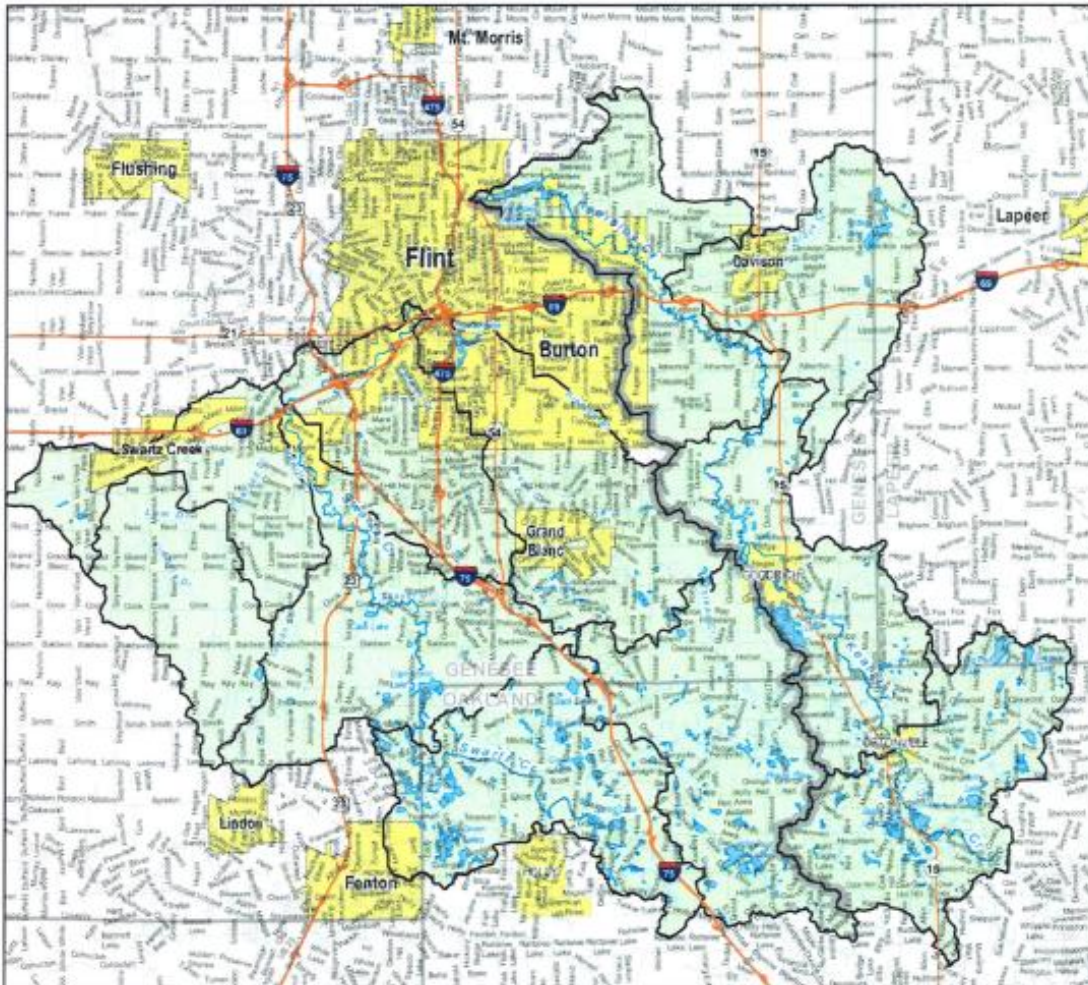


Genesee Conservation District Kearsley/Swartz Creek Watershed Phosphorus Reduction Project Overview

INTRODUCTION

The Genesee Conservation District (GCD) has contracted with the USDA Natural Resources Conservation Service (NRCS) to protect local streams and reduce phosphorus pollution loading to the Saginaw Bay Watershed. This will be accomplished by enlisting farmers in the NRCS Environmental Quality Incentives Program (EQIP) in the Kearsley Creek and Swartz Creek Watersheds (see the announcements below). The targeted watersheds and subwatersheds are shown in the map below:

Kearsley Creek—Swartz Creek Watersheds Genesee, Lapeer and Oakland counties



Funding for the project is being provided under the Great Lakes Restoration Initiative. The GCD will implement it, over 3 years, in the areas of the Kearsley and Swartz Creek Watersheds located within Genesee County .

WATERSHED ASSESSMENT

11% of Genesee County lies within the Kearsley Creek Watershed (HUC 0408020404), which covers 73,644 acres in southern Genesee County, northern Oakland County and a small part of Lapeer County bordering Genesee and Oakland Counties; and includes the following subwatersheds:

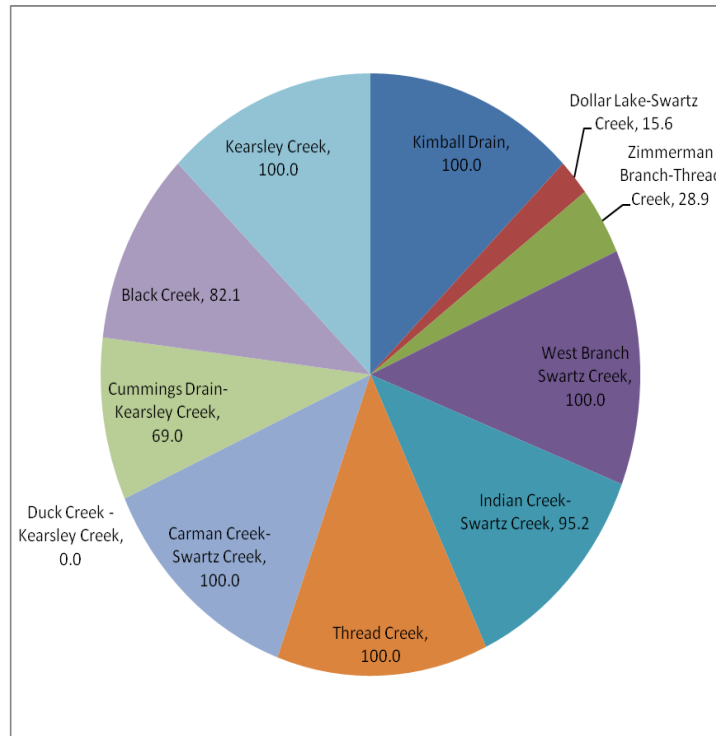
- Duck Creek - Kearsley Creek (HUC 4080204040)
- Cummings Drain - Kearsley Creek (HUC 40802040405)
- Black Creek (HUC 40802040406)
- Kearsley Creek (HUC 40802040408)

The Duck Creek - Kearsley Creek Subwatershed lies entirely within Oakland and Lapeer Counties.

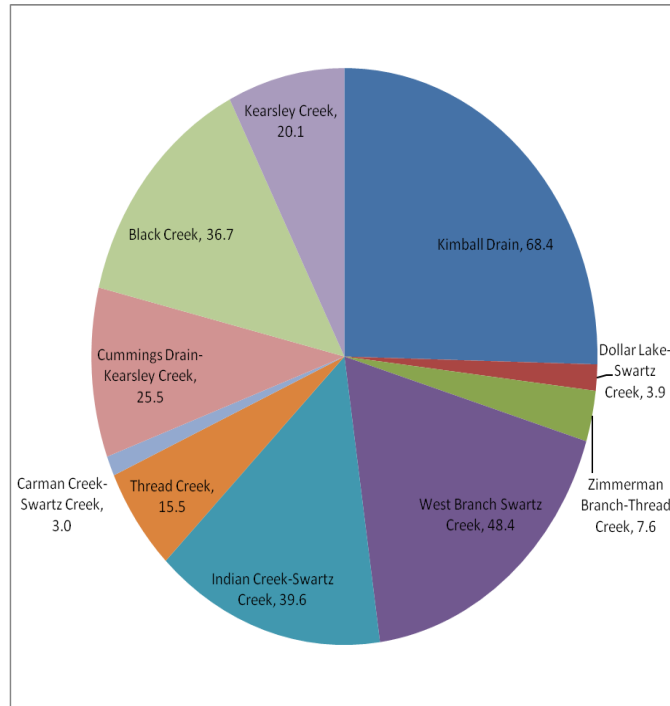
22% of Genesee County lies within the Swartz Creek Watershed (HUC 408020403), which covers 82,560 acres in southern Genesee County and northern Oakland County and includes the following subwatersheds:

- Kimball Drain (HUC 40802040301)
- Dollar Lake - Swartz Creek (HUC 40802040302)
- Zimmerman Branch - Thread Creek (HUC 40802040303)
- West Branch Swartz Creek (HUC 40802040304)
- Indian Creek - Swartz Creek (HUC 40802040305)
- Thread Creek (HUC 40802040306)
- Carman Creek - Swartz Creek (HUC 40802040307)

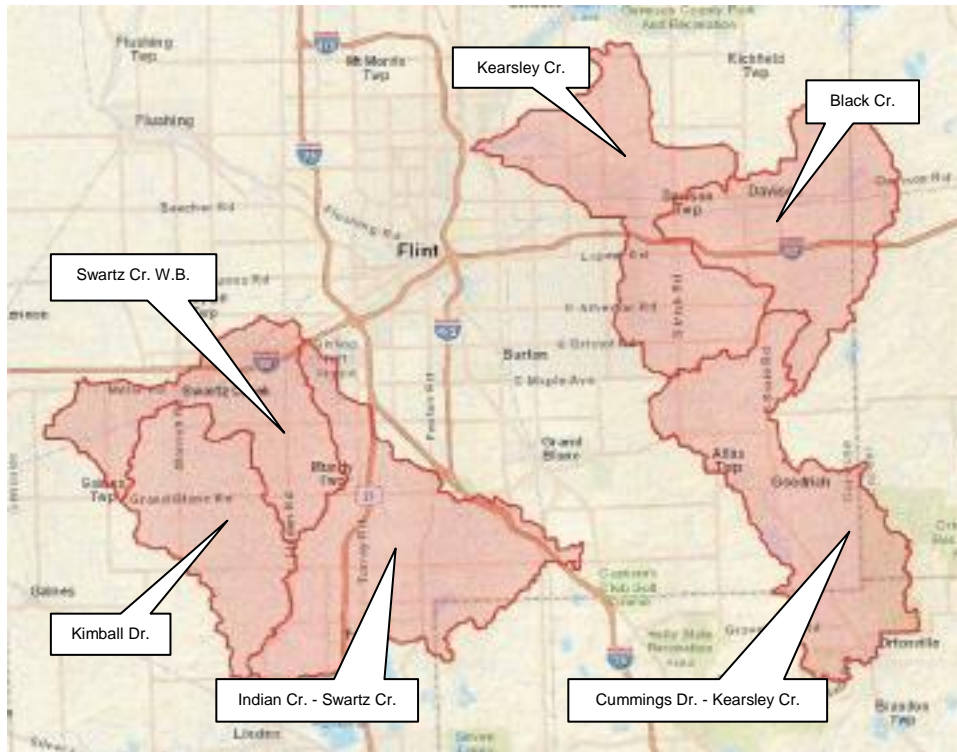
The areas (%) within Genesee County of each subwatershed are as follows:



The areas (%) of agricultural land in each subwatershed in Genesee County are as follows:

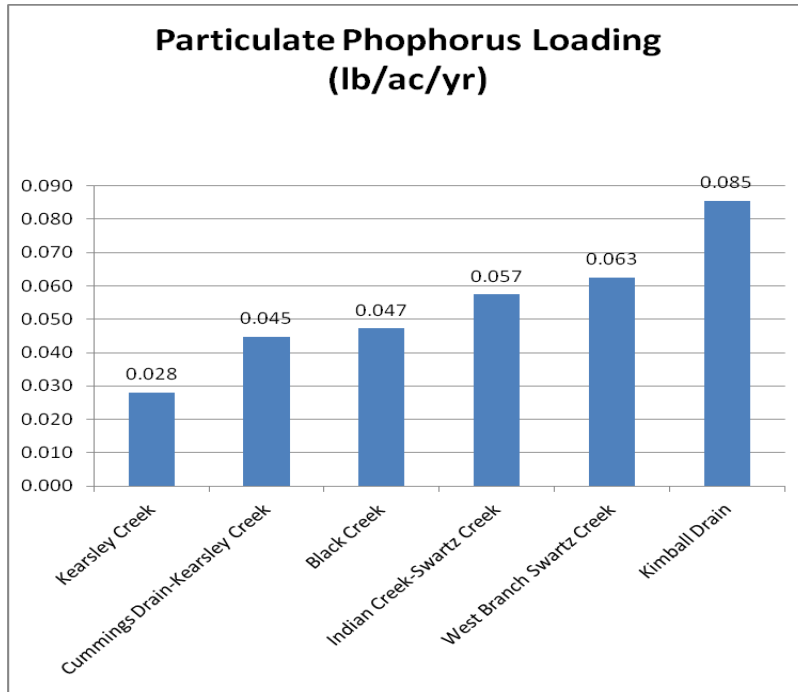


The project focus will be in subwatersheds having the greatest amount of agricultural land ($\geq 20\%$) located mostly in Genesee County ($\geq 30\%$) depicted below:

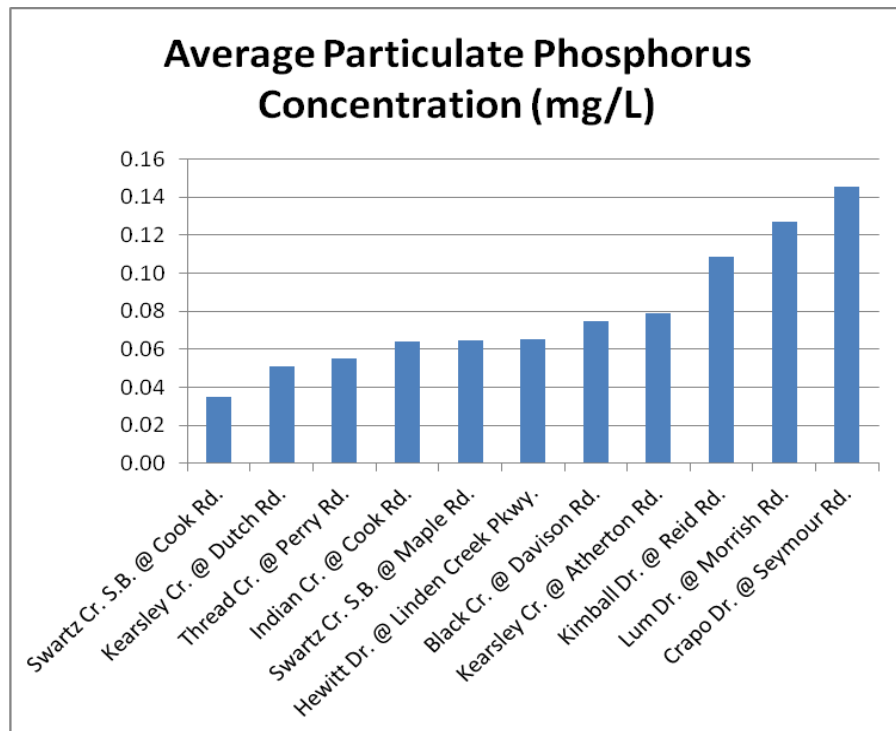


This is because subwatersheds in and near Flint and Grand Blanc are highly urbanized.

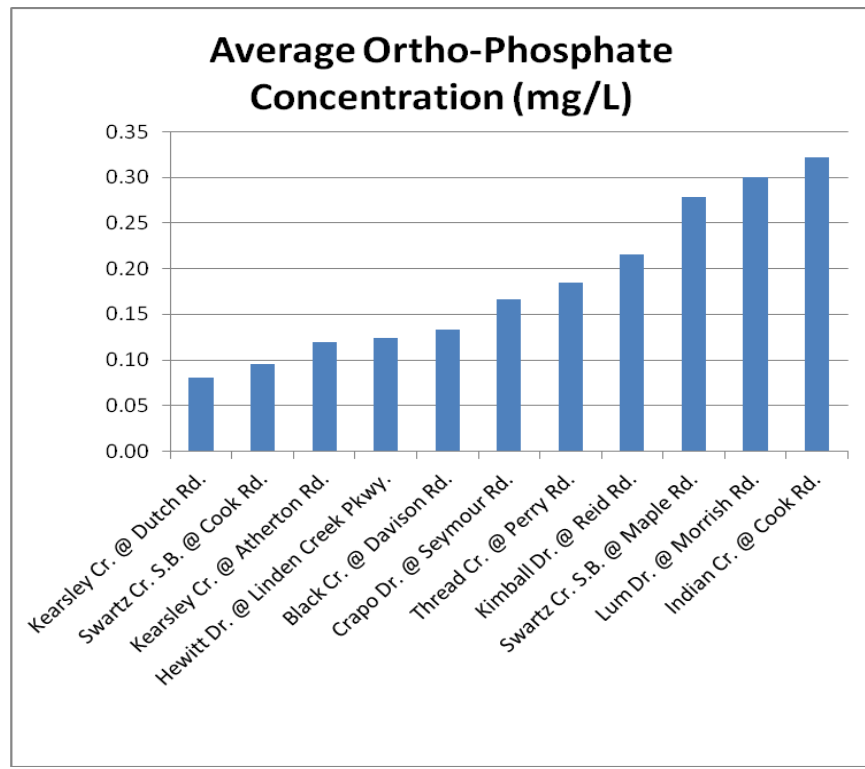
The estimated particulate phosphorus (sediment-borne phosphorus) loading rates for the project area subwatersheds are as follows:



Suspended Solids concentrations were measured by the Flint River Watershed Coalition (FRWC) in streams in the project area in July 2012, August 2012, September 2012, October 2012, April 2013, May 2013, and June 2013 and the Particulate Phosphorus concentrations were estimated from the Suspended Solids concentrations [assuming sediment (soil) in streams in the project area contains 0.0368% Phosphorus]. The average concentrations were as follows:



Ortho-phosphate concentrations were measured by the FRWC in streams in the project area in July 2012, August 2012, September 2012, October 2012, April 2013, May 2013, and June 2013. The average concentrations were as follows:



BEST MANAGEMENT PRACTICES

The EQIP practices available for implementing the project are:

- Cropland
 - Nutrient management
 - Cover crops
 - Reduced tillage (either mulch or no till)
 - Drainage water management (where applicable)
 - Grade stabilization structure
- Pasture operations
 - Animal trails and walkways
 - Prescribed grazing
 - Fences
 - Pipelines
 - Watering facilities
 - Access control
 - Pasture and hayland planting
 - Heavy use area protection
- Headquarters with livestock
 - Waste storage facilities
 - Waste transfer
 - Roofs and covers
 - Diversions

- Roof runoff management
 - Heavy use area protection
 - Agrichemical handling facility
- Headquarters without livestock
- Agrichemical handling facility

KEY TASKS

The project will involve the following key tasks:

- Development of at least 45 NRCS conservation program applications with a focus on EQIP.
- Development of a strategy to promote EQIP and other Farm Bill programs that will reduce phosphorous pollution in the watersheds, which will involve working with township officials, county officials and other organizations and conducting at least 12 informational meetings, seminars or township hall meetings.
- Development of information packets for landowners, holding seminars, township hall meetings, etc. to promote phosphorous pollution reduction.
- Targeting 150 direct contacts with landowners.
- Conducting Inventory & Evaluation, surveying, designing and inspecting engineering and agronomic conservation practices.
- Developing conservation plans, conservation plans of operations, contract applications and documents for contract applications to reach the following yearly targets:
 - 1,500 acres of nutrient management;
 - 150 acres of prescribed grazing for horse farms;
 - 150 acres of prescribed grazing for livestock farms; and
 - 15 acres of buffer areas of cropland and/or pasture land along streams, wetlands and lakes.
- Collecting and compiling documentation necessary for certification of conservation practice implementation.
- Working with contract participants to obtain necessary documentation for practice certification and payment.
- Managing contract modifications.
- Providing technical assistance to other customers in Genesee County (up to 0.3 FTE).

IMPLEMENTATION

A three-year (07/11/12 - 09/15/14) "contribution agreement" between the NRCS and GCD is providing \$250,000 for implementing the project, which does not include payments to agricultural producers for best management practices. An additional one-year agreement (3/14/13 - 3/31/14) is providing another \$44,141 for implementation.

Payments obligated to producers for 2012 contracts were approximately \$1.3 million. For 2013 there will be two sign-ups.

From August, 2012 to mid-June 2013, contracts/plans for the following amounts of best management practices have been established:

Best Management Practice	Amount
Nutrient management	7,473 acres
Cover crops	5,449 acres
Buffer strips	>10,000 feet

USDA Targets Conservation Funding to Kearsley Creek - Swartz Creek Watersheds

Applications must be submitted by August 17, 2012

The U.S. Department of Agriculture has \$2 million in conservation financial assistance available to farmers in the Kearsley Creek and Swartz Creek watersheds to improve water quality. The funding was provided by the Great Lakes Restoration Initiative

Assistance Available

The funds will go to farmers who agree to employ conservation practices that reduce the amount of **phosphorus** entering surface water. The funding is administered by the USDA Natural Resources Conservation Service. A variety of practices are eligible for funding. Conservationists at local NRCS and conservation district offices will help producers determine which conservation practices will most benefit their farming operation.

Some Conservation Practices Eligible for Funding

Conservation Crop Rotation	Heavy Use Area Protection
Contour Buffer Strips	Hedgerow Planting
Cover Crop	Integrated Pest Management
Critical Area Planting	Prescribed Grazing
Drainage Water Management	Nutrient Management
Field Border	Residue and Tillage Management
Filter Strip	Tree/Shrub Establishment
Grade Stabilization Structure	Watering Facility
Grassed Waterway	Windbreak/Establishment or Renovation

This is a partial list of practices eligible for funding. A complete list of eligible practices is available at local NRCS offices or online at www.mi.nrcs.usda.gov.

How to Apply

Farmers can apply for conservation financial assistance at their local NRCS field office. It is recommended that farmers begin the application process as soon as possible, this is especially important for farmers who have never enrolled in NRCS conservation programs before.

Cover crop, residue and tillage management and nutrient management stand out as the easiest practices to implement that have measurable effect on phosphorus loading reduction in surface waters.

Planting cover crops represents one of the oldest ways to control erosion and surface run-off. These plantings control water runoff by covering the soil and plant roots holding soil in place. Plantings can be rye or oats, legumes, or radish for example. Cost share for this practice ranges from **\$19 to \$40** per acre.

Residue and Tillage Management practices control runoff by leaving last year's crop residue on the soil surface. This is accomplished by reduced tillage operations and turning the soil less. Pieces of the crop residue shield the soil from rain until the new crop forms a canopy. Common forms of this practice include No-till and Ridge till operations. Cost share for this practice range from **\$9 to \$18** per acre.

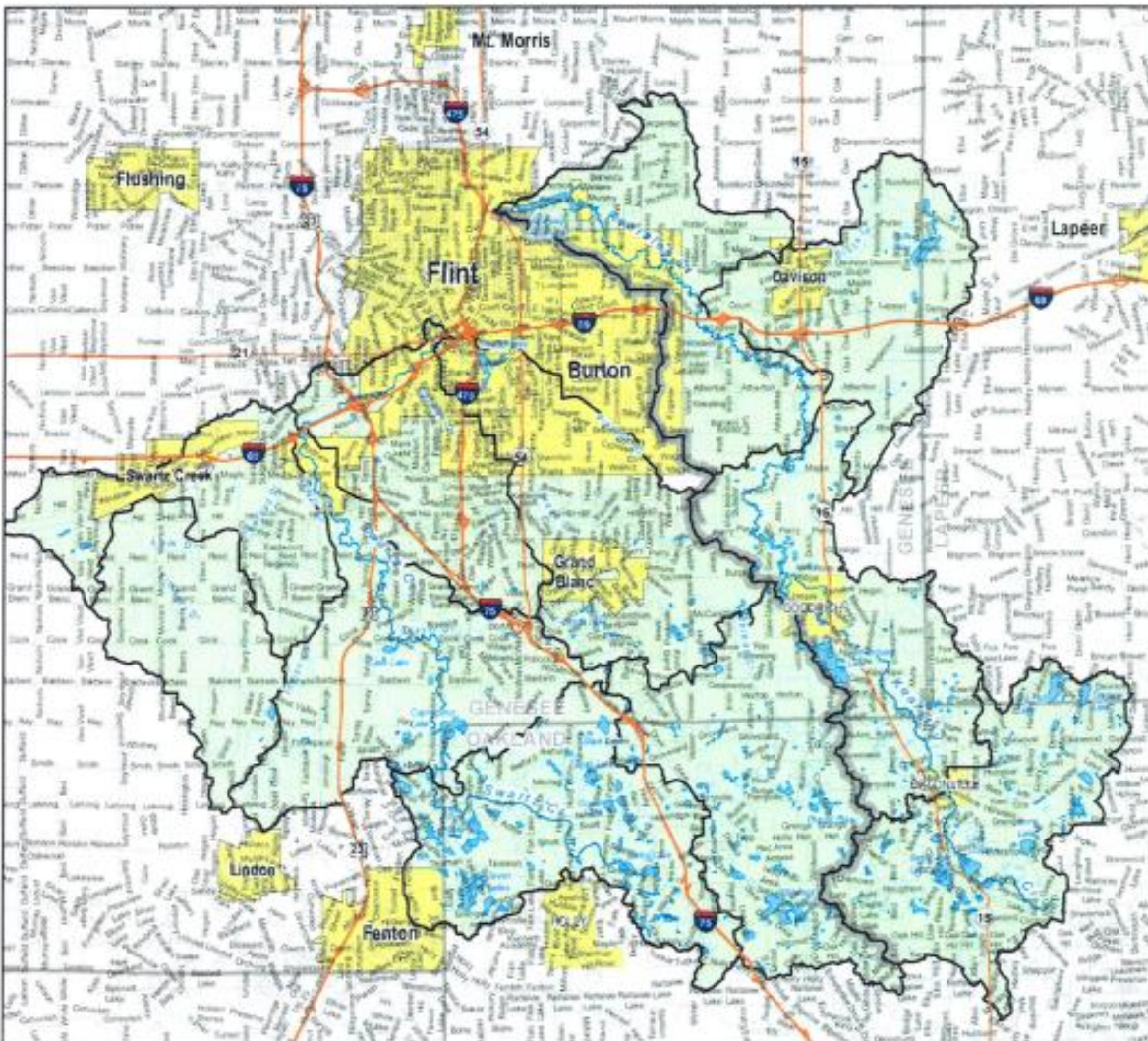
Of the three easiest practices and perhaps the practices that benefit the farmer most is nutrient management. The idea is based upon gaining soil tests of the land that take into account the benefit from nutrients left from last year's crop or from the application of manure and couple that to realistic crop yield goals. Nutrients in the form of fertilizer for instance are applied at the proper rate, time and method. Cost share for this practice range from **\$6 to \$30** per acre.

More Information

For more information contact your local NRCS office or go online to www.mi.nrcs.usda.gov.



Kearsley Creek—Swartz Creek Watersheds Genesee, Lapeer and Oakland counties





Conservation practices like these help reduce the amount of sediment blown and washed away from agricultural land. Farmers can receive financial assistance from the USDA Natural Resources Conservation Service for implementing these and other conservation practices. Not only do these practices protect our natural resources, they can also reduce fuel and fertilizer costs while maintaining or improving yields.



**USDA Natural Resources Conservation Service Offices
in the Kearsley Creek - Swartz Creek Watersheds**

Genesee County
Phone: (810) 230-8766
1525 North Elms Road—Flint

Oakland & Lapeer counties
Phone: (810) 664-3941
1739 N. Saginaw, Suite 300—Lapeer

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Michigan Watersheds Targeted for Phosphorus Reduction

EAST LANSING, May 22, 2013 – The U.S. Department of Agriculture has over \$2.2 million in conservation funds available for farmers in targeted central Michigan watersheds. The funds are available to help farmers incorporate conservation activities that will reduce the amount of phosphorus reaching the Great Lakes.

“This funding will help farmers protect our state’s most valuable natural resource, the Great Lakes,” said State Conservationist Garry Lee. “Reducing the amount of phosphorus entering the Great Lakes will improve water quality, aquatic and wildlife habitat, and recreation.”

The funding was provided through the Great Lakes Restoration Initiative and is available from the USDA Natural Resources Conservation Service. Farmers have until July 1, 2013, to apply for the funding. Phosphorus entering the Great Lakes from agricultural land and other sources contribute to algal blooms that degrade water quality and aquatic habitat. Areas eligible for the funding include the Mid-Shiawassee River Watershed and the Kearsley, Swartz, and Thread Creeks Watershed.

Producers can apply at their local USDA office for funding to implement conservation practices that reduce the amount of phosphorus entering groundwater from agricultural land. Some practices eligible for funding include cover crops, conservation crop rotations, windbreaks, prescribed grazing, nutrient management and residue and tillage management. Applications are selected on a competitive basis with highest scoring applications funded.

Selected applicants will receive funding after conservation practices are applied.

The Mid-Shiawassee River Watershed includes portions of Shiawassee, Saginaw, Genesee and Livingston counties. The Kearsley, Swartz, and Thread Creeks Watershed includes parts of Genesee, Lapeer and Oakland counties.

USDA works with state, local, and Tribal governments and private landowners to conserve and protect our nation’s natural resources – helping preserve our land, and clean our air and water. For more information about the USDA Great Lakes conservation funding in Michigan go to ww.mi.nrcs.usda.gov