

MARTINSDALE DAMS

Fact Sheet

PROJECT DESCRIPTION

- ◆ Off-stream storage project located in Wheatland and Meagher Counties, 2.5 miles southeast of Martinsdale
- ◆ Construction completed in 1939
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by Upper Musselshell Water Users Association since 1939
- ◆ Project consists of:
 - Two zoned earthfill dams:

North Dam – 91 ft high & 1,000 ft long

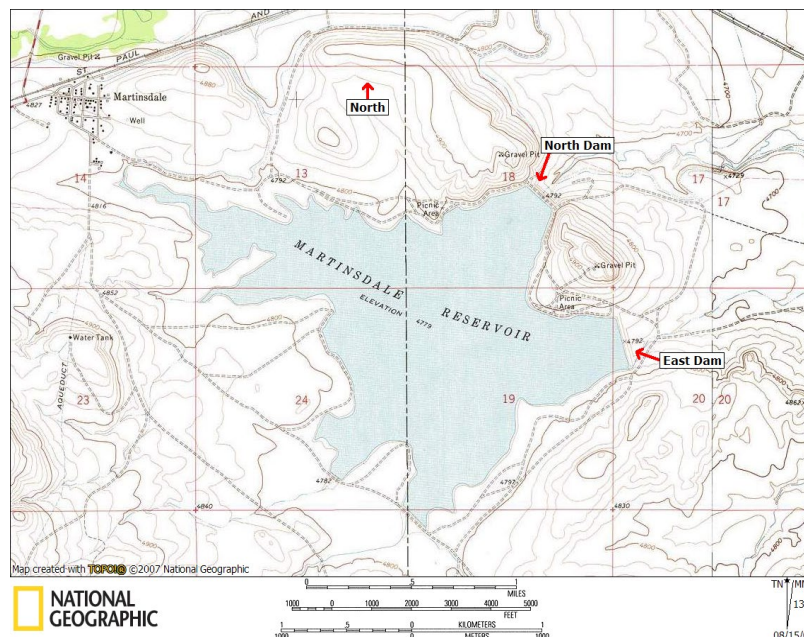
East Dam – 49 ft high & 1,550 ft long

- Gated, reinforced concrete 60" outlet conduit beneath the North Dam, 120 feet-long, 54-inch butterfly operating gate with controls at the top of the tower and 54-inch slide guard gate with controls at the bottom of the tower
 - Concrete chute spillway located at the East Dam
 - Earthen auxiliary spillway
- ◆ Storage at full pool is 23,348 acre-feet covering 985 surface acres.
 - ◆ The dam is a “high hazard” structure, which means that its failure could cause loss of life. Farms and ranches, roads, bridges, and utilities are located in the flood plain.



WATER USE

- ◆ One of several dams that provides 21,718 acre-feet for the UMWUA
- ◆ Irrigation water for farm/ranch operations is the primary water use
- ◆ Reservoir is also a popular recreation site, primarily for fishing. A MT Fish, Wildlife, and Parks Fishing Access Site is located on the reservoir’s north shore.



REHABILITATION SUMMARY

Modifications to the drain system were completed in 2011 for more accurate and safe measurements of flows and sedimentation. Automated reservoir level instrumentation was also installed for continual monitoring of the reservoir. The project was funded with a \$100,000 Renewable Resource Grant, awarded by the 2009 Legislature. The total project cost was \$99,545. Braces were installed in the chute spillway in 2016 to arrest inward tilting of the chute walls.

FUTURE NEEDS

- ◆ The project meets or exceeds current dam safety standards. No deficiencies currently exist.
- ◆ Monitoring of the seepage at the North Dam is ongoing and modifications are made as necessary.
- ◆ Evaluate and determine a long term solution to the principal spillway structural problems.



North Dam



Outlet at North Dam



East Dam



Spillway Chute at East Dam