



Federal Clean Water Act  
 § 319 Grant  
 2005-0131



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## Huron River Watershed Buffer Initiative

27 February, 2006, through 31 March, 2008

The goal of this project was to coordinate and implement a watershed-wide buffer awareness and ordinance initiative that addresses the priorities in seven watershed management plans. The initiative, based on a highly visible and advocacy-based policy initiative, has raised the level of awareness and discussion on the importance of riparian buffers and started a movement of passing buffer ordinances at the local level in Southeast Michigan.

**Grant Amount: \$141,000**  
**Match Funds: \$ 54,300**  


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**Total Amount: \$ 195,300**

### Management Practices:

- Developed Model Ordinance for Riparian Buffers.
- Assisted 4 partner communities in adopting a buffer ordinance.
- Hosted 4 open houses on good riparian management at partner communities.
- Identified buffer restoration and demonstration sites along Huron River.
- Provided technical assistance to small group of individual riparian land owners.
- Interviewed riparian land owners about value of buffer protection.



Huron River Watershed, Lake Erie drainage

### I&E Activities:

- Implemented a coordinated I & E campaign in partner communities on the importance of riparian buffers
  - 2 direct mail pieces to residents.
  - 2 print ads in local papers to complement direct mail pieces.
  - Visual tours of buffers in partner communities. 

### Partners involved:

- Green Oak Charter Township
- Scio Township
- Putnam Township
- Ypsilanti Charter Township
- Huron-Clinton Metropolitan Authority
- Livingston County
- Oakland County
- Washtenaw County



# Get buff!



**buff (būf) - er**

- adj. having a physique enhanced by bodybuilding exercises
- (būf'ar) noun any of various devices or pieces of material for reducing shock or damage due to contact
- (būf'ar) noun something that serves as a protective barrier

## Shorelines need muscle to keep our water clean.

Look inside to learn about plant buffers!

Brought to you by:  
 Charter Township of Green Oak: 810-231-1333  
 Charter Township of Ypsilanti: 734-485-3943  
 Putnam Township: 734-878-3131  
 Scio Township: 734-665-2123

DEQ Michigan's River Source Program  
 Developed by the Huron River Watershed Council.  
 Supported in part with funding from the Michigan Department of Environmental Quality and United States Environmental Protection Agency.

Cover of the educational direct mail piece sent to residents in partner communities.

### Bad



### Better



### Best!



How we change our landscape impacts water quality. When we remove natural vegetation to create open areas along rivers, lakes and streams, we change the way rainwater enters the overall system. In addition to carrying pollutants with it, the rainwater now travels unobstructed foot first—filtering into creeks and rivers, cutting away the banks and eroding the shorelines. Water levels in creeks and rivers become unstable, rising rapidly after a rainstorm, and then dropping back to a trickle within hours.

Plant buffers capture the rainwater, filter out pollutants, and slowly release the water into the creek, lake or river, thus protecting the waterways from the high-powered flows that undercut and erode shorelines. Along lakefronts, plant roots stabilize the shoreline and offer protection against waves and ice build-up.

#### create a natural shore

This homeowner is using plants to stabilize slopes and reduce runoff. Once mature, this plant buffer will offer a permanent, aesthetically pleasing solution to shoreline maintenance.

Consider these materials costs when deciding if a plant buffer is the right solution for your property:

- preserving an existing plant buffer \$0
- installing a plant buffer \$10 per linear foot
- installing "typical" (see below) \$20 - \$45 per linear foot
- installing a tree well \$45 - \$100 per linear foot

In all cases permits, grading, labor and maintenance costs.

#### reduce heat & dirt

Heat and dirt are water pollutants. That's a surprising concept, until you understand how heat and dirt impact streams, lakes and rivers. In the summer, HEAT is drawn off pavement during heavy rains. When you see the pavement sheening, it means the rainwater just carried the bulk of the heat into the closest waterway rapidly raising water temperatures—often to the point where frogs and fish can no longer survive. During heavy rains, DIRT from eroded banks and construction areas washes into the creeks, lakes and rivers. The dirt settles in the bottom, changing aquatic habitats and contributing to lake-toxic. A plant buffer filters the water, cooling the temperatures and trapping dirt.

#### filter toxic paint

Heavily engineered solutions—such as sea walls and "rip-rap" (concrete blocks or large rocks placed along the water's edge)—are desperately employed in an attempt to protect shorelines. In areas where the site conditions can accommodate plant buffers, they are a better solution because they cost less and are more sustainable.

Parking lots near waterways should incorporate dense plant buffers to protect creeks, lakes and rivers from the toxic pollutants from automobiles that have accumulated on paved surfaces.

#### beautify

Trees, shrubs and grasses planted in banks parallel to the water's edge will increase the attractiveness and value of shoreline property. Small areas of trees planted in the buffer provide places for recreation with minimal maintenance.

#### prevent goose poop

Travel of rip-rap through the goose poop! Consider this: our cultural preference for large, open lawns with grass very well. Goats like to eat grass, but these heavy birds are awkward and vulnerable on hot, lushly green grass. Geese prefer feeding in open areas because they can see predators approaching. If grass are forced to travel through thick vegetation to get to a tree, they will seek an alternative site with easier access.

Graphics by Jennifer Vaid | Photographs by Jennifer Vaid, Eric Vaid and Elizabeth Papp

Inside panel of the educational direct mail piece.

# Get buff with us!



**What can plant buffers do for my community?**

A plant buffer is a wide band of trees, shrubs and other plants along creek, lake and river corridors used to trap rainwater runoff before it gets into the waterways. In addition to filtering out pollutants and regulating water flow rates, buffer areas enhance quality of life by providing recreational areas and flood control.

**Green Oak and Scio Township residents: get involved in your local buffer ordinance!**

Your township officials recognize the importance of plant buffers and are working on a Buffer Ordinance to protect existing buffers, with consideration of ways to replace and restore buffers in some areas. Input from residents is both a welcome and important part of this process. To find out when the Ordinance will be discussed by your Planning Commission or Township Board, contact:

Charter Township of Green Oak, (810) 231-1333  
 Scio Township, (734) 665-2123

You can learn more about the benefits of buffers at [www.hrwc.org/text/buffer/htm](http://www.hrwc.org/text/buffer/htm)

Huron River Watershed Council  
 Brought to you by the Charter Township of Green Oak and Scio Township.  
 Developed by the Huron River Watershed Council with support from the Michigan Department of Environmental Quality and USEPA.

Companion Print Ad