

# Upper Owyhee Watershed Assessment

## Appendix D. Reservoirs

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There are many dams on small reservoirs and stock ponds in the upper Owyhee subbasin. This appendix provides a brief description of only the larger reservoirs.

### **Idaho**

The information for the reservoirs in the Idaho section of the upper Owyhee subbasin is taken from a 1974 survey by the Idaho Fish and Game Department. The information on fish has been removed since it would no longer be timely, but the other information is printed verbatim.

#### ***Big Blue Reservoir***

Big Blue Reservoir is located at an elevation of 5,400 feet in Sections 2 & 11, T13S, R2E, Boise Meridian and is fed by Blue Creek. Surface area (full) is 131 acres, volume (full) is 1,131 acre-feet and the maximum depth (full) is 29 feet. Watershed condition and cover: This is a sagebrush-grass watershed. Cattle were observed all around the reservoir (August 15, 1972). In June, there were about 60 resident nesting Canada geese on this reservoir. The Blue Creek watershed and vegetative cover is in fair condition. Source and Quality of Water: Fed by Blue Creek which flows year-round. Access: It is necessary to go through private land to get to this reservoir and the present owner would like to have it posted. This access problem needs to be resolved. Ownership is by BLM. Used for irrigation with an annual maximum drawdown of about 8 feet. Built in 1914.<sup>3</sup>

#### ***Little Blue Reservoir***

Little Blue Reservoir is located at an elevation of 5,400 feet in Section 17 and the reservoir extends into Section 16, T13S, R3E, Boise Meridian. Surface area (full) is 188 acres, volume (full) is 800 acre-feet, the maximum depth (full) is 33 (down about 10 feet, August 15, 1972). Watershed condition and cover: Is about the same type of watershed and terrain as Big Blue Reservoir. Watershed and vegetative cover is in fair condition. Source and quality of water: Just a little bit of algae on the water back of the dam. Fed by Little Blue Creek which is intermittent in summer. Access: Same as Big Blue Reservoir. Ownership is by BLM.<sup>3</sup>

#### ***Paine Creek Reservoir***

Paine Creek Reservoir is located at an elevation of 5,500 feet in the Riddle Ranch complex, Sections 27 and 34, T13S, R3E, Boise Meridian. Surface area (full) is 55 acres, volume (full) is 2,120 acre-feet and the maximum depth is 29 feet and there is an average drawdown of about 8-12 feet. Height of the dam is 40 feet. Watershed condition and cover: The watershed doesn't look large and is mostly sagebrush-grass. Range is in good shape. Source and quality of water: Fed by Paine Creek, a small

stream which flows all summer with some nice springs up the creek 1-2 miles. The upper half of the reservoir is shallow. The entry into it with one exception either state or BLM land. Construction and relocation of the 4.1 miles of the present road would be required to provide public access. The reservoir is used for irrigation of the Riddle Ranch meadows and was constructed in 1930.<sup>3</sup>

### ***Juniper Basin Reservoir***

Juniper Basin Reservoir is located at an elevation of 5,100 feet in Sections 4 & 5, T16S, R1W, Boise Meridian, 4 miles west of Duck Valley Indian Reservoir, 4 miles north of the Nevada line and entirely on public land. Approximately 200 surface acres when full, volume (full) unknown, and maximum depth reported as 25 feet. The dam height is 35 feet. Watershed condition and cover: Sage and grassland, moderately grazed. Source is Juniper Creek. Access: Poor, 4-wheel-drive roads through Nevada are the only access.<sup>3</sup>

### ***Squaw Creek Reservoir***

Squaw Creek Reservoir is located at an elevation 5,400 feet in Section 22, T14S, R3E, Boise Meridian 1 mile northeast of Riddle on private land. Surface area (full) is estimated at 80 acres, volume (full) 1,200 acre-feet, and maximum depth, 35-40 feet. Source of water is Squaw Creek which carries water from Squaw Reservoir on the Indian Reservation. Squaw Reservoir is on upper Squaw Creek and filled by water diverted from Mary's Creek. Access: About 1/2 mile of gravel road through private land and the state gravel pit off Idaho Highway 51 near Riddle. Drawdown doesn't occur until upstream reservoir is empty.<sup>3</sup>

### ***Bybee Reservoir***

Bybee Reservoir is located at an elevation of 5,350 feet in Section 31, T13S, R2E, Boise Meridian on BLM land. Surface area is approximately 70 acres when full, and the maximum depth is estimated at 30 feet. Source of water is Shoo-fly Creek. Big Blue Creek Reservoir is 5 miles to the northeast. Access: By fair dirt roads 14 miles west of Idaho Highway 51 at Riddle.<sup>3</sup>

## **Nevada**

The State of Nevada Division of Water Resources of the Department of Conservation and Natural Resources maintains an inventory of the dams in the state with their IDs, names, heights, location, storage capacity, tributary area, owner and last date inspected.

In the upper Owyhee subbasin there are four dams owned by the Petan Company of Nevada, Inc. Wilson Reservoir is the largest with a storage capacity of 8,000 acre-feet. The 37 foot tall dam impounds water from Wilson Creek which drains about 26 square miles. The Dry Creek Dam is on Dry Creek. It is 50 feet tall. The reservoir has a capacity of 1,940 acre-feet draining an area of 10.36 square miles. There are two reservoirs on Bull Run Creek, Bull Run Reservoir and Rawhide Reservoir. Bull Run Reservoir is further upstream with 60.3 mi<sup>2</sup> of tributary area. It holds 1,000 acre-feet of water. Rawhide Dam downstream holds 1,500 acre feet of water with 129.4 mi<sup>2</sup> draining into it. Both Bull Run Dam and Rawhide Dam are 37 feet

tall.<sup>4</sup> Although the dams are primarily to provide irrigation water, Wilson Reservoir is also used for recreation by the public. The campground and boating are operated by the Bureau of Land Management.<sup>3</sup>

The Agri-beef Company has two dams in the upper Owyhee subbasin, Chimney Creek Dam and Deep Creek Dam. Chimney Creek Dam can impound up to 5,000 acre feet of water from Chimney Creek in Desert Ranch Reservoir. The 22 foot tall dam captures water draining off of 345.7 square miles of watershed. The Deep Creek Dam on Deep Creek collects water from 71.2 mi<sup>2</sup> of drainage. When full, the reservoir can hold 1,410 acre-feet of water behind a 42 foot tall dam.<sup>4</sup>

The largest dam in the upper Owyhee subbasin is the Wild Horse Dam owned by the United States Department of the Interior, Bureau of Indian Affairs. The stored irrigation water is for agriculture in the Duck Valley Indian Reservation. The original dam was found to be weak and a new one was constructed in 1969. This doubled the size of the reservoir. When full, the reservoir has a surface area of 2,830 acres and holds 73,500 acre feet of water. The spillway elevation is 6,205 feet above sea level.<sup>1</sup> The dam is 101 feet tall and holds water from a 60 mi<sup>2</sup> watershed.<sup>4</sup>

## **Bibliography**

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