

FRENCHMAN DAM

Fact Sheet

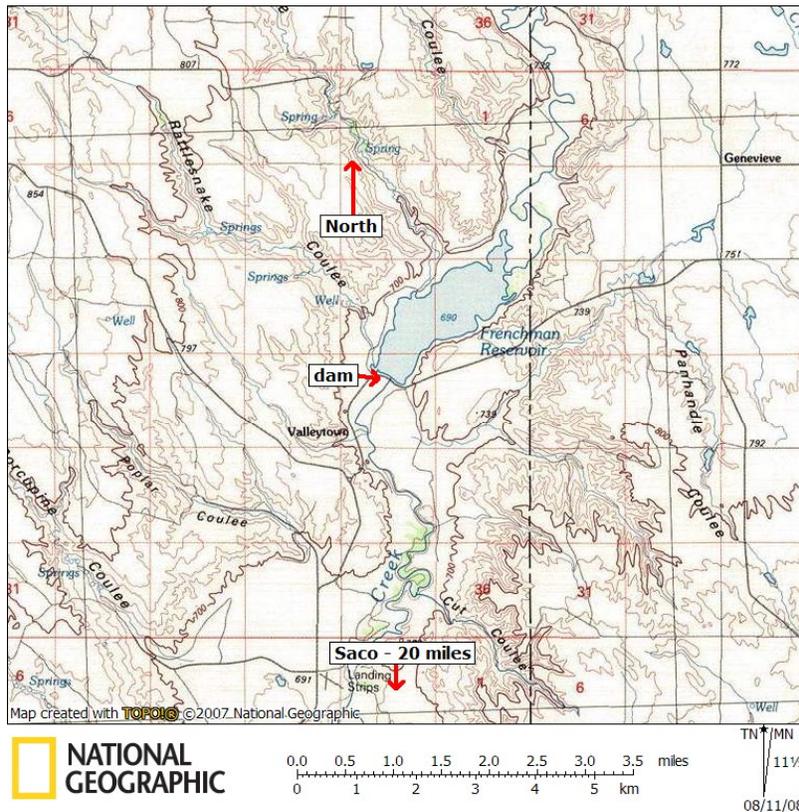
PROJECT DESCRIPTION

- ◆ Impounds Frenchman Creek in Phillips County; located approximately 22 miles north of Saco
- ◆ Original construction completed in 1951; the dam failed during a flood in 1952 and was subsequently rebuilt
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by the Frenchman Water Users Association since 1952
- ◆ Project consists of:
 - Earthen embankment dam: 44 feet high & 2,100 feet long
 - Reinforced concrete spillway: 119 feet wide, with uncontrolled ogee crest
 - 60-inch, 230 foot-long reinforced concrete outlet with two 60-inch slide gates (one operating and one guard)
- ◆ Original reservoir storage design capacity was 7,010 acre-feet at spillway crest, covering an estimated 800 to 1,000 surface acres; actual reservoir capacity is 2,801 acre-feet due to ongoing sedimentation



WATER USE

- ◆ 7,000 acre-feet through 56 contracts
- ◆ Water primarily used for irrigation; reservoir also used for water-based recreation and regulation of stream flows



REHABILITATION SUMMARY

- ◆ In 2011, the 24-inch irrigation conduit was replaced due to failure, the gate on the irrigation conduit was also replaced, and a sinkhole adjacent to the gatehouse was repaired. Project cost: \$260,000. FEMA funded 75% of the costs for the irrigation conduit replacement and sinkhole repair and the Frenchman Water Users Association funded the remainder of the project costs.

FUTURE NEEDS

- ◆ Voids beneath the spillway and deteriorated joints compromise the integrity of the spillway. Spillway replacement is necessary.
- ◆ Sedimentation has reduced the storage capacity from 7,010 acre-feet to 2,801 acre-feet (2013 Feasibility Study).
- ◆ Corrosion and erosion have damaged the operating gate. Replacement is necessary and planned for 2022.
- ◆ A feasibility study was conducted in 2013 to evaluate options for rehabilitating the current dam and enlarging the storage or building a new dam nearby to address the project deficiencies and potentially help address water compact issues. Costs for constructing an enlarged dam were estimated at \$49,700,000 to \$80,100,000. Estimated costs for rehabilitating or removing the existing dam range from \$3,200,000 to \$6,500,000. No final alternative has been selected.



Downstream face



Outlet



Spillway and county road bridge