

EVERGREEN LAKE

Fact Sheet 8 Evergreen Lake Management & Monitoring

April 11, 2014; updated June 6, 2016



The Bear Creek Watershed Association protects and restores water and environmental quality within the Bear Creek Watershed from the effects of land use.

Clear Creek County
Jefferson County
City of Lakewood
Town of Morrison
Aspen Park Metropolitan District
Brook Forest Inn
Conifer Sanitation Association
Conifer Metropolitan District
Denver Water Department
Evergreen Metropolitan District
Forrest Hills Metropolitan District
Genesee Sanitation & Water District
Geneva Glen
Jefferson County School District
Kittredge Water & Sanitation District
Tiny Town Foundation, Inc.
West Jefferson County Metropolitan District
Evergreen Trout Unlimited
U.S. Army Corps of Engineers

Evergreen Lake (Stream Segment 1d) is a small reservoir (669 acre-feet) constructed in 1927 by the City and County of Denver. The dam is a notched weir structure with overflow of stream water. As such, the pool volume remains relatively constant. Over the years, upstream sediment infill has reduced the reservoir volume to about 514 acre-feet. The segment is designated by the Water Quality Control Commission (Regulation #38) as a direct use water supply for the Evergreen community as operated by the Evergreen Metropolitan District.



The lake is an important year-round recreational facility with fishing and winter ice activities. The Evergreen Park & Recreation District provides maintenance around Evergreen Lake. These efforts aid in maintaining good water quality. The District maintains the wetlands located on the west end of the lake, retaining walls and rocks structure that support the road and walking paths, minimizes erosional features of the area and periodically removes rooted aquatic vegetation (e.g., Elodea) located along the shoreline and in the lake. Harvested algae is composted for beneficial reuse in cooperation with Lakewood.



The districts in cooperation with the Colorado Department of Parks and Wildlife introduced Grass Carp into the reservoir with the first release of about 100 fish at 20 inches length. This program reduces some of the excess Elodea algal (introduced invasive species) growth that contributes to the depressed DO problem. These management strategies are among the practices identified by the Association for EGL (*BCWA Policy 20 Preferred Management Strategies EGL and BCR*).



The Association has increased water quality monitoring efforts to characterize the reservoir and help protect the quality. Prior to 2014, the dissolved oxygen concentrations in the water column were becoming low with periodic bottom waters having less than 5 mg/l DO. The Evergreen Metropolitan District in cooperation with the recreation district installed an aeration system near the dam to help maintain elevated DO levels throughout the lake. The aeration system effectively maintains DO levels above standards near the dam.

The Evergreen Metropolitan District water plant inlet is near the dam. The raw water is monitored and treated prior to distribution. The plants monitors water pH and turbidity. Periodic samples are taken for metals and other drinking water parameters.

The BCWA Site 4 is near the dam and the site is marked with a seasonal buoy. Temperature probe measurements are taken at 1/2 meter to 2 meters. Profiles are taken monthly during the monitoring season (generally may-November) for pH, temperature, dissolved oxygen, and specific conductance. Water samples are collected from top and bottom waters for nitrogen (total, ammonia and nitrate-nitrite), phosphorus, chlorophyll and periodic total suspended sediments.