

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

**Permit No:** 21-13204

**Exam Dates:** 09/10/24

**Accompanied by:** NA

1. Current Owner:

US DEPT OF AGRICULTURE  
CARIBOU TARGHEE NATL FOREST  
1405 HOLLIPARK DR  
IDAHO FALLS ID 83401

2. **SOURCE:** Unnamed Stream- Fall River

**B. OVERLAP REVIEW**

1. Place of Use: No overlapping rights

2. Point of Diversion: No overlapping rights

**C. DIVERSION AND DELIVERY SYSTEM**

A small 6ft earthen dam impounds additional water from an unnamed stream tributary to Fall(s) River into a lake. The impoundment expands the surface area of the lake to 28 acres.

1. **POINT OF DIVERSION:**

UNNAMED STREAM SE $\frac{1}{4}$  SW $\frac{1}{4}$ , Sec. 19, Twp 09N, Rge 46E, B.M. FREMONT County

Method of Determination: Site inspection, GPS

## 2. PLACE OF USE: WILDLIFE STORAGE

| Twp | Rng | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    | Total<br>s |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE |            |
| 09N | 46E | 19  |    |    | X  |    |    |    |    | X  | X  |    |    | X  |    | X  |    |    |            |

Right Acre Limit: NA

Total Acres: NA

Method of Determination: Site inspection. Aerial imagery.

## F. VOLUME CALCULATIONS

- Water surface area was measured at approximately 28 acres using satellite imagery. The enlarged reservoir is shallow and intermingled with wetlands. The earthen dam was measured at about 6ft taller than the lake outlet stream.
- The volume increase was estimated with the truncated cone method. Inputs: 14-acre original pond surface area (2012 google earth), 6 ft (1.22m) depth increase
- $\text{volume} = (1/3) \times \pi \times \text{depth} \times (r^2 + r \times R + R^2)$ , where R is the radius of the base of a cone and r of the top surface radius.  $r=190\text{m}$ ,  $R=134\text{m}$

Estimated volume increase from impoundment= 120 AF.

## G. NARRATIVE/REMARKS/COMMENTS

The local and hydrography name of the natural lake enlarged by this permit is Thompson Hole. Water is used to cultivate aquatic vegetation to provide habitat to migratory swans. Per the pond processing memo, natural ponds are permitted for storage volume only from the enlargement of the pond. The application documentation listed a 28AF capacity of the natural pond and an estimated storage capacity of 116 AF total, however the permit (mistakenly) authorized the development of 116 AF of storage, not 88 AF. Based on the truncated cone method calculations, actual storage increase could be up to 120 AF, so although the permit mistakenly authorized 116AF, more than 116 AF of new water may have been impounded by the dam.

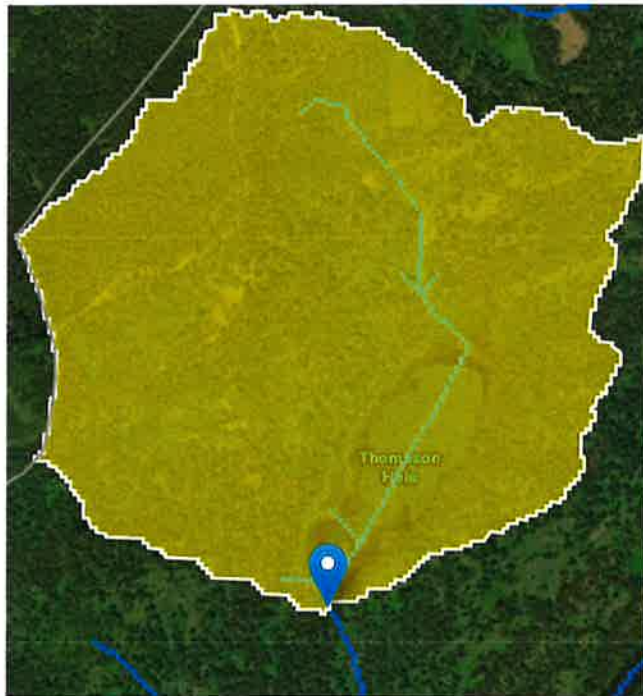
Upstream of the outlet is the bed and banks of the intermittent stream channel. The inflow tributary meets the definition of a natural channel per IDWR adjudication memo 11. A natural channel is "a stream of water flowing in a definite channel, having a bed and sides or banks... The flow of water need not be constant, so an intermittent stream that has a flow only in springtime is still a natural channel". The permit and application for permit listed overland flow as the source of water. Overland flow or diffused surface waters are considered private waters, and do not require a water right. It is clear in application

materials that “overland flow” was erroneously listed as the source because of the intermittent and runoff character of the unnamed stream, not because the source was from diffuse surface waters, which it is not.

1. Small gravel sediment characteristic to small streams can be seen on the streambed, as well an elevated and defined bank profile highlighted in white.
2. Unnamed stream tributary to Fall River inflows into Thompson Hole Lake. GPS location 44.0937, -111.0632



3. USGS Streamstats Drainage basin delineation. The location of the inflow to the lake matches the channel of the inflow found during the site visit. The fact that this tributary stream appears on USGS streamstats is evidence that it is an unnamed stream.
4. The outflow culvert and 6 ft tall dam.



5. 1.5ft-2ft diameter culvert outflow to the lake from the dam side. The culvert is submerged on the lake facing side, but there is no outflow. The controlling box is regulating the lake level.

6. Outlet Control Box, located at the dam and just above the outflow culvert to the lake



Have conditions of permit approval been met?   X   Yes        No

## H. RECOMMENDATIONS

### 1. Recommended Amounts

| Beneficial Use   | Period of Use  | Rate of Diversion | Annual Volume |
|------------------|----------------|-------------------|---------------|
| WILDLIFE STORAGE | 01/01 to 12/31 |                   | 116 AF        |

**Totals:** 116 AF

### 2. Recommended Amendments

       Change P.D. as reflected above             Add P.D. as reflected above        X   None

       Change P.U. as reflected above             Add P.U. as reflected above        X   None

## I. AUTHENTICATION Christian Stewart, IDWR Water Resource Agent

Field Examiner's Signature Christian J Stewart

Date 09/17/24