

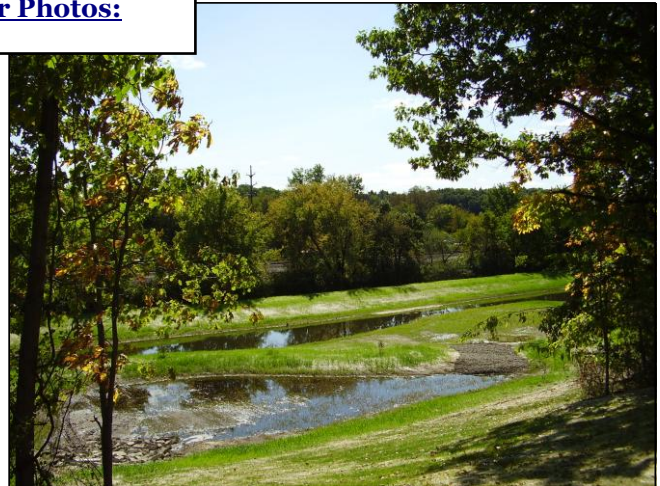
STORMWATER SOLUTIONS AT WESTERN MICHIGAN UNIVERSITY KALAMAZOO, MICHIGAN

K&A continues to work with WMU on a variety of stormwater related projects at several locations throughout their campus. Construction for the Lot 23 Stormwater Treatment System began in July 2009 and will be completed in Fall 2009. Approximately 32 acres of campus is presently draining stormwater to Arcadia Creek with no pre-treatment. The new sediment forebay and wet detention system will be capable of treating approximately 110,000 cubic feet of runoff, which is associated with a 1.5-inch, 24-hour rainfall event (between 4 to 6-month return frequency). The captured stormwater will be slowly released to Arcadia Creek over a 48-hour period following each rainfall event. Some fraction of stormwater may be infiltrated to groundwater.

The WMU Lot 23 Stormwater Treatment Project is part of a U.S. EPA Targeted Watershed Grant, which is administered by the Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians (Gun Lake Tribe). Grant funding from EPA is presently being used to support implementation of local BMPs to achieve load allocation goals associated with an EPA-approved Lake Allegan/Kalamazoo River phosphorus TMDL. Project benefits include:

- Sediment forebay = 0.13 acres
- Wet detention pond = 0.7 acres
- Stormwater treatment volume = 110,000 ft³
- Native vegetation = 1.1 acres
- Supplemental vegetative plugs = 3,300 plants
- Use of photodegradable erosion control blankets
- Parking lot spillway repairs
- Reduction of 32 lbs total phosphorus/yr
- Reduction of 7.3 tons sediment/yr

Before & After Photos:



Project partners included:

- Western Michigan University
- U.S. Environmental Protection Agency
- Match-E-Be-Nash-She-Wish Band of Indians
- Michigan Department of Environmental Quality
- Peters Construction
- Wildtype Native Plant Nursery
- Heartland Restoration Services, Inc.
- Kieser & Associates, LLC