



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

BCWA Trade Documents

- BCWA Trading Guidelines (January 12, 2012)
- BCWA Policy 1 - Trade Policy Position
- BCWA Policy 20 - Nutrient Trading Program Eligibility
- BCWA Policy 26 - Point to Point Trade Administration



COYOTE GULCH TRADING PROGRAM

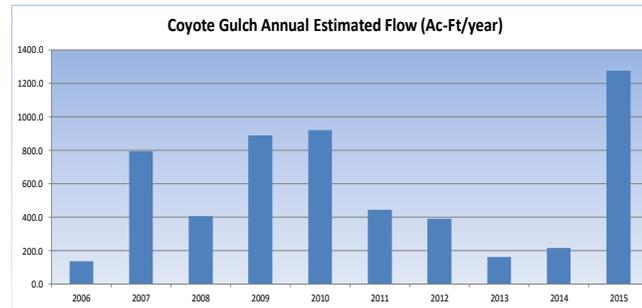
Fact Sheet 24 Historic Phosphorus Trade Pounds 2006-2015

Update June 7, 2016

The BCWA is involved in a nonpoint source project sponsored by the City of Lakewood that restored a severely eroded section of Coyote Gulch, which directly discharges from Green Mountain into Bear Creek Reservoir. A \$450,000 restoration project was completed on lower Coyote Gulch in Bear Creek



Park, which included 7 massive rock check-dams and new vegetation. Coyote Gulch revegetation began in June 2007 and became well established in 2008. The BCWA has a paired water-sampling program, which allows a determination on the effectiveness of the restoration effort at phosphorus



reduction. The BCWA has monitored flow and limited chemistry since March 2006 in Coyote Gulch. The BCWA has pre-construction and post-construction loading data. Flow in Coyote Gulch consists of both year-round

base-flow and stormwater runoff events. There are 2-5 bigger stormwater runoff events per year, which often have higher phosphorus loads (e.g., 100 pounds/event). The trading program targets base-flow conditions. The base trade ratio for BCWA Trade Projects is 2:1. The pre-construction base-flow total phosphorus was 20 pounds per month. After construction and establishment of the vegetation, the base-flow total phosphorus was reduced on average to 5.4 pounds per month (73% reduction). On average, the project annually removes about 175 pounds of base-flow nonpoint source total phosphorus from entering Bear Creek Reservoir. This “removed” phosphorus has an estimated value of \$2,500/ total phosphorus pound. This phosphorus trading and ongoing monitoring program has established a total phosphorus trade credit of 87 pound per year for use by the Association membership as Phosphorus Trade Credit.

Total Phosphorus Trade Pounds				
	Total Base Flow		Trade Ration Pounds	
	Monthly	Annual	Monthly	Annual
Average	5.4	64.6	7.3	87.5
Median	5.3	63.6	7.3	88.0
Monthly TRP=PC Base Load-TBF Monthly Pounds/2				
<u>The base trade ratio is 2:1 for Association Trade Projects</u>				
Base Flows Exclude April Storm Loadings				
Annual Trade Pounds Available = 87.5 pounds Total Phosphorus				