

Kids Creek Restoration



PROJECT: Kids Creek Restoration

CHALLENGE: Working during the rainy season and controlling silt and turbidity of water; shutting down work for concerts; limited access to site

SOLUTION: Building sand traps to prevent soils from moving downstream and patience.

OWNER: The Watershed Center Grand Traverse Bay

CONTRACT AMOUNT: \$207,004.00

DESIGN ENGINEER: AECOM

ENGINEER CONTACT: (231) 935-4285

LOCATION: Traverse City, MI

DATE STARTED: May 15, 2017

DATE COMPLETED: June 20, 2017

SELF-PERFORMED: 80%

PARTNERS: SEEDS (landscaping restoration), Great Lakes Lawn and Landscapes (irrigation)

Over the last 15 years, the Watershed Center and others have made significant improvements to repair, restore, and enhance Kids Creek, which is on the state impaired waters list.

Historically, thunderstorms washed sand into Kids Creek. The sand filled up all the holes in the creek and washed into the Boardman River, which then created a sand bar in Grand Traverse Bay at the mouth of the Boardman River. The sediment in the creek also created narrow banks, which led to flooding whenever it rained.

Team Elmer's was hired to restore a section of Kids Creek to its natural, and functioning, state by removing the excess sediment and expanding the flood plain to create a natural storage area for excess storm water.

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Team Elmer's installed two new 6x4 precast concrete box culverts to replace existing small diameter culverts in order to reduce bottlenecks in the creek. To help dissipate wave energy, riffles were installed, as well as riprap. Team Elmer's rebuilt the flood plain to expand it and also installed plantings and seedings along the flood plains and upland to help reduce erosion. Team Elmer's and their partners followed specific guidelines for the flood plain and the upland seed mixtures.

With these new installations, Team Elmer's also regraded the site and rebuilt the extensive irrigation system on the section of creek being restored, leaving the site looking beautiful.

The project did not come without its challenges, though. The site itself had limited access and work had to be shut down during concerts at the Grand Traverse Pavilions. Also, the restoration took place during the rainy season, so a big issue was water runoff, as well as controlling the silt and turbidity of the water. As a solution, Team Elmer's built sand traps to prevent soils from moving downstream.

Restoration has aided in water quality for the entire watershed. The natural fish and insect habitat was being covered by sediment, hindering the ecosystem from working as it should. With this restoration, insects and fish could return to Kids Creek.

Kids Creek Restoration By The Numbers

- Culvert Removal: 1
- Pavement Removal: 142 square yards
- Channel Excavation: 800 cubic yards
- Embankment: 350 cubic yards
- Culvert Installation: 38 linear feet

