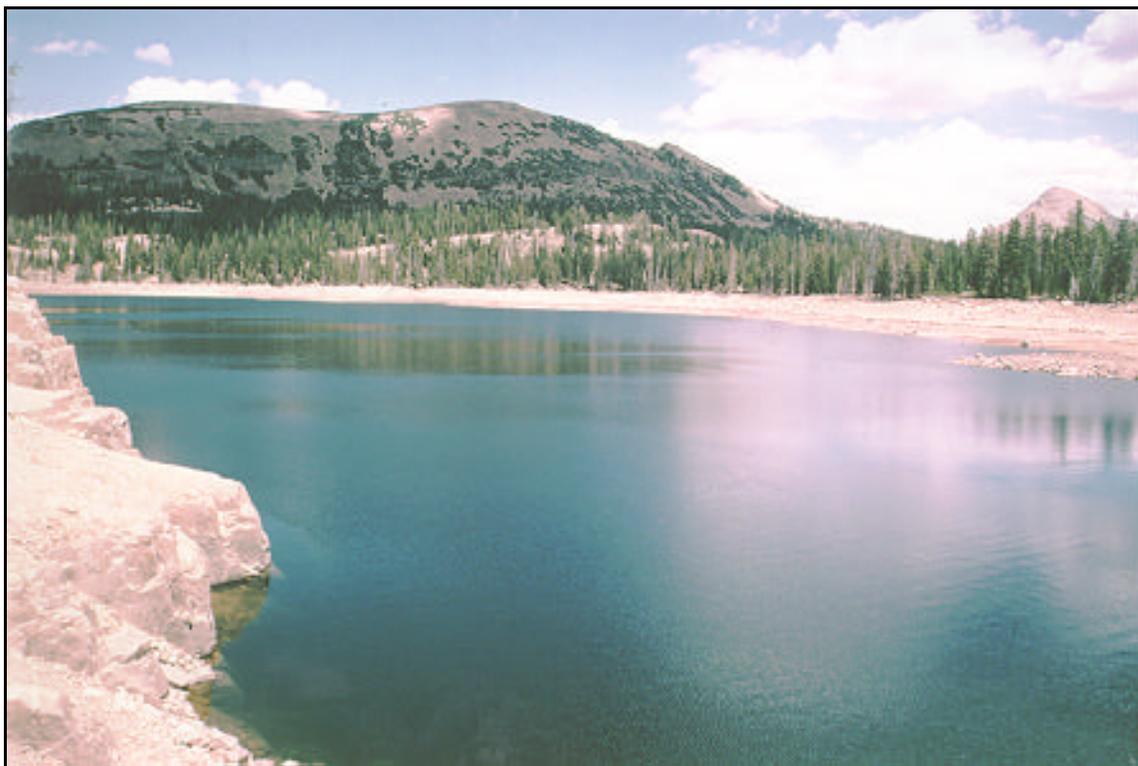


WALL LAKE



Introduction

Wall Lake is at the base of Mount Watson and Notch Mountain, both of which rise over 1,000 feet above the lake in nearly sheer walls. This area is the extreme headwaters of the Provo River. The stream flowing into Wall Lake from Clyde Lake and several smaller lakes is the actual source

of the Provo River, but it is not named such until it is downstream from Trial Lake. Wall Lake was a small natural lake, but it was enlarged by construction of an earth-fill dam to create an intermediate-sized artificial impoundment. The

Characteristics and Morphometry

Lake elevation (meters / feet)	3097 / 10,160
Surface area (hectares / acres)	24.7 / 61
Watershed area (hectares / acres)	320 / 791
Volume (m ³ / acre-feet)	
capacity	4,250,000 / 3,442
conservation pool	0
Annual inflow (m ³ / acre-feet)	2,502,772 / 2,029
Retention time (years)	
Drawdown (m ³ / acre-feet)	0
Depth (meters / feet)	
maximum	39 / 128
mean	9.5 / 31
Length (meters / feet)	793 / 2,600
Width (meters / feet)	488 / 1,600
Shoreline (km / miles)	2.1 / 1.32

Location

County	Summit
Longitude / Latitude	110 57 34 / 40 41 54
USGS Map	Mirror Lake, UT 1967
DeLorme's Utah Atlas & Gazetteer™	Page 54, B-3
Cataloging Unit	Provo (16020203)

lake is known for its deep, clear waters.

The shoreline is owned by the Wasatch-Cache National Forest, and public access is unrestricted. The dam was built in 1914. Since then water use is primarily for irrigation, but can be used as supplementary culinary water. Currently, the lake is being stabilized as part of the Central Utah Project. The original dam will be removed and the area restored to its former mountain lake status. The primary function of the lake will resort to recreational

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purposes.

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Recreation

Wall Lake is not accessible by motor vehicle, but is only a short hike in from the Trial Lake area (on U-150 about four miles east of Mirror Lake and 32 miles west of Kamas) or the Crystal Lake Trailhead (above Washington Lake adjacent to Trial Lake). From the Trial Lake dam, hike for 1.5 miles on the Notch Mountain Trail, which follows the west side of Trial Lake and follows the stream to Wall Lake. There is a shorter route (approximately 1 mile) from the Crystal Lake Trailhead. It is located by continuing past Trial Lake and turning right as the road divides at Washington Lake. Proceed northward for approximately another mile to the parking area. The trail to Wall Lake leaves the parking lot on the eastern side in a northern direction.

Fishing, camping, picnicking, scenic beauty and hiking are all popular. Wall is the largest of perhaps a dozen lakes in the immediate vicinity, all of which are remote and pristine, but still only a short hike from the parking area. Air and water temperatures are too cold for most swimmers. The backdrop of high, barren peaks are reflected in the still water of the lake.

The area receives moderate recreational use throughout the summer. U-150 is closed during the winter and much of the spring, but groomed for cross country skiers, snowmobilers and hikers. The low water level from early summer to the following spring leaves large areas of mud exposed.

Primitive camping is available anywhere in the area, but be sure to camp an appropriate distance from the nearest waterbody and carry out all waste. Call the Kamas Ranger District for complete backcountry camping information and regulations.

Trial Lake Campground is on the east shore of Trial Lake, with 60 campsites, picnic areas, and primitive toilets. There are several other USFS campgrounds along U-150 throughout the area in addition to primitive camping allowed in the Washington Lake area..

Watershed Description

Wall Lake is in an area of numerous lakes and meadows interspersed with high, alpine peaks. In this area of the Uintas, most of the high peaks have been scoured away, leaving isolated peaks, rather than the ridgelines characteristic of the central part of the range. Because of the heavy glacial scouring, divides between major watersheds are often low, poorly drained passes. For instance the pass between Notch Mountain and Mount Watson has three lakes on it, and it is unclear whether they drain into Wall Lake and the Provo River or into Hidden Lake and the Weber River. Stream erosion has yet to make significant changes on this landscape, where glaciers melted only several thousand years ago.

Defining the north and west edge of the watershed

are Notch Mountain and Mount Watson, respectively. Mount Watson is the watershed high point, is 3,512 m (11,521 ft) above sea level, thereby developing a complex slope of 33.3% to the lake. There are several extremely small streams entering the lake, the largest of which is from Clyde Lake. Its gradient is 10.6% (559 feet per mile). This inflow, and the outflow to Trial Lake, are the infant Provo River.

The watershed is made up of high mountains and rocky outcroppings. The soil associations that compose the watershed are listed in Appendix III.

The vegetation communities consist of marshes, pine, spruce-fir, aspen, and alpine. The watershed receives 76 - 102 cm (30 - 40 inches) of precipitation annually. The frost-free season around the reservoir is 0 - 20 days per year.

What use of watershed land takes place is 100% recreation.

Limnological Assessment

The water quality of Wall Lake is excellent. It is considered to be very soft with a hardness concentration value of approximately 7.5 mg/L (CaCO₃). There are no overall water column concentrations that exceed State water quality standards for those parameters analyzed. Monitoring of the lake was restricted to near shore surface monitoring because of its location. Current water quality conditions do not indicate that any impairments with the lake occur. However, to assure that these conditions are correct winter monitoring should be conducted to investigate potential dissolved oxygen depletions and to obtain water quality data from the entire water column.

Current data suggest that the reservoir is currently a nitrogen limited system. TSI values indicate the reservoir is oligotrophic in a state of low productivity. The potential for stratification in the lake does but profile data has not been obtained to verify stratification due to the location of the lake.

According to DWR no fish kills have been reported in recent years. The reservoir has been stocked with rainbow trout (*Oncorhynchus mykiss*) and Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*). Brook trout (*Salvelinus fontinalis*) are present in the lake too. The lake has not been treated for rough fish competition, so populations of native fishes may still be present in the lake. The DWR stocks the lake in most years, with 17,000 Yellowstone Cutthroat fry.

Phytoplankton samples have not been obtained for Wall Lake. It is the intent to obtain samples as soon as the logistics can be met to conduct investigations on the lake.

Pollution Assessment

Nonpoint pollution sources include the following: sedimentation and nutrient loading from grazing, and litter

Limnological Data

Data sampled from STORET site:
591657

Surface Data	<u>1992</u>
Trophic Status	O
Chlorophyll TSI	25.59
Secchi Depth TSI	-
Phosphorous TSI	38.06
Average TSI	31.83
Chlorophyll <u>a</u> (ug/L)	0.6
Transparency (m)	-
Total Phosphorous (ug/L)	11
pH	7.1
Total Susp. Solids (mg/L)	<3
Total Volatile Solids (mg/L)	-
Total Residual Solids (mg/L)	3
Temperature (°C / °f)	17/63
Conductivity (umhos.cm)	11

Water Column Data

Ammonia (mg/L)	0.03
Nitrate/Nitrite (mg/L)	0.01
Hardness (mg/L)	7.5
Alkalinity (mg/L)	5
Silica (mg/L)	1.7
Total Phosphorous (ug/L)	11

Miscellaneous Data

Limiting Nutrient	N
DO (Mg/l) at 75% depth	-
Stratification (m)	-
Depth at Deepest Site (m)	-

Information**Management Agencies**

Mountainland Association of Governments	377-2262
Division of Wildlife Resources	538-4700
Division of Water Quality	538-6146
Wasatch-Cache National Forest	524-5030
Kamas Ranger District	783-4338

Recreation

Mountainland Travel Region (Provo)	377-2262
Reservoir Administrator	
Timpanogas Canal Company	654-1346

wastes from recreation.

Grazing takes place around the reservoir and throughout the watershed.

There are no point sources of pollution in the watershed.

Beneficial Use Classification

The state beneficial use classifications include: boating and similar recreation (excluding swimming) (2B), cold water game fish and organisms in their food chain (3A) and agricultural uses (4).