

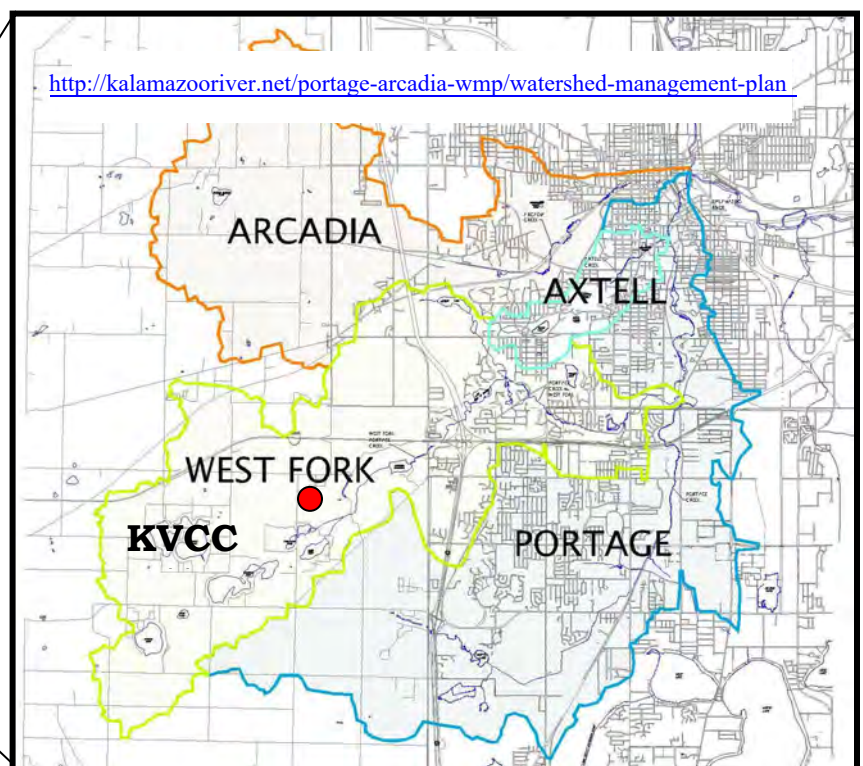


Portage Creek: West Fork LID KVCC 319 Grant Project

Nov 2011 to Oct 2013

This Section 319 Grant provided funding to implement storm water best management practices (BMPs) to reduce flows to West Fork Portage Creek (WFPC) in Texas Township. The project involved one BMP implementation site within the WFPC sub-watershed targeting nutrient and sediment removal, and hydrology improvements. The site is on the Kalamazoo Valley Community College (KVCC) campus and had a single remaining storm sewer outfall that discharges without any treatment directly to WFPC. This outfall was the last of three the campus previously had discharging to WFPC without treatment from approximately 31 acres.

KVCC had set a goal of eliminating all storm water discharges to WFPC. This voluntary action item was above and beyond the requirements of their MS4 permit. Eliminating the remaining untreated discharge of stormwater runoff from the approximately 31 acres of KVCC campus to WFPC was the primary goal for this grant project. The new stormwater treatment system can now fully capture runoff from a 50-year storm event.



Grant Amount: \$ 264,135
Match Funds: \$ 107,986


Total Amount: \$ 372,121

Partners involved:

- MDEQ
- Kalamazoo Valley Community College
- Portage-Arcadia Creeks Steering Committee
- Kieser & Associates, LLC
- Driesenga & Associates, Inc. (surveyor)
- Quantum Construction (contractor)

I&E Activities:

- Planning with KVCC faculty for educational design elements to include in biology and chemistry classes
- Two temporary construction signs
- Two permanent educational signs



WEST FORK PORTAGE CREEK KVCC SITE

Best Management Practices:

- Expanded stormwater basin (w/ native vegetation) = 0.5 acres
 - Sediment forebay = 0.5 acres
 - Wet detention pond = 1.5 acres
 - Infiltration basin = 1 acre
 - Treatment system capacity = 8.68 acre-feet
 - Annual urban stormwater treated = 56 acre-feet/year
 - Native seed vegetation = 5.5 acres
 - Educational walking paths = 0.55 miles
- Storm water reuse for irrigation = 20,000 gal. per year
 - Storm water outfalls removed = (1) 48-inch outfall



Annual Load Reductions:

- Reduction of 36.5 pounds total phosphorus per year
- Reduction of 7.4 tons sediment per year
- Reduction of 501 pounds total nitrogen per year



Photos KVCC Site

Before & After Photos: KVCC BMP Site



Construction Photo: Excavation & Grading



Photos KVCC Site



After Photo:
Lot D Storm Water Treatment



After Photo:
Sediment Forebay



After Photo:
Wet Pond



After Photo:
Infiltration Basin



After Photo:
Native Vegetation and Habitat
Enhancement



After Photo:
Educational signage and walking paths
for public and student use

Portage Creek: West Fork LID KVCC 319 Grant Project
Tracking Code #2011-0023
KVCC Site - Fact Sheet

Photos
KVCC Site



Before & After Photos:
Sediment Forebay & Wet Pond



Before & After Photos:
Lot D Stormwater Basin



Before & After Photos:
Wet Pond with Irrigation Tanks

