

# Update of 2023 Water Storage Report for WPIC – October 11, 2023

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Montana DNRC State Water Brian  
Holling- Projects Bureau Chief

# Brief Overview of State Water Projects

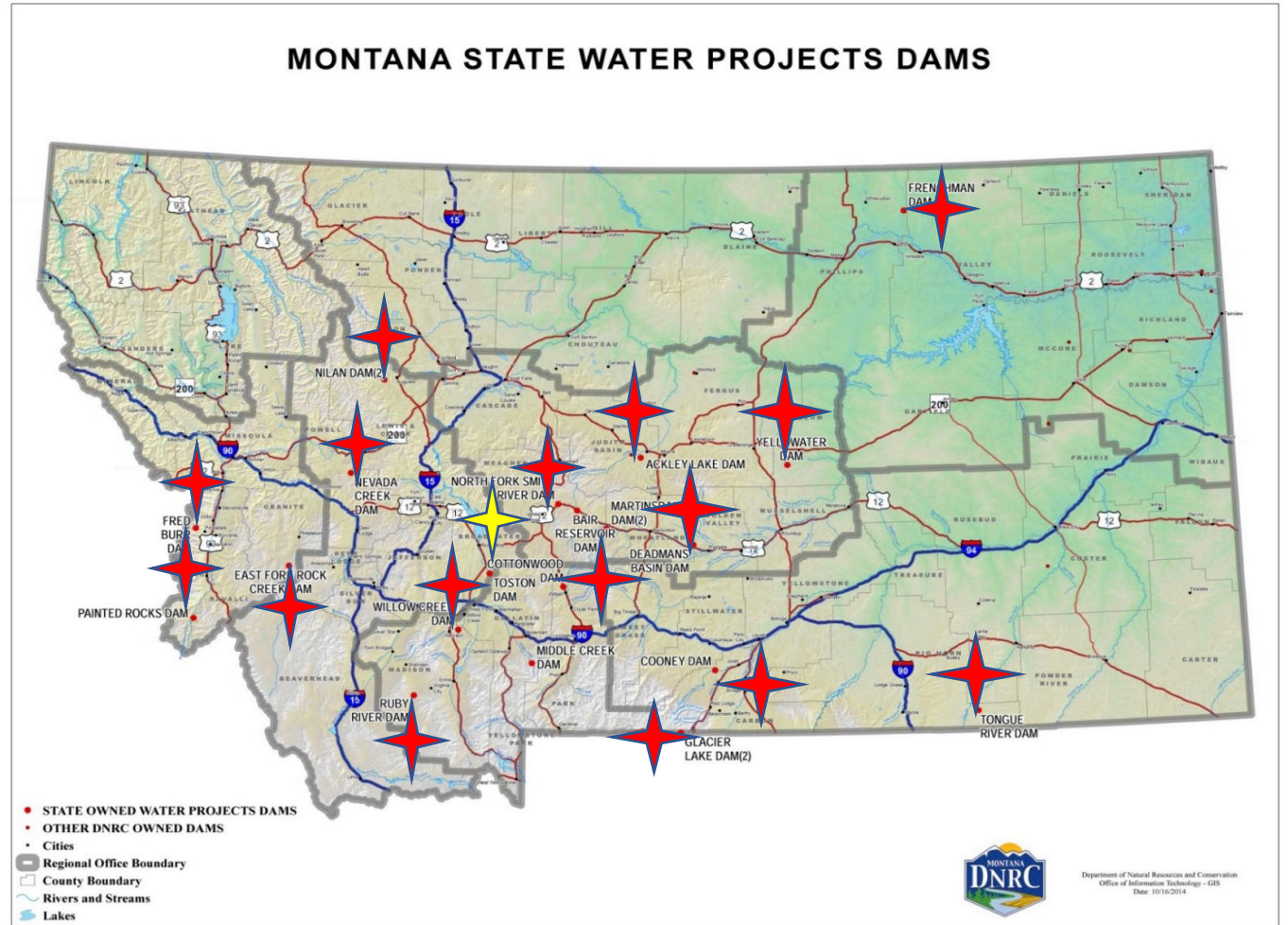
- State Water Projects are administered by the State Water Projects Bureau (SWPB) which oversees the operation, management, and rehabilitation of state-owned dams, canals, and hydropower.
- The SWPB markets water from these projects, primarily for irrigation and administers over 300,000 acre feet of water through 1,800 water-marketing contracts.
- Revenue from water purchase contracts, leasing of lands associated with the projects, and net revenue from hydropower generation supplements funds are used for state water project rehabilitations. Debt repayment funds come from repayment contracts with the water users as well as Hydropower Earnings.
- Another revenue source is State Special Revenue – Water Storage Account from the coal severance tax.
- The SWPB ensures that projects are operated and maintained in a safe, efficient manner, are kept to current dam safety standards, and that repayment contracts are properly administered.
- The SWPB is also responsible for overseeing repairs, maintenance, and rehabilitation of approximately 250 miles of irrigation canals associated with state-owned projects.
- The SWPB is also responsible to provided engineering oversight to nine DFWP dams.





<u>Project Name</u>	<u>Year Completed</u>	<u>Storage (acre-feet)</u>	<u>Height (feet)</u>	<u>County</u>
<u>Ackley Lake Dam</u>	1938	6,722	51	Judith Basin
<u>Bair Reservoir Dam</u>	1939	7,300	106	Meagher
<u>Cooney Dam</u>	1937	28,230	102	Carbon
<u>Cottonwood Dam</u>	1953	1,905	39	Park
<u>Deadman's Basin Dam</u>	1941	72,218	60	Wheatland
<u>East Fork of Rock Creek Dam</u>	1938	16,040	88	Granite
<u>Fred Burr Dam</u>	1949	525	50	Ravalli
<u>Frenchman Dam<sup>1</sup></u>	1952	2,801	44	Phillips
<u>Glacier Lake Dams</u>	1937	4,200	57 (N) 20 (S)	Carbon
<u>Martinsdale Dams</u>	1939	23,348	91 (N) 49 (E)	Wheatland & Meagher
<u>Middle Creek Dam (Hyalite)</u>	1951	10,184	125	Gallatin
<u>Nevada Creek Dam</u>	1938	11,152	105	Powell
<u>Nilan Dams</u>	1951	10,092	54 (N) 51 (E)	Lewis & Clark
<u>North Fork of Smith River Dam</u>	1936	11,500	84	Meagher
<u>Painted Rocks Dam</u>	1939	32,362	143	Ravalli
<u>Ruby River Dam</u>	1938	37,642	112.5	Madison
<u>Tongue River Dam</u>	1940	79,071	93	Big Horn
<u>Toston Dam (Broadwater-Missouri)</u>	1940	4,100	51.5	Broadwater
<u>Willow Creek Dam</u>	1938	18,000	105	Madison
<u>Yellow Water Dam</u>	1938	3,842	37	Petroleum

## MONTANA STATE WATER PROJECTS DAMS



# Update of on-going projects from Pages 3 and 4 of the 2023 Water Storage Report:



## Ongoing Projects:

- Ackley Lake Outlet Canal Rehabilitation Project (Judith Basin County), contract awarded \$357,000 Substantially complete on October 6<sup>th</sup>.
- Upper Musselshell Two Dot Canal Rehabilitation Project (Wheatland County), contract awarded \$160,000 Construction will begin mid October.
- East Fork Rock Creek Dam Rehabilitation Environmental Planning (Granite County), Current Cost \$98,265 nearing completion, EA is out for public comment.
- East Fork Rock Creek Dam Rehabilitation: Final Design (Granite County), \$972,790, Construction documents are 100% complete, awaiting final permitting and will advertise for bids Fall/Spring (depends on ability to access the site for pre-bid)
- Painted Rocks Dam Environmental Planning (Ravalli County), \$98,804
- State Water Projects Planning Document, completed final cost of \$160,190
- Tongue River Dam Spillway Stilling Basin Erosion Repair (Bighorn County), completed early 2023, \$132,000.
- Willow Creek Dam Feasibility Study (Madison County), \$750,000.00. On-Going. completion expected end of 2023.



# Update of new projects listed on page 11 of the 2023 Water Storage Report

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Project Title	Biennium Proposed	Estimated Cost and Funding Source	Status	Current Cost
DNRC East Fork Rehabilitation - Construction	2023-2024	\$17-18M RDG Grant \$500K RRGL Loan \$16.9M	Grant and Loan Approved Advertise for Bids Late 2023	TBD
Willow Creek Rehab Final Design	2023-2024	\$1.3M RDG Grant \$500K General Fund OTO \$1M	Will follow completion of Feasibility Study – Winter/Spring 23/24	TBD





**Update of project  
priorities listed on  
page 10 of the  
2023 Water  
Storage Report**





Priority from 2023 WSR	Project Title	Estimated Cost and Funding Source	Status	Current Cost
1	East Fork Rock Creek Dam Rehab Final Design	\$800,000 SSR	Design is complete – awaiting final EA and permitting	\$840,000
2	East Fork of Rock Creek Rehabilitation Construction	\$17,400,00 RDG, RRGL Loan WUA contribution	Construction documents are complete, waiting for final permits and EA completion	\$17,400,00
3	East Fork Dam Rehabilitation Environmental Planning	\$500,000 SSR	Contract initiated June 2021 Will be concluding end of 2023	\$98,265
4	Willow Creek Dam Feasibility Study	\$750,000 SSR	Estimated completion end of 2023/Early 2024	\$750,000 with additional work for geotechnical work
5	Painted Rocks Dam Rehabilitation Environmental Planning	\$450,000 SSR	Initial studies complete, on-going consultation with USFS and USFWS	\$98,804
6	Willow Creek Final Design	\$1,00,000 \$1M OTO	Waiting completion of feasibility study	N/A
8	Ackley Lake Outlet Canal Rehabilitation	\$160,046 RRGL Grant \$200,000 ARPA	Project is substantially complete	\$357,000
10	Upper Musselshell Two Dot Canal Rehabilitation Project	\$170,046 RRGL Grant	Bids Opened Construction begins in October	\$160,000

## Unprogrammed Work 2023



- Gate Repair/Replacement Feasibility at Tongue River Reservoir
- Engineering for PLC replacement at Tongue River Reservoir
- Major Maintenance of hydraulic gate lift system at Tongue River Reservoir
- Glacier - Concrete spall repair - North Dam
- Painted Rocks Spillway Repairs 2023
- Ruby Reservoir Stilling Basin – Pumping and Inspection
- Allendale Fish Screen – Improved automated screen cleaning system
- Completed Fish Entrainment Study for East Fork Canals – Part of Special Use Permit from USFS
- Completed Ditch Bill Easement for Fred Burr Dam
- Initiated Cabin Sale Program and completed 6 sales
- Repair/Replacement of dam monitoring instruments at Tongue, Nilan and Ruby Reservoirs





2025-2027 Planning  
and Prioritizing  
Projects for  
Consideration



- Willow Creek Rehabilitation - Construction
- Painted Rocks Rehabilitation – Phase 1 Final Design
- Martinsdale Spillway - Replace deflecting walls
- Middle Creek – Bridge, Outlet and Tower Improvements
- Condition Inventory on piezometers
- Nevada Creek - Tower Safety
- Nevada Creek - Dewater Impact Basin; repair conduit
- Nilan - Permanent SEF Area Repair
- North Fork - Tower Safety

