

Sediments and Reservoir Quality

Rocks and dirt (sediment) eroded from the earth, either naturally or by human-caused events/activities, are moved by wind or water. As long as there is wind and water, our mountains and plains will erode. Rivers and streams carry eroded sediments downstream, which gets deposited into, lakes, reservoirs and finally the oceans. When too much sediment is eroded or deposited by water, it can cause many problems for plants, animals and people. Increased sediments above natural conditions can harm fish and wildlife populations, kill native vegetation, reduce or limit recreational uses, contaminate drinking water supplies, and damage property.



Reservoirs are often built in Colorado for flood control and as such, easily become filled with sediments caused by upstream erosion. Some of our activities (building roads, houses, agriculture practices, or over grazing) can greatly increase the amount and rate of erosion and sediment movement filling in our reservoirs and lakes. Sediments also carry other pollutants that can harm the quality.



When Bear Creek Reservoir was finished in 1982, the average depth was 48 feet. In 2010, the maximum depth is 35 feet and the average depth is about 28 feet. That is 20 feet of sediment deposit. The average surface area of the reservoir is 110 acres. The sediment deposited in Bear Creek Reservoir is the equivalent of having a truck dumping 2 cubic-yards of mud into the reservoir every day since it was completed. Excess sediment has decreased water quality in the reservoir and reduced the flood capacity.

