

NILAN DAMS

Fact Sheet

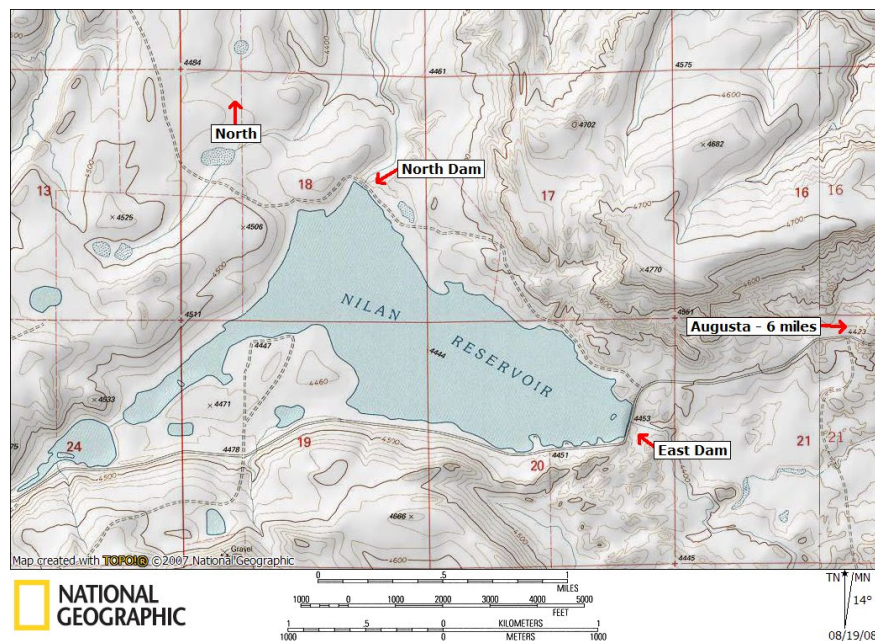
PROJECT DESCRIPTION

- ◆ Off-stream reservoir in Lewis & Clark County, located 7 miles west of Augusta
- ◆ Construction completed in 1951
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by Nilan Water Users Association since 1952
- ◆ Project consists of two dams:
 - North Dam – 54 ft high & 530 ft long
 - East Dam – 51 ft high & 1,010 ft long
- The East Dam has an earthen spillway with a concrete control section
- Each dam has a gated 4-foot diameter cast-in-place reinforced concrete tunnel
- Control towers at each dam are located on the dam crest, consisting of a double chambered wet tower with a 48-inch diameter slide operating gate and 48-inch square slide guard gate. Controls for the gates are located at the top of the towers
- ◆ Normal storage is 10,092 acre-feet, covering 525 surface acres.
- ◆ The dam is a “high hazard” structure, which means that its failure could cause loss of life. The town of Augusta (population 318) is located 7 miles east and downstream of Nilan Reservoir and numerous houses, roads, bridges, and utilities are located in the flood plain below the dam.



WATER USE

- ◆ 27 water users have 54 contracts for 8,500 acre-feet, irrigating approximately 10,000 acres with two canals (12.7 mile-long North Canal; 5.8 mile-long East Canal).
- ◆ The reservoir is a popular recreation site, primarily for fishing. The MT Fish, Wildlife, and Parks manages a Fishing Access Site under a DNRC lease on the south shore of the reservoir.



REHABILITATION SUMMARY

- ◆ Repairs were completed on the East Dam in 1999 to repair sinkholes that developed along the upstream toe.
- ◆ A new outlet terminal structure and drain system was installed at the North Dam in the spring of 2008. Project Cost: \$113,608

FUTURE NEEDS

- ◆ The project meets or exceeds current dam safety standards.
- ◆ Sinkholes were discovered in the upstream right abutment of the East Dam in 2012, 2013, 2019, and 2020. The sinkholes were subsequently repaired. Enhanced monitoring has been implemented to detect any potential future sinkholes. More extensive mitigation in the future may be necessary.
- ◆ Outlet gate components are aging (North Dam guard gate stem and stem guides and East Dam stem guides replaced in 2020) and may require future replacement.
- ◆ The outlet terminal structure on the East Dam is deteriorated and requires replacement.



North Dam



East Dam



Outlet Terminal Structure at North Dam



Spillway at East Dam