



Flood relief project protects Keene Creek and Superior Hiking Trail

September 2013 Snapshots

Tim Beaster knows that steep slopes, saturated soils and heaving rains don't mix.

Beaster, South St. Louis Soil and Water Conservation District (SWCD) technician, has been working on flood relief projects since Duluth and the surrounding areas were hammered by 10.10 inches of rain on June 19-20, 2012.

"We've been working feverishly with landowners to restore damages following last year's storm events," Beaster said.

Paul Fleckenstein was one of the landowners who contacted the South St. Louis SWCD regarding a serious erosion issue adjacent to his home and garage.

"Following the storms, Mr. Fleckenstein had severe erosion issues that were threatening structures on his property," Beaster said. "We completed a site visit of the property and determined it was a high priority project to protect nearby Keene Creek."

Keene Creek is a designated trout stream with a 6.1 square mile watershed located within the City of Duluth and City of Hermantown. The average slope of Keene Creek is 5.8 percent with an approximate maximum slope of 12 percent, similar to approximate slope of Lake Avenue in Duluth.

Beaster said past land use practices contributed to many of the problems resulting from the flood. "Development in close proximity to stream banks, including clearing, grading and disposal of garbage in stream bank ravines in the past contributed to stream bank failures," Beaster said.

The Fleckenstein project includes a slope stabilization using clean fill materials and planting of native grasses and bushes. Retaining walls and a small drainage ditch will be built and the existing sanitary line and waterline will be relocated to accommodate slope restoration and new garage placement.

"We are interested in protecting Keene Creek and serving the landowner," Beaster said. "This project will protect not only the structures located at the top of the hill, but also the Superior Hiking Trail and trout-designated Keene Creek at the bottom."



Top: Tires, iron poles, concrete and other debris and sediment from Paul Fleckenstein's property threatened to erode into the Keene Creek, following June 2012 storm events. Bottom: Aerial view of Fleckenstein's property shows proximity to Keene Creek and the Superior Hiking Trail.