

Dutch Bill Creek Water Conservation & Storage Project

Westminster Woods

Westminster Woods Camp and Conference Center, in partnership with the Russian River Coho Water Resources Partnership, recently changed the way it irrigates its grounds to benefit coho salmon and steelhead.

Westminster Woods is a year-round camp, outdoor school, and retreat center located in Occidental, California along Dutch Bill Creek, an important stream for coho and steelhead. Over the years, the camp has worked with many partners on fisheries restoration projects, and the most recent project benefits Dutch Bill Creek by leaving more water in the stream during the summer dry season, when streamflow is already low. Westminster Woods had previously relied on Dutch Bill Creek to irrigate its playing fields during the summer. The project—implemented in fall 2015—reduced overall irrigation demand and allowed the timing of water diversion to be shifted to the winter rainy season. This project has three components:

- Water conservation measures (reduction in turf area, turf replacement with drought-tolerant grass, installation of a more efficient irrigation system) to reduce Westminster Woods's water use.
- Installation of storage tanks which are filled with spring water during the winter to provide irrigation water during the summer. The tanks allowed the camp to reduce its rate of diversion by 99% (from 0.3 to 0.003 cubic feet per second), a change that can make a huge difference to juvenile fish rearing over the summer.
- Permanent removal of the camp's existing diversion pump on Dutch Bill Creek and

- dedication of the water saved to instream flow to benefit fish and other aquatic species.

The project provides a reliable source of water that meets the camp's irrigation water needs and leaves water in the creek for endangered fish when they need it most.

More information:

- <http://www.westminsterwoods.org/>
- <http://www.goldridgercd.org/html/instream-flow-enhancement.htm>



Above: Two tanks (total capacity 175,000 gallons) which store winter water to irrigate the camp's playing fields in the summer;



Left: Valves installed as part of the new irrigation system.

Project Partners: Westminster Woods Camp & Conference Center, Russian River Coho Partnership (Center for Ecosystem Management and Restoration, Gold Ridge Resource Conservation District, Occidental Arts and Ecology Center, Sonoma Resource Conservation District, Trout Unlimited, UC Cooperative Extension/California Sea Grant), Prunuske Chatham, Inc., California Department of Fish and Wildlife, California Department of Water Resources, National Fish & Wildlife Foundation, and National Oceanic and Atmospheric Administration's Habitat Blueprint and Restoration Center.