

# Echo Lake

**Surface Area: 695 acres**

**Maximum Depth: 71 feet (21.6 meters)**

**Drainage Size: 12,935 acres**

**Shoreline Length: 84,480 feet (16 miles)**

**Elevation: 2,999 feet (914 meters)**

## GENERAL INFORMATION

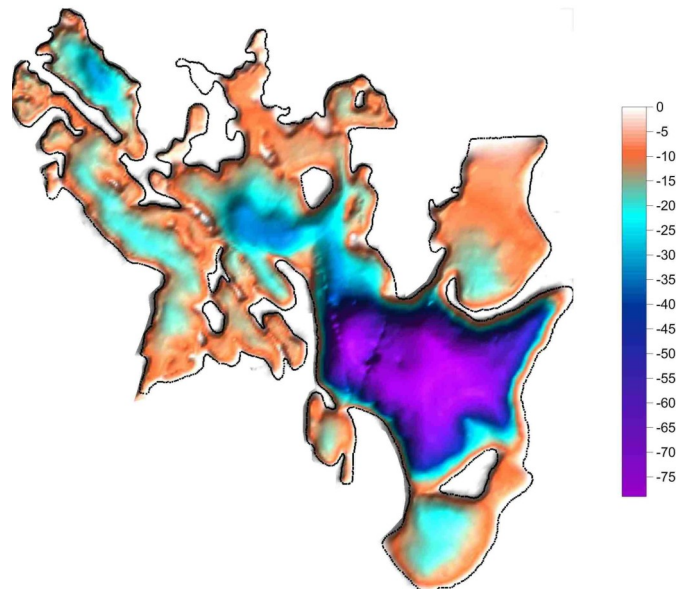
Echo Lake is located in Flathead County. The drainage area is a composite of alluvium (52%), Grinnel argillite belt series (26%), Piegan group belt series (7%), glacial till (5%) and the Appekunny argillite belt series (3%) (Ellis & Craft, 2008).

## FISHERIES INFORMATION

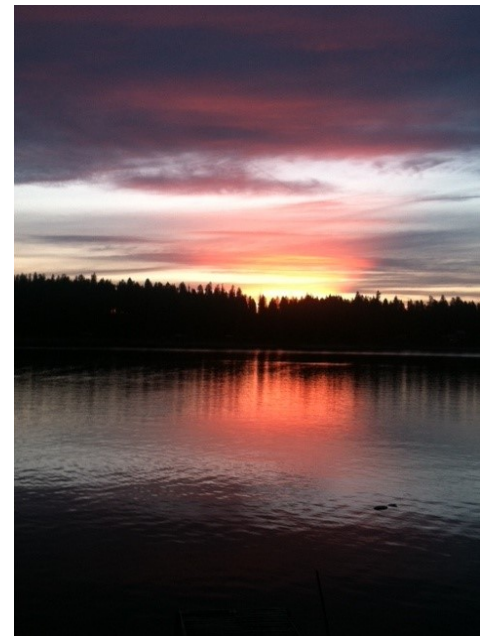
Echo Lake is stocked annually with kokanee. Fish distribution records indicate a presence of brook trout, kokanee, lake whitefish, largemouth bass, northern pike, pumpkinseed, rainbow trout, and yellow perch. For more information see: <https://fwp.mt.gov/fish/stocking.html>

## ADDITIONAL INFORMATION

- Echo Lake experienced severe flooding during the spring/summer of 2011. A “no wake” speed restriction was placed on the lake to keep lakeshore homes from incurring additional flood damage. Several homes were still underwater during the early winter site visit in late November of 2011. In 2012 and 2013 the water elevation of Echo Lake was still high relative to previous years.
- Current NMLN citizen volunteers include: Sarah Dakin



Location: 48.12237 N, 114.03438 W



*Echo Lake sunset Photo courtesy John Wachsmuth.*

LAKE METRICS SUMMARY AND SCORES

Metric	Score	Description
Cold-water fish habitat	High	Temperature and oxygen profiles show that Echo Lake was stratified during summer sampling. Historic temperature profiles indicate that the lake has been within the avoidance threshold range for salmonids at depths of up to 6 meters during July and August. Oxygen profiles show that Echo Lake has been between avoidance and anoxic concentration thresholds for salmonids at depths greater than 14 meters. Anoxia has been observed at depths greater than 19 meters. When anoxic conditions occur at the benthic interface, an oxidation reduction potential exists where nutrients stored in the sediment can be liberated back into the water column given the right conditions.
Nutrient Levels	High	Echo Lake often ranks high among large lakes for total phosphorus, total nitrogen, and chlorophyll (a).
Nutrient Trend	Consistent	No trend is apparent.
Trophic Status	Meso-oligotrophic	Carlson's Trophic Index trend shows Echo Lake is consistently meso-oligotrophic.
Dreissenid Colonization Potential (Calcium)	High	Echo Lake's 2010, 2011 and 2016 average calcium concentration was the highest among large lakes at 37.3mg/L classifying it as a high risk for zebra mussel colonization. The 2012 alkalinity level was reported at 150mg/L.
Known AIS infestations	None	During 2011 and 2012, there was only one public access site due to flooding and repair of the causeway. A EWM survey was conducted near the county public access site yielding no suspect results. Northern milfoil was found near the boat ramp, and additional surveying is recommended based on lake size, ease of access, and level of recreational use.

