USGS

WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2002CO5B

Title: Determining the Fate of Non-source Pollution from Septic Tanks in Turkey Creek Basin, Colorado, and Delineating Improved Management Practices

Project Type: Research

Focus Categories: Non Point Pollution, Water Quality, Groundwater

Keywords: Non-point source pollution, Septic tanks, Colorado

Start Date: 03/01/2002

End Date: 02/28/2003

Federal Funds: $18,960

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Congressional District: 6th

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Abstract

This project will evaluate whether septic system drainage is flowing laterally in high permeability material overlying fractured bedrock, thus short-circuiting to streams. The project site is Turkey Creek Basin, Colorado, and Jefferson County will cooperate in the study. If short-circuiting of septic system return flows is occurring, alternative drain field designs will be recommended to facilitate deep percolation of return flows. If this process is not documented, alternative causes for the observed changes in water quality and water levels will be hypothesized and the observed behavior of return flows will be documented. Results of this project will benefit the county, residents of the basin and down-stream users of water from the Turkey Creek Basin. The EPA is working to have the contributors of non-point source contamination to streams bear the cost of their impact. If the septic return flows are impacting the streams and practices can be changed to alter that situation, everyone will benefit from cleaner streams at lower cost. If this mechanism is not active, we will be closer to knowing the causes of the observed conditions.