Huron River Watershed Council

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Learn more about HRWC
by visiting www.hrwc.org.

LEGACY Land Conservancy
Protecting and Preserving Southern Michigan

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Learn more about Legacy
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Michigan's Nonpoint Source Program

This Nonpoint Source Pollution Control project has been funded through the Michigan Nonpoint Source Program by the United States Environmental Protection Agency.

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CONSERVATION
LAND & WATER PARTNERSHIPS

Innovative solutions

brought to you by the Huron River Watershed Council and Legacy Land Conservancy

Land use impacts water quality.

Today, the greatest threat to water quality is not industrial discharge but polluted runoff, also know as *nonpoint source pollution*. When heavy rains or snowmelts wash over the land, they carry contaminants from many sources into the nearest storm drain, ditch or waterway. Dirt, fertilizers, motor oil, pet waste, pesticides, transmission fluid, even heat from the pavement are all examples.

Because these pollutants often originate far from any surface water, they are difficult to control. They compromise the health of our streams and rivers, our drinking water, and ultimately, the Great Lakes themselves.

The best and most effective way to reduce nonpoint source pollutants is through a functioning landscape—healthy wetlands, permanent vegetative strips between lawns or fields and waterways, sustainably managed woodlots, limited and low impact development. These provide opportunities to trap and infiltrate runoff before it gets into our waterways.

Individuals, taking steps to better manage their private lands, can make a huge impact on the problem of nonpoint source pollution. Large-scale landowners—farmers and others with fields, woods and wetlands—are particularly important to meeting this threat.

Good stewardship is the key. Controlling invasive species, restoring and stabilizing eroded streambanks, practicing conservation farming, and limiting development in critical natural areas are all steps that can be taken by landowners and local governments interested in protecting water quality.

Good stewardship is a long-term responsibility. In order to assure that the hard work of today is not undone in the future, permanent conservation may be an appropriate next step. By permanently removing the threat of development, while encouraging good stewardship practices, a conservation agreement can guarantee that our rivers and streams continue to provide clean water now and for future generations.

Two local organizations, the Huron River Watershed Council (HRWC) and the Legacy Land Conservancy (Legacy), are in **an innovative partnership** to work with landowners to promote solutions to the problem of nonpoint source pollution. Land and water cannot be separated and neither should be the approach to protect their health. HRWC and Legacy bring their 80 combined years of experience in solving local water and land issues to this partnership for the benefit of large-scale landowners.

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In Mill Creek watershed:

a streambank restoration project...

and permanent protection of beautiful natural areas.

A recent project in the Mill Creek watershed is just one example of the HRWC/Legacy partnership at work.

At 145 square miles, the Mill Creek watershed is the largest creek system in the Huron River watershed. Mill Creek is a valuable freshwater resource. Water quality is good due to the remaining natural areas of woodlands, wetlands, floodplains, lakes and streams. Yet Mill Creek faces some challenges, including excessive soil erosion and sedimentation, erratic stream flows and polluted runoff.

With grant funding from the State of Michigan and the United States Environmental Protection Agency, and matching contributions from the Washtenaw County Water Resources Commissioner's Office, HRWC and Legacy completed a project that stabilized two severely eroding streambanks on Mill Creek. Construction subcontractor ECT also participated.

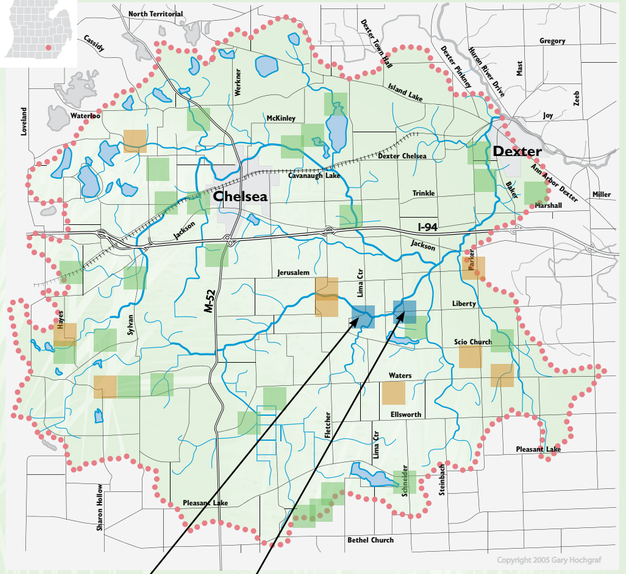
This streambank restoration was the first on Mill Creek to use preferred soft engineering techniques (engineering that relies on vegetative materials rather than structural, or hard, materials). To keep the repaired sites intact and prevent future problem sites, HRWC and Legacy assisted landowners in the project area who were interested in negotiating permanent protection of their lands. Landowners received information about their properties' importance to Mill Creek and the conservation options available to them.

Before. Bare, vertical banks at this site were the result of dredging and upstream changes to hydrology in Mill Creek.

During. Crews pull back the slope and install soft engineering techniques such as trees sourced from a local tree farm. Photo: ECT

After streambank restoration. Nearly one year after construction and high flows, the banks are vegetated with native trees, shrubs and grasses.

Our work in the Mill Creek watershed:



Areas that have been permanently protected with help from Legacy Land Conservancy.

Explore permanent land protection options offered by the Legacy Land Conservancy. A conservation agreement can ensure your land remains in its natural state forever, while providing tax benefits to you and your heirs. Go to www.legacylandconservancy.org.

Lima Center streambank stabilization site.

South Dancer streambank stabilization site.

Consider streambank stabilizations like the Mill Creek project for your property. Visit the sites on South Dancer and Lima Center roads or go to www.hrwc.org to learn more.

Natural areas assessed by the Bioreserve Project.

Participate in HRWC's **Bioreserve Project** which identifies, assesses, and prioritizes natural areas in the watershed that best contribute to a healthy Huron River. Learn detailed information about your land that can help you make decisions for maintaining or protecting it. Go to www.hrwc.org.

Other ways you can help protect water quality:

Attend Stewardship Network educational sessions to learn techniques for managing your property. Go to www.stewardshipnetwork.org.

Protect or restore riparian buffers, which are the areas of trees, shrubs and other plants along creek, lake and river corridors used to trap runoff before it gets into the waterways. As water seeps through buffer areas, the plants filter out pollutants and sediment, reduce and regulate the water flow and moderate water temperature. Go to www.hrwc.org.

Use or promote natural channel design, an innovative technique for conveying water off agricultural land. Natural channel design, or two-stage channels, function differently from the conventional trapezoid design by increasing ditch stability, improving drainage and ecological function, decreasing sediment and nutrient transport, and reducing maintenance and costs. To learn more, go to Ohio State University's streams website at http://streams.osu.edu/naturalchannel.php.

Explore Landowner Incentive Program funds for wetlands restoration, prairie plantings and management, and invasive species management through the Michigan Department of Natural Resources and Environment. Go to www.michigan.gov/dnr.

Consider United States Department of Agriculture, Natural Resources Conservation Service programs that offer financial incentives for protecting or improving wetlands and wildlife habitats, engaging in land conservation and stewardship, and encouraging new conservation farming practices. Go to www.nrcs.usda.gov.

Work with United States Department of Agriculture, Natural Resources Conservation Service and Michigan State University Extension to explore new ways of managing nutrients, improving farm efficiency and expanding markets while improving the environment and often saving or making money for the farming operation. Go to www.nrcs.usda.gov.

Include your forested lands in Michigan's Forest Legacy Program. This program pays landowners to sustainably manage their woodlots for timber, habitat, and soil quality, while providing a permanent forest cover for the state. Go to www.michigan.gov/dnr.