



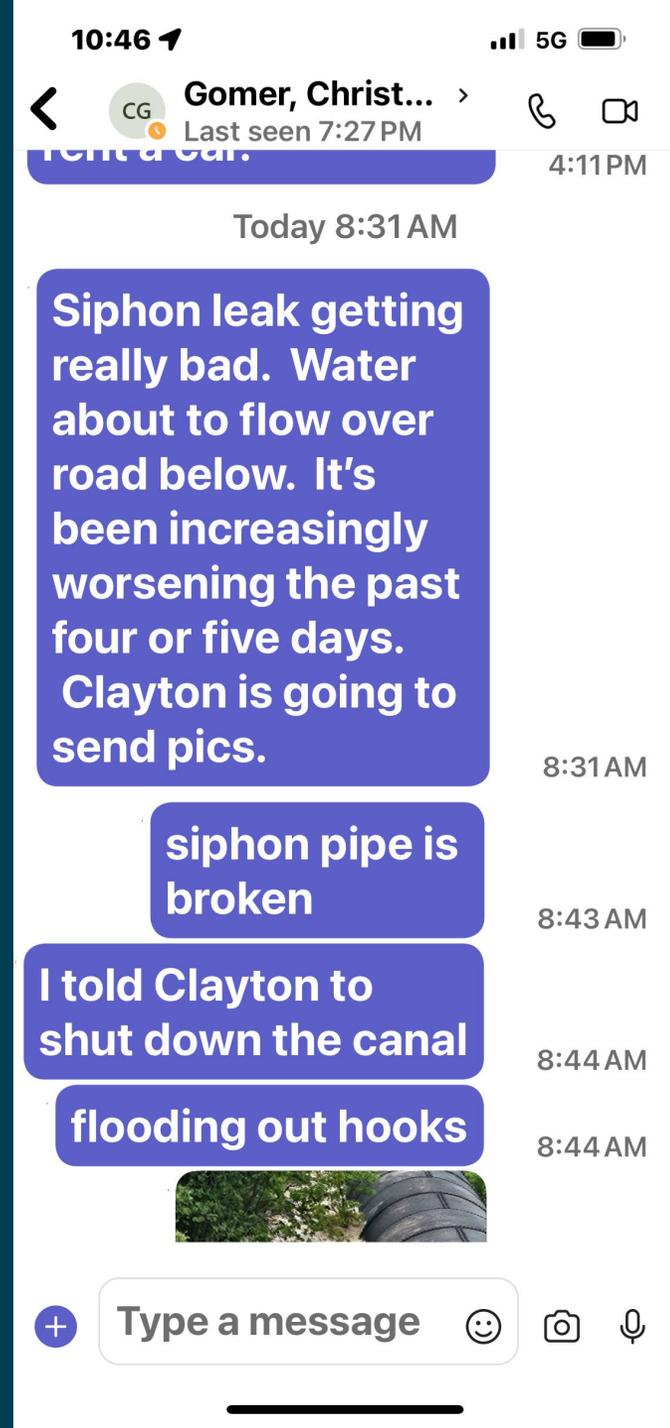
BUREAU OF  
RECLAMATION

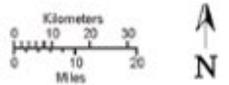
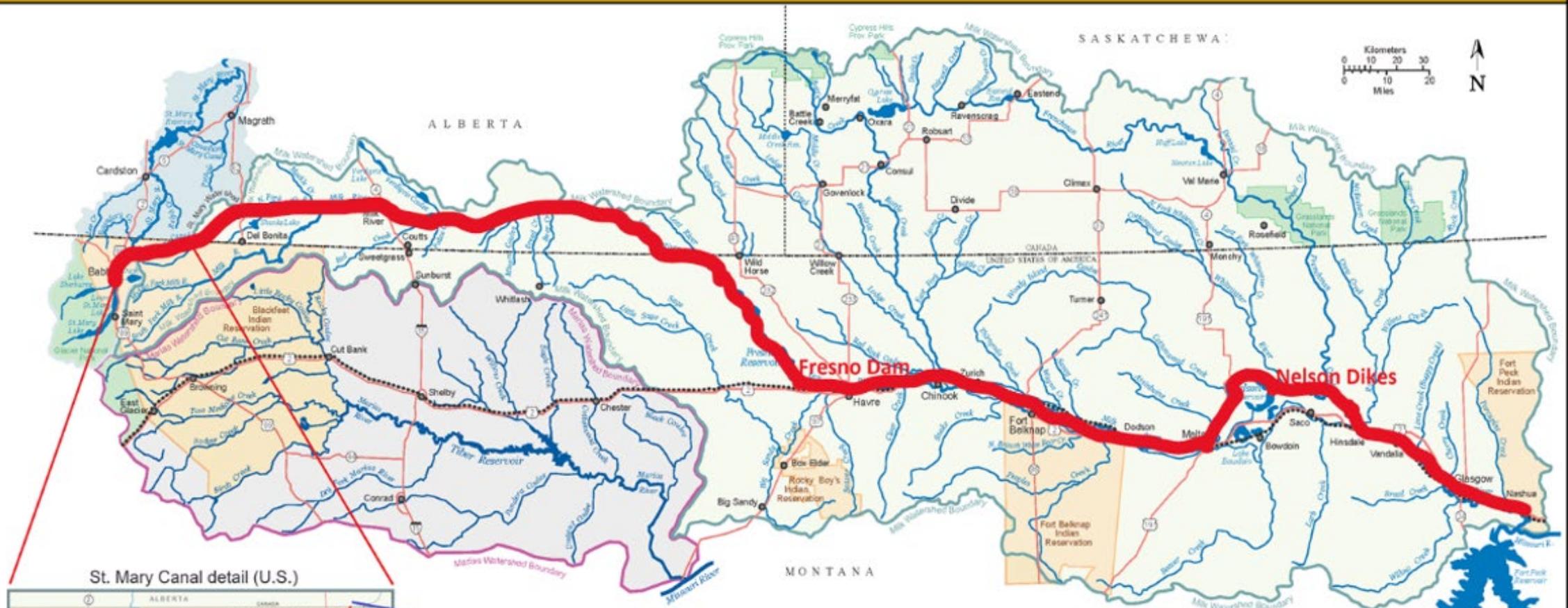
# St. Mary River Siphon Failure and Emergency Response

Steven Darlinton  
Montana Area Office

# Agenda

- Background
- Failure Overview
- Not the first rodeo
- Response/Reclamation Decision Making
- Project Execution
- Communication





St. Mary Canal detail (U.S.)



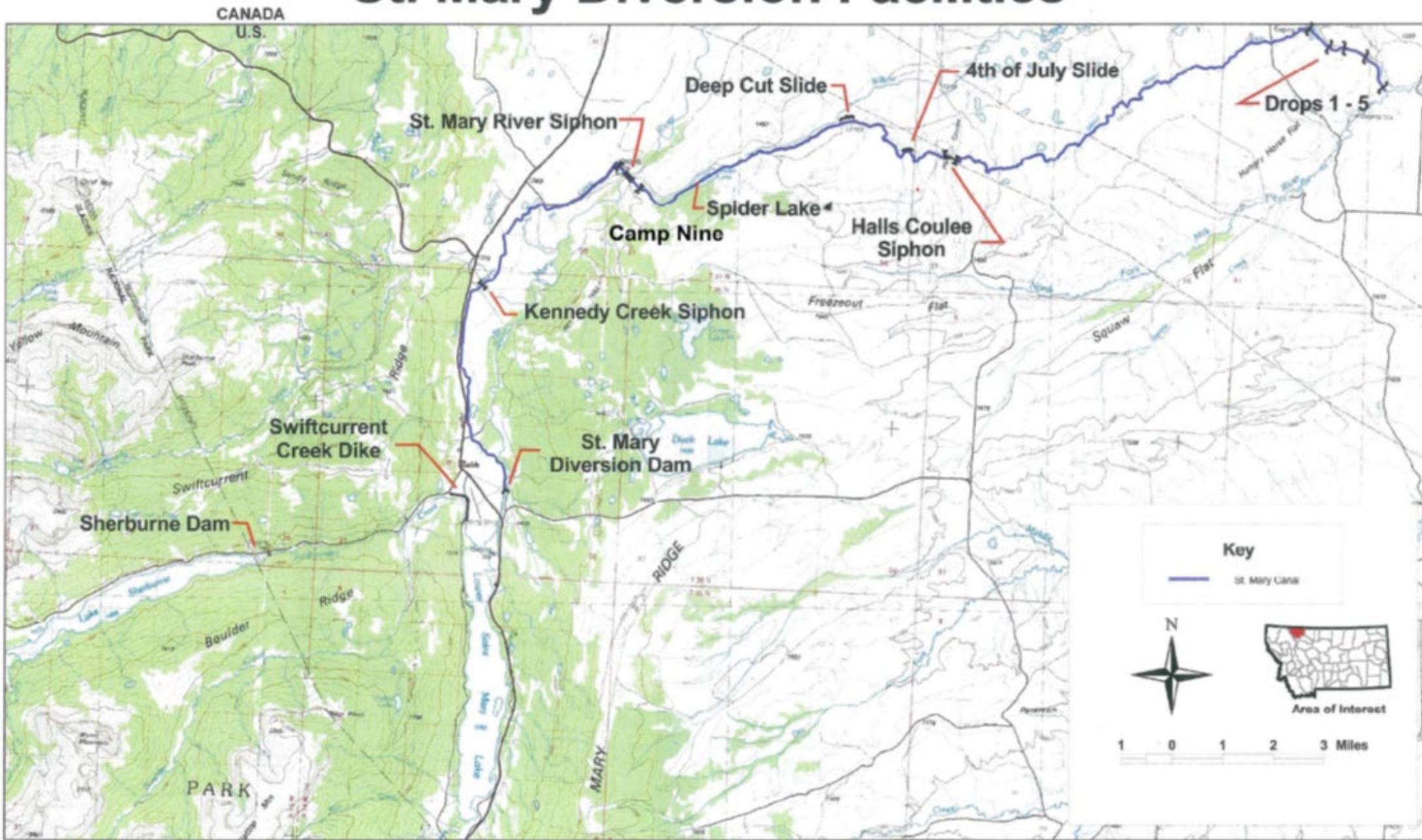
Drop Structures (1 through 5)

### Key

- Milk Watershed Boundary
- Marias Watershed Boundary
- St. Mary Watershed
- Rivers
- Lakes and Reservoirs
- International Border
- Provincial Borders
- Indian Reservations
- Roads
- Railways
- Cities and Towns
- Parks



# St. Mary Diversion Facilities





- Provides water to over 110,000 acres in 8 irrigation districts
- Supplies water for numerous towns in Montana and Canada and multiple tribes
- Project also creates recreational benefits and habitat for wildlife in the Bowdoin National Wildlife Refuge





Spiller









# St. Mary Siphon Failure – June 17



# St. Mary Siphon Failure – June 17



# St. Mary Siphon Failure – June 17



# St. Mary Siphon Failure – June 17



# St. Mary Siphon Failure – June 17



# Impacts/Challenges

## Impacts:

- *8 Districts (100+ pump contracts), 110,000 acres in U.S; 8,200 acres in Canada.*
- Threatened municipal water supplies to 14,000 people in U.S.
- Canadian towns also reliant on the system

## Challenges:

- Very remote site: 44 miles to nearest town/hotel
- Material Sources: Pipe, concrete, etc.
- Hiring construction and engineering team
- Expedited design documents needed
- Project entirely within Blackfoot Reservation
  - Added Employment, Cultural, and Environmental considerations
- Bull Trout are an ESA listed species in the St. Mary
- Financial resources



# What Now?

- We have no Plan
- We have no Funding
- We have no Designs
- We have no Staff to complete project
- We have no Contract vehicle
- We have no Environmental/ESA compliance
- Everyone wants answers.....



# Not the first Rodeo





# Response Efforts

- Communications
- Establish a plan
- Identify costs/funding sources
- Roles and Responsibilities
- Execution



# Challenges

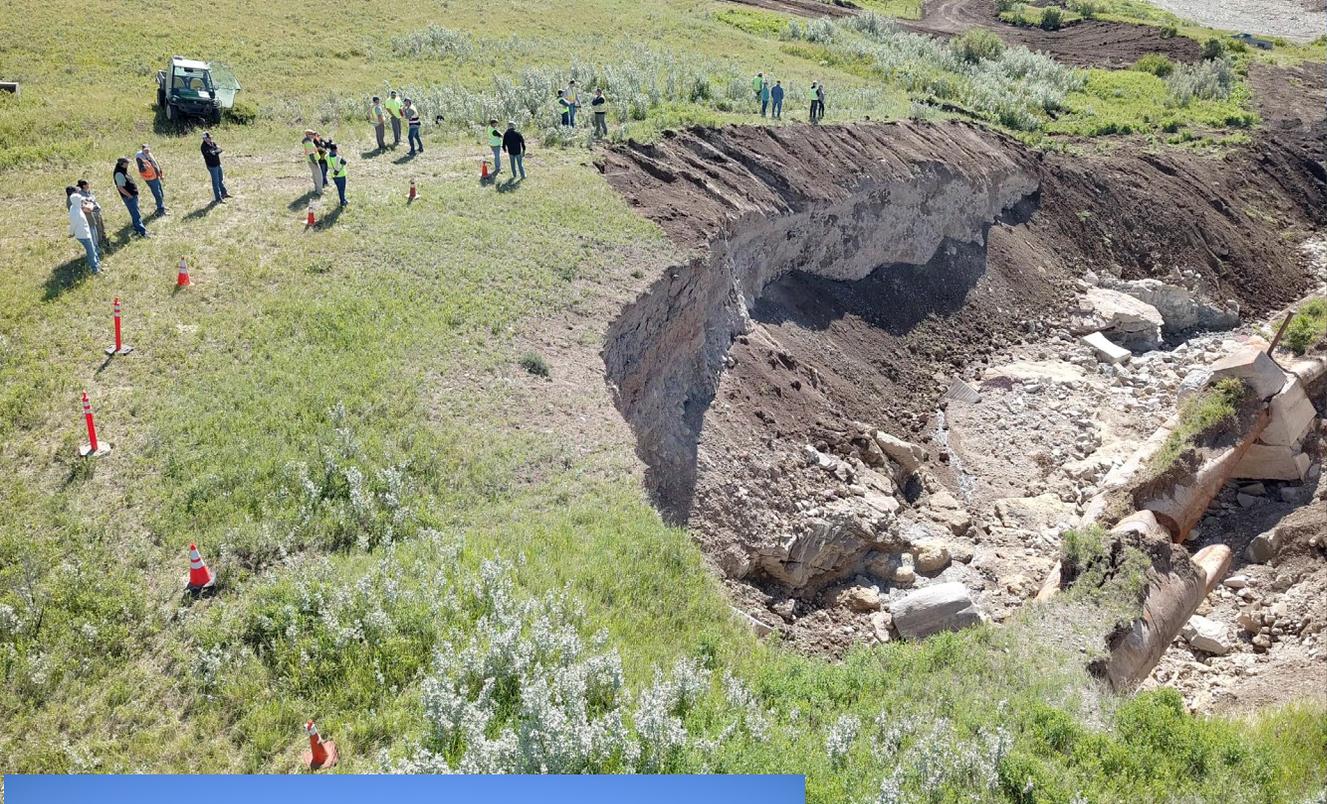
- Failure on May 16/17, 2020
- Geotechnical
- Weather
- Concrete procurement – Cardston, AB
  - Border closed
- Funding
- Downstream impacts
- Remote location
- Schedule for Spring operation
- Drop 5 & Drop 2 replacement
- Drop 1 improvements



# Ribbon Cutting on October 8, 2020



# June 25, 2024 – What Next?



# Technical Team Assessment – June 25, 2024

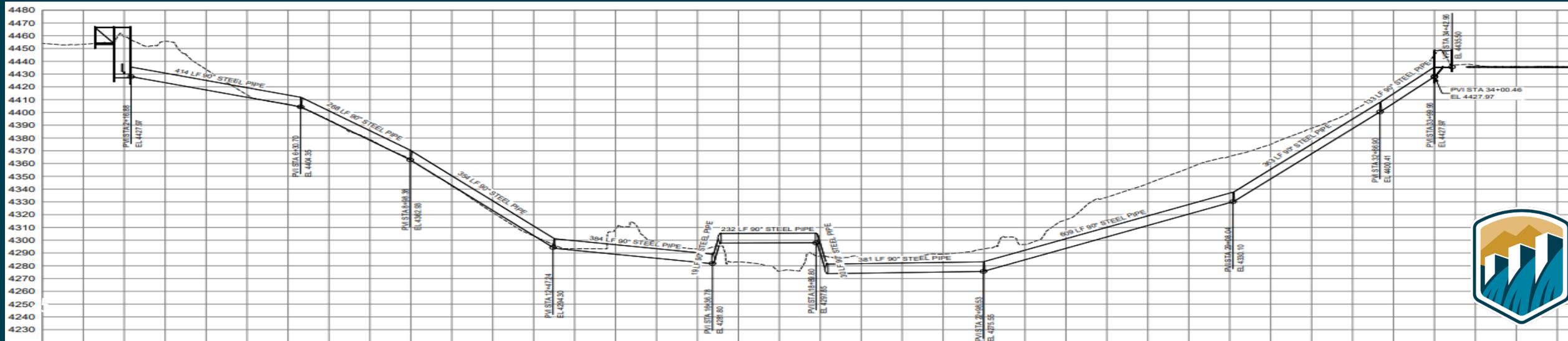
## • Alternatives Considered:

- Salvage pipe from the North Siphon and re-construct South Siphon
  - Purchase new steel pipe and re-construct South Siphon
  - Run small diameter HDPE through existing steel pipes (gravity or pump).
  - Pump directly from the St. Mary River (into existing pipes or directly to outlet).
- Due to the extent of damage to the pipe, pipe supports, and foundation, the team collectively determined pumping from St. Mary River was the most viable.

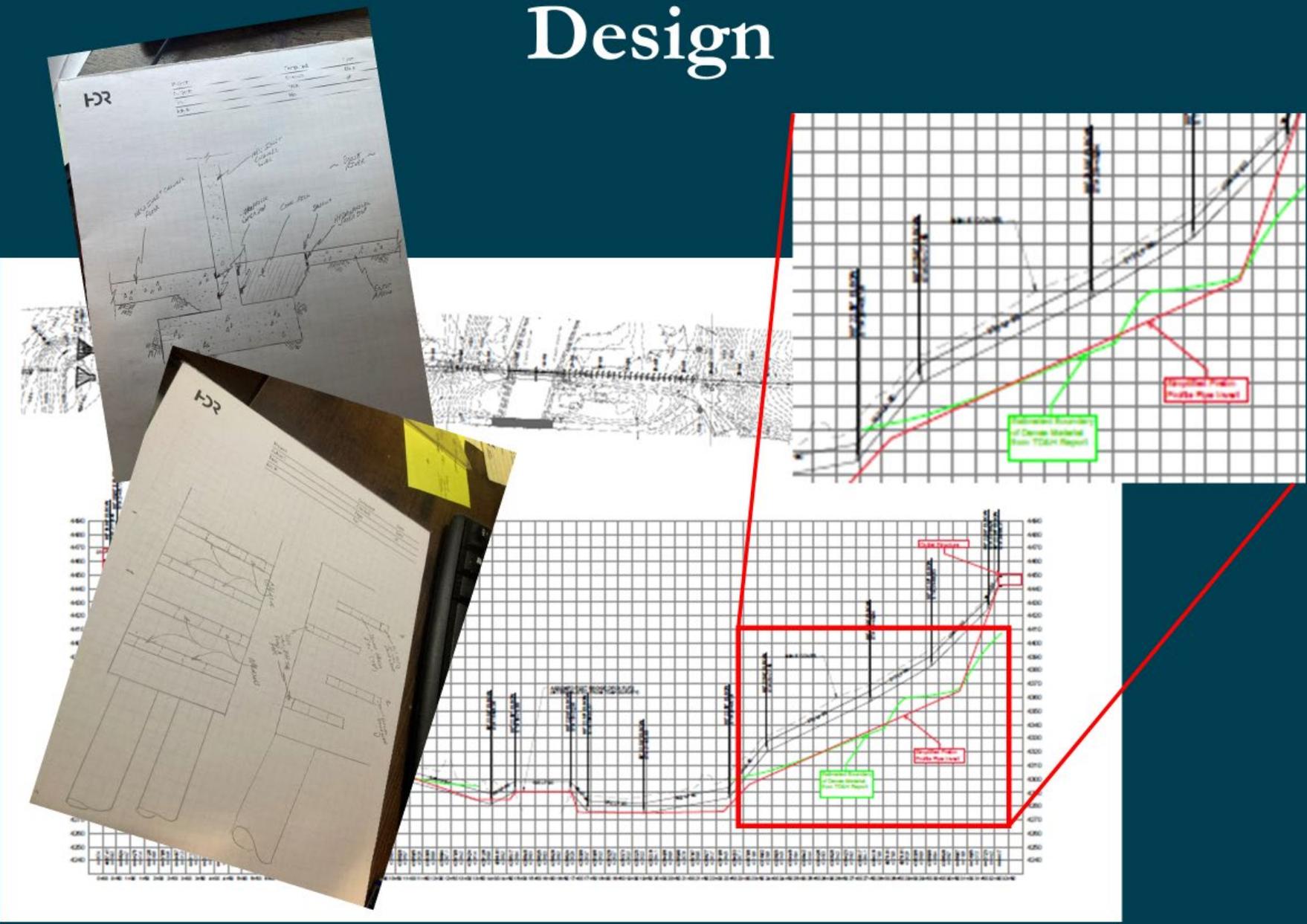


# Plan for Replacement

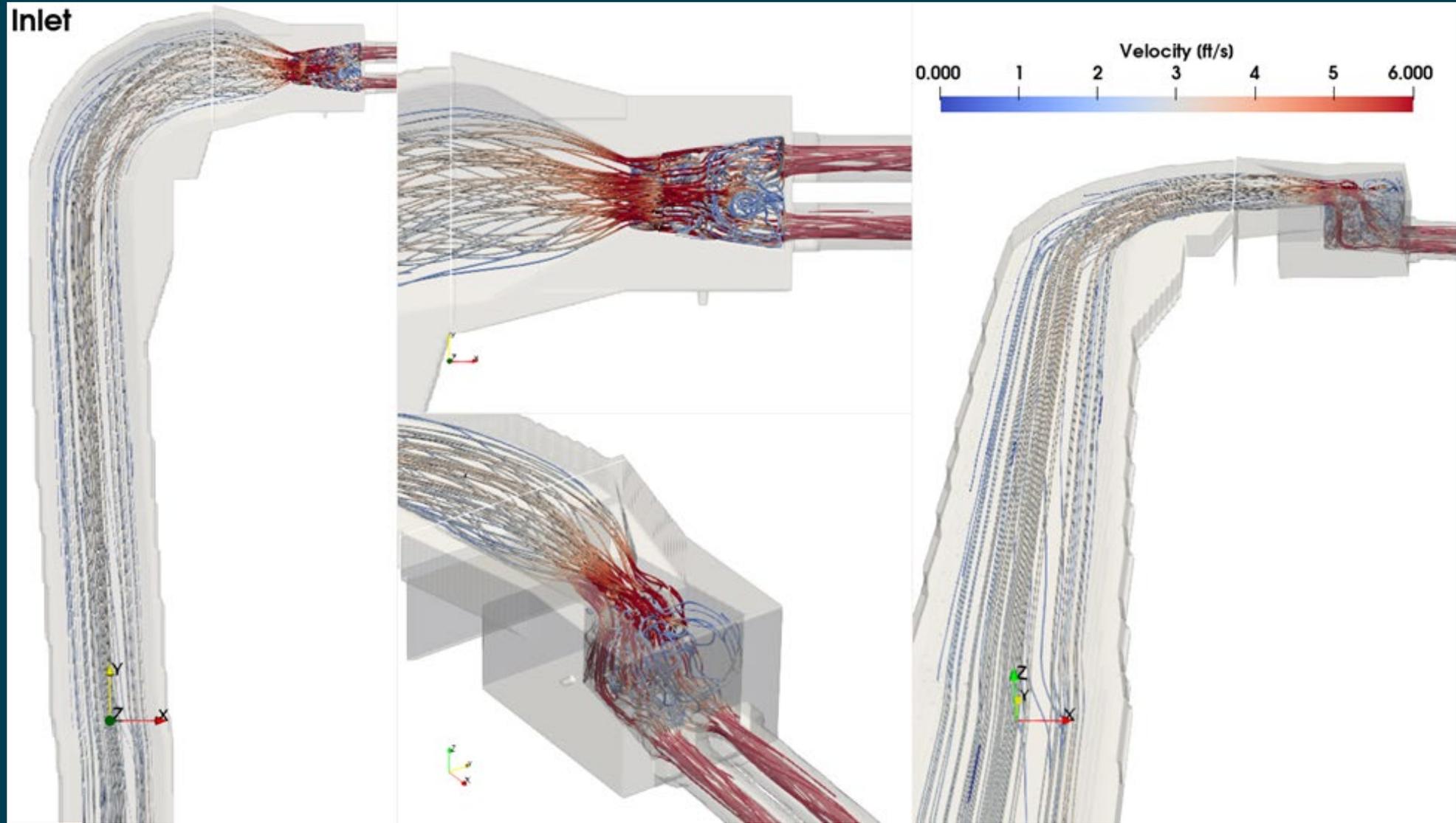
- Bipartisan Infrastructure Law Funding
- HDR Engineering replacement designs at 30%
- Estimates for both siphons completed in 2026
  - Updated in real time for emergency
  - \$51.6M for St. Mary River Siphon
  - \$18.4M for Halls Coulee Siphon



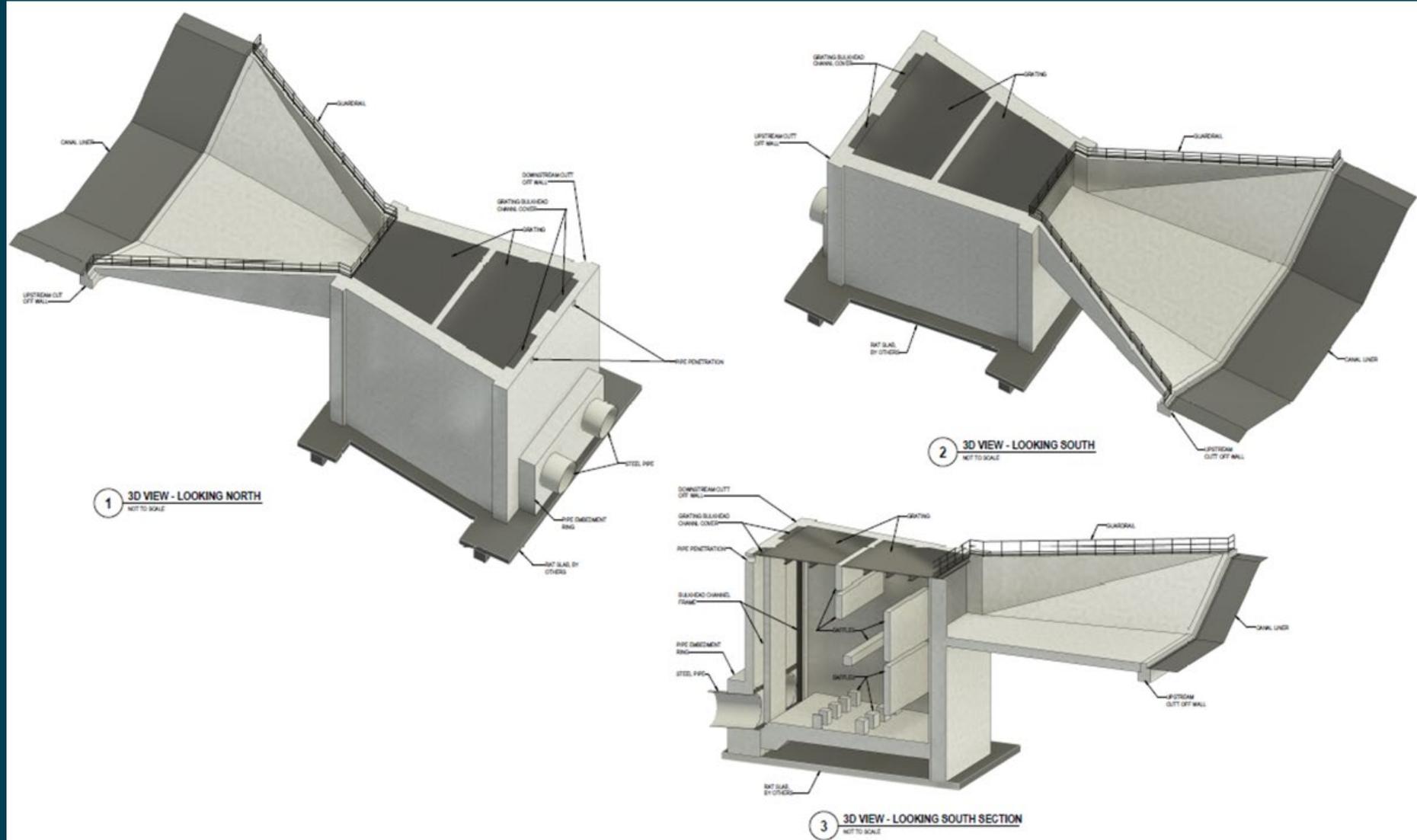
# Design



# Design



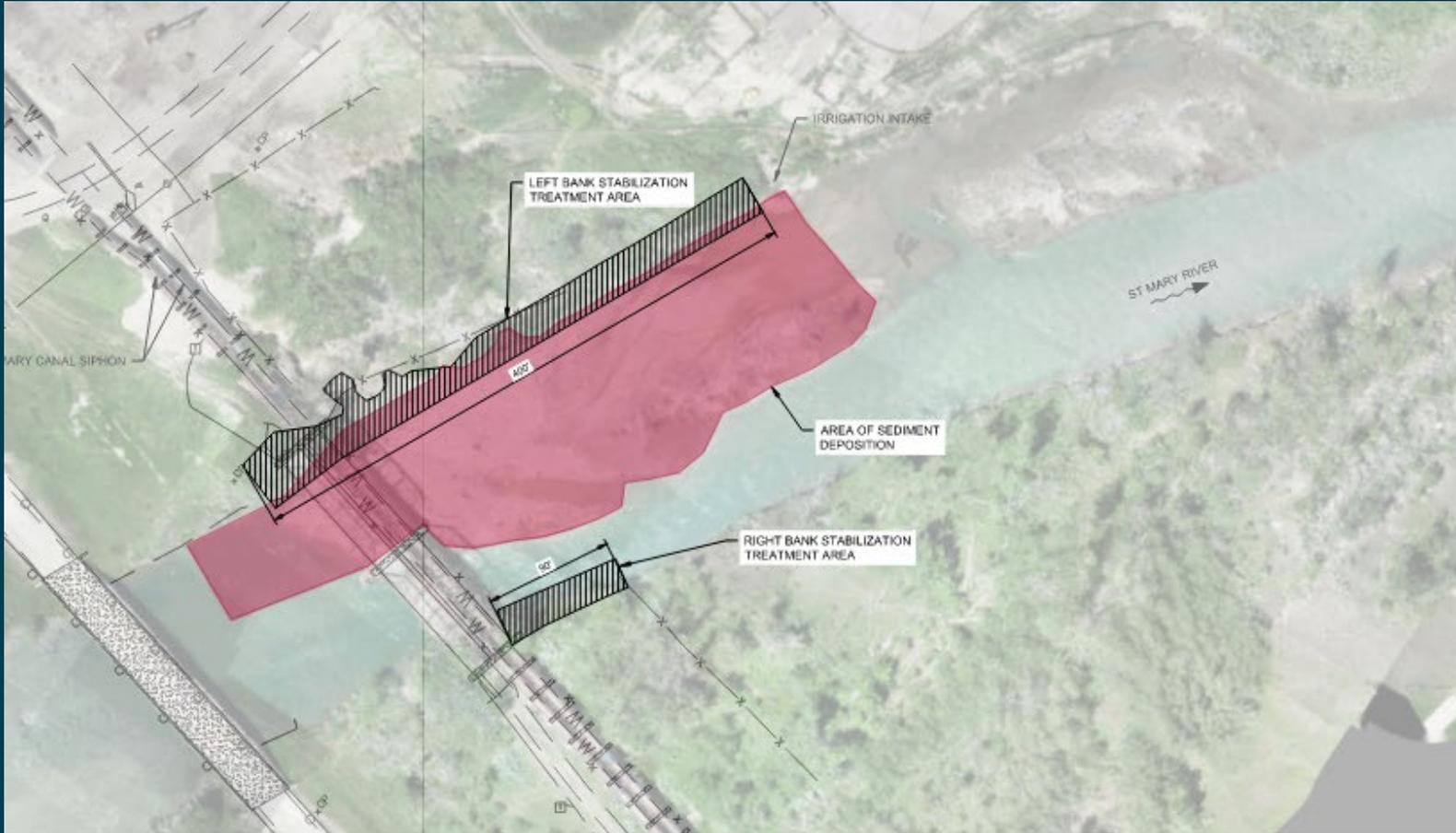
# Design



# Pipe Bridge



# River Restoration



0 60 120  
SCALE IN FEET

PROJECT MANAGER B. FENNELLY

DESIGNER 1 G. DECKER

DRAWN BY J. ROSENBAUM

CHECKED BY D. MARCH

PROJECT NUMBER 10410669

MILK RIVER JOINT BOARD OF CONTROL  
ST MARY CANAL

RIVER RESTORATION  
CIVIL  
SITE PLAN

0 1" 2"

FILENAME 00C-001.dwg

SCALE 1" = 60'

SHEET

00R-001



# Project Roles and Responsibilities

- **Partnership**

- Temporarily transfer OM&R of siphons to MRJBOC July 3, 2024
- Contract Admin Letter with MRJBOC
- Repayment Contract with MRJBOC

- **MRJBOC Role – Lead for Replacement**

- **Reclamation Role – Immediate Response/Technical Support**

- Retain ownership - Technical and construction support throughout
- Permitting and cultural (remediation and construction)
- Contract for River restoration, excavation and removal of existing pipe and pipe supports



# Project Roles and Responsibilities

## Reclamation

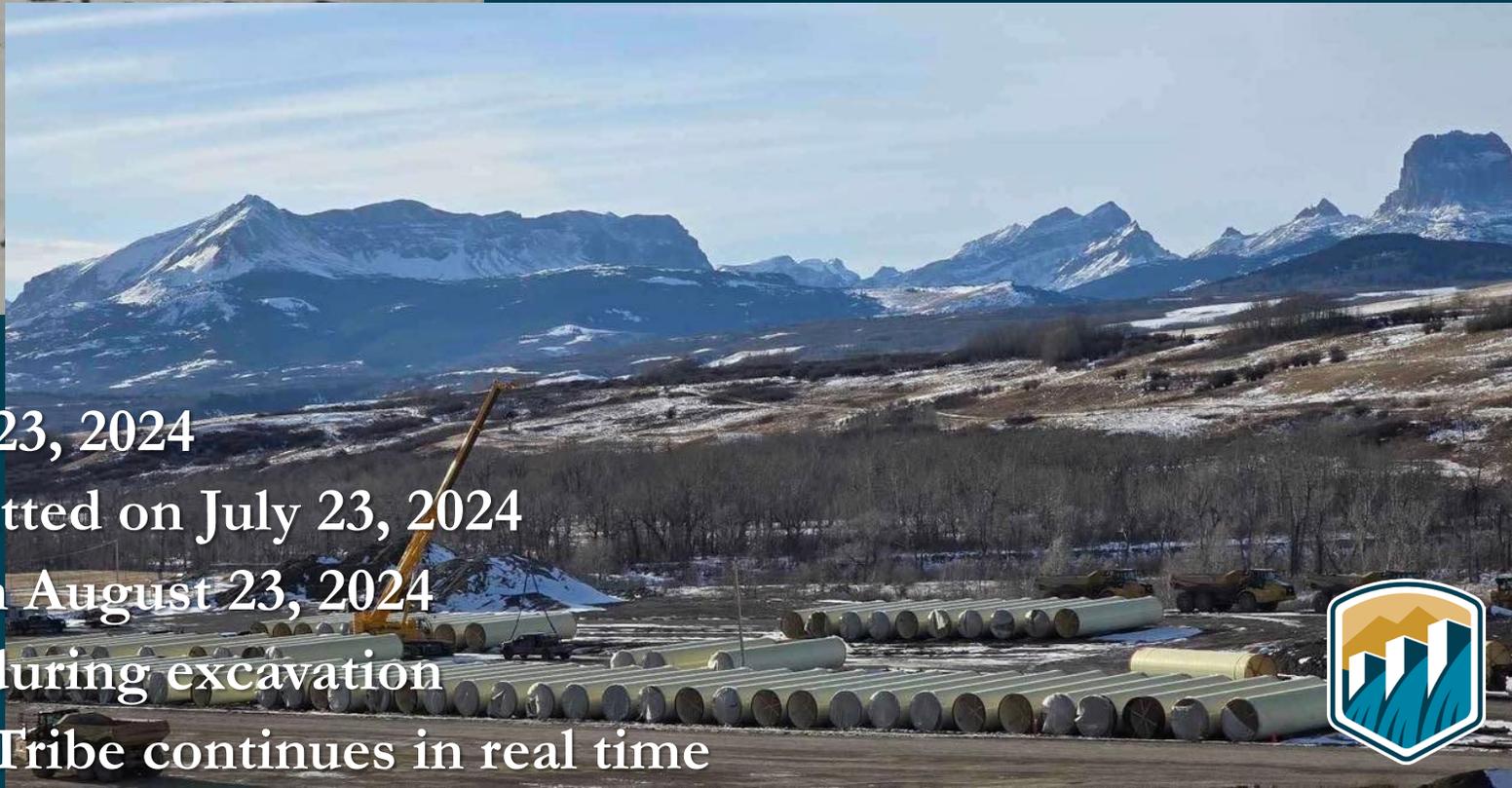
- Immediate Site Rehabilitation/Pipe Removal
- Out of scope modification to the St. Mary Diversion Dam
  - Awarded July 12<sup>th</sup>
  - Mobilized July 15<sup>th</sup>

## MRJBOC

- Hired Engineer to finalize designs and provide construction oversight
- Award Time and Material Contracts for bridge removal/installation and pipe installation
- Order and expedite pipe delivery



# NEPA/ESA/NHPA Compliance



- Reclamation lead on Compliance
  - EA/FONSI Executed on July 23, 2024
  - Biological Assessment transmitted on July 23, 2024
  - Biological Opinion received on August 23, 2024
  - Full time cultural monitoring during excavation
  - Permitting with the Blackfeet Tribe continues in real time





# Execution





# Execution

- 265,000 CY of earth moved in 6 weeks



# Execution

- Siphon pipe bridge abutments and center pier completed in 3.5 months

# Execution

- Delivery of 7,000 LF of 90" steel pipe to a remote job site during fall/winter in northern Montana





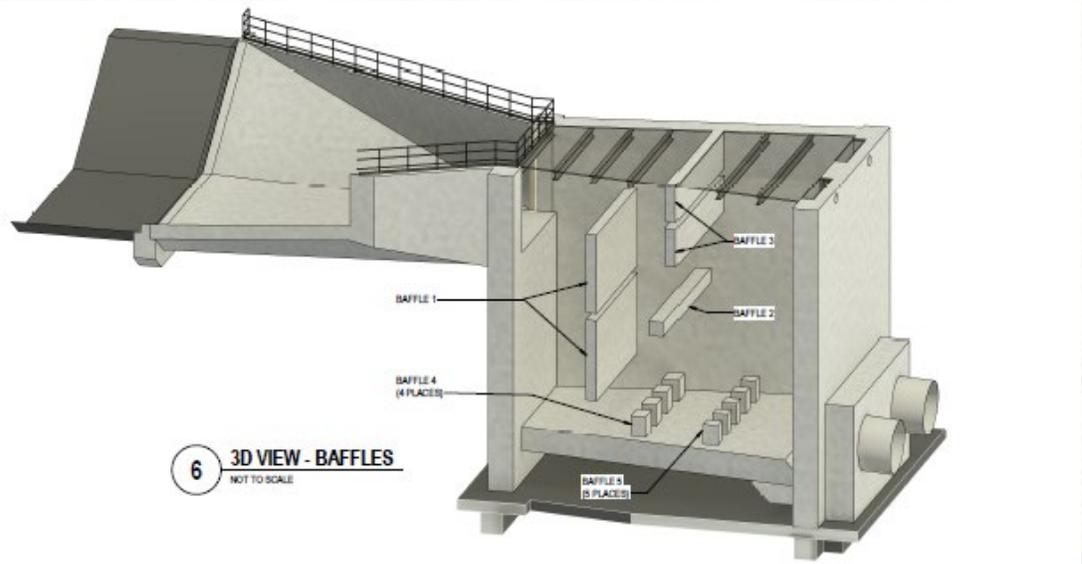
# Execution



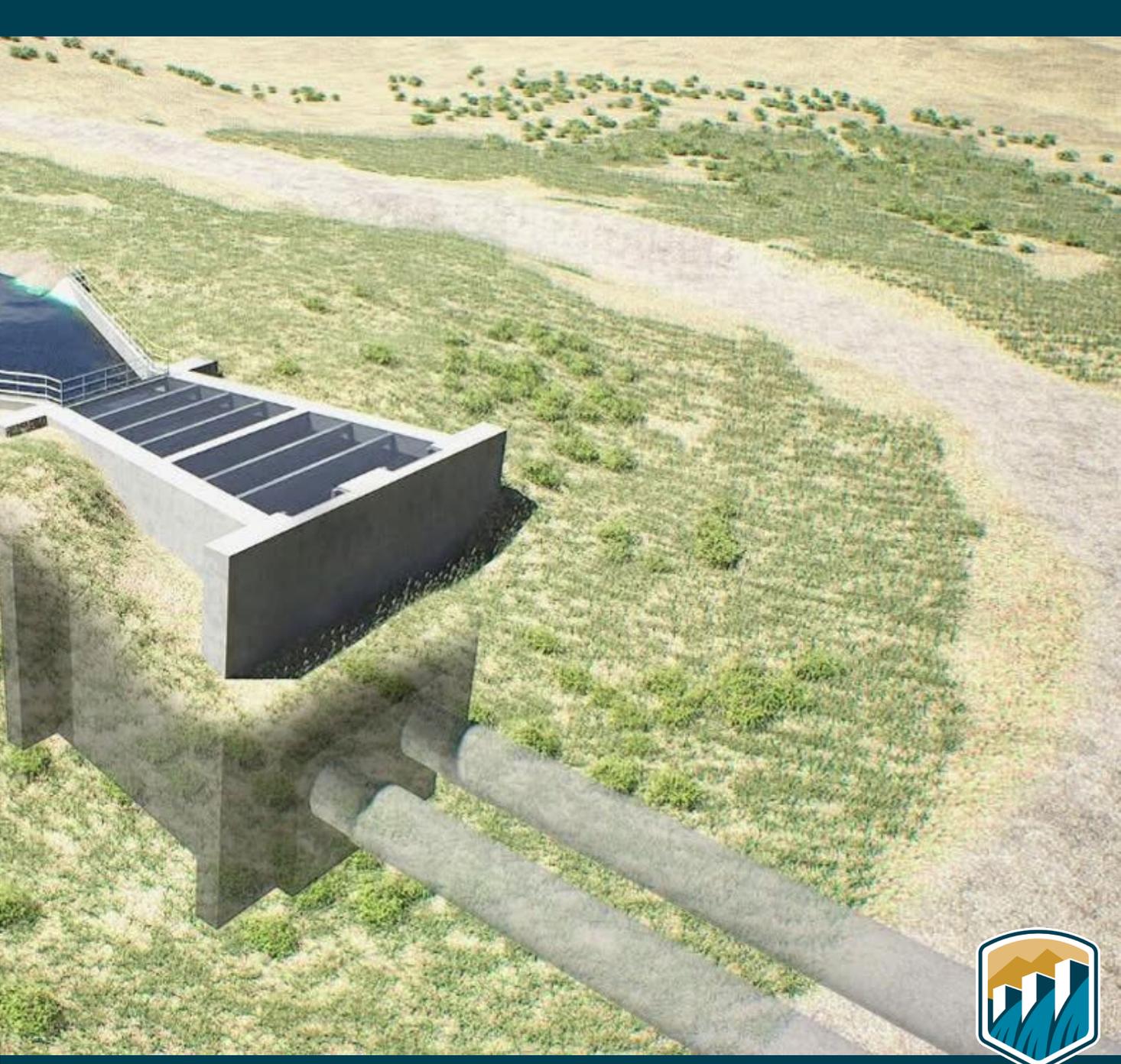
# Execution



# Execution



6 3D VIEW - BAFFLES  
NOT TO SCALE



# Execution



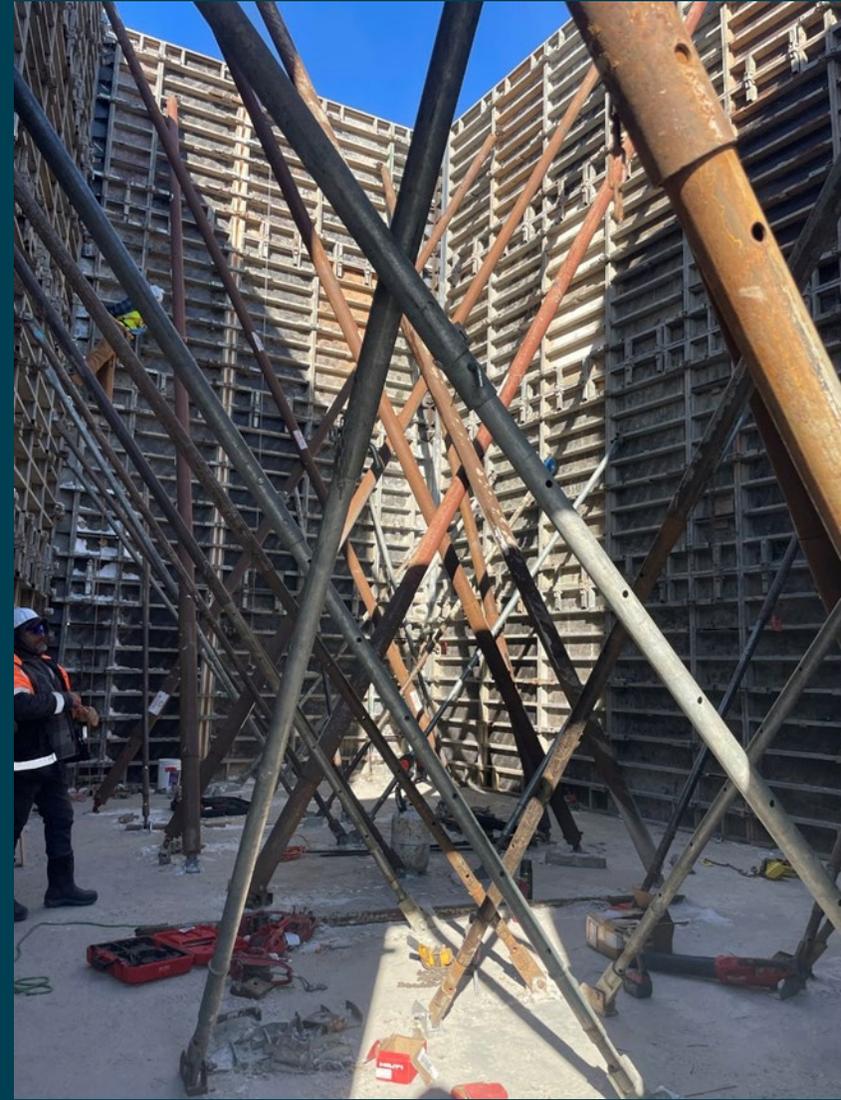
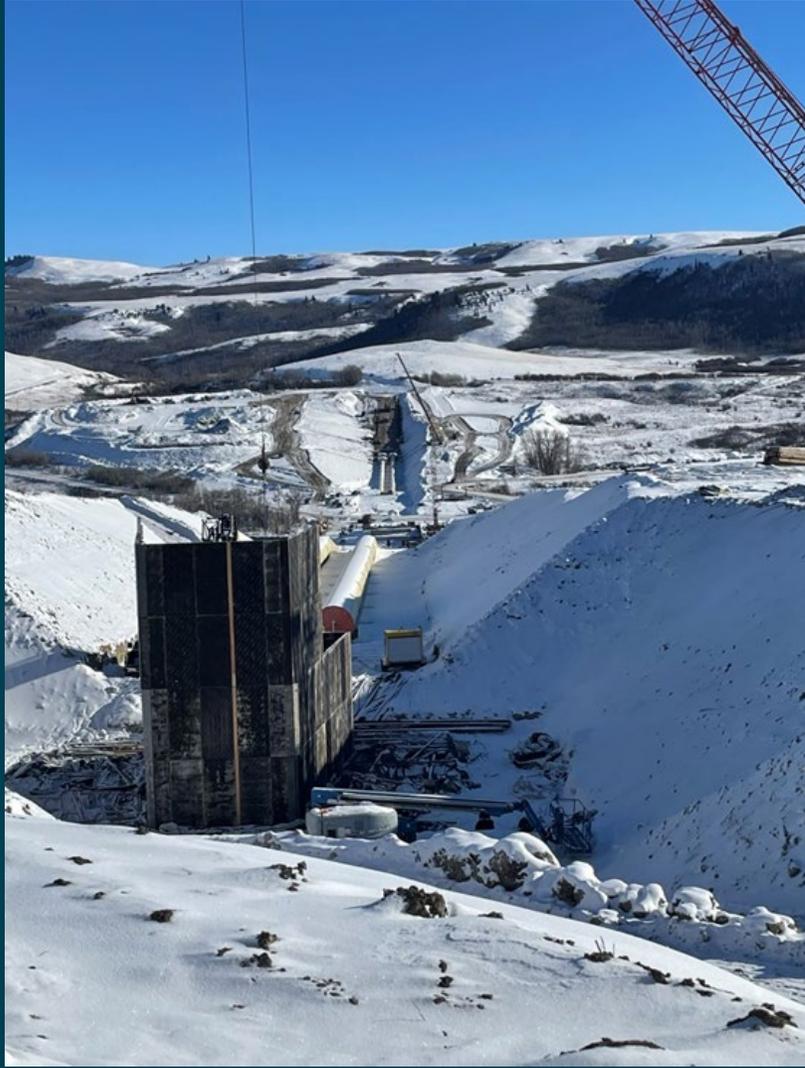
# Execution



# Execution



# Execution



# Effective Communication

- **Engaging Stakeholders** – Build trust through transparency
- **Thinking Outside the Box** – Encourage creativity
- **Leveraging People's Skills** – Utilize individual strengths

Clear, strategic communication ensures collaboration, efficiency, and impactful decision-making!





**Today**  
OME PAGE

ALERTS COMMUNITY WEATHER TRAVEL ON

2025 | Snow removal in Havre planned to begin February 6th. LOCAL NEWS

HOME LOCAL NEWS BOR sets Augusts 2025 as tentative

**BOR sets Augusts 2025 as date for St. Mary Siphon.**

July 11, 2024 | Isreal Hale | Local News

(Hi-Line) The Bureau of Reclamation held a town-hall style mee during which three BOR employees gave presentations to expl...  
The site of the St. Mary Canal siphon on June 16, 2024, the day after it failed, result Blackfeet Reservation in Montana. Photo by ree Press

# Milk River runs dry: St. Mary Canal failure disastrous for Hi-Line irrigators

Thom Bridge Lee Newspapers Aug 22, 2024



Ryan Newman, Montana area director for the U.S. Bureau of Reclamation, explains damage to the St. Mary Siphon in the Milk River Project's St. Mary Canal during a meeting of the project's Joint Board of Control in Malta, Montana, on June 20, 2024.

# Water users dealing with a dry Milk River following siphon burst

By Quinn Keenan  
Published: August 28, 2024 at 7:28PM EDT



NEIGHBORHOOD NEWS > HI-LINE

## Irrigators along the Hi-Line express concerns about St. Mary Canal siphons' failure



It's about time to watch on your time.

Local news with the KRTV Streaming App

Get your FREE KRTV Streaming App

Irrigators along the Hi-Line voice concerns about St. Mary Canal siphons' failure



By: McKenna Dickey  
Posted 10:11 PM, Aug 20, 2024 and last updated 5:47 PM, Aug 21, 2024

and Reclamation Bureau to  
e was caused by the age of the siphon



Mary Canal siphon will be fully replaced in 2025  
KPAX-TV

## Pipe replacement delivered for St. Mary Siphon

Last updated Oct 24, 2024 10:4am



## Milk River to be a 'dry town' as repairing burst water pipeline to last into next year

Province says it is working with local officials to protect drinking water capacity

Joel Dryden - CBC News - Posted: Jul 23, 2024 6:00 AM MDT | Last Updated: July 23, 2024



On June 17, the siphon on the St. Mary Canal near Babb, Mont. burst, causing local flooding and erosion. The Milk River Project diverts water from the St. Mary River through northern Montana and across southern Alberta. (Milk River Project/Facebook)

## St Mary Siphon Why it takes a crisis to trigger funding for Montana's largest irrigation project

The U.S. Bureau of Reclamation broke the news Tuesday that for the first time in a century, the Hi-Line will be without water from the St. Mary River for more than a year.



Siphon suffered a catastrophe restore the siphon by next year



Photo by: Courtesy of the Montana Historical Society, Montana Dams and Irrigation Collection / Montana Historical Society  
"Old Canal lost of St. Mary River near Babb - 1909. U.S.B.R. [U.S. Bureau of Reclamation] project". Undated.

MontanaSports.com  
Scores | Highlights | Features

Coverage of your favorite teams from Montana's Sports Leader

Federal grant helps St. Mary Canal repair

Press Release  
**Initiative Provides Directly Impacted**  
PUBLISH DATE: October 01, 2024

Home > News > Initiative Provides Assistance to Farm

NEW AT 6  
**STEVEN DARLINTON**  
MILK RIVER PROJECT MANAGER

MONTANA GROWTH

SPORTS  
MILWAUKEE VS BOSTON  
5:30  
Chime in

THOMPSON FALLS  
TODAY 40°  
SATURDAY 46°  
SUNDAY 39°  
6:00 | 24°  
NBC 13

## Without water, the Hi-Line stares down a potential economic catastrophe

Montana Public Radio | By John Hooks  
Published July 6, 2024 at 3:16 PM MDT  
LISTEN • 6:23



# Communication

MRP The Milk River Project · Following  
Reels · Feb 5 · 🌐



**Too slick for the pickups to transport the St. Mary siphon pipe - NO PROBLEM!**

**@NWconstruction getting it done!**

#milkriverproject

Project · Original audio

Give! 2.3K 50 56

Thank you to the crews for their work dedication!  
1h Like Reply

Top fan  
Getter done 🤔🤔  
1h Like Reply

Top fan  
It's so great to see this project keep moving forward!!!! Congratulations to all!! Can't wait to see water flowing to all our area users!  
2h Like Reply

Top fan  
Go kip go  
1h Like Reply

We appreciate all you are doing to bring water back to the Hiline  
2h Like Reply

Awesome job and crew!!!  
1h Like Reply

Great job, keep up the good work!  
2h Like Reply

# Communication



MILK RIVER  
JOINT BOARD OF CONTROL

HOME

ABOUT ▼

PROJECTS ▼

BASIN MAPS ▼

WATER FORECASTS

CONTACT ▼

# Milk River Project

THE LIFELINE OF THE HI-LINE



# St. Mary River Siphon – Keys to Success

- Ability AND WILLINGNESS of the Joint Board of Control (8 Districts) to step in and manage project quickly;
- Reclamation's ability to temporarily transfer OM&R responsibility of Reserved Works Facility to Joint Board of Control;
  - *Existing OM&R Contract had provision*
- Consultant and contractor availability and capability
  - HDR Engineering, NW Construction, & Sletten Construction
  - Blackfeet Tribal Resources – Construction workers
- Initial planning efforts already underway
  - Provided for expedited ramp up
- Successful Partnerships: Reclamation-Joint Board-State of Montana-Blackfeet Tribe
- Constant Collaboration – Daily!
- Luck: Previously Established Path, St. Mary Diversion Contractor



Steven Darlinton  
[sdarlinton@usbr.gov](mailto:sdarlinton@usbr.gov)  
406-247-7322



— BUREAU OF —  
RECLAMATION

# Communications

- Management Engagement
- Public Affairs Comms
- Constant interview requests
- Outreach to agency partners
- Outreach to beneficiaries
- Consistent messaging



# Funding

- OM&R Allocation for St. Mary Unit - 73.96% Reimbursable
- Beneficiaries no Ability to Pay large capital costs
- Request for Qualified EXM Determination made on June 18<sup>th</sup>
  - Included Halls Coulee Siphon



# Funding – Qualified EXM Determination

- **Federal Response**

- BON completed and transmitted for approval by June 27<sup>th</sup>
- Commissioner approved designation on July 3<sup>rd</sup> for both St. Mary and Halls Coulee Siphons
- Repayment Contract Signed on September 9
- First \$10.5M in funding provided on July 10<sup>th</sup> (\$17.1M to date)
- BIL funding secured for entire project on Dec 21<sup>st</sup>

- **State of Montana Response**

- \$6.2M in bonding authority
  - Made available on first invoice
- \$26M in loan authority (interest only)
  - Terms agreed to on September 19<sup>th</sup> (\$330k for 50-years)



# St. Mary River Siphon – Relationships

- Milk River Joint Board of Control
- Blackfeet Tribe
- Montana DNRC
- Montana DES
- Natural Resources Conservation Service
- Fish and Wildlife Service
- MBRO Contracts and Repayment
- MBRO Construction Services
- MBRO Technical Services
- MBRO Geology
- Technical Service Center
- Program and Budget
- Commissioner's Office
- Asset Management Division
- Mission Assurance and Protection Org
- HDR Engineering
- NW Construction
- Sletten Construction
- Bureau of Indian Affairs
- International Joint Commission
- Farmers Conservation Alliance
- Reclamation Public Affairs



# Funding – Qualified EXM Determination

## St. Mary and Halls Coulee Funding Options

Assumed Total Cost:		\$70,000,000		
	Reclamation Allocation	Beneficiaries Allocation	Reclamation Cost Share	Beneficiaries Cost Share
Traditional Operations and Maintenance	26.04%	73.96%	\$18,228,000	\$51,772,000
Qualified Emergency XM	35% Non-Reimbursable		\$24,500,000	
Qualified Emergency XM Cost Split	51.9%	48.1%	\$36,330,000	\$33,670,000

