

Great Lakes Basin Program GLRI Project:

Making Sense out of Soil Savings

Size: watershed

Grant Amount: \$581,926

Year awarded: 2010

Sponsor: WSOS Community Action Commission, Inc./Sandusky River Watershed Coalition

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Submitted Project:

II. Project Background

Erosion and Sediment Goal

*Estimate the total amount of **erosion**, in tons, your project will save.*

Annual savings of 21,128 tons with the lifetime savings of 66,240 tons based on the life expectancy of each practice.

*Estimate the total amount of **sediment**, in tons, your project will save.*

Sediment reductions from the Conservation Cropping Practice, Cover Crop Practice and Redlined Waterway Repair will provide an annual savings of 817 tons of sediment with a life time savings of 2,219 tons.

With the Tile Main Repairs and Streambank Stabilization all providing direct discharge the tons of sediment savings is not calculated as a ratio but provided as full savings equal to 2,373 annually and 26,190 tons over the life of the practices.

The predominate source of sediment comes from the large percentage of cropland erosion caused by the slow infiltration rates of soils throughout the watershed as well as the highly erodible lands primarily found in the Rock Creek (04000111101) and Morrison Creek (041000111102) sub watersheds. Specific sections of stream have a need for streambank stabilization to reduce in stream loading as well as assist with reconnecting the stream with its natural floodplain for improved stream function.

Watershed/ Project Work Area

Sandusky River – Tiffin Watershed Action Plan was approved by Ohio EPA in partnership with Ohio Department of Natural Resources Division of Soil and Water and Ohio State University Extension.

This project was funded by the Great Lakes Restoration Initiative, and is maintained through the Great Lakes Basin Program for Soil Erosion and Sediment Control at the Great Lakes Commission.



The project watershed is based on the 10- digit HUC of 0410001111 and includes the 12 – digit HUC's for: Rock Creek, 041000111101; Morrison Creek, 041000111102; Willow Creek – Sandusky River, 041000111103; Sugar Creek, 041000111104; and Spicer Creek – Sandusky River, 041000111105.

*Describe the **Priority Areas** within the watershed where you are going to concentrate your efforts. List by area or narrative description of specific conditions.*

Priorities for practice eligibility and focus will be given to areas determined as Highly Erodible Lands by USDA NRCs. For lands not determined to be Highly Erodible, priority will be based on infiltration rate for the primary soil type of the field where the practice is to be implemented.

How many acres are in the watershed? 74,690 acres

How many acres are in:

- *Agriculture including pasture landuse?* 62,418 acres
- *Forest including brushland landuse?* 8,545 acres
- *Urban, suburban, industrial, commercial and rural residential landuse?* 2,696 acres

*U.S. **Congressional District**(s) where project is located:* 5th Congressional District of Ohio

III. Implementation

The process this program will follow is:

- Interested applicants must obtain a Resource Management System (RMS) plan that includes cropping rotation and tillage. The plan will calculate the soil savings between current systems and an improved system. Runoff reduction calculations will also be made to assist in the education of the value of the practice to future soil saving potential and farm economics.
- Applications for practices will be made to the local SWCD. The SWCD Board of Supervisors will approve applications by prioritizing monthly application by location within priority areas (Highly Erodible Lands or by soil infiltration rate) and for soil savings provided.
- Approved applicants will enter into contract jointly with the Local SWCD Board of Supervisors and WSOS Community Action Commission, Inc. administering agent for the Sandusky River Watershed Coalition. Contracts will be modeled after the contract utilized by USDA NRCS for USDA Farm Bill programs.
- Implementation of the practice with SWCD sign off will be required before payment is issued by WSOS CAC, Inc./Sandusky River Watershed Coalition.
- Annual spot checks of the practices will be conducted by the Local SWCD. Anyone found to not be within the guidelines of the practice will be sent a letter with a specified time frame to make improvements to meet compliance. If corrections are not made within the specified timeframe repayment of incentive monies will be repaid to WSOS CAC, Inc and placed in a special fund to be used for conservation improvements as agreed upon between WSOS CAC, Inc./Sandusky River Watershed Coalition and the local SWCD Board of Supervisors.

A written contract will be required between you and the landusers/landowners to fund conservation practices with GLBP funds. The contract will include among other items, the type, number and location of each practice to be installed as well as the cost-share/incentive rate to be paid for each practice. (We will also use the signed contract as proof of commitment of funding for reimbursement of your expenses.)

Fill out all that apply:

D. Alternate Incentive Methods (ex. pay per ton/unit reduced/increased) List each unit separately (ex. Pay per ton of sediment reduced rather than pay for a particular BMP.) If you have more than one ALT, copy and paste the ALT1 section and change the number as appropriate.

ALT1

Description: Conservation Cropping Practice which involves a change in crop rotation, tillage method and/or residue management for an increased soil savings

(A 500 acre annual maximum per farm operation)

Check the quarters the task is to be started and completed:

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Start/Complete	X	X	X	X	X	X	X	X	X	X	X	

Number of acres/units of BMP to be installed during project: 14,500 acres

Incentive method: Payment for every ton of soil savings paid on an annual basis for each year of the rotation during the grant with any additional years of the rotation to be followed as per the contract.

At a rate of: \$10.00 per ton of soil savings provided

Expected soil savings in total tons: 14,500 tons of annual soil savings with a lifetime savings of 34,800 tons

ALT2

Description: Cover Crop Planting (for those not participating in the Conservation Cropping Practice) with an annual 100 acre maximum per farm operation.

Check the quarters the task is to be started and completed:

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Start/Complete	X	X	X	X	X	X	X	X	X			

Number of acres/units of BMP to be installed during project: 2,500 acres

Incentive method: Payment for every ton of soil savings at a rate of \$10.00 per ton of soil savings provided

Expected soil savings in total tons: 3,000 tons of soil savings

ALT3

Description: Tile Main Repairs

Check the quarters the task is to be started and completed:

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Start/Complete				X	X	X	X	X	X			

Number of acres/units of BMP to be installed during project: 4 repairs will be completed on watersheds of an average 100 acres each

Incentive method: Payment for every ton of soil savings provided over the life of the practice

at a rate of: \$10.00 per ton of soil savings to a maximum of \$10,200

Expected soil savings in total tons: 123 tons of annual savings and a lifetime savings of 3,690 tons over the 30 years of the life expectancy of the practice

ALT4

Description: Stream bank Stabilization

Check the quarters the task is to be started and completed:

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Start/Complete				X	X	X	X	X	X	X	X	X

Number of acres/units of BMP to be installed during project: 1,500 LF

Incentive method: Payment for every ton of annual soil savings
at a rate of: \$10.00 per ton of soil savings to a maximum of \$10,200

Expected soil savings in total tons: 2,250 tons of annual soil savings
with a lifetime savings of: 22,500 tons over the 10 year life expectancy of the practice

ALT 5

Description: Redlined Waterway Repair

Check the quarters the task is to be started and completed:

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Start/Complete				X	X	X	X	X	X	X	X	X

Number of acres/units of BMP to be installed during project: 15 acres

Incentive method: Payment for tons of soil saved over the life expectancy of the practice and will vary based of infiltration rate of the primary soil type in the field

At the following rate structure:

- \$9.00 per ton for soils rated as High infiltration
- \$10.00 per ton for soils rated as Moderate infiltration
- \$11.00 per ton for soils rated as Slow infiltration
- \$12.00 per ton for soils rates as Very Slow infiltration

Expected soil savings in total tons: 255 ton of annual soil savings

with a lifetime savings of: 2,550 tons over the 10 year life expectancy of the practice.

IV. Media Campaign

A. The Kick-off event will be held in early November 2010. The event will be either a canoe float (if possible) or a field site visit of one of the Streambank Stabilization project sites. Invitations will be mailed to watershed farmers and residents, government officials, partners, Great Lakes Commission and media representatives inviting them to this kickoff and to witness the current conditions of the site so comparisons can be made after the stabilization project is completed. It will also be used to begin the education on soil losses and costs to the environment and the economics impacting a landowner. The event will also be used as a time to introduce the partnerships of this grant as well as those of the Watershed Coalition supporting the efforts being made.

B. You are also required to establish an on-going outreach campaign. Describe your on-going outreach campaign strategy for:

1. The general public/media, quarterly press releases will be provided to area media outlets serving the Sandusky River –Tiffin watershed promoting the program with the economic advantage tied to the best management practice being promoted. Farmers or farm operations utilizing the practice will be featured with personal quotes included in the articles. The general public and media will also be invited to all field days/workshops/educational events held as part of this grant. An educational display regarding the economics of soil savings and other environmental and societal advantages tied to best management practices will be set up at the County Fairs.

2. Landowners/landusers, within the Sandusky River-Tiffin watershed through previous programs a mailing list was developed, which will be utilized to keep all watershed farmers and farm operations within the watershed informed through targeted mailings and quarterly newsletters from the local SWCD and watershed.

3. Elected officials are recipients of both the Coalition and SWCD newsletters so they will be kept up to date by inclusion in all targeted mailings and quarterly newsletters from both organizations. They will also receive an invitation to any and all events such as field days/workshops/educational events sponsored by this grant.