses throughout the Boise River system in efforts to reduce impact to water supply and has identified the lack of automation at major diversion as a key source of these inefficiencies. The lack of real-time flow monitoring and control of the Ridenbaugh Canal diversion contributes to significant operational loss in the Boise River System annually. Automated control of the Ridenbaugh Diversion Dam will reduce operational inefficiency in the Boise River by up to an estimated 1,000 acre-ft every year. Additionally, losses due to seepage and over delivery could be reduced by an estimated 12-15 acre-feet annually. The water savings calculations are described below and are provided in **Attachment B**.

Operational Losses

Water delivery in the Boise River is managed by Water District 63 (WD63). Over the last ten years, WD63 has experienced between 3,000 and 10,000 acre-feet of operational loss annually, as shown in Figure 8. These operational losses, measured as cumulative flow exceeding the target flowrate of the Boise River at Middleton stream gage, represents excess diversions and releases from Lucky Peak that result from inefficient diversion operations. Flow in the Boise River at Middleton above the target flowrate has no known benefit. Recent discussions with WD63 indicate that with the existing diversion operations, between 3,000 and 5,000 acre-feet of operational loss is expected every year, and up to 10,000 acre-feet is expected regularly. Addressing operational inefficiencies of Boise River diversions would greatly reduce operational loss.

Each year, this operational loss is pro-rated and charged to all storage account holders in the USBR's Boise River Storage System. The Ridenbaugh Canal Diversion is the second largest diversion on the Boise River, and accounts for roughly 10% of Boise River System diversions during the irrigation season. The Ridenbaugh Canal Diversion, operated through a series of manually adjusted 20-ft check board structures contributes to the operational loss measured at the Middleton gage. The operational loss associated with the Ridenbaugh Canal Diversion is estimated to be a minimum of 300-

500 acre-ft and as much as 1,000 acre-ft annually, by prorating the total operational loss based on the Ridenbaugh Canal's typical diversions (10% of total Boise River diversions). NMID and the Boise River Watermaster (WD 63) believe this annual operational loss can be greatly reduced by incorporating automated control and flow measurement technology in the Ridenbaugh Canal Diversion. This reduction benefits NMID and all storage accounts in the Boise River Storage System to which operational losses are charged.

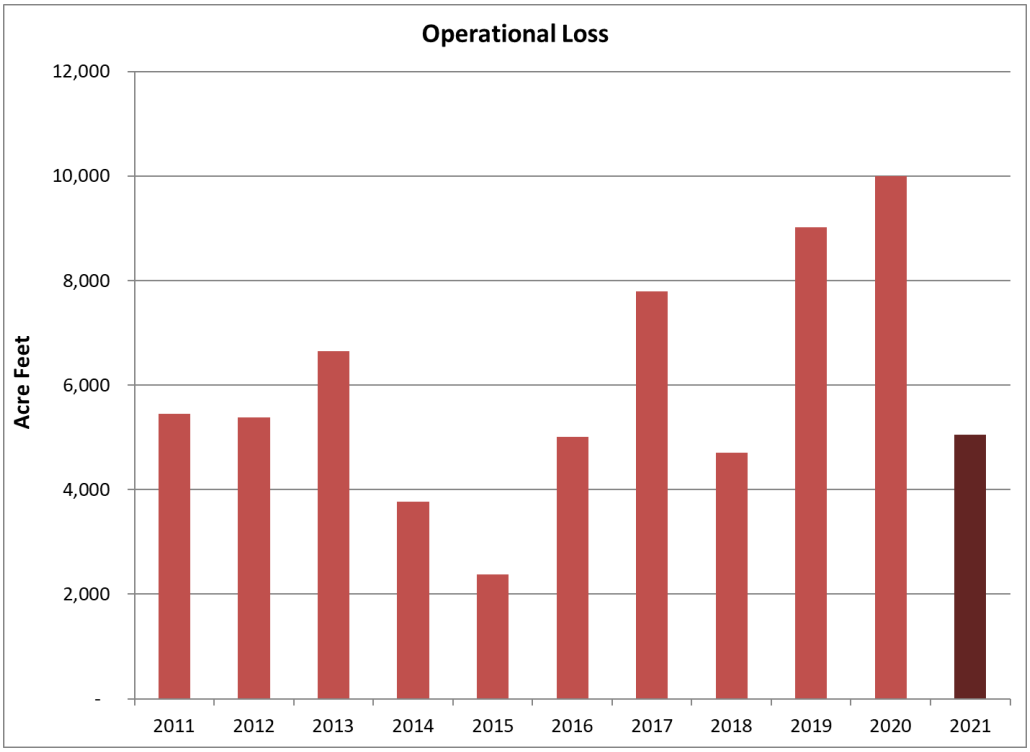


Figure 8 Operational Loss, Calculated as flow in excess of target flows at Boise River at Middleton

Seepage Losses

NMID has been operating the diversion pool approximately 0.3 feet higher than it would like to account for changes in river flow and response time to adjust the diversion manually. This increase in water surface elevation increases the wetted area by 0.13 acres. Assuming a standard maximum infiltration rate of 0.2 ft/day, this higher pool elevation can lead to annual seepage losses in the pool of 10 acre-ft/year. Therefore, lowering the pool in the area by 0.3 feet will reduce seepage losses in the pool by up to 10 acre-ft/year.

Over Delivery During Barber Dam Interruptions

The Ridenbaugh Canal Diversion also experiences losses in the form of over-deliveries following flow disruptions at Barber Dam. Barber Dam, located 0.6 miles upstream of the Ridenbaugh Canal Diversion, has experienced operational malfunctions, causing

complete loss of flow in the Boise River until water overtops the Barber Dam Spillway. During periods of diminished flow in the Boise River, the headgates at the Ridenbaugh Canal Diversion are opened to divert existing flow in an attempt to meet delivery requirements. When flow through Barber Dam returns, these gates need to be adjusted back to normal level. This process can take 30-60 minutes, and during this time the canal can be diverting up to 60 cfs more than intended. Based on the typical time and over- delivery during flow disruptions, each disruption can result in between 2 and 5 acre-ft of loss. Between 2017 and 2020, there were 12 disruption events. These disruptions are not regular occurrences and are hard to annualize moving forward. Automating the diversion pool control will greatly reduce these over delivery losses.

Summary of Water Savings

The water savings calculations are described above and are provided in **Attachment B**. The Idaho Department of Water Resources provided calculations of operation loss, which can be made available upon request.

In summary, the main water savings from this project occur from better management of the Ridenbaugh diversion pool, which will reduce the operational inefficiencies in managing a manually controlled diversion structure from an office that is over twenty miles away. These inefficiencies add up over the course of the water year. Other smaller water savings are expected due to local reduction in infiltration loss and improved response time to upstream disruptions of the Barber Dam.

Public Interest and Benefits of Project

Economic Values Supported by the Ridenbaugh Canal

The Ridenbaugh Canal is the second largest irrigation conveyance system in the Treasure Valley, diverting over 500 cfs from the Boise River to deliver water to over 46,300 Ridenbaugh and Project acres located in Ada and Canyon Counties, including lands in or near the cities of Boise, Meridian, Kuna, Nampa and Caldwell. NMID serves diverse agricultural, urban, suburban, commercial, residential, and industrial land uses. Increasing the reliability and efficiency of NMID’s diversion as described throughout this proposal will benefit all of these land uses.

Additional Uses and Benefits

Water Supply Stability and Sustainability

The primary purpose of this project is to increase the efficiency of the Ridenbaugh Canal Diversion. By improving the timing and precision of NMID’s operation and adjustments of the Ridenbaugh Canal Diversion, this project will increase the efficiency of NMID’s diversion and delivery of water to its landowners, reduce Boise River system operational losses and storage account reductions by up to 1,000 acre-ft annually, reduce seepage loss from the Ridenbaugh Canal diversion pool, and reduce water

losses from flow disruptions caused by malfunctions of the upstream Barber Dam. These efficiency improvements and water savings will help NMID support the rapidly changing land uses and water demands of its landowners.

Water Related Conflicts - Impacts from Barber Dam Unauthorized Diversions
Barber Dam malfunctions have caused 12 major flow interruptions to the Ridenbaugh Canal between 2017-2020 that have prevented NMID from diverting the quantity of water it is entitled to and requires to deliver water to NMID landowners. During a flow disruption, significant emergency response by NMID staff is required to adjust the Ridenbaugh Canal Diversion to continue making water deliveries. The unauthorized Barber Dam diversions are the subject of a water delivery call and contested case before the Idaho Department of Water Resources.

Incorporating automated control of the Ridenbaugh Diversion will enable NMID to respond to and mitigate the Barber Dam flow interruptions more quickly as it will not require travel, emergency diversion control, and mobilizing NMID staff in potentially dangerous situations.

Water District 63 Water Rights Administration
The WD63 Watermaster has warned NMID and other Boise River water users about the possibility of water delivery calls by senior water right owners that divert water below the Middleton gage. Improving the efficiency of upstream diversions such as the Ridenbaugh Canal diversion to reduce diversion heights and volumes is likely to reduce periodic downstream water shortages that could result in such water delivery calls.

Drought Resiliency
Modernization of the Ridenbaugh Canal diversion will help ameliorate the impacts of water shortages resulting from recurring droughts, and the impacts of climate change on the timing and quantity of snowfall, snowpack, water supply and extreme summertime temperatures.

This project helps address the following climate change challenges identified by the City of Boise's Climate Adaptation Assessment (https://www.cityofboise.org/media/9641/boise-climate_factsheet.pdf):

- HEAVY PRECIPITATION DAYS: The ability to operate the diversion pool automatically will allow the diversion to be adjusted during and shortly after heavy precipitation events, reducing flood risks at and upstream of the facility.
- IRRIGATION DEMANDS: By reducing operational losses, more water will be left in the Boise River Storage system to meet growing demands. Also, replacing the dam will provide reliable water diversion for the life of the project.
- DROUGHT FREQUENCY: By reducing operational losses, more water will be left in the Boise River Storage system to increase resiliency during droughts.

- SEASONAL STREAM FLOWS: NMID will be able to adapt to shifts in seasonable streamflow more readily with the automated structure.
- FLOODING DANGER: The ability to operate the diversion pool automatically will allow the diversion to be adjusted during and shortly after a heavy precipitation event, reducing flood risks at and upstream of the facility.
- WATER QUALITY: NMID can evaluate alternative pool operations to address ongoing and emerging water quality and habitat concerns.

Public Safety- Reducing Risks to NMID Workers and Boise River Recreationists
Another primary purpose of this project is to reduce the safety risks associated with the existing Ridenbaugh Canal Diversion.

As described previously, operation of the existing diversion requires manual installation, removal, and adjustment of groups of 20-foot long check boards. Installing each board requires teams of three staff members to access the structure using a wooden access platform and insert the boards forcefully by hand and with hand tools. Installing and using an automated pneumatic weir or similar structure will significantly improve worker safety conditions by avoiding the need to regularly have staff access the dam and install check boards to adjust the structure. Other irrigation districts in the region have had near-miss events related to operating similar structures. Replacing the existing structure with an automated structure is an important part of NMID's plan to continuously improve worker safety.

The Boise River is used by recreationists including floaters, kayakers, and anglers. The existing structure is unsafe at water level for a recreationist. Replacing the structure will improve safety for in the event of an encounter with the diversion by creating safer flow conditions and improving warning signage at the diversion.

Fish and Wildlife
Modernizing the Ridenbaugh Canal Diversion to improve the timing and precision of NMID's operation and adjustments of the Ridenbaugh Canal Diversion is expected to improve aquatic habitat, aesthetics and recreational use of the Boise River in the diversion pool and downstream from the diversion by reducing instream flow fluctuations. Automated diversion control will allow NMID to operate this pool elevation lower than it currently does. This will reduce the depth and increase the channel complexity in this reach. The City of Boise is completing habitat modeling of the Boise River. Coordination with the City of Boise could assist NMID in determining the degree to which revised operations improve upstream habitat conditions. Additionally, there is potential to improve passage at the diversion, depending on the configuration of Obermeyer gates and the operation of the gates. This is not a primary objective of the project, but opportunities for these benefits will be considered when establishing gate operations and configuration during design

This project is expected to help preserve storage held by Reclamation for streamflow maintenance and flow augmentation for ESA-listed salmon and steelhead, providing reclamation additional water and flexibility in releasing water for these purposes.

Hydropower

Installation of hydropower generating facilities is not planned as part of this project. However, the associated facility upgrades are necessary to allow for a potential future low-head hydropower project at this location

Other Benefits

Flood Risk Reduction

Replacing the existing diversion with automated gates will allow for better response and management of flow conditions in the event of flood conditions. The existing diversion can become inaccessible during high flows and flood conditions. For example, during the 2017 flood, the diversion structure was overtopped and could not be adjusted for approximately 4 months. During this time, the structure accumulated sediment and debris. Following the event, NMID staff spent over one week cutting trees and removing debris from the dam. The Obermeyer gate can be quickly lowered during high flow conditions to reduce flood risks and impacts, and limit excess flow diverted into the Ridenbaugh Canal. See **Letters of Support** for Boise River Flood Control District No 10's support letter.

Figure 9 and Figure 10 are photos taken during the months of May and June of 2017 while the Boise River was experiencing flood control releases from Lucky Peak Dam. As flow in the river receded, NMID employees had to work from the walkway over check structure while it was still wet and covered in debris. This hazardous condition for NMID staff should be avoided if possible. Knowing that similar flood releases will happen in the future, NMID desires to build a new structure that can be adjust the diversion pool with less manual labor and pass debris during these events. Currently, the structure cannot be safely accessed and adjusted during a flood. A pneumatic bladder dam could be lowered during flood events to pass debris. As flows recede, the dam could be raised to maintain the diversion pool elevation without having staff on the dam.

Figure 9 Photo taken on May 18, 2017, at the Ridenbaugh Diversion. The Structure is completely inundated and cannot be accessed or adjusted safely

Figure 10 Photo taken on June 18, 2017. The Diversion structure has collected debris, which cannot be removed safely during flood conditions.

Energy Sustainability and Air Quality

The automated diversion will require electricity to operate the compressors which automate the gates. Power to the diversion will be provided by Idaho Power Company. Currently, most of Idaho Power Company's energy is both clean and renewable. Idaho Power Company plans to end all coal plants by 2028 and achieve a 100% clean energy portfolio by 2045. Therefore, the additional energy required to operate this system will be mostly clean and renewable. By 2045, greenhouse gas emissions associated with the operation of these gates are expected to be reduced entirely.

By reducing vehicle emissions, this project will reduce the air pollution contributed from NMID associated with operating the pneumatic gates. Irrigation gate operations are most critical in the summertime, when unhealthy air quality is most likely to occur due to the combination of heat, wildfire smoke, industrial emissions, and vehicle emissions. Although the relative impact of these trips may be minor, the reductions are occurring at the most critical time to address air quality.

Project Personnel

NMID Personnel

Nampa & Meridian Irrigation District's Board of Directors has three members, elected to represent landowners in the Boise, Meridian, and Nampa precincts.

Greg Curtis, Water Superintendent, leads the District's Operations and Maintenance Division. Curtis's 26 years of tenure with the District make him an invaluable asset to any irrigation project and ensure that the project will effectively integrate with the Ridenbaugh System.

The 35 O&M Division employees operate and maintain the District's 500 miles of canals, laterals, and drains. This includes management, office support, ditch riders, pressurized irrigation operators, equipment operators and support staff. The district owns a large inventory of equipment including excavators, caterpillars, trucks, and other heavy equipment to outfit its staff. NMID is prepared to use its personnel and equipment to assist in the project by whatever means possible.

Michael Comeskey, Secretary/Treasurer, leads the District's business operations. Prior to joining NMID, Comeskey was Boise Public Works' first Capital Improvement Program Manager, where he led the development of the capital improvement plan for $3 billion in infrastructure projects, started the department's asset management program, and was the program manager for the wastewater utility's 30-year strategic plan. He has extensive education and training in project management and program management, infrastructure finance, strategic planning, design thinking and innovation, and organizational leadership. Comeskey has a B.S. in Biology from Washington State

University and is a graduate and alumni board member of Boise State University's nationally-recognized Executive MBA program.

The District's business team is made up of 14 professionals in accounting, finance, HR, customer service, information technology (IT), geographic information systems (GIS), and land and water records. NMID recently created a Project Assistant position to provide administrative support for large projects. The Project Assistant will coordinate invoicing, scheduling, and progress reporting for NMID in coordination with the project team.

Comeskey will serve as project manager for NMID and will coordinate the District's efforts with the engineering and contracting teams. The District is working on increasing the administrative and managerial capacity of its business operations to permit Comeskey sufficient time to lead the project through planning, programming, design, and construction. During construction, which will happen between irrigation seasons, Curtis will be available onsite to support decisions that arise due to site conditions.

Professional Services

NMID will procure professional services for survey, geotechnical investigation, engineering design, and construction as part of this project. NMID will evaluate alternative construction delivery methods to deliver the project, anticipating the need for very close coordination between the general contractor, engineering team, and District leadership to effectively manage a challenging construction environment and timeline. The diversion will be constructed between October 2025 and May 2026, with the facility being fully operational for the 2026 irrigation season.

Cost Estimate and Budget

The project cost estimate in NMID's Round 1 Aging Infrastructure Grant ("AIG") Application was based on the December 1, 2021 Level 4/5 Preliminary Cost Estimate prepared by Jacobs Engineering Group ("Jacobs"). Jacobs' 2021 project estimate was $8,445,000. The inflation-adjusted $9,637,000 cost estimate (for construction in 2024) in NMID's Round 1 AIG Application assumed 4.5% inflation during the three-year project schedule.

Given ongoing inflation in labor and material prices, NMID asked Jacobs to update its December 1, 2021 project cost estimate. Jacobs updated, November 28, 2022 project cost estimate is $9,620,000 in 2022 dollars, reflecting a ***13.9% increase*** from its December 2, 2021 cost estimate of $8,445,000. Jacobs preliminary and updated cost estimates are included in **Attachment C**.

Jacobs' increased cost estimate is based on data gathered from multiple national sources. Locally, NMID has seen even more dramatic increases in its input costs. Concrete costs, for example are currently up nearly 19% over a year ago, and will be 27% higher year-over-year by end of December. Given these trends, we are now assuming project cost inflation during the construction period of 14% in 2023, 13.3% in 2024, and 11% in 2025. This prolonged period of cost inflation is projected for the large number of newly-funded infrastructure projects, especially within Idaho.[2] As a result, the updated inflation-adjusted project cost is $13,388,370.

[2] "*The mountain division has experienced the highest levels of inflation. Idaho may be experiencing the highest rates of inflation in the country. If Idaho's economy remains strong, even while the rest of the country slows down, inflation could well remain higher in Idaho for longer*." – Idaho Economic Forecast, State of Idaho Division of Financial Management, October 2022, Volume XIV, No. 4

Project Implementation Schedule

Implementation of the Ridenbaugh Project is dependent upon receipt of adequate AIG and federal funding. NMID's current project schedule is premised upon the receipt of a federal FY 2023 WaterSMART Water and Energy Efficiency Grant ("WEEG") from the Bureau of Reclamation ("BOR") in the amount of $4,722,000. A copy of NMID's WEEG Application for the Ridenbaugh Project is included in **Attachment A**. We anticipate that BOR will announce FY 2023 WEEG awards by May of 2023, based on BOR's May 16, 2022 announcement of FY 2022 WEEG awards. Assuming NMID receives the requested AIG and WEEG grants, project implementation is scheduled to begin in May of 2023, and be completed by June of 2026 as shown in the detailed project schedule included in **Attachment A**.

TASK NUMBER	*TASK*	*START DATE*	*END DATE*
1	*Administration and Procurement*	*5/2023*	*10/2023*
2	*Surveying and Geotech*	*11/2023*	*4/2024*
3	*Engineering Design*	*2/2024*	*4/2025*
4	*Permitting*	*5/2024*	*4/2025*
5	*Bidding*	*6/2025*	*8/2025*
6	*Construction*	*9/2025*	*5/2026*

Table 1 Major Project Tasks and Milestones

Financial Feasibility Analysis

The $13,388,370 budget for the Ridenbaugh Project is included in **Attachment A**. Project implementation is based on funding from the following sources:

AIG Round 1 award:	$ 1,820,048	13.6% of project cost
AIG Round 2 request:	$ 1,866,116	13.9% of project cost
WEEG request:	$ 4,722,000	35.3% of project cost
NMID:	$ 4,980,205	37.2% of project cost

The total of the AIG Round 1 award and the AIG Round 2 request is $3,686,164, which is 27.5% of updated Ridenbaugh Project cost estimate of $13,388,370.

NMID plans to fund its portion of the project cost using a combination of capital reserve funds and revenue from assessments.

Resolution from NMID Board of Directors

At the November 21, 2022 meeting of the NMID Board of Directors, NMID authorized and directed the Secretary/Treasurer to submit this application. The resolution is included on the following page.

ORGANIZED 1904

Nampa & Meridian Irrigation District

1503 FIRST STREET SOUTH
FAX #208-463-0092

NAMPA, IDAHO 83651-4395
nmid.org

OFFICE: Nampa 208-466-7861
SHOP: Nampa 208-466-0663

Nampa & Meridian Irrigation District
November 21, 2022 Resolution Authorizing and Approving
IWRB Aging Infrastructure Grant Application

IT IS HEREBY RESOLVED, during the November 21, 2022 meeting of the Board of Directors of the Nampa & Meridian Irrigation District (NMID), that the NMID Secretary/Treasurer is authorized and directed to submit to the Idaho Water Resource Board (IWRB) the round two Aging Infrastructure Grant application to provide additional funding to replace the Boise River headworks and diversion structure for the Ridenbaugh Canal, the main canal in NMID's irrigation system delivering water to approximately 69,000 acres land in Ada County and Canyon County, Idaho, as described in the application.

Attest:

Donald Barksdale
NMID President

APPROXIMATE IRRIGABLE ACRES
RIVER FLOW RIGHTS - 23,000
BOISE PROJECT RIGHTS - 40,000

Letters of Support

Letters of support for the Ridenbaugh Canal diversion replacement project from the Boise River Watermaster (Water District 63), Boise River Flood Control District No. 10, the City of Boise, the City of Meridian and the City of Nampa are included in the following section. NMID collaborates in Boise River water supply and water rights management through Water District 63. NMID collaborates in Boise River flood management with Flood Control District No. 10 ("FCD 10"). As discussed previously, NMID collaborates in Lower Boise River watershed water quality management through the Lower Boise Watershed Council.

This project is supported by Water District 63 to improve Boise River flow management, reduce operational loss, and set an influential example for similar future improvements to other Boise River diversion structures. Similarly, this project is supported by FCD 10 to demonstrate the flood risk reduction benefits of automated diversion structures. The cities' support letters show their interests in this project and the ongoing collaboration between NMID and the cities within NMID's service area.

STATE OF IDAHO
WATER DISTRICT No. 63
P.O. BOX 767
STAR, IDAHO 83669-0767
(208) 908-5482

21 July 2022

To Whom It May Concern,

Water District 63 fully supports Nampa & Meridian Irrigation District (NMID) in their efforts to reconstruct the headworks of the Ridenbaugh Canal. The Ridenbaugh Canal diversion is the second largest on the Boise River. Improvements to the diversion and headworks have the potential to improve river operations for all users of the river. Rebuilding and modernizing the Ridenbaugh Headworks will benefit all spaceholders on the Boise River system by reducing: operational losses, bank storage, and evaporative losses. In addition, a modern, automated diversion with a more modern, reactive, and efficient check structure will reduce the impacts to all users from upstream flow disruptions caused by Barber Dam hydroelectric facilities. Water District 63 is planning an automation project to show that reducing the fluctuation at the Middleton gauge could save spaceholders 3,000 acre feet (af) to 5,000 af every irrigation season. The Middleton gauge daily data show that, on average, the river swings about 40 cubic feet per second (cfs). Approximately 20 cfs of this swing comes from the discharge of Boise's wastewater treatment facilities. Eliminating 10-20 cfs of the remaining variability could save 600 af to 1200 af per month (see Figure 1) by releasing less water to stabilize the flow at the Middleton gauge.

NMID's planned project is complementary to Water District 63's planned project to install automation and measurement upgrades on the Boise River. The Ridenbaugh Canal head gates have automation and are not included in Water District 63's project. I believe these projects would help reduce fluctuations in the river.

Thank you for your consideration of this project.

Sincerely,

Mike Meyers
Watermaster

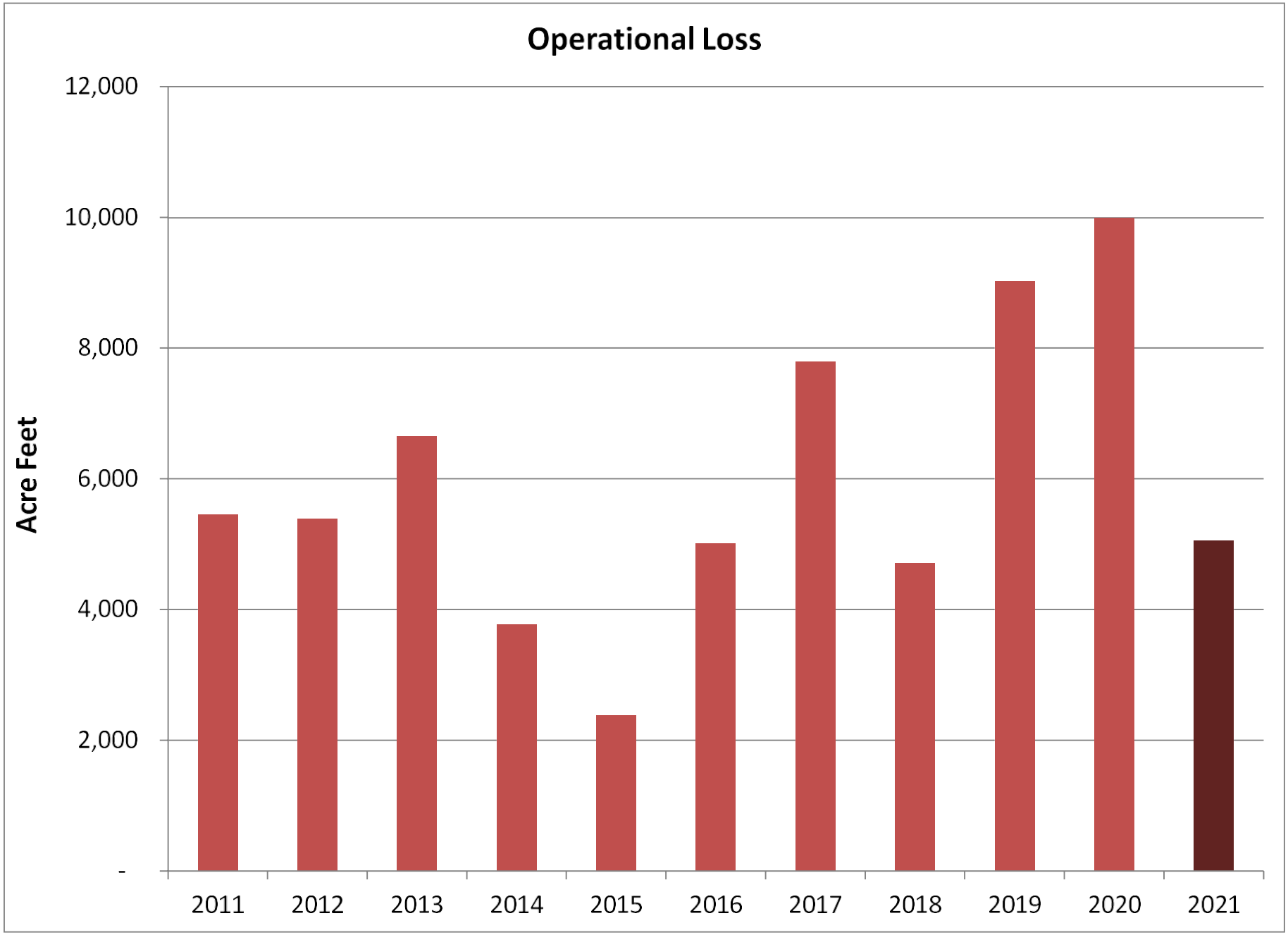


Figure 11 IDWR Calculation of Operational Loss based on Boise River Flows at Middleton, ID

July 20, 2022

To Whom It May Concern,

The City of Boise (Boise) fully supports Nampa & Meridian Irrigation District (NMID) in their efforts to reconstruct the headworks of the Ridenbaugh Canal. NMID is one of the largest irrigation water providers to Boise.

Residents of Boise depend on surface water deliveries for irrigation of gardens, lawns, and landscaping. Using surface water for irrigation reduces demand on the aquifer and helps ensure the sustainability of our drinking water supply. We believe the Ridenbaugh Canal and NMID's operations are critical to maintaining Boise's use of surface water for irrigation.

The additional benefits of rebuilding the Ridenbaugh headworks also align with Boise's values. A new, automated diversion structure mitigates the risk of flooding and impacts to recreationalists along the Greenbelt and Boise River. We also recognize the potential for habitat improvements for fish and water savings from more precise management of the Ridenbaugh headworks diversion pool.

Thank you for your consideration of this project.

Sincerely,

John Roldan, P.E.
Strategic Water Resources Manager

DEBBIE KLING
MAYOR

NAMPA CITY HALL
411 3RD STREET SOUTH
NAMPA, ID 83651
(208) 468-5401
MAYOR@CITYOFNAMPA.US

OFFICE OF THE MAYOR

July 21st, 2022

To Whom It May Concern:

The City of Nampa fully supports Nampa & Meridian Irrigation District (NMID) in their efforts to reconstruct the headworks of the Ridenbaugh Canal. The Nampa Meridian Irrigation District is the largest supplier of irrigation water in our city and our residents of Nampa depend on the surface water they supply for watering our local farms, lawns, and gardens.

Nampa's goal is to ensure the sustainability of our drinking water supplies by reducing demand on the aquafer. Additionally, a new automated diversion structure will help mitigate the risks of flooding, insure adequate deliveries, and support our conservation of our precious water. The Ridenbaugh Canal and NMID's operations are critical to maintaining Nampa's use of surface water for irrigation.

The benefit of the reconstruction of the headworks of the Ridenbaugh canal aligns with Nampa's values and goals, as established though our Drought Task Force. We fully support the efforts of the Nampa Meridian Irrigation District as they pursue the reconstruction of the headworks of the Ridenbaugh Canal.

Sincerely,
Debbie Kling
Mayor

July 21, 2022

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
P.O Box 25007, MS84-27133
Denver, CO 80225

RE: Nampa & Meridian Irrigation District (NMID) Fiscal Year 2023 WaterSMART Grant

To Whom it Concerns,

Please accept this letter acknowledging the City of Meridian's full support for NMID's efforts to reconstruct the headworks of the Ridenbaugh Canal. NMID is the largest supplier of irrigation water in our city as well other areas of the Treasure Valley, and the Ridenbaugh Canal serves a vital role in maintaining Meridian's vitality and economic health.

Residents of Meridian depend on surface water supplied from NMID for watering our local farms, lawns, landscaping and gardens. Using this resource reduces the demand on local aquafers and helps ensure the sustainability of our drinking water supplies. The Ridenbaugh Canal and NMID's operations are critical to maintaining Meridian's use of surface water for irrigation purposes.

A new, automated diversion structure mitigates the risks of flooding, insures adequate deliveries, and conserves the precious resource of water. For these reasons, we support NMID's application for the FY2023 WaterSMART grant cycle.

Sincerely,

Robert E. Simison
Mayor

Cc: Greg Curtis, Superintendent, Nampa & Meridian Irrigation District
Warren Stewart, City Engineer, City of Meridian

BOISE RIVER FLOOD CONTROL DISTRICT #10

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
P.O Box 25007, MS84-27133
Denver, CO 80225

RE: Nampa & Meridian Irrigation District's (NMID) Fiscal Year 2023 WaterSMART Grant Application (Funding Opportunity No. R23AS00008)

To Whom it Concerns:

I'm writing as Manager of Boise River Flood Control District No. 10 (FCD 10) to express our support for Nampa & Meridian Irrigation District's (NMID) Fiscal Year 2023 WaterSMART Grant Application (Funding Opportunity No. R23AS00008) for funding to replace the Ridenbaugh Canal diversion, including the installation of Obermeyer gates. During its July 21, 2022 meeting, the FCD 10 Board of Directors voted unanimously to support this NMID project.

FCD 10's boundaries are shown in the attached map in relation to the Ridenbaugh Canal diversion from the Boise River and the NMID service area. Within its boundaries, FCD 10 conducts operations and implements projects to reduce flood risk, and respond to and recover from flood events. High Boise River flows affect and are affected by river diversions such as the Ridenbaugh Canal. Diversion improvement projects such as the one proposed by NMID have the potential to significantly reduce flood risk in the Boise River floodway. FCD 10 particularly supports the installation and use automated, Obermeyer gates such as those proposed by NMID that can be adjusted in high flow conditions to reduce flood risk.

Sincerely,

Mike Dimmick
District Manager, FCD 10

Cc: Greg Curtis, Superintendent, Nampa & Meridian Irrigation District

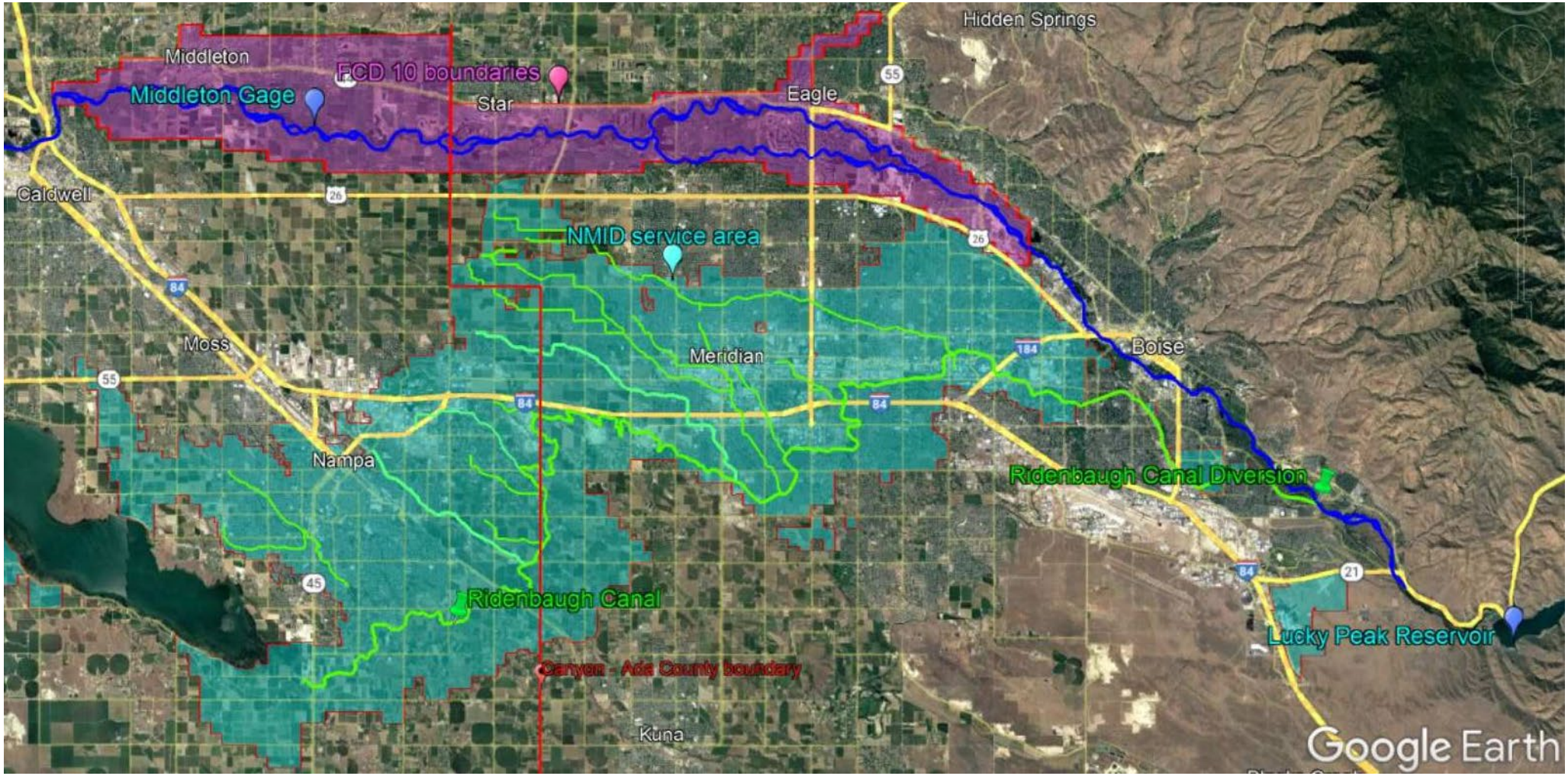


Figure 12 Flood Control District 10 Boundaries Relative to Ridenbaugh Canal Diversion

Attachment A Project Cost Estimate, Schedule, and Projected Spending

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL HEADWORKS (NOVEMBER 2022 UPDATE)

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
EXISTING CONDITIONS					
Demolition & Removal of Existing Check Structure	LF	$706.43	200	$140,000	
SUBTOTAL - EXISTING CONDITIONS				*$ 140,000*	
CONCRETE WORK					
Cocncrete Work Required for New Obermeyer Gate	LF	$2,673.27	200	$530,000	
SUBTOTAL - CONCRETE WORK				*$ 530,000*	
METALS					
Metals Work for Obermeyer Water Control Gate	LF	$2,825.72	200	$570,000	Includes Structural Metals, Catwalks, Handrailing, etc.
SUBTOTAL - METALS				*$ 570,000*	
BUILDINGS					
Obermeyer Gate Control Building	SF	$412.08	460	$190,000	
SUBTOTAL - BUILDINGS				*$ 190,000*	
ELECTRICAL					
Electrical for Obermeyer Water Control Gate	LF	$1,392.01	200	$280,000	
SUBTOTAL - ELECTRICAL				*$ 280,000*	
EARTHWORK					
Structural Earthworks for Obermeyer Water Control Gate	LF	$1,151.44	200	$230,000	
SUBTOTAL - EARTHWORK				*$ 230,000*	
TEMPORARY COFFERDAM					
Temporary Sheet Pile Cofferdam	LF	$1,899.88	200	$380,000	Assumes Two Stage Installation for Construction and Bypass
Removal and Control of Water within Cofferdam	LF	$2,590.75	200	$520,000	Assumes Two Stage Installation for Construction and Bypass
SUBTOTAL - TEMPORARY COFFERDAM				*$ 900,000*	
EXTERIOR IMPROVEMENTS					
Site Improvements Work	LF	$3,355.54	200	$670,000	Including Rip Rap, Surfacings, Bollards, etc.
SUBTOTAL - EXTERIOR IMPROVEMENTS				*$ 670,000*	
MECHANICAL & PIPING					
Yard & Process Piping Required for New Obermeyer Gate	LF	$2,449.94	200	$490,000	
Obermeyer Gate System	LF	$5,568.05	200	$1,100,000	5-ft Obermeyer Gates with Downstream Shield Plate
SUBTOTAL - MECHANICAL & PIPING				*$ 1,590,000*	
WATERWAY CONSTRUCTION					
Retrofit Existing Trash Rack to Provide Fish Barrier	LS	$527,945.21	1	$530,000	New rack(s) to screen pan-sized or larger trout, no site layout modifications
Retrofit Trash Rack Cleaning Mechanism to Existing Trash Rack	LS	$359,452.05	1	$360,000	Atlas Polar Hydrorake or similar
SUBTOTAL - WATERWAY CONSTRUCTION				*$ 890,000*	
INSTRUMENTATION & CONTROLS					
I&C Work Required for New Obermeyer Gate	LF	$445.44	200	$89,000	
SUBTOTAL - INSTRUMENTATION & CONTROLS				*$ 89,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering, Design, and Permitting	%	$6,079,000	10%	$610,000	
Surveying and Geotechnical Investigations	%	$6,079,000	1.5%	$91,000	
Services During Construction	%	$6,079,000	5%	$300,000	
Construction Contingency	%	$6,079,000	15%	$910,000	
General Conditions	%	$6,079,000	6%	$360,000	
Mobilization/Demobilization	%	$6,079,000	4%	$240,000	
Contractor Overhead & Profit	%	$6,079,000	15%	$910,000	
Bonds & Insurance	%	$6,079,000	2%	$120,000	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 3,541,000*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 9,620,000***	
LOW RANGE			***-30%***	***$ 6,700,000***	
HIGH RANGE			***+50%***	***$ 14,500,000***	

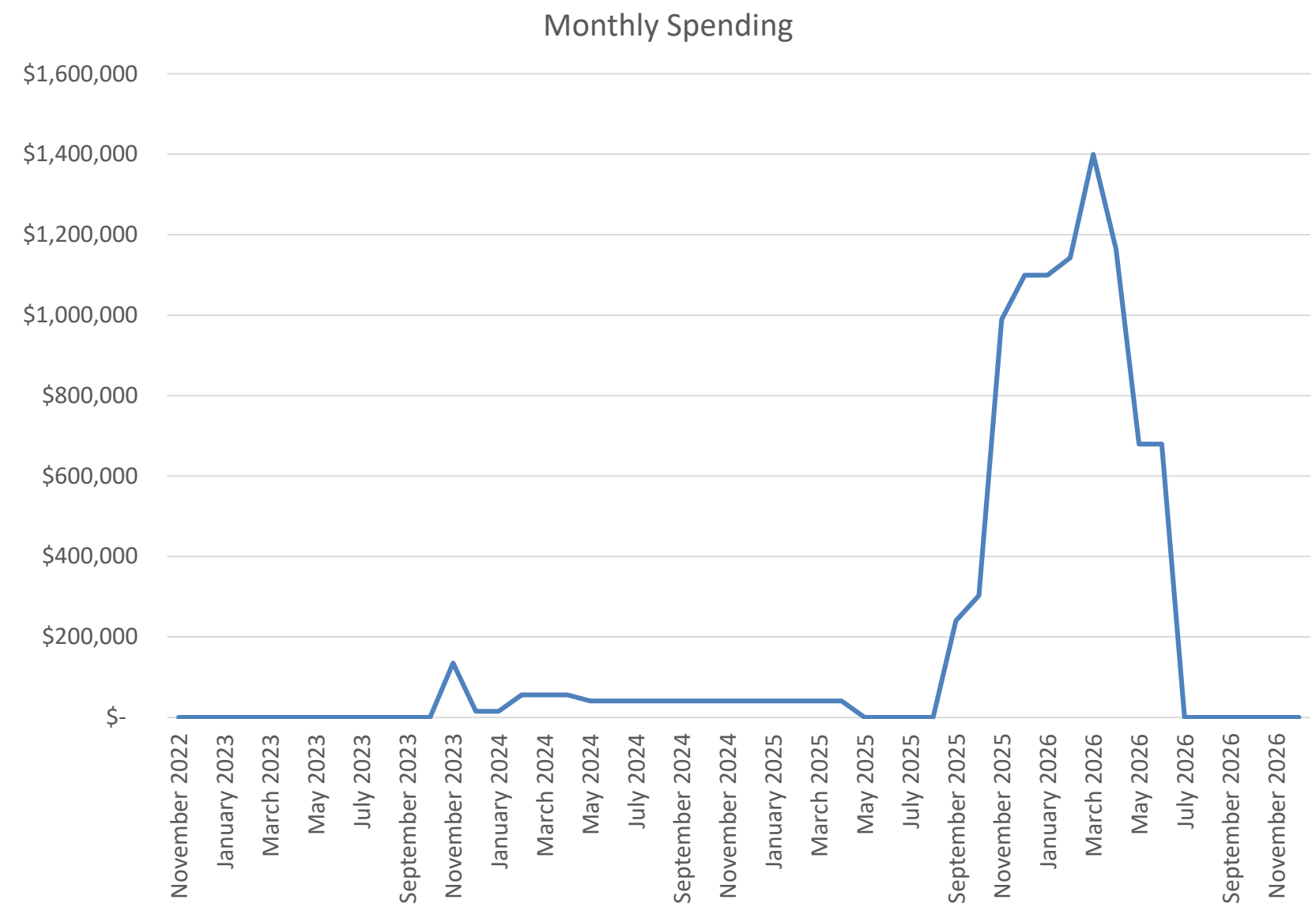
Inflation Adjustment Calculation	
Estimate year	2022
Bidding year	2025
Year of Inflation	3
Base Estimate	$ 9,618,855
Year 1 Inflation Projection	14.0%
Year 2 Inflation Projection	13.3%
Year 3 Inflation Projection	11.0%
Estimated cost for 2025 bidding	$13,388,370

Attachment A 2 Inflation Adjustment Calculation

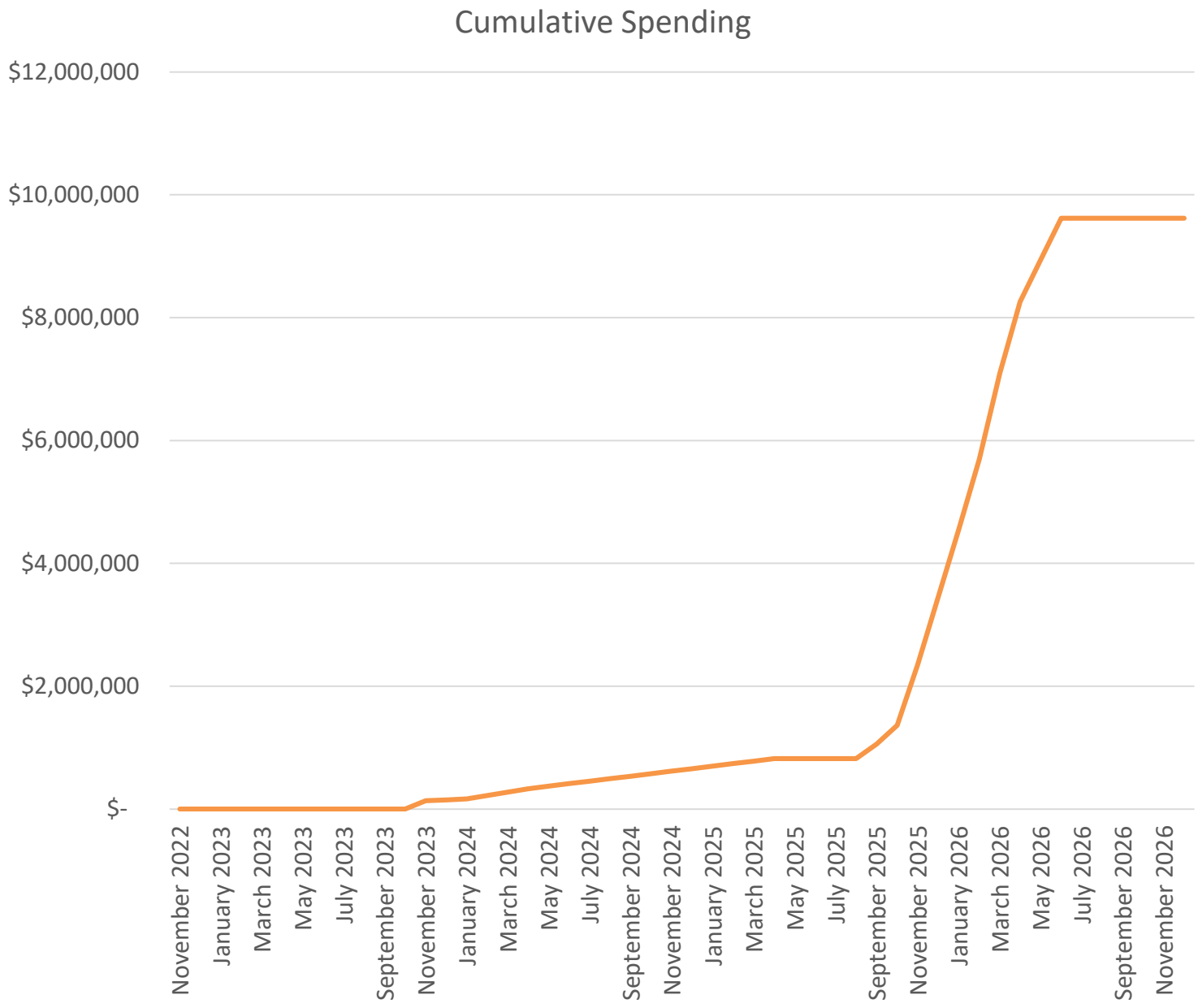
	Cost	Months	Monthly	2022 Nov	Dec	2023 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2024 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2026 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Administrative & procurement	$ -	6	$ -							X	X	X	X	X	X																																						
Survey, geotechnical	$ 91,000	6	$ 15,167													X	X	X	X	X	X																																
Engineering, design, permit	$ 610,000	15	$ 40,667																X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																				
Bonds and insurance	$ 120,000	1	$ 120,000													X																																				
Mobilization / demobilization	$ 240,000	1	$ 240,000																																																	
Cofferdam	$ 900,000	4	$ 225,000																																																	
Earthwork	$ 230,000	3	$ 76,667																																																	
Site improvements	$ 670,000	2	$ 335,000																																																	
Concrete	$ 530,000	2	$ 265,000																																																	
Metals	$ 570,000	3	$ 190,000																																																	
Buildings (control building)	$ 190,000	5	$ 38,000																																																	
Electrical	$ 280,000	8	$ 35,000																																																	
Mechanical and Piping	$ 1,590,000	8	$ 198,750																																																	
Services during construction	$ 300,000	8	$ 37,500																																																	
Demolition	$ 140,000	2	$ 70,000																																																	
Contractor overhead and profit	$ 910,000	8	$ 113,750																																																	
Construction contingency	$ 910,000	8	$ 113,750																																																	
Waterway construction	$ 890,000	8	$ 111,250																																																	
Instrumentation & Controls	$ 89,000	3	$ 29,667																																																	
General conditions	$ 360,000	9	$ 40,000																																																	
Total	$9,620,000																																																		

	2022 Nov	Dec	2023 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2024 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2026 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Administrative and procurement							X	X	X	X	X	X	X																																							
Surveying and Geotech													X	X	X	X	X	X																																				
Engineering Design																X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																				
Permitting																			X	X	X	X	X	X	X	X	X	X	X	X	X	X																				
Bidding																																	X	X	X																
Construction																																				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Attachment A 3 Project Schedule with Cost Components (2022 Dollars, Estimated)



Attachment A 4 Monthly Spending Curve (2022 Dollars, Estimated)

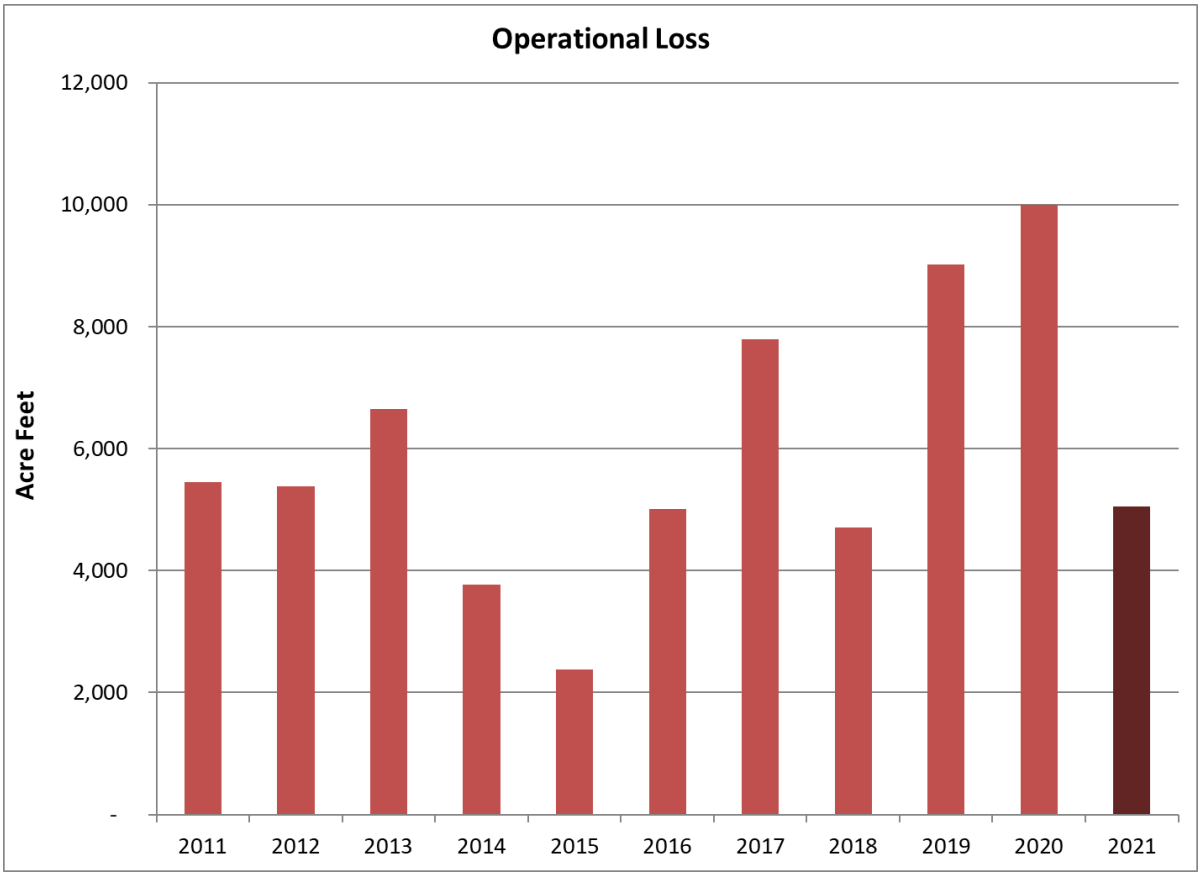


Attachment A 5 Cumulative Spending Curve (2022 Dollars, Estimated)

Attachment B Water Savings Calculations

Water Savings Calculation- Operational Loss Reduction			
	Low	Typical	High
Operational Loss, Based on IDWR Calculations of Excess Flow at Middleton (acre-ft) -see plot below	3,000 acre-ft	6,000 acre-ft	10,000 acre-ft
10% of Operational Loss Prorated to Ridenbaugh Canal, which could be reduced annually with improve control (acre-ft)	300 acre-ft	600 acre-ft	1,000 acre-ft
Potential Water Savings associated with improved Diversion Pool Operation	**300 acre-ft**	**600 acre-ft**	**1,000 acre-ft**

Attachment B 1 Water Savings Calculation - Operational Loss Reduction



Attachment B 2 Operational Losses from IDWR Calculations. IDWR Calculation Spreadsheets can be provided upon request

Water Savings Calculation- Seepage Loss Reduction		
Current Diversion Pool Surface Area (acres)	6.33	acres
Diversion Pool Surface Area at 0.3 feet lower (acres)	6.2	acres
Reduction in Pool Surface Area	0.13	acres
Soil Classification Seepage Rate	0.2	ft/day
Reduced daily seepage, acre-ft/day	0.026	acre-ft/day
Reduced daily seepage, Gallons pay	8471.5	GPD
Reduced daily seepage, Acre-ft annually	**9.5**	**AFA**

Attachment B 3 Water Savings Calculation- Seepage Loss Reduction

Water Savings Calculation- Elimination of Over delivery Following Barber Dam flow disruptions		
Over delivery following Disruption at Barber Dam	60	cfs
Typical duration of over delivery	60	minutes
Typical Volume of Over delivery per event, cubic feet	216000	cubic feet
Typical Volume of Over delivery per event, acre-ft	**5.0**	**Acre-ft**

Attachment B 4 Water Savings Calculation- Elimination of Over delivery Following Barber Dam flow disruptions

Attachment C 2021 and 2022 Jacobs Estimates

Preliminary Cost Estimates for Select Projects

Technical Memorandum

Final

December 1, 2021

Nampa & Meridian Irrigation District

Task Order: NMID-01

Preliminary Cost Estimates for Select Projects

Project No:	D3550800
Document Title:	Technical Memorandum
Revision:	Final
Date:	December 1, 2021
Client Name:	Nampa & Meridian Irrigation District
Task Order No:	NMID-01
Project Manager:	Devin Stoker, PE, CFM
File Name:	PrelimCostEstimates_FINAL_20211201.docx

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Contents

1. Introduction & Background

The Nampa & Meridian Irrigation District (NMID) delivers irrigation water to more than 69,000 acres that include urban, commercial, and farmland. The NMID water delivery system includes more than 80 canals that cover more than 500 miles and other capital assets in Ada and Canyon County. NMID also manages several hundred residential subdivisions containing more than 17,000 parcels of land in the two counties.

The objective of this technical memorandum (TM) is to provide NMID with conceptual cost estimates and other considerations for four specific irrigation replacement, rehabilitation, and improvement projects that are expected to eventually become part of a larger capital improvement program for NMID. The projects are:

1. Headworks of the Ridenbaugh Canal

2. Ridenbaugh Canal Flume over Indian Creek

3. Burke Canal Flume over Indian Creek

4. Concrete Canal Lining (undefined length/location)

This information will become a key component for NMID as it plans for the future and manages its system and aging infrastructure.

2. Project Descriptions

Jacobs staff met with NMID staff on September 9, 2021 to define and discuss the nature and overall scope of the subject projects. Major features or elements needed for generating concept-level cost estimates were discussed, as summarized in the following sub-sections. Note that no alternatives analyses, condition assessments, or design services are included in this effort. As the projects are programmed and planned, additional details and definitions will be incorporated to further develop and refine designs.

2.1 Headworks of the Ridenbaugh Canal

The headworks of the Ridenbaugh Canal system is located on the Boise River near Barber Park (43° 33′ 54″ North 116° 07′ 55″ West) and consist of a 220-ft long diversion that spans the river, a 500-ft long sand and silt diverter wall, and a 50-ft long debris rack. The headworks were originally 1870's, with additions through the 1930s. The diversion structure is skewed approximately 45-degrees to the Boise River and has 10 openings, each 20-ft wide, in which check boards are installed to divert water into the Ridenbaugh Canal. The wooden check boards are installed manually, up to a maximum height of 5-ft. The silt diverter is simply an approximately 18-inches tall concrete wall that has historically helped keep sand, silt, and even small gravel out of the canal. The debris/weed rack has a walkway and is periodically cleared manually. A masonry-block canal head structure and relatively new radial flow control gates regulate the amount of water diverted to the Ridenbaugh Canal and protect the downstream cities from flooding during times of high river flows.

NMID desires to modernize and improve the headworks to include automated level control, trash/debris/weed control, redundancy, and resiliency to operational, safety, and cybersecurity risks. While not under any statutory obligation to screen for fish, NMID is also considering adding a fish barrier to keep pan-sized or larger trout out of the canal system. To accomplish a more automated operation, the existing check structure would be replaced with a series of Obermeyer-style water control gates along with a new catwalk and handrail above it fully spanning the river. The existing trash rack would be retrofit to provide a fish barrier and an Atlas Polar-style automated trash rack. No work is expected on the existing radial control gates, but some bank protection would be needed to reinforce areas up and downstream of the diversion and adjacent to the canal head structure.

2.2 Ridenbaugh Canal Flume over Indian Creek

The Ridenbaugh Canal flume over Indian Creek (43° 32′ 14″ North 116° 28′ 38″ West) is 425-ft long and carries up to approximately 120 cubic feet per second (cfs) of water. The flume was constructed in 1917 and needs to be replaced. The flume is rectangular with concrete supports spaced approximately 20-feet apart and delivers water to more than 14,000 acres of productive agricultural land and residential and commercial customers. Failure of the flume would flood Indian Creek with flows from the Ridenbaugh Canal.

To extend the expected useful life of the flume until it can be reconstructed, a polymer lining was applied to the interior of the flume in 2007. The flume currently has a spillway at the midpoint of the flume over the creek, but NMID would prefer to have the spillway moved up near the inlet and that it be fully automated.

2.3 Burke Canal Flume over Indian Creek

The Burke Canal is one of the major canals in the Ridenbaugh Canal System and crosses over Indian Creek with an elevated flume just east of Black Cat Road (43° 31′ 21″ North 116° 27′ 8″ West). Indian Creek in this area also carries New York Canal water during the irrigation season. The flume is constructed with concrete abutments and a center pier supporting steel beams that span the creek. A galvanized half-pipe is hung on U-bolts connected to wooden supports that sit on the steel beams. While the age of the flume is unknown, the flume's wood and steel components are aging and showing signs of corrosion. The concrete components also show normal signs of aging but generally appear to be in satisfactory condition. This conclusion is based primarily on visual cues and anecdotal information from NMID, and detailed condition assessment(s) may change this preliminary conclusion.

Should the flume fail, flows would flood Indian Creek with flows from the Ridenbaugh Canal. Reconstruction, rehabilitation, and/or replacement of degraded elements should occur with modern materials and construction methods to mitigate the risk of failure of the flume. NMID would also like to automate the spillway near the upstream end of the flume as well.

2.4 Concrete Canal Lining

The Ridenbaugh Canal has several reaches that are elevated above the adjacent lands, also known as "high-fill areas." These high-fill reaches inherently carry greater risk than typical reaches of the canal that are constructed below adjacent ground. To date, NMID has lined several high-fill reaches with concrete to reduce the risk of seepage or damage from rodents or vegetation. However, there are still several high-fill reaches that would benefit from concrete protection. Particularly in areas where residential or other infrastructure could be exposed by a potential canal failure, lining select sections of the Ridenbaugh Canal with concrete will provide a reduced risk level to the public and property adjacent to the canal as well as decrease water losses in NMID's system.

3. Cost Estimates

Cost estimates for the projects described in Section 2 were developed by identifying top-level construction activities for major cost elements of each project and are summarized in Section 3.3 (detailed estimates are provided in Appendix A). The estimates are presented in 2021 dollars. The following resources were used in the development of the cost estimates: CH2M HILL's and Jacobs' historical data for similar projects of comparable size and scope, scaling costs up or down, vendor quotations for equipment and materials where appropriate, and engineer and estimator judgment. Extended total costs are rounded values per U.S. Bureau of Reclamation rounding guidance, which may cause the dollar value to deviate slightly from the unit cost shown. The final costs of the projects will depend on actual labor and material costs, competitive market conditions, final project costs, implementation schedule, and other variable factors. As a result, the final project costs will vary from the estimate presented herein.

Note that two distinct estimates are provided for canal lining. The first estimate is generally consistent with the other headworks and flume projects in terms of approach (assuming work to be performed by a general contractor), while the second estimate takes an estimating approach common to Federal funding assistance such as Reclamation's WaterSMART Grants (work performed by the District with outside financial assistance).

3.1 Markups

The markups shown in Table 1 are included in the estimates and are based upon general assumptions about how the projects will be designed, contracted, and constructed. Actual costs for engineering, design, and other items, as well as markup percentages used by the construction contractor for bidding, may vary from those shown in the table.

Table 1. Engineering, Design, Other Tasks, Contractor Construction Administration and Overhead/Profit

Item	Headworks and Flumes Markup (Percent)	Canal Lining Markup (Percent)
Engineering and Design	10	5
Surveying and Geotechnical Investigations	1.5	1.0
Services During Construction	5	2.5
Construction Contingency	15	10
Contractor General Conditions	6	6
Mobilization/Demobilization	4	4
Contractor's Overhead & Profit	15	15
Bonds and Insurance	2.0	2.0

Engineering and design contingencies allow for uncertainties that are inherent within the design of a project as it advances from the planning stage through the final design. These include unlisted items, design and scope changes, and cost estimating refinements. Construction contingencies are intended to account for costs that result from field design changes or differing site conditions encountered during construction, or both. This allowance is based on engineering judgment for the major pay items in the estimate, reliability of the data, adequacy of the projected quantities, and general knowledge of site conditions. Mobilization costs include mobilization of construction contractor personnel and equipment to the project sites during the initial project startup.

3.2 Accuracy Ranges

The costs estimates summarized in Section 3.3 are between a Class 5 and a Class 4 level of definition as defined in the Association for the Advancement of Cost Engineering (AACE) International's Recommended Practice No.

18R-97, *Cost Estimate Classification System As Applied in Engineering, Procurement, and Construction for the Process Industries*. Class 4/5 estimates are typically prepared for long-range capital planning, confirmation of economic and/or technical feasibility, and preliminary budget approval or approval to proceed to the next stages.

Class 5 estimates are generally prepared based on very limited information and subsequently have very wide accuracy ranges. As such, some organizations have elected to determine that due to the inherent inaccuracies, such estimates cannot be classified conventionally and systematically. Typical accuracy ranges for Class 5 estimates are -20% to -50% on the low side, and +30% to +100% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination.

Class 4 estimates, while also generally prepared based on limited information, provide a significantly narrower range of accuracy for capital planning purposes. Typically, engineering is less than 5% complete and would comprise at least some general capacities or dimensions, schematics, or layouts, and/or equipment lists. Typical accuracy ranges for Class 4 estimates are -15% to -30% on the low side, and +20% to +50% on the high side. While ranges could exceed those shown in unusual circumstances, the estimates provided for the projects herein should be considered consistent with Class 4 levels, between -30% on the low side to +50% on the high side. This is shown graphically in Figure 1.

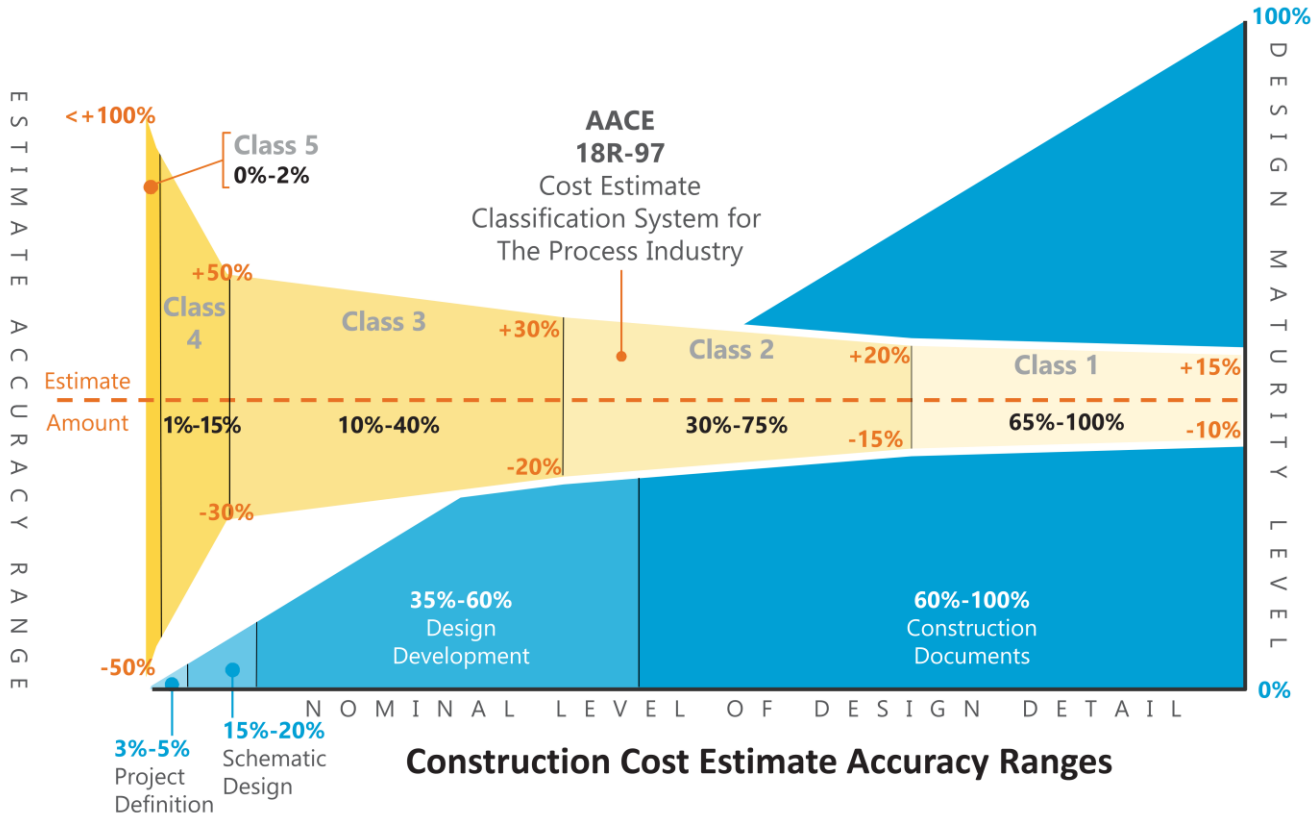

Figure 1: Construction Cost Estimate Accuracy Ranges and Design Maturity Level

3.3 Summary of Probable Costs

Table 2 summarizes the direct costs, markups discussed in Section 3.1, and the accuracy ranges discussed in Section 3.2 for each of the four projects described in Section 2. Additional details including unit costs and assumptions for major cost elements are included in the detailed estimate worksheets in Appendix A.

Table 2. Summary of Cost Estimates for Select Projects

Project	Direct Costs	Engineering, Design, Other Tasks, Contractor Construction Administration and Overhead/Profit	Total Construction Cost (Class 4/5 Estimate)	Low Range (-30%)	High Range (+50%)
Headworks of the Ridenbaugh Canal	$5,330,000	$3,115,000	$8,445,000	$5,900,000	$12,500,000
Ridenbaugh Canal Flume over Indian Creek	$832,500	$487,000	$1,319,500	$920,000	$2,000,000
Burke Canal Flume over Indian Creek	$416,600	$243,000	$659,600	$460,000	$990,000
Concrete Canal Lining – General Contractor[1]	$300,800	$136,500	$437,300	$310,000	$660,000
Concrete Canal Lining – Self-Performed with Grant[1]	$280,000	N/A	$280,000	$195,000	$420,000

[1]Assumes 1,000 linear feet of canal lined.

4. Other Considerations

4.1 Schedule

The construction of the individual projects described in Section 2 is assumed to take place in the irrigation off-season to facilitate construction activities and minimize impacts to water users. Projects were not prioritized or sequenced as a part of this effort. However, depending on how and when the project(s) is/are programmed and planned, more than one project could certainly be completed at a time. For the canal flumes and canal lining projects, certain seasonal considerations could have a minor impact on construction but are not expected to extend beyond a single off-season. Furthermore, preliminary staging and other activities could begin before irrigation ends to help reduce concerns about winter weather construction. Overall lead times for most construction materials are not anticipated to have a significant impact on construction schedules, either. Demand for steel material has increased during 2021 due to the COVID-19 pandemic and other supply chain effects. However, lead times for related items are not anticipated to extend beyond 3-4 months and can be incorporated into planning schedules.

For the Headworks of the Ridenbaugh Canal project, winter flows in the Boise River (typically about 250 cfs) will be the primary constraint impacting in-river construction. For this memorandum, two-stage construction of the new check structure and Obermeyer gates is assumed for streamflow bypass. Approximately one-half of the in-river work would be completed with a temporary sheet pile cofferdam and associated dewatering before switching to the other half of the river to complete the work. While the total duration of this type of project is not expected to extend beyond a single irrigation off-season, there are some risks associated with dewatering, groundwater intrusion, and seasonal impacts that could alter this assumption. For planning purposes, sequencing the Headworks project such that in-river work can be completed earlier in the irrigation off-season (November to early January) rather than later (February to March) will help to mitigate potential risks associated with spring flood control releases that may be required in the Boise River.

Table 3 displays preliminary estimates of durations for project stages for each of the projects and is intended to provide a general overview of project phasing for planning purposes. The estimates do not constitute a recommendation nor an assurance that certain tasks can be completed within the stated timeframe(s). It should also be noted that some of the project phases, while potentially interdependent, are also possible to develop concurrently.

Table 3. Preliminary Project Phase Duration Estimates

Project	Administrative & Procurement	Surveying & Geotechnical Investigations	Engineering & Design	Permitting[1]	Bid Phase	Construction
Headworks of the Ridenbaugh Canal	6-12 months	6 months	12-15 months	12 months	3 months	6 months
Ridenbaugh Canal Flume over Indian Creek	6-12 months	3 months	6-12 months	12 months	3 months	6 months
Burke Canal Flume over Indian Creek	6-12 months	3 months	6-12 months	3 months	3 months	3 months
Concrete Canal Lining	6-12 months	N/A	6 months	N/A	3 months	3 months

[1]Assumes USACE Nationwide permit, no Section 106 Review, and no ESA Consultation. See Section 4.2 for additional discussion.

4.2 Permitting Requirements

The U.S. Army Corps of Engineers (USACE), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) have established a joint process for activities impacting jurisdictional waterways that require

review or approval, or both, of USACE and the state of Idaho. USACE permits are required by Section 404 of the *Clean Water Act* for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the Idaho *Stream Protection Act* (Title 42, Chapter 38, Idaho Code) and *Lake Protection Act* (Section 58, Chapter 13 et seq., Idaho Code). Installation and removal of silt fences, cofferdams, and other construction activities affecting these jurisdictional waterways will be subject to the provisions of a 404 Joint Application for Permit and environmental requirements. For planning purposes, it has been assumed that USACE permitting will be under a nationwide permit, and the extent of in-water impacts will not necessitate an individual permit.

Stormwater pollution prevention plans will be required to comply with stormwater discharge requirements and prevent the discharge of sediment and other pollutants directly into the Boise River, Indian Creek, or any other watercourse potentially impacted by construction. Construction site operators will need to obtain discharge authorization under an appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit through the applicable permitting authority. Section 401 of the federal Clean Water Act requires state certification (Idaho Department of Environmental Quality [IDEQ]) for any permit or license issued by a federal agency for an activity that may result in a discharge into waters of the US. Water quality certifications ensure projects comply with state water quality standards and any other water quality requirements under state law.

Section 7 of the Endangered Species Act (ESA) requires Federal agencies to "*request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action*" for any project that is conducted, permitted, funded, or licensed by a Federal Agency. Currently, the only believed threatened species near the project area (specifically the Headworks of the Ridenbaugh) is the Yellow-billed Cuckoo (*Coccyzus americanus*). If there is a Federal nexus (i.e. project funded by the Federal government), then a suitable habitat survey should be conducted to determine if there is potential to support the species on-site or within proximity of the site. Based on that reporting, if there is potential for the species to be present, then a Biological Assessment (BA) may be required to comply with ESA requirements. For this document, it has been assumed that ESA Consultation will not be required.

Similarly, the National Historic Preservation Act (Section 106) requires all Federal agencies to consider what effects their actions may have on historic properties, including archaeological sites and the built environment. Jacobs has not performed a formal search for information regarding historic and archaeological surveys and sites within and close to the project locations discussed in this document. For planning purposes, it has been assumed that Section 106 reviews will not be required to complete any of the projects.

The Federal Emergency Management Agency (FEMA) is the Federal agency charged with the administration of the National Flood Insurance Program (NFIP) under the National Flood Insurance Act, as amended, 42 U.S.C. § 4001 *et seq*. IDWR is the agency designated by the State of Idaho as responsible for implementing and administering the NFIP within the State. To support the NFIP in Idaho, Idaho Code § 46-1020 through 46-1023 authorizes local governments to regulate floodplains within their jurisdiction. As such, a floodplain development permit is anticipated to be necessary for the Headworks of the Ridenbaugh Canal project (City of Boise), and depending on impacts, floodplain development permits might be necessary for the flumes over Indian Creek (Burke Canal Flume in Ada County and Ridenbaugh Canal Flume in Canyon County).

Lastly, land use and utility agreements, as well as easement and right-of-way information in project locations will assist with permitting requirements and coordination as each of the projects move forward into future design phases.

4.3 Traffic Control

Some temporary traffic control may be required to facilitate contractor staging, mobilization, and demobilization for the Headworks of the Ridenbaugh Canal project. The Headworks is located near Barber Park on South Eckert Road, which is on a horizontal and vertical curve with limited shoulder space. Otherwise, none of the projects are expected to impact traffic or roadways and will allow for continued access for the public.

4.4 Contractor Staging

Staging areas for construction activities will likely be limited to NMID property or easement(s). Proposed access and staging areas will be further developed in future design efforts. As construction is likely to be completed during the irrigation off-season, there will generally be sufficient area for staging and stockpiling of construction materials within and adjacent to specific project locations. It is assumed that the contractor will use their means and methods in compliance with the permits for the project and area once it has been put out to bid.

5. Conclusions

This TM provides NMID with a summary documenting concept-level cost estimates as well as preliminary schedule and other considerations for the following four projects:

1. Headworks of the Ridenbaugh Canal
2. Ridenbaugh Canal Flume over Indian Creek
3. Burke Canal Flume over Indian Creek
4. Concrete Canal Lining (undefined length/location)

At this level of evaluation, all of the projects appear to be technically feasible. The total cost (Table 4) for all four projects is approximately $11.0 million, and the estimated project cost for individual projects ranges from $310,000 (low range) to $12.5 million (high range).

Table 4. Summary of Cost Estimates for Select Projects

Project	Total Construction Cost (Class 4/5 Estimate)	Low Range (-30%)	High Range (+50%)
Headworks of the Ridenbaugh Canal	$8,445,000	$5,900,000	$12,500,000
Ridenbaugh Canal Flume over Indian Creek	$1,319,500	$920,000	$2,000,000
Burke Canal Flume over Indian Creek	$659,600	$460,000	$990,000
Concrete Canal Lining – General Contractor[1]	$437,300	$310,000	$660,000
TOTAL[2]	**$11,000,000**	**$7,600,000**	**$16,000,000**

[1]Assumes 1,000 linear feet of canal lined.

[2]Totals are rounded values per U.S. Bureau of Reclamation rounding guidance and may vary slightly from the sum of individual projects.

Additional survey information will be required for the future design of individual project features. Future design efforts should also confirm environmental and regulatory floodplain permitting requirements before finalizing design or beginning construction. Additionally, additional geotechnical investigations will be required to complete the final design of the projects so that bearing capacity, resistance to sliding and overturning, and seepage under and around the projects can be considered fully.

Appendix A. Cost Estimates

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL HEADWORKS

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
EXISTING CONDITIONS					
Demolition & Removal of Existing Check Structure	LF	$600.00	200	$120,000	
SUBTOTAL - EXISTING CONDITIONS				*$ 120,000*	
CONCRETE WORK					
Cocncrete Work Required for New Obermeyer Gate	LF	$2,300.00	200	$460,000	
SUBTOTAL - CONCRETE WORK				*$ 460,000*	
METALS					
Metals Work for Obermeyer Water Control Gate	LF	$2,400.00	200	$480,000	Includes Structural Metals, Catwalks, Handrailing, etc.
SUBTOTAL - METALS				*$ 480,000*	
BUILDINGS					
Obermeyer Gate Control Building	SF	$350.00	460	$160,000	
SUBTOTAL - BUILDINGS				*$ 160,000*	
ELECTRICAL					
Electrical for Obermeyer Water Control Gate	LF	$1,250.00	200	$250,000	
SUBTOTAL - ELECTRICAL				*$ 250,000*	
EARTHWORK					
Structural Earthworks for Obermeyer Water Control Gate	LF	$1,000.00	200	$200,000	
SUBTOTAL - EARTHWORK				*$ 200,000*	
TEMPORARY COFFERDAM					
Temporary Sheet Pile Cofferdam	LF	$1,650.00	200	$330,000	Assumes Two Stage Installation for Construction and Bypass
Removal and Control of Water within Cofferdam	LF	$2,250.00	200	$450,000	Assumes Two Stage Installation for Construction and Bypass
SUBTOTAL - TEMPORARY COFFERDAM				*$ 780,000*	
EXTERIOR IMPROVEMENTS					
Site Improvements Work	LF	$2,850.00	200	$570,000	Including Rip Rap, Surfacings, Bollards, etc.
SUBTOTAL - EXTERIOR IMPROVEMENTS				*$ 570,000*	
MECHANICAL & PIPING					
Yard & Process Piping Required for New Obermeyer Gate	LF	$2,200.00	200	$440,000	
Obermeyer Gate System	LF	$5,000.00	200	$1,000,000	5-ft Obermeyer Gates with Downstream Shield Plate
SUBTOTAL - MECHANICAL & PIPING				*$ 1,440,000*	
WATERWAY CONSTRUCTION					
Retrofit Existing Trash Rack to Provide Fish Barrier	LS	$470,000.00	1	$470,000	New rack(s) to screen pan-sized or larger trout, no site layout modifications
Retrofit Trash Rack Cleaning Mechanism to Existing Trash Rack	LS	$320,000.00	1	$320,000	Atlas Polar Hydrorake or similar
SUBTOTAL - WATERWAY CONSTRUCTION				*$ 790,000*	
INSTRUMENTATION & CONTROLS					
I&C Work Required for New Obermeyer Gate	LF	$400.00	200	$80,000	
SUBTOTAL - INSTRUMENTATION & CONTROLS				*$ 80,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering, Design, and Permitting	**%**	$5,330,000	10%	$530,000	

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL HEADWORKS

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
Surveying and Geotechnical Investigations	%	$5,330,000	1.5%	$80,000	
Services During Construction	%	$5,330,000	5%	$270,000	
Construction Contingency	%	$5,330,000	15%	$800,000	
General Conditions	%	$5,330,000	6%	$320,000	
Mobilization/Demobilization	%	$5,330,000	4%	$210,000	
Contractor Overhead & Profit	%	$5,330,000	15%	$800,000	
Bonds & Insurance	%	$5,330,000	2%	$105,000	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 3,115,000*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 8,445,000***	
LOW RANGE			***-30%***	***$ 5,900,000***	
HIGH RANGE			***+50%***	***$ 12,500,000***	

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL FLUME OVER INDIAN CREEK

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
PERMITTING, CLEARING, AND ROUGH GRADING					
Temporary Bypass	LS	$80,000.00	1	$80,000	Staged Construction and Multiple Bypasses
Staging Site Improvements (staging site clear and rough grade)	LS	$25,000.00	1	$25,000	
SUBTOTAL - PERMITTING, CLEARING, AND ROUGH GRADING				*$ 105,000*	
EXISTING CONDITIONS					
Demolish Existing Concrete Flume	LF	$335.00	425	$140,000	Staged Demolition
Load Demolished Material for Disposal	LS	$9,700.00	1	$9,700	20 mile Round Trip Haul Distance
Haul and Disposal of Demolished Materials	LS	$19,000.00	1	$19,000	
Erosion Control Allowance	LS	$15,000.00	1	$15,000	
SUBTOTAL - EXISTING CONDITIONS				*$ 183,700*	
CONCRETE WORK					
Concrete Flume Walls Allowance	LF	$255.00	850	$220,000	
Concrete Flume Slab Allowance	LF	$340.00	425	$145,000	
Transitions at Flume Start and End	EA	$37,500.00	2	$75,000	
SUBTOTAL - CONCRETE WORK				*$ 440,000*	
EARTHWORK					
Earthworks for New Concrete Flume	LS	$26,500.00	1	$27,000	
Furnish and Install Surge Return Piping	LS	$6,800.00	1	$6,800	
Erosionand Sediment Controls	LS	$35,000.00	1	$35,000	
SUBTOTAL - EARTHWORK				*$ 68,800*	
WATERWAY CONSTRUCTION					
Water Control Gate	LS	$35,000.00	1	$35,000	
SUBTOTAL - WATERWAY CONSTRUCTION				*$ 35,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering, Design, and Permitting	%	$832,500	10%	$83,000	
Surveying and Geotechnical Investigations	%	$832,500	1.5%	$12,500	
Services During Construction	%	$832,500	5%	$42,000	
Construction Contingency	%	$832,500	15%	$125,000	
General Conditions	%	$832,500	6%	$50,000	
Mobilization/Demobilization	%	$832,500	4%	$33,000	
Contractor Overhead & Profit	%	$832,500	15%	$125,000	
Bonds & Insurance	%	$832,500	2%	$16,500	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 487,000*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 1,319,500***	
LOW RANGE			***-30%***	***$ 920,000***	
HIGH RANGE			***+50%***	***$ 2,000,000***	

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – BURKE CANAL FLUME OVER INDIAN CREEK

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
PERMITTING, CLEARING, AND ROUGH GRADING					
Temporary Bypass	LS	$50,000.00	1	$50,000	Staged Construction and Multiple Bypasses
Staging Site Improvements (staging site clear and rough grade)	LS	$25,000.00	1	$25,000	
SUBTOTAL - PERMITTING, CLEARING, AND ROUGH GRADING				*$ 75,000*	
EXISTING CONDITIONS					
Demolish Existing Pipe Flume	LS	$18,000.00	1	$18,000	Staged Demolition
Load Demolished Material for Disposal	LS	$3,900.00	1	$3,900	20 mile Round Trip Haul Distance
Haul and Disposal of Demolished Materials	LS	$2,200.00	1	$2,200	
Erosion Control Allowance	LS	$7,500.00	1	$7,500	
SUBTOTAL - EXISTING CONDITIONS				*$ 31,600*	
CONCRETE WORK					
Concrete Work Allowance, Abutments and Center Pier	LS	$64,500.00	1	$65,000	
SUBTOTAL - CONCRETE WORK				*$ 65,000*	
ELEVATED PIPING					
Elevated Pipe Crossing Allowance	LS	$214,800.00	1	$210,000	
SUBTOTAL - ELEVATED PIPING				*$ 210,000*	
WATERWAY CONSTRUCTION					
Water Control Gate	LS	$35,000.00	1	$35,000	
SUBTOTAL - WATERWAY CONSTRUCTION				*$ 35,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering, Design, and Permitting	%	$416,600	10%	$42,000	
Surveying and Geotechnical Investigations	%	$416,600	1.5%	$6,200	
Services During Construction	%	$416,600	5%	$21,000	
Construction Contingency	%	$416,600	15%	$62,000	
General Conditions	%	$416,600	6%	$25,000	
Mobilization/Demobilization	%	$416,600	4%	$16,500	
Contractor Overhead & Profit	%	$416,600	15%	$62,000	
Bonds & Insurance	%	$416,600	2%	$8,300	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 243,000*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 659,600***	
LOW RANGE			***-30%***	***$ 460,000***	
HIGH RANGE			***+50%***	***$ 990,000***	

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL LINING 1000 LINEAR FEET (GENERAL CONTRACTOR)

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
PERMITTING, CLEARING, AND ROUGH GRADING					
Permit documentation / compliance	LS	$5,000.00	1	$5,000	
Staging Site Improvements (staging site clear and rough grade)	LS	$25,000.00	1	$25,000	
SUBTOTAL - PERMITTING, CLEARING, AND ROUGH GRADING				*$ 30,000*	
EARTHWORK					
Clear and Grub Debris from Canal	LF	$4.00	750	$3,000	Assumes 75% of Length of Lined Portion
Load, Haul, and Disposal of Cleared Material	CY	$8.00	100	$800	Assumes 1CY per 10LF of Canal
Cut and Fill Existing Canal	LF	$5.00	1000	$5,000	Assumes a Balanced Site, Quantities Update based on LF input in Cell E3
Prepare and Grade Existing Canal for New Lining	SY	$2.00	3000	$6,000	Assumes 3SY per LF of Canal
SUBTOTAL - EARTHWORK				*$ 14,800*	
CONCRETE WORK					
Geosynthetic soil stabilization, geotextile fabric, non-woven	SY	$2.00	3000	$6,000	
Furnish, Place, and Finish Canal Lining	LF	$250.00	1000	$250,000	4- to 5-inches Concrete Lining
SUBTOTAL - CONCRETE WORK				*$ 256,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering and Design	%	$300,800	5%	$15,000	
Surveying and Geotechnical Investigations	%	$300,800	1%	$3,000	
Services During Construction	%	$300,800	2.5%	$7,500	
Construction Contingency	%	$300,800	10%	$30,000	
General Conditions	%	$300,800	6%	$18,000	
Mobilization/Demobilization	%	$300,800	4%	$12,000	
Contractor Overhead & Profit	%	$300,800	15%	$45,000	
Bonds & Insurance	%	$300,800	2%	$6,000	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 136,500*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 437,300***	
LOW RANGE			***-30%***	***$ 310,000***	
HIGH RANGE			***+50%***	***$ 660,000***	

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL LINING 1000 LINEAR FEET (SELF PERFORMED W/ GRANT)

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
SALARIES, WAGES, AND FRINGE BENEFITS					
Pre-Project Planning and Preparation	Hour	$50	80	$4,000	5 work days each for Project Manager and Superindendent
Construction Management	Hour	$50	200	$10,000	20 days, 5 hours per day each for Project Manager and Superintendent
Construction - Equipment Operators	Hour	$35	640	$22,000	4 equipment operators, 20 days, 8 hours per day
Construction - Laborers	Hour	$25	1280	$32,000	8 laborers, 20 days, 8 hours per day
SUBTOTAL - SALARIES, WAGES, AND FRINGE BENEFITS				*$ 68,000*	
EQUIPMENT					
Excavator 1 (Long Reach)	Hour	$65	160	$10,500	20 days, 8 hours per day
Excavator 2	Hour	$50	160	$8,000	20 days, 8 hours per day
Dozer	Hour	$50	160	$8,000	20 days, 8 hours per day
Front-End Loader	Hour	$80	160	$13,000	20 days, 8 hours per day
Grader	Hour	$60	160	$9,600	20 days, 8 hours per day
SUBTOTAL - EQUIPMENT				*$ 49,100*	
SUPPLIES AND MATERIALS					
Geosynthetic soil stabilization, geotextile fabric, non-woven	SY	$2.00	3000	$6,000	Assumes 3SY per LF of Canal
Concrete delivery	CY	$125.00	1000	$125,000	Assumes 1CY per LF of Canal
SUBTOTAL - SUPPLIES AND MATERIALS				*$ 131,000*	
ENVIRONMENTAL AND REGULATORY COMPLIANCE					
Reclamation Cost Share	%	$248,100	1%	$2,500	Percentage of total project cost (line items above)
Recipient Cost Share	%	$248,100	1%	$2,500	Percentage of total project cost (line items above)
SUBTOTAL - ENVIRONMENTAL AND REGULATORY COMPLIANCE				*$ 5,000*	
OTHER					
Post-construction Seepage Loss Measurement	LS	$5,000.00	1	$5,000	
Post-Award Reclamation Reporting	Hour	$50	12	$600	12 hours total for Project Manager and Superindendent
Contingency	%	$258,700	10%	$26,000	Percentage of total project cost (line items above)
SUBTOTAL - OTHER				*$ 31,600*	
SUBTOTAL - DIRECT COSTS				**$ 280,000**	
ASSUMED COST SHARING					
NMID Cost	%	$280,000	51%	$145,000	
Reclamation Grant Request Amount	%	$280,000	49%	$135,000	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 280,000***	
LOW RANGE			***-30%***	***$ 195,000***	
HIGH RANGE			***+50%***	***$ 420,000***	

Updated Cost Estimate

Date:	November 28, 2022
Project name:	Ridenbaugh Canal Headworks Modernization
Attention:	Michael Comeskey
Company:	Nampa & Meridian Irrigation District:
Prepared by:	Devin Stoker, PE, CFM
Copies to:	File

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Jacobs staff met with Nampa & Meridian Irrigation District (NMID) staff on November 16, 2022 to discuss current status, needs, opportunities, and next steps for the modernization of the Headworks of the Ridenbaugh Canal. The objective of this memorandum is to provide NMID with an updated range of conceptual cost estimates for project planning purposes.

The updated estimate (Attachment 1) builds on a more detailed technical memorandum from 2021 and addresses construction cost trends that have been observed since the original estimate was developed. The broad assumptions associated with the original estimate remain the same. No additional details have been added, and markups included in the estimate are based on the same general assumptions about how the project will be permitted, designed, contracted, and constructed. Actual costs as well as markup percentages used by the construction contractor for bidding will vary from those shown.

Unit costs for top-level construction activities were adjusted upward based on data gathered from and published by Engineering News-Record (ENR), U.S. Bureau of Reclamation (Reclamation), U.S. Bureau of Labor Statistics (BLS), and U.S. Department of Agriculture's National Agricultural Statistics Service (NASS). Adjustments ranged from +8.9 percent to +17.7 percent for various categories such as general civil, electrical, concrete work, and irrigation-related work on diversion dams and canal structures. Estimate totals for direct costs resulted in a composite upward adjustment of +14.1 percent, as shown in Table 1. Estimates of costs for Engineering, Design, Permitting, and other Administration resulted in a composite upward adjustment of +13.7 percent. The Total Construction Cost Estimate was increased +13.9 percent.

Table 1. Summary of Cost Estimates for Headworks of the Ridenbaugh Canal

Item	Original 2021 Estimate	November 2022 Estimate	Percent Increase (%)
Direct Costs	$5,330,000	$6,079,000	14.1
Engineering, Design, Other Tasks, Contractor Construction Administration and Overhead/Profit	$3,115,000	$3,541,000	13.7
Total Construction Cost (Class 4/5 Estimate)	$8,445,000	$9,620,000	13.9
Low Range (-30%)	$5,900,000	$6,700,000	13.6
High Range (+50%)	$12,500,000	$14,500,000	16.0

As was done with the original estimate, total costs are rounded values per U.S. Bureau of Reclamation rounding guidance. As a result, the updated high range estimate of $14.5 million is not sensitive to the variation in trends amongst various categories of construction activities. However, the final costs of the

projects will depend on actual labor and material costs, competitive market conditions, final project costs, implementation schedule, and other variable factors. As a result, the final project costs will vary from the updated estimate presented herein. As the project is further defined, additional details will need to be incorporated to further refine these cost estimates.

Attachment 1 – Estimate of Probable Cost, Ridenbaugh Canal Headworks (November 2022 Update)

TASK ORDER NO. NMID-01 – PRELIMINARY COST ESTIMATES FOR SELECT PROJECTS

NAMPA & MERIDIAN IRRIGATION DISTRICT

ESTIMATE OF PROBABLE COST – RIDENBAUGH CANAL HEADWORKS (NOVEMBER 2022 UPDATE)

Item (Major cost elements)	Unit	Unit Cost	Quantity	Extended Total Cost	Remarks
DIRECT COSTS					
EXISTING CONDITIONS					
Demolition & Removal of Existing Check Structure	LF	$706.43	200	$140,000	
SUBTOTAL - EXISTING CONDITIONS				*$ 140,000*	
CONCRETE WORK					
Cocncrete Work Required for New Obermeyer Gate	LF	$2,673.27	200	$530,000	
SUBTOTAL - CONCRETE WORK				*$ 530,000*	
METALS					
Metals Work for Obermeyer Water Control Gate	LF	$2,825.72	200	$570,000	Includes Structural Metals, Catwalks, Handrailing, etc.
SUBTOTAL - METALS				*$ 570,000*	
BUILDINGS					
Obermeyer Gate Control Building	SF	$412.08	460	$190,000	
SUBTOTAL - BUILDINGS				*$ 190,000*	
ELECTRICAL					
Electrical for Obermeyer Water Control Gate	LF	$1,392.01	200	$280,000	
SUBTOTAL - ELECTRICAL				*$ 280,000*	
EARTHWORK					
Structural Earthworks for Obermeyer Water Control Gate	LF	$1,151.44	200	$230,000	
SUBTOTAL - EARTHWORK				*$ 230,000*	
TEMPORARY COFFERDAM					
Temporary Sheet Pile Cofferdam	LF	$1,899.88	200	$380,000	Assumes Two Stage Installation for Construction and Bypass
Removal and Control of Water within Cofferdam	LF	$2,590.75	200	$520,000	Assumes Two Stage Installation for Construction and Bypass
SUBTOTAL - TEMPORARY COFFERDAM				*$ 900,000*	
EXTERIOR IMPROVEMENTS					
Site Improvements Work	LF	$3,355.54	200	$670,000	Including Rip Rap, Surfacings, Bollards, etc.
SUBTOTAL - EXTERIOR IMPROVEMENTS				*$ 670,000*	
MECHANICAL & PIPING					
Yard & Process Piping Required for New Obermeyer Gate	LF	$2,449.94	200	$490,000	
Obermeyer Gate System	LF	$5,568.05	200	$1,100,000	5-ft Obermeyer Gates with Downstream Shield Plate
SUBTOTAL - MECHANICAL & PIPING				*$ 1,590,000*	
WATERWAY CONSTRUCTION					
Retrofit Existing Trash Rack to Provide Fish Barrier	LS	$527,945.21	1	$530,000	New rack(s) to screen pan-sized or larger trout, no site layout modifications
Retrofit Trash Rack Cleaning Mechanism to Existing Trash Rack	LS	$359,452.05	1	$360,000	Atlas Polar Hydrorake or similar
SUBTOTAL - WATERWAY CONSTRUCTION				*$ 890,000*	
INSTRUMENTATION & CONTROLS					
I&C Work Required for New Obermeyer Gate	LF	$445.44	200	$89,000	
SUBTOTAL - INSTRUMENTATION & CONTROLS				*$ 89,000*	
ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT					
Engineering, Design, and Permitting	%	$6,079,000	10%	$610,000	
Surveying and Geotechnical Investigations	%	$6,079,000	1.5%	$91,000	
Services During Construction	%	$6,079,000	5%	$300,000	
Construction Contingency	%	$6,079,000	15%	$910,000	
General Conditions	%	$6,079,000	6%	$360,000	
Mobilization/Demobilization	%	$6,079,000	4%	$240,000	
Contractor Overhead & Profit	%	$6,079,000	15%	$910,000	
Bonds & Insurance	%	$6,079,000	2%	$120,000	
SUBTOTAL - ENGINEERING, DESIGN, OTHER TASKS, CONTRACTOR CONSTRUCTION ADMINISTRATION AND OVERHEAD/PROFIT				*$ 3,541,000*	
TOTAL - PROJECT CONSTRUCTION COSTS (CLASS 4/5 ESTIMATE)				***$ 9,620,000***	
LOW RANGE			***-30%***	***$ 6,700,000***	
HIGH RANGE			***+50%***	***$ 14,500,000***	

Memorandum

To: Idaho Water Resource Board (IWRB) Finance Committee

From: Cynthia Bridge Clark

Date: September 5, 2025

Re: Amended Water Manage Account Fiscal Year (FY) 2026 Spending Plan

REQUIRED ACTION: Consider amendments to the FY 2026 Water Management Account spending plan.

Background:

The Idaho Water Resource Board (IWRB) manages three accounts to fund programs and provide financial assistance for water development projects: the Revolving Development Account (RDA), Water Management Account (WMA), and the Secondary Aquifer Planning, Management and Implementation Fund (Secondary Fund). Since 2019, the Idaho Legislature has appropriated a total of $355 million to the IWRB's Water Management Account (WMA). In addition, the 2022 Idaho Legislature allocated approximately $250 million of the State's American Rescue Plan Act (ARPA) funding to support IWRB-approved projects.

The RDA funds specific programs and projects, including loans for water development projects. The IWRB approves annual budgets and spending plans for the Secondary Fund and WMA respectively to direct funding to regional water sustainability projects, grants, loans, and other IWRB-approved projects.

To help guide investment in projects that support water supply sustainability on a regional, basin-wide, or statewide scale in accordance with legislative direction, the IWRB maintains a list of priority projects: Regional Water Sustainability Projects Priority List (RWSP Priority List). The IWRB also oversees grant programs focused on aging infrastructure, flood management, and groundwater to surface water conversion projects, utilizing appropriations and revolving development funds. The IWRB is also planning new grant programs targeting delivery system efficiency and capacity improvements, and monitoring and measurement activities.

Finance Committee:

The IWRB passed an FY 2026 spending plan for the Water Management Account on May 23, 2025 (Resolution no. 19-2025). The plan incorporated the $30 million ongoing appropriation authorized under House Bill 445, enacted during the 2025 legislative session.

On September 9, 2025, the Finance Committee will review proposed amendments to the FY 2026 plan to incorporate funding for new proposed projects and the Governor Little's Executive Order No. 2025-05 requiring all agencies to reduce their General Fund Spending authority on file in the Office of the State Controller by three percent for their FY 2026 General Fund Appropriations.

Staff will present a proposed amended spending plan at the committee meeting.

Attachment:

IWRB Resolution No. 19-2025

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE IDAHO WATER RESOURCE BOARD'S WATER MANAGEMENT ACCOUNT	RESOLUTION TO APPROVE WATER MANAGEMENT ACCOUNT SPENDING PLAN FOR FISCAL YEAR 2026

WHEREAS, the Water Management Account (WMA) was created pursuant to Idaho Code § 42-1760 and is administered by the Idaho Water Resource Board (IWRB); and

WHEREAS, through House Bill (HB) 285, the 2019 Idaho Legislature appropriated $20 Million to the WMA to be used for the Anderson Ranch Reservoir Enlargement (Anderson Ranch Dam Raise) or the Mountain Home Air Force Base Sustainable Water Project (MHAFB Project); and

WHEREAS, HB 285 also made amendments to Idaho Code § 42-1760, which state, in part, that the Anderson Ranch Dam Raise, MHAFB Project, additional aquifer recharge infrastructure, and other projects selected by the IWRB may be undertaken with funds in the Water Management Account; and

WHEREAS, through Senate Bill (SB) 1121, the 2021 Idaho Legislature appropriated $50 Million to the Water Management Account; and

WHEREAS, in March 2021, through Resolution No. 07-2021, the IWRB allocated funds appropriated under HB 285 and SB 1121 to the Anderson Ranch Dam Raise, MAHFB Project, Eastern Snake Plain Aquifer recharge infrastructure, and the Bear Lake Additional Water Storage project; and

WHEREAS, the 2022 Idaho Legislature, through House Bill 769, appropriated $75 Million to the WMA to be used for large water projects and directed the IWRB to use the funding for expenditures, loans, or grants for water projects, including studies, to address water sustainability, rehabilitate or improve aging water infrastructure, or support flood management; and

WHEREAS, HB 769 further directed that no more than one-third of the moneys be used for grants and the IWRB shall use criteria that takes into account the public's input for the expenditures of money for grants, that is competitive, and prioritizes projects based on the public benefits they provide; and

WHEREAS, HB 361, passed and approved by the 2023 Idaho Legislature, appropriated $150M to the WMA for large water projects and specified that the funding be used for purposes similar to those specified in HB 769, including the requirement that no more than one-third of the money be used for grants; and

WHEREAS, the 2024 Idaho Legislature, through SB 1411, appropriated $30 Million to the WMA to be used for large water projects at the direction of the IWRB; and

WHEREAS, the 2025 Idaho Legislature, through House Bill 445, appropriated $30 Million to the WMA to be used for planning, construction, rehabilitation, reconstruction, and improvement of water infrastructure throughout the state; and

WHEREAS, HB 445 further directed that of the $30 Million appropriated in a single year, no more than fifty percent (50%) may be used within a single IWRB district, as defined in Idaho Code § 42-1732 unless there are not competing funding applications for water infrastructure projects in other districts for the current fiscal year; and

WHEREAS, for fiscal year 2026, fifty percent (50%) of the appropriation from HB 445 shall be allocated for use in IWRB district 3 and fifty percent (50%) in district 4 for the purpose of supporting the 2024 Stipulated Mitigation Plan entered into by surface and ground water users on the Eastern Snake Plain; and

WHEREAS, in accordance with HB 769 and 361 referenced above, the IWRB established the Aging Infrastructure Grant Program and, over five application rounds, awarded $55,331,242 in grant money during fiscal years 2022 through 2025; and

WHEREAS, since July 2021, the IWRB has maintained a list of priority Regional Water Sustainability Projects (RWSP Priority List). The RWSP Priority List is intended to help guide the IWRB's spending from state general funds, American Rescue Plan Act (ARPA) funds, or other applicable sources for projects that support water supply sustainability on a regional, basin, or statewide scale. The IWRB also adopts criteria for inclusion of projects on the RWSP Priority List and has approved funding for projects on a case-by-case basis; and

WHEREAS, on April 14, 2025, the IWRB's Finance Committee recommended the addition of an ESPA Regional Water Sustainability Project to the RWSP Priority list to support projects and programs that contribute to aquifer stabilization; and

WHEREAS, on May 16, 2025, the IWRB's Finance Committee recommended a spending plan for appropriations made to the WMA under the legislation referenced above, including estimated interest. The recommended WMA Spending Plan considers projects currently identified on the RWSP Priority List, Aging Infrastructure Grants, certain IWRB approved loans, and other potential projects and programs; and

WHEREAS, the recommended spending plan also allocates the $30 million appropriation for programs and projects under the ESPA Regional Water Sustainability Project that meet the spending requirements defined in HB 445 for fiscal year 2026; and

WHEREAS, a number of projects on the RWSP Priority List were determined eligible for funding from ARPA State Fiscal Recovery Fund. Given that ARPA funding has specific federal and state spending requirements, the spending plan includes allocation of additional funds from the WMA to be used if additional funding is required for project completion or if it is determined that ARPA funds are not authorized for specific project tasks; and

NOW, THEREFORE BE IT RESOLVED that the IWRB adopts the attached WMA Spending Plan as recommended by the Finance Committee.

NOW, THEREFORE BE IT FURTHER RESOLVED that for projects identified in the attached spending plan and approved by the IWRB for funding from the ARPA State Fiscal Recovery Fund, the IWRB

authorizes expenditures from the WMA to cover project activities deemed ineligible for ARPA funding.

DATED this 23rd day of May 2025.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

Idaho Water Resource Board - Water Management Account
FY 2026 Spending Plan
May 23, 2025

Appropriations for Regional Water Sustainability Projects, Loans, Aging Infrastructure & Other Grants

FY 2020 *(HB 285, Sec 1, Leg 2019)*	$20,000,000
FY 2022 *(SB 1121, Sec 1, Leg 2021)*	$50,000,000
FY 2023 *(HB 769, Sec 6, Leg 2022 - 1/3 or $25M to be used for AI Grants)*	$75,000,000
FY 2024 *(HB 361, Sec 1, Leg 2023 - 1/3 or $50M to be used for AI Grants)*	$150,000,000
FY 2025 *(SB 1411, Sec 3)*	$30,000,000
FY2026 *(HB 445, Sec 4, Receive after July 1, 2025)*	$30,000,000
Interest Earned *(as of March 2025)*	$26,283,323
Total Appropriations:	**$381,283,323**

Regional Water Sustainability Projects & Other Large Projects	**Budgeted Amount**
Anderson Ranch Dam Raise *	$10,000,000
Bear Lake Additional Storage	$2,000,000
City of Gooding - Little Wood River Channel Flood Control Project	$4,000,000
City of Nampa Wastewater-to-Irrigation Reuse	$3,000,000
Conservation Reserve Enhancement Program (CREP)	$100,000
Dworshak/Clearwater Pipeline (Governor's Initiative)	$60,000,000
Eastern Snake Plain Aquifer (ESPA) Improvement Projects	$5,000,000
Lewiston Orchards Exchange Project *	$1,287,000
Lost Valley Reservoir Enlargement - Planning	$560,000
Mountain Home Air Force Base Water Resilience Project *	$10,000,000
Near Blackfoot to Minidoka Reach Gain Improvements Projects	$5,000,000
North Fremont Canal Systems Phase 5 Pipeline Project	$7,811,056
Palouse Basin Aquifer Water Supply Planning	$5,000,000
Priest Lake Water Management Project	$5,420,000
Priest Lake Outlet Dam Litigation	$2,748,000
Raft River Pipeline Project	$7,000,000
Thousand Springs Area Water Subordination Agreements	$8,000,000
Statewide Recharge Infrastructure *	$40,000,000
Treasure Valley Water Supply Assessment Project	$474,320
Upper Payette Basin Storage Water Project	$5,000,000
*Projects listed in alphabetical order. * Eligible for ARPA Funding.* **Total:**	**$182,400,376**

ESPA Regional Water Sustainability Project FY 2026 Earmark ($30M Appropriation) **	**Budgeted Amount**
Surface Water Coalition Measuring & Monitoring Support Grant	$1,000,000
ESPA Recharge Infrastructure	$4,000,000
ESPA Groundwater to Surface Water Conversion Projects Grant	$20,000,000
Surface Water Operational Efficiencies Program	$5,000,000
Total:	**$30,000,000**

*** IWRB Districts 3 & 4 must receive 50% of FY2026 funding each. Additional funding may be available from pre-FY2026 appropriations.*

Aging Infrastructure Grants ***	**Budgeted Amount**
Round 1	$12,500,000
Round 2	$12,500,000
Round 3	$11,083,621
Round 4	$7,678,350
Round 5 (FY 2025)	$11,569,271
Round 6 (scheduled FY 2026)	$20,000,000
Round 7 (scheduled FY 2027)	$20,000,000
****Additional funding committed beyond initial $75M appropriation for AIGs.*	**$95,331,242**

Loans, Grants, and Other Potential Needs	**Budgeted Amount**
Loans Committed *(Funds will be available for reallocation upon repayment)*	$20,996,333
Groundwater to Surface Water Conversion Projects Grant (Round 1)	$13,330,625
Groundwater to Surface Water Conversion Projects Grant (Round 2)	$6,669,374
Efficiency and Capacity Improvements to Canal Systems Grant	$20,000,000
Statewide Monitoring and Measurement Grant	$10,000,000
Other Regional Water Sustainability Projects, Loans, or Grants	$2,555,373
Total:	**$73,551,705**

Grand Total:	**$381,283,323**

Memorandum

To: Idaho Water Resource Board (IWRB)

From: Wesley Hipke

Date: September 5, 2025

Re: Proposed Amendment to the Secondary Aquifer Planning, Management & Implementation Fund – FY 2026 Budget - Resolution 18-2025

REQUIRED ACTION: Consider resolution to amend FY 2026 Secondary Aquifer Fund Budget

Staff will discuss proposed amendments to the FY 2026 Budget for the Secondary Aquifer Planning, Management & Implementation Fund (Secondary Aquifer Fund). The IWRB approved the FY26 Budget for the Secondary Aquifer Fund on May 23, 2025 (Resolution 18-2025). Staff are proposing amendments to the FY26 budget to reflect changes to the amount of funds the Secondary Aquifer Fund will receive and adjust categories to reflect proposed changes in distribution of the funds.

Governor Little on August 15, 2025, issued Executive Order No. 2025-05 requiring all agencies to reduce their General Fund Spending authority on file in the Office of the State Controller by three percent for their FY 2026 General Fund Appropriations pursuant to Section 67-3512A, Idaho Code. The Secondary Aquifer Fund was originally authorized to receive $5 million dollars from the General Fund. Therefore, the amended budget reflects an adjusted amount of $4,850,000 from the General Fund being available to the Secondary Aquifer Fund.

Staff are proposing the following changes in the FY 26 Budget:

- ESPA Managed Recharge Program:
  - Operations and Maintenance subcategory – proposed additions have been made to this sub-category to reflect increases related to the IWRB's Mile Post 31 and Wilson Canyon recharge sites. The addition of $300,000 would increase this subcategory from $200,000 to $500,000.
  - ESPA Recharge Investigations category – proposed additions have been made to this category to reflect increased investigations related to the ESPA Managed Recharge Program including evaluations/studies related to developing new managed recharge sites and an analysis of water quality trends in the ESPA related to the IWRB's recharge program. The addition of $400,000 would increase this sub-category from $250,000 to $650,000. The increase in budget would leave $238,000 for other investigations during FY26.
- Cloud Seeding Program:
  - New Basin subcategory - the original FY26 budget allowed $1,906,000 for Bear River Basin cloud seeding. The IWRB approved a 1-year collaborative project with the State of Utah for a Bear River Basin Pilot Project to conduct cloud seeding for $950,000 (Resolution 29-2025). Staff are proposing reducing the related line item in the FY26 budget by $900,000. The subtraction of $900,000 would decrease this subcategory from $1,960,000 to $1,006,000.
- Treasure Valley:
  - Treasure Valley pilot recharge project - Staff are proposing to add a line item under the Treasure Valley category for $50,000 as an estimate for evaluating a potential pilot recharge project within the Treasure Valley.
  - Star Bridge Analysis - The Hydrology Division has been asked to re-evaluate the conductivity of the aquifer to the Boise River from Lucky Peak Dam to the Star Bridge. The analysis is

estimated to cost $100,000 over two years. Staff are proposing to add a line item under the Treasure Valley category for $50,000 to cover the first year of the project.
    - The addition of a Treasure Valley pilot recharge project and the Star Bridge Analysis would increase this category from $150,000 to $250,000.
- Hydrology Activities:
    - The Hydrology Division has been asked to do a statewide stream gage analysis to determine the change in peak flows. This analysis was one of the initiatives discussed at Governor Little's Water summit to assist water managers and decision makers. The USGS is proposing a 2-year study with an estimated total cost of $115,000. Staff are proposing to add $115,000 to the Statewide Surface Water and Aquifer Monitoring subcategory to cover the analysis. The addition of $115,000 would increase this category from $1,000,000 to $1,115,000.

The proposed changes to the Secondary Aquifer Fund FY2026 budget would reduce the amount in the "Reserve for Work in Other Priority Aquifers" category from $763,135 to $598,135. The following table highlights the proposed changes to the original budget, and a draft resolution amending the FY26 Secondary Aquifer Budget is provided for your review.

Attachment:

1) FY26 Secondary Fund Budget with proposed changes.
2) Draft Resolution w/ Attachment A: Proposed Amendment to the Secondary Aquifer Fund – FY 2026 Budget

ATTACHMENT A:

FY2026 PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND

			FY26 Proposed Updates
Estimated Carry-Over From FY25	$	5,191,425	minus 3%
General Fund (2026)	$	5,000,000	$ 4,850,000
HB547 funds - receipt of Cigarette Tax proceeds	$	5,000,000	
Estimated interest	$	750,000	
TOTAL	**$**	**15,941,425**	**$ 15,791,425**

Category	Sub-Category		FY26		
ESPA MANAGED RECHARGE PROGRAM					
ESPA Recharge Operations		Conveyance Cost	$3,500,000	**	
		O&M (equipment, supplies, operational fees, etc.)	$200,000		**$500,000**
		AFRD2 MP31 Gate Repair			$50,000
		NSCC Power to Wilson Canyon			$250,000
		Recharge Monitoring	$750,000		
		TOTAL	**$4,450,000**		**$4,750,000**
ESPA Recharge Investigations	**Budgeted Investigations**	Recharge site characterization & canal capacity investigations	$250,000		**$238,000**
		BJGWD - Osgood Canal Improvement Evaluation ($50,000)			$50,000
		NSCC Wilson Lake Area Study ($50,000)			$50,000
		USGS WQ Trends Study (312,000)			$312,000
		TOTAL	**$250,000**		**$650,000**
PROGRAM TOTAL			**$4,700,000**		**$5,400,000**
CLOUD SEEDING PROGRAM					
Operations & Maintenance	**Upper Snake River Basin**	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $1,945,000)	$1,361,500		
	Wood River Basin	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $802,000)	$561,400		
	Boise River Basin	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $1,079,000)	$755,300		
	Collaborative Program	Estimated Water User Contributions (11.58%)	($442,910)		
	New Basins	Infrastructure, Investigations, Administration | Bear River Basin	$1,906,000	*	**($900,000)**
	HCRCD Program	2024-2025 Upper Snake Project Operations - Manual Ground	$60,000	*	
	Administration	Partnership Collaborations, Staff Travel, WMA/NAWMC Memberships	$20,000		
	Technology	Administration | Operational Modeling and Computing ($64K Total 50/50)	$32,000		
TOTAL			**$4,253,290**		**$3,353,290**
Capital	**Weather Instrumentation**	(Existing) Replacement/Enhancement/Upgrade	$200,000		
		(Statewide) New Devices	$0		
	Technology	(Infrastructure) Computing and Modeling	$500,000	*	
	Equipment	Remote Ground Generators	$0		
TOTAL			**$700,000**		
Research & Development	**Technology & Investigations**	(Development) Weather Instrumentation and Modeling	$1,625,000	*	
TOTAL			**$1,625,000**		
Reserve			$250,000		
CLOUD SEEDING PROGRAM TOTAL			**$6,828,290**		**$5,928,290**
TREASURE VALLEY					
Monitoring in support of the Treasure Valley model (annual)			$150,000		
Treasure Valley pilot recharge project					$50,000
Starr Watershed Project (1 of 2 years)					$50,000
TOTAL			**$150,000**		**$250,000**
RAFT RIVER BASIN					
Raft River Hydrologic Studies and Monitoring			$50,000		
RAFT RIVER TOTAL			**$50,000**		**$50,000**
PORTNEUF BASIN					
Portneuf Hydrogeologic Study (Year 3 of 4)			$150,000		
TOTAL			**$150,000**		**$150,000**
BEAR RIVER BASIN					
Water Sustainability			$600,000	*	
TOTAL			**$600,000**		**$600,000**
LEMHI BASIN					
Support of Water Sustainability Initiatives per settlement			$600,000	*	
TOTAL			**$600,000**		**$600,000**
MID-SNAKE BASIN					
Mid-Snake Water Quality Monitoring (annual)			$50,000		
TOTAL			**$50,000**		**$50,000**
PALOUSE BASIN					
Aquifer monitoring			$200,000		
TOTAL			**$200,000**		**$200,000**
MOUNTAIN HOME BASIN					
Groundwater Model Development Year 2 of 4			$250,000		
TOTAL			**$250,000**		**$250,000**
BIG LOST BASIN					
Monitoring in support of Big Lost model development (annual)			$150,000		
TOTAL			**$150,000**		**$150,000**
WOOD RIVER BASIN					
Conservation, infrastructure fund associated with settlement (year 1 of 3)			$200,000		
Camas GW characterization, drilling, water levels associated with settlement (year 3 of 3)			$0		
TOTAL			**$200,000**		**$200,000**
HYDROLOGY ACTIVITIES					
ESPA monitoring			$300,000		
Statewide surface water and aquifer monitoring			$600,000		$715,000
New monitoring wells and instrumentation for ESPAM data gaps			$100,000		
TOTAL			**$1,000,000**		**$1,115,000**
STATEWIDE					
Professional Services (includes media & federal outreach services) and administrative costs			$250,000		
TOTAL			**$250,000**		**$250,000**
GRAND TOTAL			**$15,178,290**		**$15,193,290**
Reserve for Work in Other Priority Aquifers Total			**$ 763,135**		**$ 598,135**

**These items will require the IWRB pass an additional resolution to authorize funding.*

***Since FY2019, $3.5 M has been budgeted for ESPA Recharge Conveyance annually with the understanding that money budgeted but not spent within a fiscal year would stay committed and accrue for years when there is a large magnitude of water available for managed recharge. For the current fiscal year (FY26) there is $3.5M allocated plus $10.5M carried over from previous years for future conveyance fees.*

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF AMENDING THE STATEWIDE WATER SUSTAINABILITY AND AQUIFER STABILIZATION, AND THE SECONDARY AQUIFER STABILIZATION, AND SECONDARY AQUIFER PLANNING, MANAGEMENT, AND IMPLEMENTATION FUND FISCAL YEAR 2026 BUDGET	RESOLUTION TO AMEND THE FISCAL YEAR 2026 BUDGET

WHEREAS, House Bill 547 passed and approved by the 2014 Legislature allocates $5 million annually through 2019 from the Cigarette Tax to the Idaho Water Resource Board's (IWRB) Secondary Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) for statewide aquifer stabilization; and

WHEREAS, House Bill 256 passed and approved by the 2019 Legislature allocated $5 million in ongoing General Fund dollars to the IWRB's Secondary Aquifer Fund for statewide water sustainability and aquifer stabilization; and

WHEREAS, un-allocated funds already in the Secondary Aquifer Fund will be carried forward into the Fiscal Year 2026 budget; and

WHEREAS, many aquifers across Idaho are declining or have existing or potential conjunctive administration water use conflicts, including the Eastern Snake Plain Aquifer (ESPA), Mountain Home Aquifer, Wood River Valley Aquifer, Big Lost Aquifer, Raft River Aquifer, Malad Valley Aquifer, Treasure Valley Aquifer, Rathdrum Prairie Aquifer, Palouse Basin Aquifer, Lewiston Plateau Aquifer, and others; and

WHEREAS, ground water levels in many aquifers are inadequate to sustain a supply of water for surface and ground water irrigation, hydropower, municipal, industrial, and other uses, the curtailment of which would cause severe economic harm to Idaho's economy; and

WHEREAS, the State of Idaho relies on spring discharge from the ESPA through the Thousand Springs to assist in meeting the minimum streamflow water rights at the Murphy Gage established under the Swan Falls Agreement; and

WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 137 which recognized that stabilizing and enhancing aquifer levels is in public interest, and directs the IWRB to take actions in aquifers across the state to stabilize and enhance aquifer levels thereby maintaining water supply for consumptive and non-consumptive uses and minimizing harm to Idaho's economy arising from water supply shortages; and

WHEREAS, the 2025 Idaho Legislature passed and approved Senate Concurrent Resolution 110 supporting the 2024 Stipulated Mitigation Plan entered into between the Surface Water Coalition and participating Groundwater District and supporting the IWRB revising the State Water Plan and the ESPA Comprehensive Aquifer Management Plan to establish a state-funded ESPA managed recharge goal of 350,000 acre-feet on an average annual basis; and

WHEREAS, on May 23, 2025, the IWRB approved Resolution 18-2025 for the use of available funds in the Secondary Aquifer Fund for statewide water sustainability and aquifer stabilization purposes for Fiscal Year 2026; and

WHEREAS, on August 15, 2025, Governor Little issued Executive Order No. 2025-05 requiring all agencies to reduce their General Fund Spending authority on file in the Office of the State Controller by three percent for their FY 2026 General Fund Appropriations pursuant to Section 67-3512A, Idaho Code.

NOW THEREFORE BE IT RESOLVED that the IWRB amends the adopted Fiscal Year 2026 Budget for the continuously-appropriated Secondary Aquifer Planning, Management, and Implementation Fund as shown in Attachment A to this resolution.

BE IT FURTHER RESOLVED that the budget may be adjusted, if necessary, based on the actual amount of Cigarette Tax funds received, interest income received, or the actual amount of carry-over from Fiscal Year 2025.

BE IT FURTHER RESOLVED that the ESPA Managed Recharge Program category as listed in Attachment A may proceed with no further approvals up to the budget amount listed in Attachment A to this resolution; however, the IWRB shall be kept apprised of such expenditures.

BE IT FURTHER RESOLVED that expenditures for Cloud Seeding Program under Operations and Maintenance for the Upper Snake River Basin, Wood River Basin, Bosie River Basin, Collaborative Program, Administration, and Technology along with the Weather Instrumentation under the Capital category and the Reserve category may proceed with no further approvals up to the budget amount listed in Attachment A to this resolution; however, the IWRB shall be kept apprised of such expenditures. Further, it is the IWRB's stated goal that both the state and the water users financially participate with Idaho Power in the Cooperative Cloud Seeding Program.

BE IT FURTHER RESOLVED that expenditures for hydrologic studies/monitoring/modeling in the Treasure Valley, Raft River Basin, Portneuf Basin, Mid Snake Basin, Palouse Basin, Mountain Home Basin, Big Lost Basin, and Wood River Basin may proceed with no further approvals up to the budget amount listed in Attachment A to this resolution; however, the IWRB shall be kept apprised of such expenditures.

BE IT FURTHER RESOLVED that Hydrology Activities and Statewide categories as listed in Attachment A may proceed with no further approvals up to the budget amount listed in Attachment A to this resolution; however, the IWRB shall be kept apprised of such expenditures.

BE IT FURTHER RESOLVED that the IWRB may modify this budget during Fiscal Year 2026 at a properly noticed meeting of the IWRB.

DATED this 12^{the} day of September 2025.

_____
Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST _____
Dean Stevenson, Secretary

ATTACHMENT A:

FY2026 PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND

Estimated Carry-Over From FY25	$	5,191,425
General Fund (2026)	$	4,850,000
HB547 funds - receipt of Cigarette Tax proceeds	$	5,000,000
Estimated interest	$	750,000
TOTAL	**$**	**15,791,425**

Category	Sub-Category		FY26	
ESPA MANAGED RECHARGE PROGRAM				
ESPA Recharge Operations		Conveyance Cost	$3,500,000	**
		O&M (equipment, supplies, operational fees, etc.)	$200,000	
		AFRD2 MP31 Gate Repair	$50,000	
		NSCC Power to Wilson Canyon	$250,000	
		Recharge Monitoring	$750,000	
		TOTAL	**$4,750,000**	
ESPA Recharge Investigations	**Budgeted Investigations**	Recharge site characterization & canal capacity investigations	$238,000	
		BJGWD - Osgood Canal Improvement Evaluation ($50,000)	$50,000	
		NSCC Wilson Lake Area Study ($50,000)	$50,000	
		USGS WQ Trends Study (312,000)	$312,000	
		TOTAL	**$650,000**	
PROGRAM TOTAL			**$5,400,000**	
CLOUD SEEDING PROGRAM				
Operations & Maintenance	**Upper Snake River Basin**	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $1,945,000)	$1,361,500	
	Wood River Basin	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $802,000)	$561,400	
	Boise River Basin	2024-2025 Project Operations - Aircraft & Remote Ground (=2/3 * $1,079,000)	$755,300	
	Collaborative Program	Estimated Water User Contributions (11.58%)	($442,910)	
	New Basins	Infrastructure, Investigations, Administration | Bear River Basin	$1,006,000	*
	HCRCD Program	2024-2025 Upper Snake Project Operations - Manual Ground	$60,000	*
	Administration	Partnership Collaborations, Staff Travel, WMA/NAWMC Memberships	$20,000	
	Technology	Administration | Operational Modeling and Computing ($64K Total 50/50)	$32,000	
TOTAL			**$3,353,290**	
Capital	**Weather Instrumentation**	(Existing) Replacement/Enhancement/Upgrade	$200,000	
		(Statewide) New Devices	$0	
	Technology	(Infrastructure) Computing and Modeling	$500,000	*
	Equipment	Remote Ground Generators	$0	
TOTAL			**$700,000**	
Research & Development	**Technology & Investigations**	(Development) Weather Instrumentation and Modeling	$1,625,000	*
TOTAL			**$1,625,000**	
Reserve			$250,000	
CLOUD SEEDING PROGRAM TOTAL			**$5,928,290**	
TREASURE VALLEY				
Monitoring in support of the Treasure Valley model (annual)			$150,000	
Treasure Valley Recharge Pilot Project			$50,000	
Starr Watershed Project (1 of 2 years)			$50,000	
TOTAL			**$250,000**	
RAFT RIVER BASIN				
Raft River Hydrologic Studies and Monitoring			$50,000	
RAFT RIVER TOTAL			**$50,000**	
PORTNEUF BASIN				
Portneuf Hydrogeologic Study (Year 3 of 4)			$150,000	
TOTAL			**$150,000**	
BEAR RIVER BASIN				
Water Sustainability			$600,000	*
TOTAL			**$600,000**	
LEMHI BASIN				
Support of Water Sustainability Initiatives per settlement			$600,000	*
TOTAL			**$600,000**	
MID-SNAKE BASIN				
Mid-Snake Water Quality Monitoring (annual)			$50,000	
TOTAL			**$50,000**	
PALOUSE BASIN				
Aquifer monitoring			$200,000	
TOTAL			**$200,000**	
MOUNTAIN HOME BASIN				
Groundwater Model Development Year 2 of 4			$250,000	
TOTAL			**$250,000**	
BIG LOST BASIN				
Monitoring in support of Big Lost model development (annual)			$150,000	
TOTAL			**$150,000**	
WOOD RIVER BASIN				
Conservation, infrastructure fund associated with settlement (year 1 of 3)			$200,000	
Camas GW characterization, drilling, water levels associated with settlement (year 3 of 3)			$0	
TOTAL			**$200,000**	
HYDROLOGY ACTIVITIES				
ESPA monitoring			$300,000	
Statewide surface water and aquifer monitoring			$715,000	
New monitoring wells and instrumentation for ESPAM data gaps			$100,000	
TOTAL			**$1,115,000**	
STATEWIDE				
Professional Services (includes media & federal outreach services) and administrative costs			$250,000	
TOTAL			**$250,000**	
GRAND TOTAL			**$15,193,290**	
Reserve for Work in Other Priority Aquifers Total			**$ 598,135**	

**These items will require the IWRB pass an additional resolution to authorize funding.*

***Since FY2019, $3.5 M has been budgeted for ESPA Recharge Conveyance annually with the understanding that money budgeted but not spent within a fiscal year would stay committed and accrue for years when there is a large magnitude of water available for managed recharge. For the current fiscal year (FY26) there is $3.5M allocated plus $10.5M carried over from previous years for future conveyance fees.*

MEMO

To: Idaho Water Resource Board Finance Committee

From: Justin Ferguson

Date: September 9th, 2025

Subject: Marsh Center Irrigating Company – New Water Project Loan Application

REQUESTED ACTION: Consider A Loan Request of $950,000

1.0 INTRODUCTION

The Marsh Center Irrigating Company (MCIC) is requesting a new loan in the amount of $950,000 from the Idaho Water Resource Board (IWRB) to continue work to replace an open ditch delivery system that has been in use since the late 1800's. MCIC has partnered with the NRCS on the project and received grant funding to complete the project.

2.0 BACKGROUND

Established in 1869 and located southeast of Pocatello in Arimo, ID, the Marsh Center Irrigation Company constructed the Hawkins Reservoir & distribution system for their patrons, currently diverting nearly 950 AF across 3,220 acres.

The MCIC delivery system experiences significant loss from both evaporation and canal leakage through the existing open canal distribution system. The open canals are also a source of potential contamination as livestock share the area.

3.0 PRIOR LOANS

Marsh Center Irrigating Company has held loans with the IWRB in the past, most recently as 2023. At the time of this application, MCIC had borrowed approximately $665,000 of the $700,000 available from this recent loan and repaid all but $80,000 with NRCS funding as work was completed.

4.0 PROPOSED PROJECT

The proposed Project will continue work done under the previous loan, using NRCS EQIP funding, to convert approximately 4 of the remaining 10 miles of open canal to a closed, pressurized pipe system. MCIC has secured the EQIP funding with the bidding period projected to open August 10th through the 15th and construction to begin in early October through December of this year.

5.0 BENEFITS

The Project will reduce canal seepage loss, reduce pumping electrical demand and reduce both the possibility of contaminants and sediment flows within the system. Converting to a more efficient system will also reduce the amount of upstream diversion necessary to continue the irrigation of the 3,220 acres, reducing overall demand in the area.

6.0 FINANCIAL ANALYSIS

The total Project cost is estimated at $950,000. Of that total, MCIC has secured an NRCS EQIP grant of $1,117,670. This loan is intended to work as a bridge loan, to be repaid as work is completed and funding is released under the grant.

The current assessment per share is $29.60 for common and $37.00 for preferred, representing 8 and 10 hours of water, respectively. Currently, there are 8 shareholders holding approximately 3,220 acres. The estimated annual payment, based on a 2-year term would be $498,275 at a 4.9% interest rate.

7.0 WATER RIGHTS

Water Right	Source	Priority Date	Rate	Acreage	Beneficial Use
29-12058	Hawkins Creek	04/01/1897	2.00	100	Irrigation
29-10664	Hawkins Creek	06/10/1897	-	-	Storage
29-10665	Hawkins Creek	04/01/1944	-	-	Storage
29-13493	Hawkins Creek	05/01/1870	10.00	500	Irrigation
29-13494	Hawkins Creek	05/01/1870	30.00	-	Irrigation from Storage

8.0 SECURITY

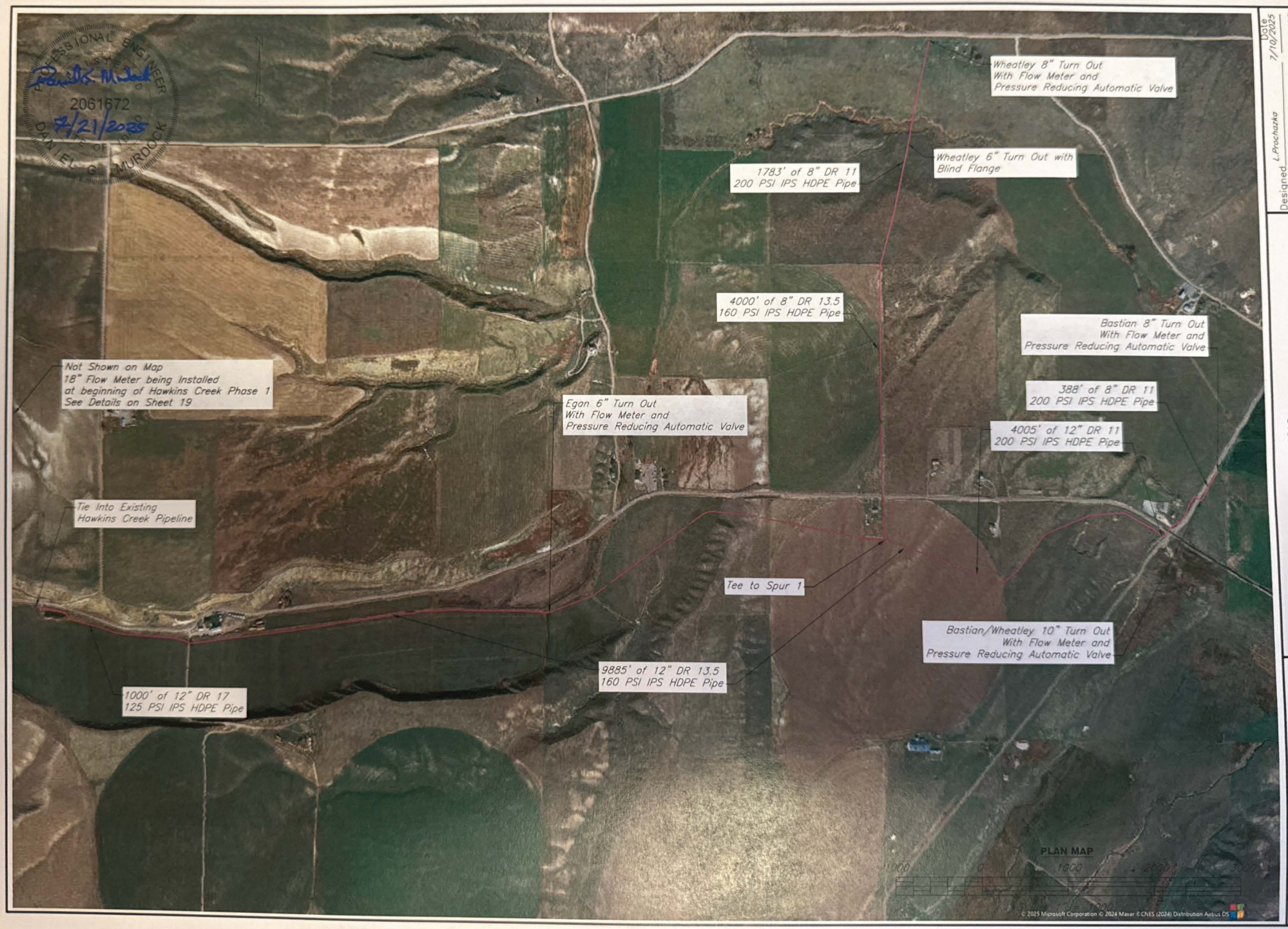
As collateral for the loan, the Board is authorized to hold a lien against the applicant's water rights, infrastructure, and dam at Hawkins reservoir. The security used for the previous loan is appears sufficient to cover both the new application and the current outstanding balance.

9.0 CONCLUSION AND RECOMMENDATION

This loan will be used to modernize canal infrastructure originally constructed in the late 1800s, improving water quality and reducing the overall demand out of the reservoir.

The applicant meets the qualification criteria, and the proposed project is consistent with the goals established by the Board in the Idaho State Water Plan. Staff recommends the approval of the loan request for $950,000.00.

Attachments: MCIC Project Map, MCIC Draft Funding Resolution



PROFESSIONAL ENGINEER
STATE OF IDAHO
2061672
7/21/2025
DANIEL G. MURDOCK

		Date
Designed	L.Prochazka	7/10/2025
Drawn	L.Prochazka	7/10/2025
Checked	C. Prestwich	7/16/2025
Approved	D. Murdock	8/1/2025

MCIC
MCIC PHASE 2
PLAN VIEW

Bannock County, Idaho

PORTNEUF SWCD

USDA United States Department of Agriculture
Natural Resources Conservation Service

File No. Hawkins2.dwg

Drawing No. Hawkins2

7/18/25 7:55 AM

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BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE MARSH CENTER IRRIGATION COMPANY LOAN REQUEST	RESOLUTION TO AUTHORIZE LOAN FUNDING FOR COSTS RELATED TO DELIVERY SYSTEM INFRASTRUCTURE REPAIRS AND IMPROVEMENTS

WHEREAS, the Marsh Center Irrigation Company (Company) was established in 1896 with the construction of Hawkins Reservoir and the associated water distribution system near Arimo, Idaho; and

WHEREAS, the Company delivers water across approximately 3,220 acres for 12 shareholders within Bannock county; and

WHEREAS, the Company was approved for a loan from the Idaho Water Resource Board (IWRB) in November 2025 in the amount of $700,000 to improve the existing delivery infrastructure; and

WHEREAS, the Company borrowed approximately $665,000 of the available funding to complete the work, at which time funds were repaid to the IWRB, leaving an outstanding balance of $80,000; and

WHEREAS, a new loan application was submitted to the IWRB in the amount of $950,000 to begin work on Phase 2 to repair and improve the Company's existing delivery infrastructure; and

WHEREAS, the Company has again secured grant funding through the NRCS EQIP program to continue improvement work on the existing delivery system in the amount of $1,117,670; and

WHEREAS, to remain sustainable for future use and provide a more reliable system for shareholders, the Company will need to make improvements to existing infrastructure; and

WHEREAS, the Company is a qualified applicant, and the proposed Project is eligible for a loan from the Board's Revolving Development Account; and

WHEREAS, the proposed Project is in the public interest and is in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB approves a loan not to exceed $950,000 from the Revolving Development Account at 4.9 % interest with a 2-year repayment term.

NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB provides authority to the Chairman of the Idaho Water Resource Board, or his designee, to enter into contracts, to effectuate the loan, with the District on behalf of the IWRB.

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan are subject to the following conditions:

1) The Company shall comply with all applicable rules and regulations that apply to the proposed Project.
2) Prior to the disbursement of any funds, the Company shall comply with all statutory requirements for incurring debt.
3) Prior to the disbursement of any funds, the Company will provide acceptable security for the loan to the IWRB, including its assessment income which the Company collects from its members.

DATED this 12th day of September, 2025.

_____
Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST _____
Dean Stevenson, Secretary