

# Ottawa County Parks

## *Native Riparian Rehabilitation of Hager Creek*

A STORMWATER MANAGEMENT PROJECT



This is a Clean Michigan Initiative (CMI) grant funded project promoting the concept that native plants can be used to repair and create ecosystems, reduce stream bank erosion, beautify, reduce maintenance, provide recreation, and attract wildlife. Working with the engineering firm Fishbeck, Thompson, Carr and Huber on the project our goal was to design an effective and efficient storm water treatment system that was integrated into a beautiful parkland. Erosion was restricted by grade control using rock riffles, selective tree cutting, stabilizing channel cross sections, and soil bioengineering techniques. The hydrologic flow was stabilized by constructing both a stormwater diversion channel and infiltration basin/wetland.



Native Michigan plant community types were developed based on a natural features inventory of the spectacular wildflower display that already exists in the park. These plant communities were used to rehabilitate, beautify, and populate the diversion channel and infiltration basin/wetland along Hager Creek. Adjacent uplands were planted with a dry prairie community type that was historically found in the area. Volunteers were used along with contractors to provide educational opportunities and to off set costs. Stormwater management is sustained using plant species that are native and indigenous to the site along with bioengineering techniques to properly manage Hager Creek's flooding and erosion problems. The project was completed in 2003. Establishment and monitoring is on going.