

FRED BURR DAM

Fact Sheet

PROJECT DESCRIPTION

- ◆ Located on the Bitterroot National Forest in Ravalli County, 9 miles southwest of Victor; impounds the headwaters of Fred Burr Creek
- ◆ Original construction completed in 1948; the dam failed during a high runoff episode in the spring of 1948 and was reconstructed in 1949
- ◆ Owned by DNRC & managed by SWPB under a U.S. Forest Service Special Use Permit
- ◆ Operated by Fred Burr Water Users Association since 1948

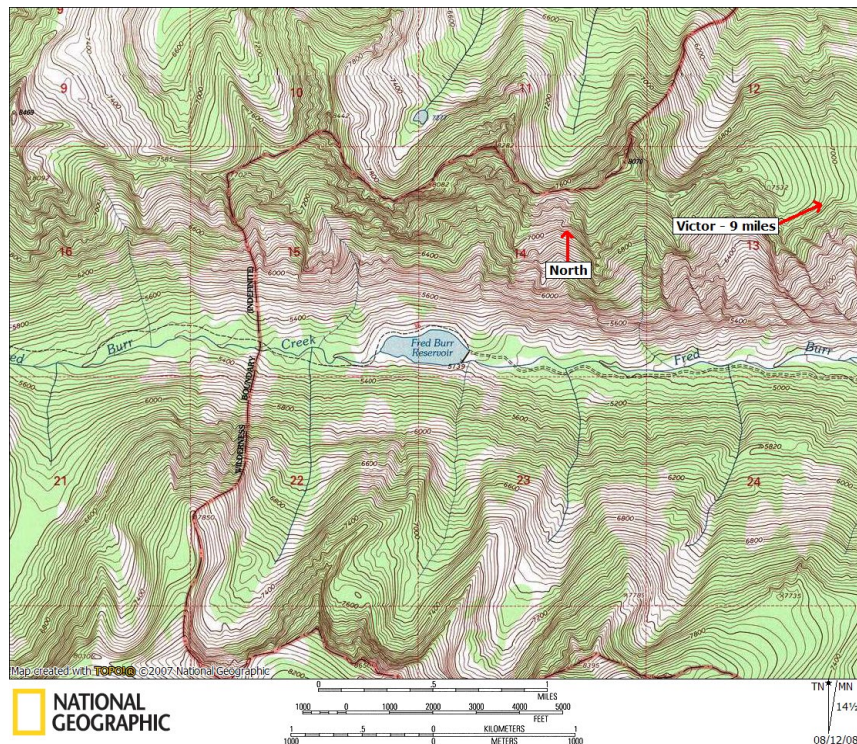
- ◆ Project consists of:
 - Rolled earthfill embankment dam, 50 feet high, 325 feet long
 - 20-foot wide, 120 foot-long, concrete lined rectangular chute spillway with 4.3 foot-high radial gate
 - Four-foot diameter reinforced concrete conduit, single cell wet tower with control mechanism at the top of the tower on the dam crest; Manually operated 48-inch diameter slide gate

- ◆ Reservoir stores 525 acre-feet at normal full pool and covers 28 surface acres
- ◆ The dam is a “high hazard” structure, which means that its failure could cause loss of life. Ranches, roads, bridges, and utilities are located in the flood plain.



WATER USE

- ◆ 505 acre-feet through 41 contracts used primarily for irrigation
- ◆ Water also provides water-based recreation and stream flow regulation



REHABILITATION SUMMARY

- ◆ A sinkhole was discovered on the crest of the dam adjacent to the gate controls in 2011. Emergency repairs were made and a reservoir level restriction implemented.
- ◆ A feasibility study was conducted in 2012 to investigate potential issues related to the sinkhole and the integrity of the dam.
- ◆ Based on recommendations from the 2012 Feasibility Study, monitoring instrumentation was installed at the dam. An enhanced monitoring program was implemented in 2014 to gather data on the condition of the dam.
- ◆ The lower left spillway wall was stabilized in 2019. The project cost was \$62,573.

FUTURE NEEDS

- ◆ The spillway is deteriorating and near the end of its design life. It requires replacement.
- ◆ The concrete outlet is deteriorating and needs recurring repair. Lining or replacing the outlet is anticipated to be the primary options to correct the deficiencies.
- ◆ The 2012 Feasibility Study provided alternatives for rehabilitating the dam but recommended additional monitoring before a final evaluation can occur. Monitoring of the dam is ongoing and will assist in deciding the best alternative for addressing deficiencies at Fred Burr Dam.



Spillway



Outlet



Downstream Face