

**USDA Water Management Grant Project  
Data Needs for Stream and Canal Loss/Gains  
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Development of a surface water-ground water model for the Henry's Fork watershed is the primary scientific objective of the USDA grant project discussed at the January meeting. We will use this model to simulate stream flows and ground water elevations under different historic and potential future management scenarios. Because of the extensive stream and canal gaging network that exists in the watershed and because of a large amount of previous work we have done to analyze data and fill in gaps in these data, we have a good knowledge of surface water supply and use. We also have a good understanding of ground water in certain locations. However, we still lack measurements of stream channel and canal losses/gains sufficient to develop our model.

To our knowledge, there are three existing sources of data that can be used to estimate gains and losses. The first is a set of measurements of stream channel losses in Teton Valley recorded by Idaho Department of Water Resources in the 1930s and 1940s. We have already compiled and analyzed these data. They provide reasonable estimates of stream channel losses for the largest Teton Valley tributaries. The second source is a Ph.D. dissertation written by Jetze Wytzes at the University of Idaho in 1980. His study includes estimates of gains and losses in canals and stream channels in the lower Henry's Fork and Teton River, but his field measurements were made during the extremely dry year of 1977. The third source is the seepage study completed by the Bureau of Reclamation and Idaho Power in 2003. This report provides estimates of gains and losses on the Henry's Fork from Ashton to the South Fork confluence during the fall and spring but not during irrigation season. Thus, we have identified the following priorities for our study:

1. Loss/gain measurements on canals throughout the study area
2. Loss/gain measurements on the Henry's Fork and lower Teton River during irrigation season

In this presentation, I will review the existing data and outline the methods we plan to use to obtain loss/gain estimates. My hope is to receive input on which canals and stream reaches are of greatest interest to irrigators and water managers so that we can provide information that will be useful to them. Furthermore, we will need this input so that we can approach canal companies to request permission to measure canals in specific key locations.

**Henry's Fork Watershed Council – March, 2009 Presentation Summary**

**Presentation title: The Henry's Fork in Harriman State Park - angler attitude survey 2008**

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Summary

The Henry's Fork of the Snake River within Harriman State Park is one of the most well known angling locations in the world. However, anglers have expressed concern over a perceived decline in their angling experience, citing fewer fish, diminished insect hatches, and a lack of rising fish. Some anglers have even suggested that trout stocking is the answer. These concerns warranted a survey of anglers, but standard creel measures are unlikely to fully describe this technical dry fly angling experience. Therefore, we developed an angler attitude survey to measure angler values and satisfaction, along with opinions on wild trout management versus hatchery trout management. A total of 616 anglers were surveyed at river access points for the park from June 15 (the season opener) through October, 2008 when angling use dropped off substantially. Angler satisfaction was greater than their importance ratings for the number of fish, number of other anglers, and aesthetics. Angler satisfaction was less than their importance ratings for opportunities to fish to rising fish, quality of insect hatches, and condition of fish habitat. Anglers were about equally split between those who rated the quality of fishing in Harriman State Park today either as "excellent" or "good" versus those who rated it as "fair" or "poor". The majority of anglers rated the quality of fishing in 2008 as better than the previous year, but slightly below average compared to the entire time period they have been fishing the Park. Eighty-eight percent of anglers approved and 6% disapproved of managing the fishery for wild trout, whereas 16% approved and 76% disapproved of managing the fishery with stocked trout. The Henry's Fork within and adjacent to Harriman State Park will continue to be managed for wild trout, but future work will focus on habitat assessments and potential restoration options that may improve the angling experience.