



# PALOUSE-ROCK LAKE CONSERVATION DISTRICT

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Legislative District: 9 Congressional District: 5

## Other accomplishments:



Installed livestock exclusion fencing, off-stream water system, and streamside planting on .7 mile of Imbler Creek through the Regional Conservation Partnership Program (RCPP). Photo by James Schierman



Planted over 25,000 trees and shrubs along 4+ miles of stream through Conservation Reserve Enhancement Program (CREP), Department of Ecology, and RCPP projects in spring 2017. Photo by James Schierman



Used Aquaspy technology to measure differences in soil moisture, temperature, and conductivity of cover crops. Photo by Dan Harwood

## 2017 FEATURE ACCOMPLISHMENT

### DIRECT SEED PROGRAM HELPS PROTECT WATER QUALITY

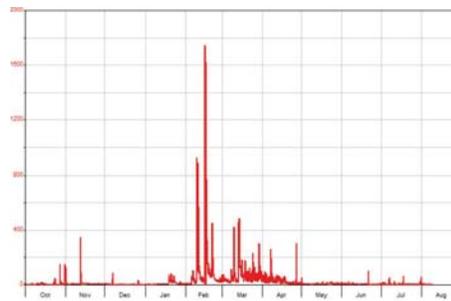
#### Resource challenge

Soils in the Palouse-Rock Lake Conservation District (PRLCD) are silt loam and erode easily in the winter and spring. The erosion flows into water bodies and streams, where it affects fish and aquatic wildlife habitat, water quality, and recreation. Conventional tillage turns up bare soil causing soil loss to occur at much higher rates than direct seed systems. Planting perennial working buffer strips along stream banks can increase soil retention and further reduce sediment.

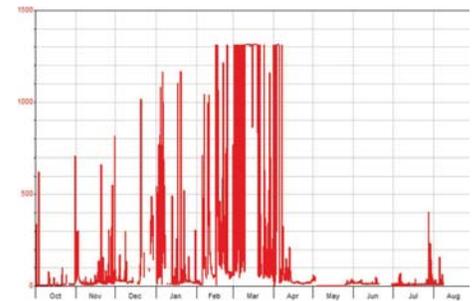
#### Project summary and results

Producers in Kamiak Creek watershed have been converting to direct seed with assistance from a PRLCD cost-share program. Comparing water quality data from Kamiak Creek watershed and nearby Thorn Creek watershed (where mainly convention tillage is used) indicates this makes a difference. Turbidity in Thorn Creek is higher and lasts longer than Kamiak Creek during heavy erosion months. Kamiak Creek also has a mile of working buffer strips of alfalfa that reduce erosion entering the stream. PRLCD and partners continue to review stream data to better understand and share evidence of direct seed impacts on water quality.

**Key partners:** Palouse Conservation District; Pine Creek Conservation District; USDA Natural Resources Conservation Service; Washington State Conservation Commission; Department of Ecology; Kamiak Creek watershed producers



The lack of red on this graph for Kamiak Creek shows noticeably less turbidity or sediment from erosion because the watershed is mostly direct seed acres.



Red on this graph shows higher erosion and sediment in Thorn Creek, where conventional tillage is most common in the watershed.

## MORE WORK TO DO

- ▶ Install over one mile of CREP plantings on Lower Downing Creek and Cottonwood Creek.
- ▶ Continue monitoring soil health and ground moisture with Aquaspy technology.
- ▶ Increase current acres of direct seed cropping systems to 70 percent of the cropland acres.
- ▶ Continue to monitor and research water quality in Kamiak and Thorn Creek watersheds.
- ▶ Increase working buffers on stream banks.
- ▶ Document riparian projects with drone imaging.