

Gadberry Riparian Improvement Project



The Little Butte Creek Watershed Council is sponsoring an important project to remove non-native riparian vegetation along Little Butte Creek and replace it with native riparian vegetation to improve habitat and water quality for anadromous fish.

Objectives and Deliverables:

Objective: Restore riparian habitat and function and improve stream temperature by restoring native riparian vegetation:

Deliverables:

- a) Remove invasive blackberry brush along 3,360 feet of stream to a width of 45 feet (3 1/2 acres).
- b) Replant the entire riparian zone with mixed conifer and native plants (including willows, alders and conifers)
- c) Install a four-strand cattle exclusion fence along the entire length of the riparian project zone.
- d) Provide off-site watering for cattle with a solar pump and 300 gallon trough.

Description:

The Little Butte Creek has historically provided highly successful spawning and rearing habitat for anadromous fish returning to the Rogue River. The status of this habitat for threatened and endangered coho salmon and steelhead is being threatened by excessive erosion, decreased stream flow, and higher temperatures. The condition of the riparian zone has degraded with the extensive growth of Himalayan blackberry, an invasive plant that has displaced native species. Blackberry provides very little benefit to wildlife and only limited shade for aquatic species. The root structure of the blackberry is shallow rooted and tends to pull out during high water events, exposing the banks to continued erosion. Cattle access has increased streambank erosion and bacteria to Little Butte Creek, which is listed as water quality limited due to excessive sediment, bacteria, and elevated stream temperature.

This project will provide multiple water quality and habitat benefits. Replacing non-native vegetation with native riparian vegetation will decrease streambank erosion, as native vegetation develop strong root systems that hold streambanks in place during high flow events. Reducing streambank erosion will reduce excessive sediment delivery to the stream. The native riparian vegetation, including willows, alders and conifers, will increase stream shading and reduce stream temperature, one of the most limiting factors for salmonids. In addition, the more diverse plant species will support a more diverse assemblage of native wildlife and birds.

Justification:

Little Butte Creek provides important habitat for coho salmon and steelhead, and is one of the most significant spawning tributaries of the Rogue River. In recent years, several in-stream barriers have been removed from Little Butte Creek, allowing easier access for these endangered species. The Gadberry Riparian Improvement Project will provide increased shading intended to lower higher summer stream temperatures. The improved vegetation cover will also reduce overland flow from summer irrigation and winter storms. New native plants will provide improved habitat opportunities for both terrestrial and avian

species. The exclusion fencing will prevent cattle from entering the creek, resulting in reducing erosion and sediment transport.

Other Benefits:

The off-sit water trough will provide clean water to cattle and decrease bacteria loading from animal waste. The 3360 feet of riparian improvement on this project is in addition to 2500 feet of riparian improvement completed one half mile downstream in August 2008. These two projects hope to influence other local landowners about the benefits of this kind of work.