

# BCWA PINNACLE



Volume 5

August 20, 2014

## Bear Creek Watershed Association, Colorado

*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

Geo-locate all eleven BCWA informational signs, collect the keywords from each sign, and share your findings on our website or by e-mail. If you collect all the keywords, your name will be posted on our Watershed Wall of Fame. Don't forget to look for the different animals on the signs. All of these animals are found somewhere in the watershed. Each sign has GPS coordinates that show where the upstream and downstream signs are found from your present position. You'll find the first sign at the entrance to a Jefferson County School Outdoor Learning Facility.

### Bear Creek Watershed Plan

The BCWA was previously designated as a water quality management agency by the Denver Regional Council of Governments. After DRCOG relinquished the role, the Water Quality Control Division with acceptance by the Colorado Water Quality Control Commission continued to recognize the BCWA as a designated management agency. The WQCD has assumed the role of planning agency for the Denver region, including the entire Bear Creek Watershed.

The BCWA now operates under the *Statewide Water Quality Management Plan (SWQMP)* (WQCD Version 1.0- June 13, 2011). The SWQMP is considered a *living document* with links to other policies and regulations and provides a framework for water quality protection and management. The management agency expec-

tations for the BCWA are outlined in *A Guide to Colorado Programs for Water Quality Management and Safe Drinking Water* (Commission Policy #98-2, updated August, 2013).

The BCWA uses an adaptive watershed planning process that is maintained electronically at [www.bearcreekwatershed.org](http://www.bearcreekwatershed.org). This watershed plan consists of a table of contents with linked PDF files or spreadsheets, and program element descriptions.

The BCWA Watershed Plan is designed to be flexible and dynamic. The online watershed plan will contain elements and information required to meet all types of water quality planning reporting.

A Colorado watershed plan includes eight primary ele-

ments. 1) watershed approach with characterization of watershed features and existing regulatory framework, 2) watershed organization and partnerships with rules of operation, 3) Pollutants of concern and scope or extent of watershed efforts with vision, mission, goals and objectives, 4) watershed information, monitoring plan and data types and inventories, 5) data analyses, load reduction strategies and characterizations, 6) watershed management action strategies, policies and supported programs, 7) implementation plan, measures of success and TMDL elements, and 8) adaptive watershed management process.

The BCWA Watershed Plan meets these elements of a Colorado watershed plan.



Restored Stream Bank



[www.bearcreekwatershed.org](http://www.bearcreekwatershed.org)

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#### Restoration on Bear Creek in Bear Creek Park from the 2013 flooding

Evergreen Lake inlet areas will need to be dredged to reduce some of the massive sediment loading from the September 2013 flood. The excess sediment load has reduced the storage capacity of this critical water supply. Vast amounts of sediment, including suspended sediments and bedload (bigger rock rolled along the stream bottom), were moved downstream during multiple storm events. We have made some best guesses on the amounts deposited into Evergreen Lake - over 15,000 tons of sediments were deposited into the lake.



#### Watershed Demographics

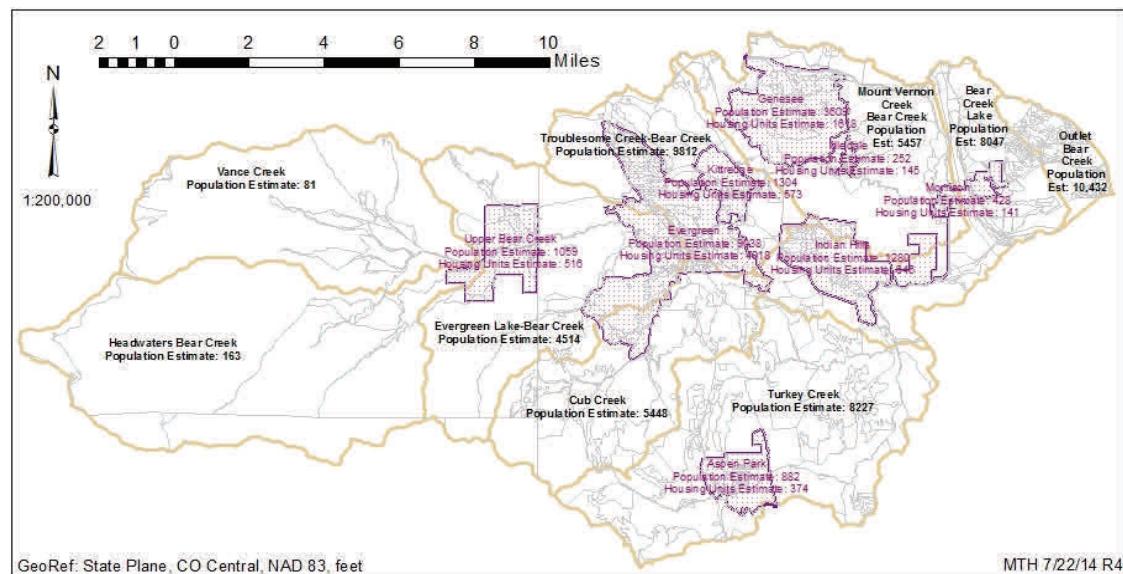
The Bear Creek Watershed covers portions of three counties Jefferson County, Clear Creek County and a small generally non-populated part of Park County. There is an estimated total population in 2010 for the watershed of 43,100 people with most of the population residing within Jefferson County (*BCWA Fact Sheet 26 BCW Demographics*).

35% of Jefferson County population and 100% of the Clear Creek population lives in the un-incorporated

portions of the counties. There is no recorded population for the Park County portion of the watershed, although there have been past proposals for a new sub-division. The assumed occupancy number for Clear Creek and Jefferson Counties is 2.5 people per household (HH). Population growth in the watershed is predicted to grow over the next 20-years at a moderate pace, about 4%. The demographics for the wastewater treatment facilities is summarized in *BCWA Fact Sheet 41 Wastewater Demographic*.

2010 Population estimate of people served by permitted wastewater treatment facilities - 19,400 (7,800 residential parcels with sewer service plus additional taps for business and commercial hook-ups).

2010 Population estimate served by individual onsite wastewater treatment systems (OWTS) - 22,500 (9,000 residential parcels with OWTS). There are an estimated additional 150 business using OWTS within the watershed.



**Bear Creek Watershed: 2010 U.S. Census Population Estimates by Subbasin and CDP**  
Legend

2010 Census Blocks      Census Defined Places (CDP)      Bear Creek Subbasins

#### Notes

TOTAL POPULATION ESTIMATE WITHOUT OUTLET SUBBASIN PORTION: 42,749    TOTAL POPULATION ESTIMATE ALL SUBBASINS: 52,181

2010 U.S. Census block-level and place-based population numbers were obtained from Denver Regional Council of Governments <http://gis.drcog.org/datacatalog/content/blocks-census-2010> with population of blocks that straddled the watershed boundary proportionally applied by area. The Colorado Department of Labor and Statistics estimates that the population of Colorado grew about six percent since 2010, so the current population of the Bear Creek Watershed may actually be somewhat higher and increasing. For BCWA administrative purposes, the USGS HUC 12-based Bear Creek Watershed boundary has been partially extended into the Bear Creek Outlet subbasin downstream, but most of the area of this administrative addition does not drain into Bear Creek Reservoir.

I've been very lucky over the last 26 years. I've walked and visited all parts of the Bear Creek Watershed from the Mt. Evans summit to Bear Creek Reservoir and the lower stream all the way to the confluence with the South Platte River. I've seen it during extreme drought where Bear Creek stopped flowing. I've witnessed the awesome force of a major flood. I've seen wildlife at their Colorado finest. But most important, I've met and worked with dedicated and passionate people, who care deeply about the preservation and conservation of this watershed. RNC