

# Great Lakes Restoration Initiative (GLRI) Nutrient Reduction Grant Final Report

**Grantor** Ohio Environmental Protection Agency

Project Title Nutrient Reduction for Buckeye Lake

Project Number #11 BUCK 11-03

Sub-Grantee Fairfield Soil & Water Conservation District

**County** Fairfield

Watershed/HUC Buckeye Lake Watershed

**Grantee ID** 31-6189130

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## **Project Schedule**

ORIGINAL Project Period:	January 1, 2012	thru	December 31, 2014	
ACTUAL Project Period:	May 17, 2012	thru	May 16, 2014	

#### ORIGINAL Project Costs (These should reflect your original awarded budget)

Federal Grant \$\$	State Match \$\$	Local Match \$\$	Total	
\$56,253		\$39,397	\$95,650	

### Actual FINAL Project Costs (Provide FINAL costs charged to the grant)

Federal Grant \$\$	State Match \$\$	Local Match \$\$	Total
\$55,534		\$39,397	\$94,931

## **Project Summary**

This project consisted of stream mapping the major tributaries of Buckeye Lake using GPS and documenting existing land uses and surface cover to create a database overlaid with local GIS systems to aid in understanding the base stream flow contributors to Buckeye Lake throughout the watershed. Fairfield SWCD also provided a storm water demonstration project (rain barrels) by completing 8 rain barrel workshops for homeowners along the Buckeye Lake shoreline community. As an agriculture-focused BMP project, Fairfield SWCD planted cover crops on 200 acres throughout the watershed.

#### Specifically, the project included:

- Tributary mapping and watershed characterization for the Buckeye Lake Watershed (77 stream miles)
- Installation of 200 rain barrels in Fairfield, Licking and Perry Counties
- Planting of 200 acres of cover crops
- Public education and outreach

**Project Deliverables:** Attach a copy of the final semi-annual report to use as a reference for your responses to the following question.

1. Identify the deliverables that you were unable to complete and provide a brief explanation of contributing factors:

None.

## **Project Outcomes**

1. Summarize any noteworthy outcomes and/or successes resulting from the activities completed under this grant:

The development of a watershed inventory and the analysis from the stream level perspective, by the same set of eyes, was critical to understanding the unique landscapes found on the west, the south, southeast and north. No two areas are alike. Recognition of human engineering over the last 180 years is critical to developing long term sustainable or maintainable approaches.

The projects created an opportunity to strengthen partnerships with ODNR personnel, resident volunteers from BLT and members of the farming community. Having one person on the ground in all three counties has improved communication over concerns or activities when they arise in the watershed.

2. Briefly describe any challenges encountered and the solutions that you implemented to successfully address these challenges:

Existing data was very general and did not reveal the specific source of excess nutrient loss. Not knowing where nutrient loads existed or originated from at the time the project began, the initial field work allowed us to identify sub-watershed locations that enabled the Buckeye Lake for Tomorrow to create new diverse sampling sites. They leveraged additional grant funds from the Ohio Farm Bureau Federation that provided additional information that allowed new opportunities to discuss "neighborhood" findings with individual stakeholders.

3. Identify the environmental benefits of project implementation:

We estimated that the 200 acres of cover crops planted as demonstration and field trials would reduce run-off of phosphorus by 800 lbs and sediment by 400 lbs. Our detailed soil sampling during the first year and efforts that were ongoing in the area with Farm Bureau and ODNR funding opened our eyes to the existing soil fertility levels, well within agronomic ranges. We believe many farmers would prefer to use winter wheat in lieu of other cover crops. We believe this area regularly has one of the highest percentages of winter wheat in the tri-county area and we are encouraging those acres to be reorganized for maximum water quality benefits. At the end of the project we found that providing an implementation strategy to address the needs of the Nutrient Reduction Project aided in developing concepts that will hopefully permit the increase of wetlands, reduction in sediment and improved soil conditions across the watershed.

## **Project Submittals**

Materials listed in the following table were to be completed as a result of your Section 319(h) grant funded project. If you have not already done so, please submit 2 hard copies and 1 electronic copy (if available) of each of the items listed. If items have already been submitted, please identify the date when they were provided in the table below. If you were unable to complete one or more item(s), please indicate so.

Item	Submitted Previously?	Submittal Date	Did Not Complete
2 Public Meetings	Yes	See attached	
11 Press Releases	Yes	cc cc	
1 Kiosk	Yes		
8 Workshops	Yes	ee ee	
1 Field day	Yes	ee ee	