

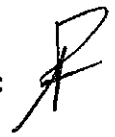


Dam Safety Section

TRIP REPORT

COPY

TO: Lava Thunder Canyon Golf Course Pond
FROM: Ryan Madsen, John Falk
DATE: April 11, 2008
SUBJECT: Site Visit

Reviewed: 

On April 4, 2008 IDWR Dam Safety Program representatives John Falk and Ryan Madsen visited the site identified as the Lava Thunder Canyon Golf Course storage pond located on the USGS Lava Hot Springs Quadrangle, ID (copy Attached). The pond is located generally in the SE-NE quarter of Section 32, R38E, T9S (Photo 1). We arrived at 4:30 pm with partly sunny skies and a temperature around 40 degrees Fahrenheit. The pond was mostly empty, but the bottom was obscured by a layer of ice.

The reason for the site inspection was to investigate a phone call from an adjacent neighbor who complained that the small reservoir overflowed, nearly missing his residence and flooding his basement. Reportedly, the pond was dredged last autumn and dregs were deposited in the emergency spillway, reducing its capacity and causing the reservoir to overtop the earthen dam. The source of the water is a lateral ditch located at the southwest corner of the dam. Flow in the ditch is from south to north. We understand the operation of the facility causes the pond to be filled during the day and then at night the impounded water is transported by buried pipeline to irrigate a nearby golf course, which empties the pond and repeats the cycle.

The emergency spillway is located at the northwest corner of the reservoir and discharges back into the supply ditch downstream from its point of diversion into the pond. The primary outlet appears to be located in the bottom of the reservoir, surrounded by a rectangular wire cage (Photo 2). The vertical PVC pipe next to the cage may be the primary overflow spillway (trickle-tube) or perhaps a vent for the buried pipeline to the golf course. Due to the ice we were unable to view the outlet works in detail.

The base of the pond is approximately 400 feet long by 100 feet wide. The estimated slopes upstream and downstream are 3 feet horizontal to 1 foot vertical (3:1) and 2:1, respectively. The maximum pond depth is approximately 6 feet, however the hydraulic height (measured to downstream toe) may be as much as 10 feet. The pond appears to have been cut into the hill and the excavated soils cast on the downhill side to construct the perimeter embankment dam. The maximum height of the embankment is approximately 12 feet and occurs at the southeast corner of the project (Photo 3). The top of the dam is not level and the crest is only about (5) feet wide. The total estimated volume of the reservoir at full pool is approximately 6-7 acre-feet (Photo 4).

With the potential for damage to a home below the structure our recommendation is to add this structure to the Safety of Dams inspection list. A return visit will be required to survey the dam in order to more accurately determine its physical dimensions.



Photo 1 - Aerial photo of Lava Thunder Canyon Golf Course pond. The yellow grid lines are quarter-quarter boundaries for Section 32, whose perimeter is shown by blue lines.



Photo 2 (4/4/08) – Outlet works located in the bottom of the reservoir. In the background is shown a portion of the embankment dam.



Photo 3 (4/4/08) – Downstream slope of dam near southeast corner



Photo 4 – View of the pond from the emergency spillway, looking south. The source ditch is located on the right (uphill) side; the embankment dam is located on the left (downhill) side.

Lava Thunder Canyon Golf Course Pond

 bannock

