

Problem: Sedimentation is a major contributing factor to water quality degradation in the Clifty Creek. Land development, delayed implementation of erosion control mechanisms, full tillage agricultural systems, high impact recreational use, and unprotected stream banks appear to be the largest contributors of sediment due to high rates of erosion.

Goal 1: Increase implementation of conservation practices for the reduction of sedimentation and smothering due to overland soil runoff. For urban/suburban related practices, increase participation by 100% in the next three (3) years and 200% in the next five (5) years. For agricultural practices, increase annual participation figures by 10% for the next three (3) years [Phase I] and cumulatively to 50% within the next five (5) years [Phase II].

Objective	Action Item	Accomplished
Encourage implementation of conservation tillage practices	Offer modifications to conventional equipment so that it can be used for conservation tillage.	2,254 acres were affected from modifications for conservation tillage or no-till practices
	Research manure application options for conservation tillage.	A manure flow meter was cost shared on to better utilize manure application options to help reduce amount applied per acre.
	Research and/or create economic comparison (short and long term) projections relating to conservation tillage and soil types.	A comparison is being worked on concerning No-till versus Conventional Tillage.
Increase use of cover crops in conventional systems.	Research cover crop options for conditions in the watershed.	Cover crop option information is available from project staff and other contacts at their disposal.
	Create a cost-share program designed to offset initial costs of cover crop implementation.	572 acres in cost share for cover crop implementing. Additional acres were funded by NRCS.
	Provide technical resources and/or contacts to producers for cover crop installation.	NRCS provides technical resources for cover crop installation. We have a couple contacts for people to fly on cover crop seed.
	Coordinate outreach and advertising for use of cover crops and respective benefits.	A news release has been issued for cover crops specifically in addition to multiple news releases on cost share programs. A cover crop workshop was held in June 2007. A cover crop field day was held in conjunction with Decatur County SWCD Spring 2009 about the types and benefits of cover crops. A cover crop field day was held Fall 2009 and focused on seeding methods. A Spring 2010 field day was held concerning no-till and cover crops.
Initiate and support a cooperative mentoring network of conservation farmers.	Develop a list of existing conservation farmers.	A list has been compiled of farmers conducting cost share practices with 319 money in the last grant cycle.
	Request participation in network, providing incentives for mentor farmers.	The pasture walk was held at a farmer involved in the cost share project, highlighting his work.
	Create a list of new farmers and/or those interested in developing a mentor relationship.	There are a few landowners who have completed projects in past that are willing to have people visit property/host field days to discuss their advantages/disadvantages about practices.

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	Provide opportunities for farmers to network (see following objective).	Farmers are able to network at field days, several have been held in the past (see below)
	Grant an annual water quality award for outstanding conservation farmers.	Cost share recognition signs have been given to landowners that have participated in the program.
Offer professional development opportunities such as field-days and hands-on workshops on specific topics generated by producer interest.	Plan dates during off-season.	Pasture walk on Sept. 5, 2006. A cover crop workshop was conducted in June 2007. A rural pond seminar was conducted in August 2007. Cover crop field days were held in Spring 2009 and Fall 2009. A pasture walk was held in August 2009. Another one was completed on February 2010. Backyard Conservation Workshop held May 2010.
	Research farmer preferred publications and advertise in advance.	Postcards seem to be the most effective, although multiple avenues (newsletters, radio spots, press releases) are utilized. Four articles were in Prairie Farmer highlighting the project. Events are advertised one month in advance.
	Request input from producers regarding specific topics and areas of conservation interest.	During the current grant a pre-survey for cost share participants includes a question asking about field days they are interested in.
	Develop subject-specific agendas that avoid duplication or repetition of existing efforts.	At each field day the agenda revolves around that particular topic.
	Recruit top-professionals in subject fields to lead workshops.	Each field day has had a professional in that field to speak at or lead the workshop.
Increase implementation of existing erosion control practice requirements.	Research Rule 5 regulations and implementation requirements.	Project staff listened in on Rule 5 Webinar
	Participate in plan review process where applicable and stay informed on current political transitions.	Staff is currently assisting with Rule 5 reviews.
	Contribute to local planning committees (i.e. ordinance review, highway development, etc.)	Staff has attended several drainage board meetings
	Initiate dialogue with INDOT regarding state highway projects through watershed.	
Encourage progressive use of urban/suburban Best Management Practices.	Compile a list of contractors, developers, builders, homeowner's associations, and highway officials that service or reside in the watershed area.	SWCD maintains a list of contractors for BMPs.
	Develop relationships with highway, residential, commercial contractors.	We are in the have developed a relationship with county highway officials.

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	Offer specific professional workshops tailored to technical implementation needs for Best Management Practices.	First half of day at the cover crop field day in Fall 2009 was for NRCS professionals.
	Initiate participation in the Watershed Project from homeowner's associations.	Meeting with Schafer Lake homeowners association Sept. 9, 2008 for education purpose and to get them involved in the project. Water monitor volunteers from the homeowner's association are involved in the project.
	Develop and install a demonstration urban/suburban conservation project.	Bioswale installed at the Columbus Recycling center as a demonstration. An additional Bioswale was installed McCullough's Run Park through our cost-share program
Reduce Gully Erosion	Market existing conservation programs addressing gully erosion.	Marketing for cover crop planting is ongoing for area landowners.
	Assist site-specific pond development.	Technical information has been given to interested landowners in the past. Decatur SWCD is hosting a Pond Seminar in August 2010.

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Goal 2: Increase BMP use in livestock operations by 20% in three (3) years, in order to reduce sedimentation and erosion from livestock without compromising the economic integrity of existing operations.

Objective	Action Item	Accomplished
Reduce intensive overgrazing and year round feeding on small lots	Assist livestock owners with the development of prescribed grazing plans.	1140 acres has been cost shared on involving grazing.
	Develop outreach materials for diverse livestock interests.	Developed livestock fact sheet with Purdue and direct mailed to certain target subwatersheds in August 2009.
	Provide livestock owners with access to technical resources.	Any livestock owners that request technical resources are provided the needed material. A pasture walk field highlighting grazing practices was held in August 2009, with local professionals available to answer questions.
	Offset technical assistance and nutrient management planning costs.	Both nutrient management plans and pasture planting practices can and has been cost shared on.
Reduce livestock access to seasonal streams and tributaries.	When appropriate, incorporate stream bank fencing.	Of the 1140 acres cost shared on stream bank fencing was included.
	Promote and install offsite water systems	Of the 1140 acres cost shared on for stream bank fencing, water systems were included.
	Develop cost-share opportunities for watering systems and stream bank fencing.	Of the 1140 acres cost shared on for grazing, stream bank fencing and water systems were included.
	Restore stream banks with natural vegetation.	Potential cost share project.
	Compile cost/benefit analysis of grazing marginal pastureland along stream banks.	This analysis is not needed as NRCS regulations allow for flash grazing along streams after livestock is fenced out. The loss of the ground is not a large factor for this reason.
Encourage supplemental seeding and pasture/hayland planting.	Research and promote implementation of native vegetation where applicable.	As per NRCS guidelines, any plantings promote use of native vegetation.
	Provide technical assistance and cost-share opportunities.	Hay land/pasture planting is a practice that can be cost shared on and has been utilized by past cost share participants. Two projects totaling 40 acres have been cost shared on during this grant for pasture/hayland planting.
Maintain and enhance stream buffers and riparian corridors	Inventory existing corridors and Best Management Practices.	All Best Management Practices implemented by this project and NRCS are inventoried using NRCS tools.
	Market existing conservation programs to sensitive areas.	If an area is seen as a resource concern the landowner has been approached to see if they are willing to participate in cost share programs.

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Goal 3: Reduce peak runoff rates, subsequently reducing overland runoff and rates of streambank erosion.

Objective	Action Item	Accomplished
Foster discussion on existing drainage methods and possible alternatives.	Incorporate drainage concepts into educational seminars and workshops.	Backyard conservation workshop on Dec. 10, 2008 about rain gardens and rain barrels. Field day is in planning for managing tile drainage and backyard conservation Spring 2010.
	Create outreach materials on drainage concepts and alternatives to traditional methods.	Managing tile drainage fact sheet was directly mailed to local landowners. Rain garden and rain barrels articles have been distributed. Rain garden and rain barrel informational flyers were created and distributed at displays and sent to local garden clubs.
	Participate when possible with local drainage boards and planning meetings.	Staff have attended several drainage board meetings
Restore moist-soil environments.	Compile current and historic maps of moist-soil environments and hydric soils.	Wetland determinations are made by NRCS on agricultural land before farming is done. While maps aren't compiled a list of hydric soils for each county is readily available.
	Investigate relevant partnerships and facilitate collaboration for future project development.	Local garden clubs have been contacted regarding rain gardens and rain barrels. Presentation to Columbus in Bloom about rain gardens and rain barrels. A Backyard Conservation Field Day was held in May 2010.
	Encourage maintenance and enhancement of existing natural wetlands.	NRCS has a cost share program called the Wetland Reserve Program (WRP) and the Wetland Reserve Enhancement Program (WREP). USFWS has a Partners for Fish and Wildlife program for wetlands restoration.
	Provide existing materials to interested landowners.	Information about reducing overland flow, specifically in urban areas, has been created and distributed at multiple displays.
	Research and market existing wetlands / habitat conservation programs.	NRCS has a cost share program called WRP and WREP. USFWS has a Partners for Fish and Wildlife program for wetlands restoration.
Investigate Drainage Management	Research existing practices, relevant soil types, and slope.	Soil types and slope is looked at before a practice is implemented and then taken into account.
	Determine practicality of application in watershed and potential for cost-share.	Managing tile drainage-control structures are a cost share practice available. Rain barrels and rain gardens are cost share potentials. To date 70 rain barrels have been cost shared on.