Annual Report to the City of Austin Balcones Canyonlands Preserve, 2009

Water data collection in Bull Creek basin pertinent to the Jollyville water transmission line

Abstract

Prior to the construction of the Jollyville water transmission line, water resource data are being collected in order to document the background water-resource conditions for selected wells, springs, and stream sites on Bull Creek. On a monthly basis the following data are being collected: water levels for 5 wells; springflow discharge and water quality for one spring; and streamflow discharge and water quality for three stream sites on Bull Creek. Such data will be collected before, during, and after construction of the pipeline in order to assess any changes in local water resource conditions due to the pipeline or its construction.

Problem

The problem being addressed is the possible degradation of water resources in the Bull Creek basin due to construction or operation of the Jollyville water transmission pipeline.

Materials and methods

A nylon coated tape is being used to measure water levels in wells. A stainless steel velocity meter and calibrated rod is being used to measure the discharge of the spring and stream sites. A commercial field meter and probe is being used to measure the dissolved oxygen, pH, and specific conductance of the water, and clean plastic bottles are used to take samples of the water. These data collection methods represent stand methods for water data collection.

A map (JPEG file) showing the locations of all data collection sites is attached.

Results

The collected data are attached as two Excel files. The latitude and longitude for each site are presented within the database. No analyses of the data will be made prior to beginning of construction of the pipeline.

Conclusions

Conclusions will not be made until after beginning of the pipeline construction. Additional data collection sites and methods are being considered for inclusion in this study in order to improve the effectiveness of conclusions regarding affects of the pipeline on local water resources.

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