



BEAR CREEK WATERSHED

Fact Sheet 39 E. Coli Standards & Compliance

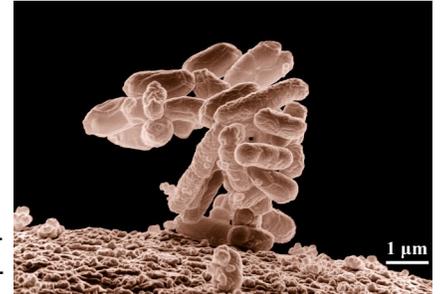
October 3, 2014; Updated June 7, 2016

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
 Bear Creek Cabins
 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
 Singing River Ranch
 The Fort Restaurant
 Tiny Town Foundation, Inc.
 West Jefferson County Metropolitan District
 Evergreen Trout Unlimited
 U.S. Army Corps of Engineers



Escherichia coli (commonly abbreviated E. coli) is a Gram-negative, facultatively anaerobic, rod-shaped bacterium of the genus Escherichia that is commonly found in the lower intestine of warm-blooded organisms (e.g., humans and other animals). Most E. coli strains are harmless, but some types can cause serious food poisoning. E. coli in surface water or groundwater is an indicator of potential pathogen pollution.



Available studies indicate that E. coli, which is a subset of fecal coliform, is a better predictor of potential human health impacts from waterborne pathogens. The Colorado Water Quality Control Commission established E. coli criteria and resulting standards for individual water segments based on recreational use categories. The E. coli criterion adopted for recreation class 1a is 126 per 100 milliliters. This level is based on EPA criteria recommendations, which is an anticipated risk level of 8 swimmer illnesses per 1,000 swimmers. Compliance with E. coli standards is based on a 2-month geometric mean of representative stream samples.

All stream segments in Bear Creek Watershed are recreation class E with an E. coli standard of 126 cts/100 ml. No stream segment in the watershed is listed on the Colorado 303(d) list for E. coli. The stream segment on lower Bear Creek downstream of the Wadsworth BCWA Site 90 monitoring station is listed for E. coli.

The BCWA monitored for E. coli on Kerr/Swede Gulch at 4-

WBID	Segment Description	Portion	303(d) Impairment	303(d) Priority
COSPBE02	Bear Creek below Bear Creek Reservoir to South Platte River	Below Wadsworth Boulevard	E. coli (May-Oct)	H

locations Sites 52-55 (2010-2015). The highest 2-month geometric mean at Kerr/Swede Sites 52-55 over a 5-year period was 26 cts/100ml. Monitoring data resulted in the Water Quality Control Commission delisting this segment from the Colorado 303(d) List of Impaired Waters in 2015.

The BCWA Site 45 (below Bear Creek Reservoir 2000-2016) and Wadsworth BCWA Site 90 (2016) are monitored for E. coli on a monthly basis. No exceedances of the E. coli standard have been measured at BCWA Site 45 or Site 90. The 2-month geometric mean at Site 45 over a

8-year period was 3 cts/100ml. There is no measured E. coli standard problem in the Bear Creek Watershed.

Basic Colorado Standards for E. coli (counts per 100 ml, expressed as a geometric mean)			
Recreational			Domestic Water Supply
Class E (Existing Primary Contact) and Class U (Undetermined Use)	Class P (Potential Primary Contact Use)	Class N (Not Primary Contact Use)	
126	205	630	630