



Clean Michigan Initiative
Nonpoint Source Grant
 2004-0114



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Sand Creek Watershed CMI Project

May 6, 2005 - December 31, 2007

Sand Creek, a tributary of the Lower Grand River, is a designated cold water stream approximately 22 miles in length. The watershed encompasses 55 square miles and covers parts of four townships, one city, and two counties. The greatest potential threat to the water quality of Sand Creek comes from the velocity, volume, and pollutant load of storm water runoff. The primary goal of this project was to restore and improve the cold water fishery by implementing Best Management Practices (BMPs) that addressed both water quantity and water quality issues at four sites within the watershed. As a result of this project, three bioretention (rain garden) sites were constructed. At the fourth site a series of BMPs were constructed to stabilize an area of eroding stream bank.



Grant Amount: \$98,900
Match Funds: \$33,400

Total Amount: \$132,300

Best Management Practices:

- 3 Bioretention (rain garden) areas

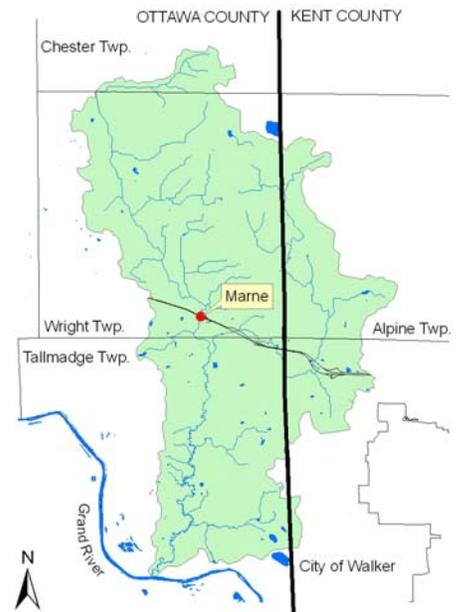
Stream bank stabilization - 178 linear feet consisting of:

- 134 linear feet of tree revetments
- 30 linear feet J- hook vane structures
- 30 square yards rip rap and channel back
- 94 linear feet revegetation of stream bank



Annual Load Reductions:

- Sediment 8.69 tons/year
- Nitrogen 15.6 lbs/year
- Phosphorus 6.8 lbs/year



Partners involved:

- City of Walker
- Wright Township
- Marne Lions
- Ottawa County Road Commission
- Ottawa County Drain Commissioner's Office
- Ottawa Conservation District
- Fishbeck, Thompson, Carr & Huber Inc.
- Rain Gardens of West Michigan (West Michigan Environmental Action Council)
- Sand Creek Watershed Partners
- Feldpausch Excavators
- Michigan Department of Environmental Quality



Early Blooms at Bioretention Site #2



Site #1 Before: Excessive storm water runoff flows directly into Sand Creek from this site.



Site #1 After: Bioretention (rain garden) area developed to infiltrate storm water.



Walker Site Before: Storm water runoff flows directly from the building roof onto the lawn area.



Walker Site After: Bioretention (rain garden) area developed to infiltrate storm water.