

# ST. MARY & MILK RIVER PROJECT

## 2020 DROP STRUCTURE FAILURE



**1903**—The Milk River Project was authorized by the Bureau of Reclamation designed to provide water for irrigation. **1915** - The St. Mary Diversion System was completed, and water was diverted from the St. Mary River into the Milk River through the diversion dam and canal head gates, 29 miles of canal, 2 sets of steel siphons and 5 hydraulic drop structures. The entire Milk River Project features Lake Sherburne; Nelson and Fresno Storage Dams, Dodson, Vandalia, Paradise and Swift Current Diversion Dams; Dodson Pumping Plant, 200 miles of canals; 219 miles of laterals; and 295 miles of drains.

The Milk River Project is over **100 years old** and has been the focus for past and present members of Montana's Congressional delegation trying to secure federal funding for the repair or replacement of the aging system.

The St. Mary Diversion supplies the Milk River with 60-100% of its water during summer months. The diversion from St. Mary River allows for water in the Milk, which would run dry 6 out of 10 years. The Milk River runs for 729 river miles, starting on the Blackfeet Nation, into Alberta, Canada and along Montana's Hi-Line emptying in the Missouri River below Fort Peck Dam.

### May 17, 2020—Drop Structure 5 Failed

The canal was flowing approximately 1/3 of the total capacity. The Bureau of Reclamation immediately shut down flows through the canal.



## THE MILK RIVER

### *Drinking Water*

18,000 people in Havre, Chinook, Harlem & Fort Belknap.

### *Agriculture*

Feeds 1 million people annually.

121,000 acres of irrigated lands.

693 farms—alfalfa, native hay, oats, wheat, barley & sugar beets.

### *Recreation, Fish & Wildlife*

Fresno and Nelson Reservoir, Lake Sherburne & Bowdoin National Wildlife Refuge

*"The Lifeline of the Hi-Line"*

**May 26, 2020**—Milk River Joint Board of Control along with the Bureau of Reclamation contracted HDR Engineering and Terracon to begin the damage assessment, surveying and initiate the design for the repairs. Engineers were able to use the design from Drop 2 to plan for the replacement of Drop 5. Drop 2 had been the priority for replacement and considered the most likely to fail.

**June 4, 2020**—The Bureau of Reclamation executed the Contract Administration – Transfer of Operation, Maintenance and Replacement of the Drop Structures to Milk River Joint Board of Control. The Bureau of Reclamation under an Extraordinary Maintenance Repayment (EXM), signed by the Secretary of the Interior, were able to fund 52% of the engineering, materials testing and construction of both Drop 2 and Drop 5. The project beneficiaries were responsible for 48% of the costs. Milk River Joint Board of Control contracted with Sletten Construction to remove debris and construct Drop 2 and Drop 5.



**October 10, 2020**—Construction work began in earnest mid-June and was wrapped up in early October. October 10, 2020 the Bureau of Reclamation returned water into the Milk River through the St. Mary’s Diversion. For **22 weeks**, the Milk River did not receive any flow through the St. Mary Diversion.

#### **DROP 2 & DROP 5 COST**

Project Beneficiaries	\$147K
+	
State of Montana	\$3.6 Million
+	
Bureau of Reclamation	\$4 Million
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Total Project Cost	\$8 Million

#### **Drop 2 and Drop 5—\$8 Million**

The total cost of the Drop Structure Repairs is \$8 Million Dollars.

The Project Beneficiaries Share was funded by \$39,000 from Pumper and M&I Contracts, Milk River Joint Board of Control DNRC Grant for \$15,000 and MT Growth Through Agriculture Grant for \$93,000.

The State of Montana (DNRC) funded \$3.6 Million. House Bill 540 in the 59<sup>th</sup> Legislature authorized \$10 million to the St. Mary’s Project as the state share.

**Drop 1**—The Milk River Joint Board of Control also completed regular maintenance on Drop 1 during this time. Work was not covered under the EXM and was funded under the current allocation, Bureau of Reclamation (26%) and Project Beneficiaries (74%). Total cost for the maintenance was \$355,000.



## DROP 2 & DROP 5 QUANTITIES

18,859 hours worked onsite

205 tons of steel

2,066 cu yards (4,200 tons) of concrete

202 trucks crossed through the border

44 US Agencies and 10 Canadian entities

22 weeks from failure to running water



**What's Next?**—The St. Mary Diversion Dam 30% design is estimated at \$790,000, and has been initiated, 90% final designs will require an additional \$1.7 million. Construction of the St. Mary Diversion Dam is estimated at \$60 Million to replace the existing structure and mitigate the entrainment and passage of Bull Trout, a threaten species. Using the current cost allocation, Project Beneficiaries would pay for 74% of those costs, and Bureau of Reclamation would pay for the remaining 26%. Currently, Milk River Joint Board of Control and St. Mary Rehabilitation Working Group are working with the Bureau of



Reclamation on an “Ability To Pay” study that would assess irrigators and municipalities share of the replacement costs.

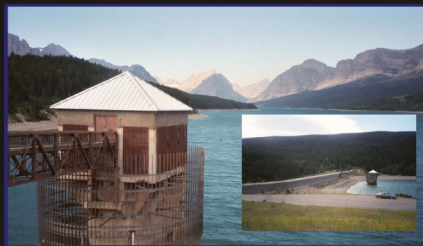
Montana’s Congressional Delegation introduced the St. Mary’s Reinvestment Act in 2019 which would amend current federal costs shares to 75% federally funded, if passed.

## 2020 MILK RIVER PROJECT - ST. MARY CANAL DROP 2 & 5 REPLACEMENT

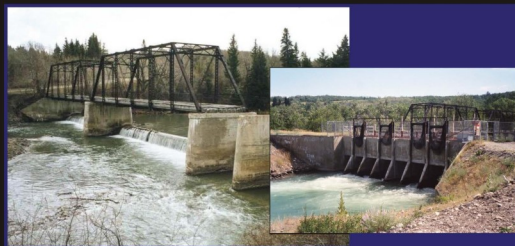


SOUTHWEST CONCRETE - SHOW TRUCKING - M&D CONSTRUCTION - A JAY CONCRETE PUMPING - RUMNEY RANCH - HARRIS REBAR - TERRACON  
NELSON FAMILY FARMS - DENZER FAMILY - K&S HYDROSEED - ST. MARY WORKING GROUP - US & CANADIAN CUSTOMS & BORDER PROTECTION





1 Sherburne Dam & Lake Sherburne



2 St Mary Diversion Dam & Canal Headworks



3 St Mary Canal - River Siphon

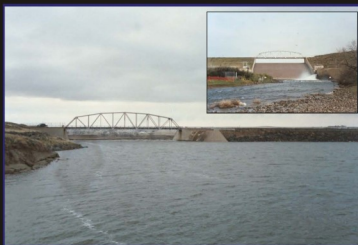
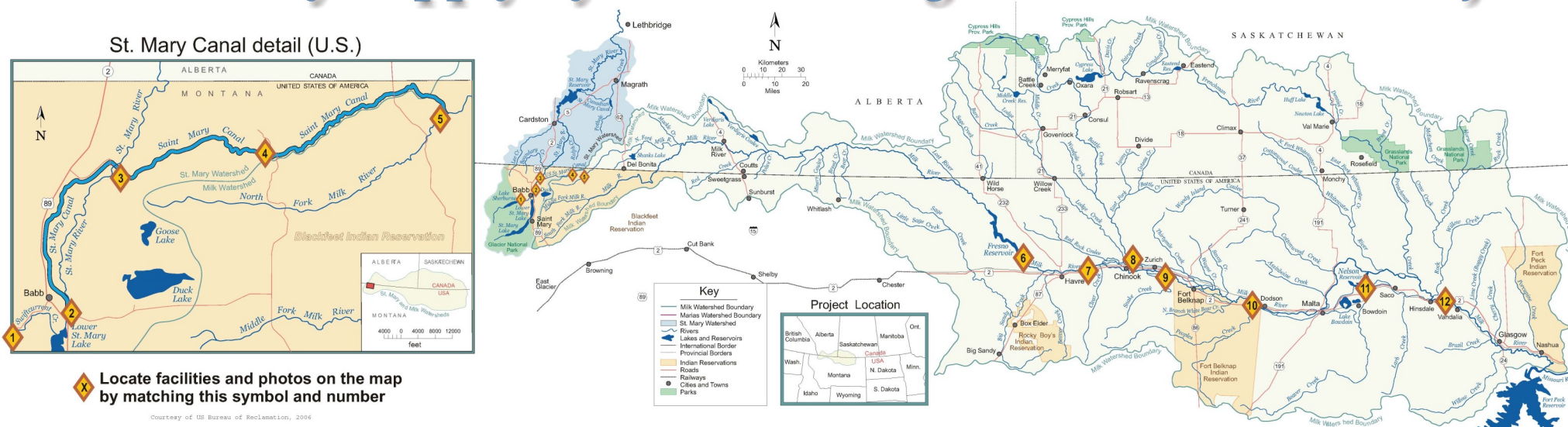


4 St Mary Canal Halls Coulee Siphon

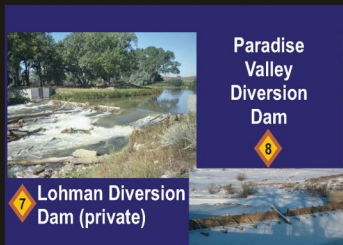


5 St Mary Canal Drop Structure

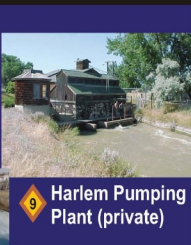
# The St. Mary Supply System and the greater Milk River Project



6 Fresno Dam and Reservoir



7 Lohman Diversion Dam (private)



9 Harlem Pumping Plant (private)



10 Dodson Diversion Dam



11 Nelson Dikes and Reservoir



12 Vandalia Diversion Dam

# St. Mary Canal Drop Structure Repairs

