

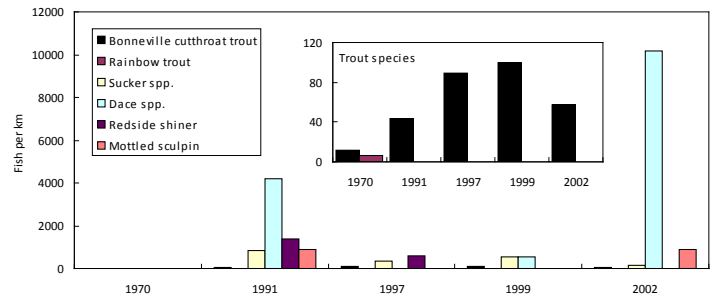
# Evaluating the effectiveness of Best Management Practices on ecological conditions in the Chalk Creek watershed, Utah.

## Dates:

2011-ongoing

## Abstract:

As part of an interdisciplinary study evaluating the effectiveness and long-term sustainability of Best Management Practices (BMP) implemented under Utah's Nonpoint Source (NPS) program, we analyzed data from a variety of site- and basin-scale sources to assess habitat and biological conditions of the Chalk Creek watershed. Chalk Creek contains several BMP project sites and is an important watershed for Bonneville cutthroat trout (BCT) conservation efforts, containing one of the largest metapopulations within the fish species' historic range.



Despite the patchiness of the available data and differences in methodology among data sources, our analysis generated a few key findings: (1) habitat quality of the study sites was moderate relative to suitability criteria and other sites in the region, but improvements to habitat could still be made, particularly to overhead cover; (2) fish population data (1970-2002) indicate a negligible impact of non-native species on the BCT metapopulation despite a long history of non-native stocking; and (3) BCT size distributions show that headwater reaches and upstream tributaries serve as important spawning and rearing habitat for BCT, thus it seems critical that connectivity with upstream reaches be maintained if maintaining a healthy population of BCT in the watershed is desired. Our results will lend insight into BMP effectiveness in other watersheds with similar physical attributes, ecological characteristics, and project types.



## Funding:

Utah Department of Environmental Quality

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## Reports:

Budy, P. and Salant, N.L. *In review*. Evaluating the effectiveness of Best Management Practices on ecological conditions in the Chalk Creek watershed, Utah. Intended for submission to the Utah Department of Environmental Quality, 2012.