

## Clean Out Operation on Bear Creek Arnett-Harriman Ditch

Date: 7/6/09

Event: The Bear Creek Watershed Association (BCWA) was sampling on Bear Creek in Bear Creek Park about one mile downstream of the Arnett-Harriman ditch. The sampling team noticed an extremely turbid plume come downstream with large amount of debris. During the upstream trace, an observation was made in the Harriman ditch, which was carrying very turbid water, but no debris. There was one “dead” Rainbow Trout of about 14 inches floating down the ditch. The source of the disturbance traced back upstream to the cleanout operation conducted by the Denver Water Department. The cleaning event was photographed. The sampling team saw several trout turned belly up carried by the plume just below the ditch cleaning operation on Bear Creek. It wasn't determined if these fish actually died or were just very stressed.

The sample team then continued sampling in Bear Creek Reservoir. The average Secchi depth in the reservoir on the sampling date was 1.5 meters. A Secchi reading taken at the inlet from Bear Creek where the plume was evident was 0.2 meters. No dead fish observed in the reservoir.

The total suspended sediment measurement on Bear Creek at the sampling station prior to the appearance of the plume was 18 mg/l; a sample taken from the turbid waters about 1 ½ hours after the plume started was 68 mg/l.



Figure 1 Clean-out operation and Debris



Figure 2 Clean Out operators



Figure 3 Turbid plume of water from clean out operation



Figure 4 Harriman Diversion



Figure 5 Turbid water below diversion, area where fish stressed



Figure 6 Bear Creek At BCWA Sample Site prior to Plume



Figure 7 Bear Creek after Plume passed