



Measuring Educational Success for Protection of East Pond Creek

December 1 2015 - September 30, 2018

This unique project utilized the Social Indicator Planning and Evaluation System (SIPES) to measure willingness of farmers and residents to implement best management practices for water quality protection within East Pond Creek, a sub-watershed of the North Branch Clinton River. The top land uses in the sub-watershed are agricultural, single family residential, woodland and wetlands, and industrial. The sub-watershed is listed as impaired in the 2014 integrated report due to E. coli stemming from agricultural and urban runoff and onsite septic systems. The valuable information gathered by the survey was used to create an educational campaign that targeted homeowners and farmers through billboard ads, post card mailings, and online resources in order to raise water quality protection awareness in the target area. Partners included the Natural Resource Conservation Service and Michigan Department of Agriculture and Rural Development, both of which provided support in survey development and drafting educational materials.


Grant Amount: \$28,050

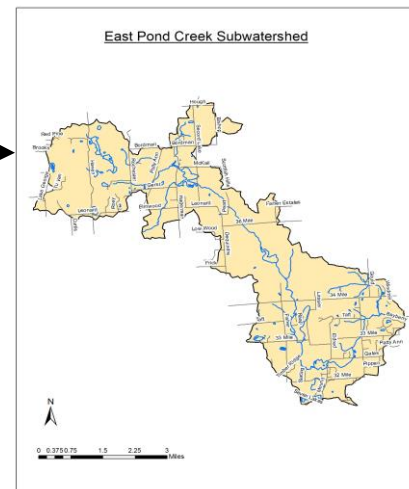
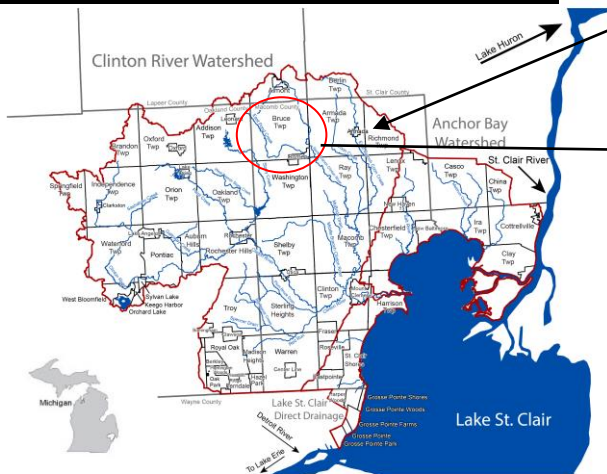
Match Funds: \$10,900

Total Amount: \$38,950



I&E Activities:

- Pre-survey to measure awareness and constraints.
- Distribution of educational post cards.
- Use of educational billboards.
- Supplemental resources online. 
- Post survey to measure awareness and constraints.



CULTIVATING CLEAN WATER

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MICHIGAN STATE UNIVERSITY EXTENSION
CLINTON RIVER WATERSHED COUNCIL
DEQ
EPA United States Environmental Protection Agency

This project has been funded wholly or in part through the Michigan Department of Environmental Quality's Nonpoint Source Program by the United States Environmental Protection Agency.

Billboard #1 (left) and Post Card #1 (below) Targeting local agricultural interests and promoting agricultural BMPs

CULTIVATING CLEAN WATER | IN EAST POND CREEK

3 THINGS YOU CAN DO TO PROTECT WATER QUALITY

- 1 Get your soil tested to apply the proper amount of fertilizer and/or manure needed for your crops or lawn, saving you money and protecting your water.
- 2 Work with your extension office or local conservation agency to have a nutrient management plan written to more efficiently manage nutrients on your land.
- 3 Establish and maintain permanently vegetated areas along water sources such as ditches or streams to slow runoff, filter out contaminants and reduce stream bank erosion.

To learn more about these tips and other ways you can cultivate clean water, please contact:
Matt Einheuser, Watershed Ecologist at CRWC
email: matt@crwc.org // phone: 248-601-0606

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POST CARD #1
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Billboard #2 (left) and Post Card #3 (below) Targeting homeowners and promoting Low Impact Development practices, raingardens and native plantings.

CULTIVATING CLEAN WATER IN EAST POND CREEK NATIVE PLANTS & LANDSCAPING

NATIVE PLANTS & LANDSCAPING

Use native landscaping to build a rain garden and protect water quality.

What is a rain garden?
Rain gardens are low areas that are planted with native vegetation to absorb and filter rain water runoff that comes from roofs, sidewalks, and driveways.

Why native plants?

1. Michigan natives are adapted to the local soils and climate. They do not need excessive watering and require very little fertilizer or pesticides.
2. Native plants have very deep roots that once established, prevent soil erosion and are drought resistant.

Non-Natives vs **Natives**

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POST CARD #3
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Post Card #2 Targeting all households with septic systems

MAINTAINING YOUR SEPTIC SYSTEM

WHY?

- **Save Money** - maintenance fees are far cheaper than repair and replacement costs.
- **Stay Healthy** - prevent groundwater contamination that can spread bacteria, viruses, and diseases. This can affect drinking water and nearby surface waters.
- **Protect the Environment** - Contaminated ground water can reach streams and lakes, harming the ecosystems by killing aquatic species and degrading habitats.

HOW?

- Efficiently use water and dispose of waste properly
- Frequently inspect and pump your septic system
- Take care of your drainfield by refraining from parking or planting trees over the field, as well as redirecting excess drainage - like downspouts - away from the area

SIGNS OF A FAILING SEPTIC:

Odors, drain back-ups in your home, mushy ground cover, excessive grass growth over the drain field.

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Logos for Michigan State University Extension, Clinton River Watershed Council, DEQ, and EPA are at the bottom.



Above, Post Card used as "wave one" announcing the upcoming survey

You have been invited to participate in this random sample survey because you are a resident within the East Pond Creek subwatershed (the area of land that drains into the East Pond Creek and eventually into the North branch of the Clinton River).

We ask that the resident and/or farmer (18 years or older) who makes the most of the lawn/garden or land management decisions within your household and/or farming operation complete the survey.

Your privacy and confidentiality are guaranteed by the Clinton River Watershed Council.

A paper copy will be coming in the mail within the next 7 days. **Survey is also available online.**

Logos for Clinton River Watershed Council and Michigan State University Extension are present.

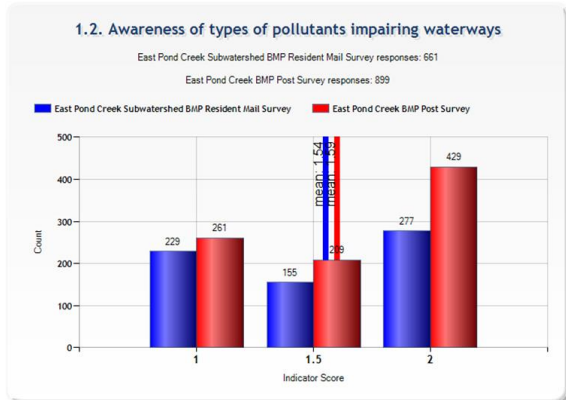


Figure 1 Comparison of "pre" and "post" SIDMA Awareness Indicator score showing slight but significant increase in awareness in the "post".

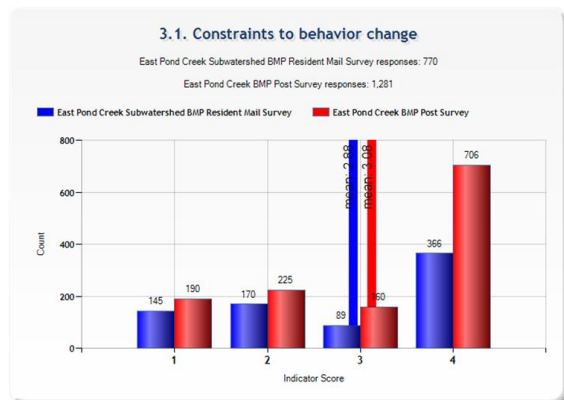


Figure 2 Comparison of "pre" and "post" SIDMA Constraints Indicator Score showing a decrease in constraints post project (1 = High, 4 = Low).

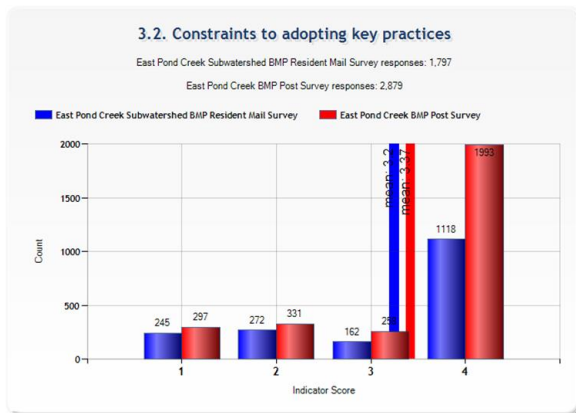


Figure 2 Comparison of "pre" and "post" SIDMA Constraints Indicator Score showing a decrease in constraints to adopting key BMPs post project (1 = High, 4 = Low).