



*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

Major tributaries entering the mainstem of Bear Creek include: Truesdell, Last, Indian, Vance (Corral), Yankee, Buffalo, Witter Gulch, Cub Creek, Troublesome Creek, Swede Gulch, Cold Spring Gulch, Sawmill Gulch at Idledale & Mount Vernon Creek at Morrison. East of the Hogback, Rooney Gulch enters Bear Creek from the north and Turkey Creek enters the reservoir from the south. Coyote Gulch direct discharges into the reservoir. Turkey Creek is divided into North and South Turkey Creeks, which both begin in the Aspen Park area. There are numerous off-channel ponds used for recreation, irrigation and water supply in both major drainages.

According to the Urban Drainage and Flood Control District, since the 1860's there have been 25 known instances of floods in the Bear Creek basin that collectively have caused 45 deaths and considerable property damage. These floods occurred in 1866, two in 1878, 1885, 1886, 1893, 1894, 1896, 1903, 1907, 1908, two in 1921, 1923, 1925, 1933, 1934, 1938, 1946, two in 1957, 1965, 1969, 1973 and 2013. Most of the floods were caused by runoff from intense rainstorms during the summer months. However, early season floods have resulted from rainfall runoff coinciding with snowmelt flows. The Bear Creek at Morrison stream gage, located upstream of Mount Vernon Creek, measured its record flow of 8,600 cfs (estimated) on July 24, 1896. The peak discharge for Bear Creek during the 1938 flood was estimated at 9,230 cfs at Morrison.

# MAJOR PHYSICAL FEATURES BCW

## Fact Sheet 25 Bear Creek Watershed

Update June 1, 2016

Much of the soil is weathered from a variety of crystalline and metamorphic materials, such as gneiss, schist, and granite, as well as igneous intrusive rocks.

The 236 square-mile Bear Creek Watershed is a specific geographic area identified in the Bear Creek Watershed State Control Regulation (Regulation #74, 5 CCR 1002-74) (See *BCWA Policy 13 Watershed Boundary*). The watershed extends from the Mount Evans Wilderness (74,401 acres) on the western end to the Town of Morrison on the eastern end. Mt. Evans is about 31 miles west of Denver. The watershed includes all tributary waters that discharge into Bear Creek Reservoir. The watershed includes portions of Clear Creek, Park and Jefferson counties. Mt. Evans wilderness is within Clear Creek County. The majority of the population in the watershed resides within Jefferson County. The community of Evergreen in the middle of the watershed is largest urban area.

The two major tributaries are Bear Creek and Turkey Creek. Mt. Evans is at an elevation of 14,265 feet (4,348m) and the Bear Creek Reservoir is at 5,645 feet for an elevation change of 8,620 feet. The watershed extends from the *Southern Rockies Alpine Zone* to the *High Plains Front Range Fans* ecoregions, with subalpine forests, mixed conifer forests and shrublands. The forests in the middle and lower watershed have a variety of vegetation types including Douglas-fir, ponderosa pine, aspen, pockets of lodge-pole pine (*BCWA Fact Sheet 4 Pine Beetle*) and juniper-oak woodlands.

The **Alpine Zone** occurs on mountain tops above treeline, beginning at about 10,500 feet. It includes alpine meadows and steep, exposed rock and glaciated peaks. Annual precipitation ranges from about 35 to greater than 70 inches, falling mostly as snow. Vegetation includes low shrubs, cushion plants, and wildflowers and sedges in wet meadows. The forest-tundra interface is sparsely colonized by stunted, deformed Engelmann spruce, subalpine fir, and limber pine (krummholz vegetation). Rocky Mountain bristlecone pines are found here, some of the oldest recorded trees in North America.

The streams represent cold water mountain, transitional cold-to-warm waters and warm waters (*BCWA Fact Sheet 29 BCW Classifications*). The Water Quality Control Commission has divided the streams into 17 segments (*BCWA Fact Sheet 27 BCW Segments*). The 3 major reservoirs are Evergreen lake (*BCWA Fact Sheet 8 Evergreen*), Genesee Reservoir (*BCWA Fact Sheet 40 Genesee Dam*), and Bear Creek Reservoir (*BCWA Fact Sheet 5 BCR Dam*). There are several major lakes within the wilderness with the origin of Bear Creek beginning at Summit Lake, which is the BCWA first water quality monitoring site.