The Nature Conservancy and MillerCoors: Enhancing Water Conservation and Partnering with Farmers in the Silver Creek Watershed, Idaho

This year, The Nature Conservancy celebrates the 35th anniversary of Silver Creek Preserve, a conservation legacy that began with the purchase of a 450-acre preserve. Over the years, the preserve has grown to 880 acres, and 22 landowners in the valley have donated nearly 10,000 acres of conservation easements.

Silver Creek has become a model for spring creek conservation with an active restoration and research program. The Nature Conservancy, at its core, works to protect places for people and nature, and Silver Creek conservation epitomizes this approach. The Silver Creek watershed is a world-class trout stream and haven for wildlife, but it also remains an active agricultural valley.

MillerCoors support of Silver Creek conservation has achieved numerous tangible benefits for the Silver Creek valley. The practices implemented here will serve as a model for stream conservation and irrigated agriculture around the country.

Silver Creek barley by Morgan Buckert.

Let's look at what has been achieved in the past three years:
In 2009, we embarked on a water initiative at Silver Creek in partnership with Miller Coors, this first year marked the development of a spring creek assessment tool and watershed plan, both of which will guide our management decisions in the future.

In 2010, we further developed the plan through an ambitious outreach process with neighbors and stakeholders. We began implementing the water conservation and stewardship portions of the plan. Specifically, we installed the first variable rate irrigation system in the valley and worked with a PhD student to develop a water model of the watershed so we can measure the effect of our efforts. In addition, we planted and fenced over a mile of tributary habitat and prioritized areas of enhancement for next year.

In 2011, the work has shifted from primarily planning to primarily implementation—on the ground activities that will benefit the Silver Creek system. Working with a neighboring landowner, we developed a list of best management practices (BMPs) for barley farmers and implemented a suite of those on one farm—'The Showcase Barley Farm'. We are currently summarizing our outcomes and that document will be available to other farmers—making what we did transferrable and to scale. BMPs range from retrofitting irrigation systems to increase efficiency, to planting and fencing riparian areas and wetlands, to monitoring fish populations to measure benefit in the future. In its first year, the showcase barley farm has already been a great success. We have had over 150 people tour the farm including the local 6th graders who were so inspired by the work and how it effects insect populations, they decided to fund raise for a bufferfly garden at the visitor center. The garden will attract beneficial insects, including butterflies. Pollinating insects are important for all of us--for the food we eat and the crops we grow. They pollinate our crops and also reduce the amount of pesticides needed because they feed on harmful insects.

On the barley farm:

> **Water savings:** In 2011, water savings was approximately 9% or **124,464,000 gallons of water**! For a farm that uses over a billion gallons of water a season, a 9% savings is a substantial savings.
> **Energy savings** will not be calculated until the end of the year, but will be between 10-20%. Thank you to Idaho Power for helping with this portion of the project.
> **Leveraging the donation:** The Stevenson's contributed many man hours, equipment hours, and materials to implement this project. The Nature Conservancy provided in kind match for all of the monitoring and tours which were conducted by Silver Creek staff. Idaho Department of Fish and Game volunteered two days of their time and equipment for the fish surveys. Idaho Power contributed to the irrigation changes, and NRCS is helping with the fencing and planting. TNC also received 1,000 donated aspen, several hundred of which will be installed on the Stevenson's barley farm next spring.

All of these efforts have improved (and will continue to improve) the area's habitat and, benefitted water quality and increased land values due. Through the development and implement of the plan, we have (and will continue to) engage an array of stakeholders — from barley farmers to schoolchildren — in vital habitat and water conservation efforts that will ensure a more resilient ecosystem for future generations.

The accomplishments of the past three years would not have been possible without the help of many partners. Below is Gary Beck (left), the Stevenson's and Maria Loinaz, PhD candidate, two of the many people who have made this project possible.