

KLICKITAT CONSERVATION NEWSLETTER

Fall 2017

Central & Eastern Klickitat Conservation Districts

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- Water Temperature TMDL—Why We Care
- EKCD sponsors environmental education for Bickleton and Mabton students



WHY WE CARE ABOUT WATER TEMPERATURE

WATER QUALITY ISSUE:

The federal Clean Water Act, adopted in 1972, requires that all states restore their waters to be “fishable and swimmable.” Washington's Water Quality Assessment lists the water quality status for water bodies in the state and meets the federal requirements for an integrated report under Sections 303(d) and 305(b) of the Clean Water Act. The assessed waters are grouped into categories that describe the status of water quality. The 303(d) list comprises those waters that are in the polluted water category, for which beneficial uses— such as drinking, recreation, aquatic habitat, and industrial use – are impaired by pollution.

Elevated water temperature is included in the list of pollutants because of the sensitivity of many aquatic organisms to temperature, and it's potential to limit spawning and rearing habitat for fish. In Central Klickitat CD, the Little Klickitat River and its major tributaries – East Prong, West Prong, and Butler Creek - are listed on the 1996 and 1998 Washington State 303(d) lists for elevated water temperatures. In Eastern Klickitat CD, several segments of Rock Creek, Luna Gulch, Wood Gulch, Pine Creek, and Alder Creek have also been identified as being impaired by high water temperatures; however, they are not on the state's 303(d) list.

Effective shade is used as a surrogate measure for heating of the stream, and is used to fulfill the requirements of the Clean Water Act Section 303(d) for a Total Maximum Daily Load (TMDL) for temperature. The Little Klickitat River Watershed Temperature TMDL concluded that the primary cause of elevated water temperatures in the Little Klickitat River Watershed is lower than potential levels of riparian shade, and that increasing stream-side shade is the most effective means for landowners to improve water temperatures.

Vegetation is sparse throughout the Little Klickitat River Watershed for various reasons. Naturally, watersheds with dry climates have relatively sparse veg-

however, given their moist condition, riparian zones can support an abundance of vegetation compared to drier uplands. Activities such as development, grazing, logging, and road building have affected the amount and type of riparian vegetation in the Little Klickitat River Watershed. Additionally, hydrology and over-all stream condition can have an impact on riparian zone vegetation.

In general, the target amounts for effective shade in the Little Klickitat River Watershed are as follows:

Stream	Target Effective Shade (%)
Butler	95
East Prong	94
West Prong	93
Spring Creek	73
Blockhouse	73
Mill Creek	73
Bowman Creek	73
All other tributaries	73

PROCESS STATUS:

Many existing regulations, agreements, and planning processes potentially affect stream improvements in the Little Klickitat River Watershed. Actions taken pursuant to the Water Quality Implementation Plan (completed in 2005) fall into three categories: voluntary stewardship actions; actions taken in accordance with a law, legal agreement, or an existing planning process; and monitoring activities. Voluntary stewardship activities include the planting of native vegetation near streams to restore the riparian zones, fencing livestock away from riparian zones where possible, developing farm plans to address temperature, providing off-channel water sources for livestock, and changing agricultural tillage practices to reduce soil erosion. Central Klickitat CD and Eastern Klickitat CD both operate water quality monitoring programs that have established baseline data throughout both districts, and are being used to document the effectiveness of stewardship activities. CKCD and EKCD also provide or sponsor a variety of outreach activities, aimed at both adults and youth, to educate citizens on ways that we can protect and improve water quality.

Adapted from <http://www.ecy.wa.gov/programs/wq/tmdl/LittleKlickitatTMDLSummary.html>

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EKCD SPONSORS CLASSES FOR BICKLETON & MABTON SCHOOLS

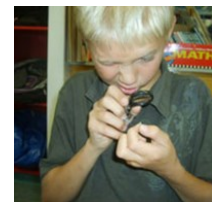
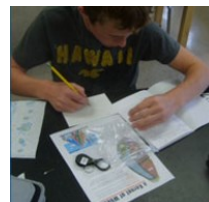
Since 2010, Eastern Klickitat Conservation District has helped sponsor natural resources educational programming students at Bickleton School. Mabton's Artz-Fox Elementary began participating three years ago. The programs are provided at no charge to the schools by Franklin Conservation District, which has an extensive education program designed and implemented by professional educators.

For the 2016/17 school year, 84 students and three teachers at Artz-Fox Elementary School received the Wheat Week program, a series of five lessons delivered over the course of one week, educating students in 4th and 5th grades about water, soil, watersheds, energy, systems, and wheat, and how they impact our lives. All Wheat Week lessons are aligned with the Next Generation Science Standards, and each lesson takes approximately one hour each day. Lessons included: What is Wheat?; Water in Our World; Amazing Soils; Does Watershed?; and Wheat Energy.

53 students and four teachers at Bickleton School had the Water on Wheels (WOW) Program for kindergarten through 6th grade. WOW lessons include hands-on demonstrations, educational games, and grade-level appropriate materials to give students a better understanding of water and soil conservation. There are seven lessons in the WOW program, all of which are aligned with Washington State Science Learning Standards: Water Everywhere; Exploring Habitats; Soil Magic; Water in Our World; Incredible Journey (the water cycle); Does Watershed?; and the Enviroscape Model. The classroom teachers get to choose which lessons they want to have presented.

Funding for this year's sponsorships will come out of EKCD's general operating grant (Implementation Grant) from the Washington State Conservation Commission.

For more information on Wheat Week, Water on Wheels, or any of Franklin CD's other educational programs, visit franklincd.org/education.



Coming Soon...

- * **Central Klickitat CD's 2018 Annual Meeting and Supervisor Election** Tuesday, February 20th, in Centerville
- * **Eastern Klickitat CD's 2018 Annual Meeting and Supervisor Election** Tuesday, February 27th in Bickleton
- * **EKCD / CKCD annual plant sale**—March, 2018 in Goldendale
Catalogs will be posted on our web sites (ekcd.org and ckcd.org) and mailed to previous customers in late December, and are also available by request. Call Mindy at (509)773-5823 x 5 or email cdoffice@ckcd.org.

Kudos...

Congratulations to Loren Meagher, who was named 2017 Employee of the Year for the Washington Association of Conservation Districts (WACD) South Central Area. Loren has served at the Area Engineer for CKCD, EKCD, Underwood CD, and North Yakima CD since 2009. He was recently named District Manager for CKCD and EKCD, but will also continue as Area Engineer. Loren was named Employee of the Year for the entire state in 2016.