



Federal Clean Water Act

Section 319 Grant

Tracking code: 2000-0185



Southeast Michigan RC&D Council

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Southeast Michigan Soft Engineering/Conservation Buffers Project

August, 2001 - December, 2005

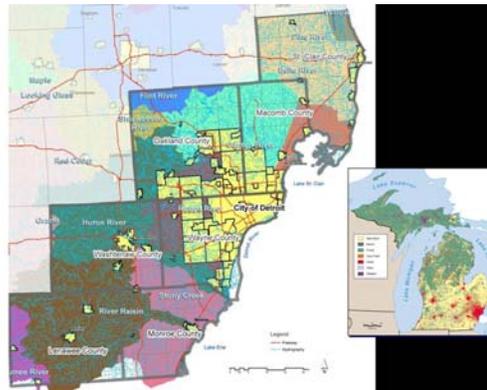
This technology transfer project provided a regional-level informational, educational, and training resource to demonstrate the use of soft engineering and conservation buffer practices to address the problem of streambank erosion. Five educational workshops, and four "hands-on" streambank stabilization practice demonstrations were conducted in: Lenawee, Macomb, Oakland, St. Clair and Washtenaw Counties.

An informational web site was also developed, highlighting the educational workshops and demonstrations, and providing an informational resource for soft engineering. Site address: <http://semircd.org/buffers/overview.php>

In addition, a conservation buffer brochure was also assembled and distributed, detailing site selection and design information on filter strips and riparian forest buffers. A pdf-version of the brochure is available for downloading on the web site at: <http://semircd.org/buffers/guide/intro.php>

Grant Amount: \$ 60,006
Match Funds: \$105,176

Total Amount: \$165,182



Watersheds:

Watersheds covered by this project in Southeast Michigan included:

- Clinton River
- Huron River
- Pine River
- Raisin River

Best Management Practices:

(Encompassing four demo sites.)

- Brush Mattress: 220 feet
- Fascines: 170 feet
- Live Fascines/Joint Plantings: 210 feet
- Live Staking w/Inert Fascines: 100 feet
- Vegetated Geo-grid: 100 feet



Annual Load Reductions:

- 19 tons of sediment

Partners involved:

- City of Adrian
- City of Ann Arbor
- City of Sterling Heights
- Clinton River Watershed Council
- Lenawee Conservation District
- Huron River Watershed Council
- Lenawee County Drain Commissioner
- Macomb Conservation District
- Macomb County Planning & Economic Development
- Macomb County Road Commission
- Oakland Conservation District
- Oakland County Planning & Economic Development
- River Raisin Watershed Council
- St. Clair Conservation District
- St. Clair County Drain Commissioner
- St. Clair County Parks & Recreation Commission
- St. Clair County Road Commission
- The University of Michigan Nichols Arboretum
- Washtenaw County Conservation District
- Washtenaw County Drain Commissioner
- Washtenaw County Road Commission
- BMJ Engineers & Surveyors, Inc.
- ECT, Inc.
- Smith Group/JJR
- USDA NRCS



Lenawee County, City of Adrian, Heritage Park



Before: Sediment from streambank erosion on the River Raisin was unsightly and threaten trees along the bank.



After: Fascines, a Vegetated Geo-grid, and Brush Mattress techniques stabilized bank..

Macomb County, City of Sterling Heights, Delia Park



Before: High water flows undercut this bank and deposited sediment into stream.



After: Fascines, Live Staking with an inert fascine toe, and a Brush Mattress were used to stabilize

St. Clair County, Goodells Park



Before: Bank scour deposited sediment into the North Branch of the Pine River.



After: Fascines, a Vegetated Geo-grid, and Brush Mattress techniques provided bank stabilization.

Washtenaw County, The University of Michigan, Nichols Arboretum



Before: Okl concrete was being undercut and heavy pedestrian traffic was eroding river bank.



After: Fascines, Joint planting of rip-rap toe, and native plant seeding with erosion blanket will stabilize bank and not impede sight views.