Grand Valley State University
Storm Water Management Timeline

1960

GVSU Allendale Campus opened.

Storm Water Management Efforts: Natural runoff to existing ravines, exposed storm piping to ravine floor.

1970

Zumberge Pond constructed for storm water detention, with piped discharge to the ravines.

Storm Water Management Efforts: Natural runoff to existing ravines, exposed, overland storm piping to ravine floor; elevated pipe on stilts into the ravines.

1980

Storm Water Management Efforts: Natural runoff to existing ravines, exposed storm piping to ravine floor.

1990

GVSU constructs several new buildings and parking lots.

Storm Water Management Efforts: Constructed several stormwater detention ponds, with piped discharge to the ravines.

1995: Experienced massive failure of storm piping system, in addition to noticeable erosion in the ravines, larger detention structures put in service.

1996 : GVSU started questioning storm water management approach.

1997: Prepared campus stormwater plan.

2000

Implementation of campus stormwater master plan on all construction projects.

2002: Constructed new piping systems to ravine floor to consolidate storm water runoff, installed check dams and rock armament within the ravines.

2004–05

Investigated and began constructing several storm water Best Management Practices (BMPs) including:

- Porous asphalt parking lots
- Rain gardens
- Redefined grass mowing practices
- Habitat preservation
- Wetland construction
- Native plantings, in lieu of sod lawns

As part of an academic building project, redirected stormwater piping from sensitive/damaged ravine slope area.

2006: Runoff monitoring network and hydrologic data collection in the ravines is initiated. Identified opportunities to restore the historic drainage patterns. Storm Water Advisory Group (SWAG) formed to discuss storm water runoff issues on campus.

2007: Comprehensive Storm Water Management Plan (SWMP) prepared collaboratively with faculty and staff.

2008: Designed a 44-acre storm water treatment wetland complex to divert 50.3 campus acres of runoff away from the ravines.

Constructed rain garden fed storage pond, stored storm water for reuse in campus irrigation system, redirected 22 acres of parking lot runoff to the storage pond.

Installed a web-based monitoring system for the rain garden to evaluate effectiveness.

Constructed underground storage system with roof drainage used for irrigation.

Placed green roofs on 3 buildings.

Installed porous concrete courtyard.

2009: Constructed 18-acre south wetland and re-routed 10-acres of runoff away from the ravines.
Installed 20,000 square feet of porous concrete sidewalk.

2010

50th Anniversary of Grand Valley State University.

Continue to identify and implement best practices in support of the campus stormwater master plan goals and objectives.

Continue ongoing research and monitoring of BMPs and ravine stabilization.

Anticipate August 2010 completion of two building projects, including 20,000 square feet of porous concrete, partial green roofs, and five rain gardens.

Anticipate construction of the 26-acre north wetland.

2020

What will the future of stormwater management look like?

1960 50 2010 Years of Shaping Lives
Grand Valley State University

ftc&h
www.ftch.com