

Countywide Action Plan Overview Sullivan County



Plan Purpose

The Sullivan County Action Plan is a Watershed Implementation Plan to meet statewide pollution and nutrient reduction goals by implementing best management practices. The result will be improved water quality in local watersheds as well as the Chesapeake Bay. The focus of this plan is to reduce nitrogen and phosphorus amounts while addressing sediment pollution as well. This plan is required by the Department of Environmental Protection (DEP) under the direction of the Environmental Protection Agency (EPA).

Plan Highlights

The Sullivan County Countywide Action Plan is a compilation of initiatives, best management practices, and strategies to improve water quality within the county. The purpose of this plan is to reduce the nitrogen load by 252,000 pounds and phosphorus by 2,600 pounds by 2025 as required by the Department of Environmental Protection. These actions will also lay the foundation for future methods to further reduce the nutrient and sediment pollution beyond 2025.

The Sullivan County Conservation District Staff have reached out to stakeholders in order to receive input in the development of the Sullivan County Action Plan. Sullivan County Stakeholders include municipalities and boroughs, Sullivan County, The Sullivan County

Conservation District, NRCS, Penn State Extension, The Farm Bureau, local farmers, and local state parks. The input from each stakeholder was valued and taken into consideration in the development of this plan.

Key Findings

The common issues that most stakeholders identified that need to be addressed to achieve our targeted goals are as follows:

- **Road Runoff**
- **Lack of Buffers**
- **Streambank Erosion**
- **Manure Runoff**
- **Debris in the stream**
- **Barnyard Runoff**
- **Litter Issues**
- **Erosion as a result of tillage**

The focus will be on Agriculture since it represents 37% of the nutrient and sediment runoff in Sullivan County but efforts need to be taken to address urban/developed areas as well. There has been limited efforts taken to address urban/developed area which accounts for 9% of the pollution load to the streams of Sullivan County. There is a limited amount of runoff reaching the streams and all streams in Sullivan County are off the Ag-Impaired stream list. Therefore, the Priority Initiatives will be broken down into two categories focusing on Agriculture and Stormwater Management which will encompass urbanized and more developed areas.

State Programmatic Changes

- Creating a funding source for the establishment of buffers for both agriculture and in developed areas is recommended. Mandating a statewide buffer ordinance would require all landowners to commit to improving water quality and help Sullivan County to reach reduction loads.
- Regulating the use of fertilizers applied for lawn care would help avoid to over application of Nitrogen and Phosphorus statewide.
- Regulating private Septic Systems would assist with reductions.
- Floodplain Management enforcement by the municipalities will help avoid flood related issues when structures are built in close proximity to streams.

Agriculture

- **Priority Initiative #1 Planning, Manure Management and Fertilizer Applications**
This initiative will focus on various aspects of farming including basic and more detailed nutrient management and fertilizer plans with the goal of reducing fertilizer applications specifically in a corn and soybean or alfalfa rotation. It was also include best management practices such as barnyards and manure storages for plan implementation as well. Ag Erosion and sedimentation plan development for ag compliance will be a continuing effort under this initiative.

- **Priority Initiative #2 Soil Health and Cover Crops**
This will focus on educating farmers about no till and the importance of cover crop establishment and how it relates to soil health

Priority Initiative #3 Buffers

This Initiative will include educating farmers on the importance of buffers and also developing an incentive-based program that will fund the establishment of buffers. This program will need to include preparation of buffer including soil testing liming, tree plantings and maintenance as well as rental payment for taking crop land out of production.

- **Priority Initiative #4 Reporting and Tracking Results**
Keeping track of progress including plan development and best management practice installation through Practice Keeper will be essential to measuring where Sullivan County stands when it comes to reaching our reduction goals. Reporting practices not funded by government related programs will be a focused with this initiative.
- **Priority Initiative #5 Ag-Land Preservation**
There is currently a push to conserve and protect cropland for future generations. Pushing this program would help to make sure cropland is protected from development.

Stormwater

- **Priority Initiative #1 Road Runoff**
Sullivan County has had a successful record when it comes to Dirt and Gravel Road Projects. This initiative will focus on further improving road runoff problems which will overall reduce sediment levels in Sullivan County.
- **Priority Initiative #2 Stream Restoration**
Stream restoration has been a priority in Sullivan County over the last decade and will continue to be a priority. The initiative will focus on implementing fish habitats and stream structures to reduce streambank erosion. These efforts will get done through partnerships with Pennsylvania Fish and Boat and the Sullivan County Conservation District.
- **Priority Initiative #3 BMPs and Stormwater in Developed and Urban Areas**
This Initiative will include educating private landowners on the importance of buffers and also developing an incentive-based program that will fund the establishment of buffers.

This program will need to include preparation of buffer including soil testing liming, tree plantings and maintenance.

Opportunities for Success

For many years, Sullivan County has worked hard to reduce nutrient loading in streams. The county has already placed several water quality programs to implement the goal of achieving success toward the Nitrogen reduction in this area. This reduction process includes writing and entering over 50% manure management plans for farmers within the area. This plan will benefit the community by providing a better understanding of how nutrients effect the places in which we live and by providing a plan for cleaner streams and improving the overall quality of water.

Some of the unexpected positive outcomes that may come about from this plan include additional funding that can be used to help landowners to protect and establish better use of their land to protect the water quality as well as additional partnerships that will be established through the creation and implementation of this plan. There is also an unexpected outcome of working more with the local townships and landowners, therefore leading to more projects or plans written out that have not been thought about quite yet.

Sullivan County has multiple project partnerships including NPC, NRCS, Chief Oil and Gas, Muncy and Loyalsock Watershed and an ongoing grant with Growing Greener. These partnerships and funding will be very important in the success of Sullivan County's Plan. Another action that has taken place in Sullivan County has been multiple volunteer programs in which planting of trees has been accredited to the improvement of water quality in the area already. Through these types of actions that have already been shown by Sullivan County, the relationship with the community and the landowners in the town can only provide a stronger benefit to implement the best water quality practices and reduce the overall nutrient load and continue to improve stream quality and reduce runoff rates.

Challenges to Implementation

The over application of Nitrogen fertilizer on cropland is widespread however convincing farmers to reduce fertilizer outputs and how it could affect crop yields will be a concern moving forward.

Limited staff would make it difficult for all projects and planning to be complete.

None of the streams in Sullivan County are impaired, so seeing a drastic difference in stream quality and nutrient numbers will be unlikely since the majority of the nutrients are coming from natural woodlands.

With farmers fighting for every farmable acre, taking land out of production with the establishment of buffers along streams and roadside ditches might be difficult for some farmers to accept. Farmers have already done much to improve water quality within Montour County and their willingness to do more is unclear.

Focusing on private residences will be something challenging to the Sullivan County Conservation District staff. Convincing landowners to install buffers along streams goes against the idea that everyone needs to have a nice manicured lawn that is so shared in the community.

Funding sources that will provide compensation to landowners willing to install buffers may have to be continuous since cropland will be taken out of production. No cost share program is endless. Utilization of CREP might not be a viable option since the program took rented ground from farmers and many farmers have negative views of the program.

Plan Summary

State Programmatic Changes

- Action 1.1 Development of a Funding Program for Buffer Establishment, Maintenance including rental payments for Agriculture
- Action 1.2 Develop source of funding to establish buffers in developed and urban areas
- Action 1.3 Develop and adopt a Statewide Buffer Ordinance
- Action 1.4 Regulate Nitrogen and Phosphorus fertilizers on lawns
- Action 1.5 Funding source for Act 537
- Action 1.6 Enforce Litter Laws

Agriculture

Priority Initiative #1 Planning, Manure Management and Fertilizer Applications

- Action 1.1 Continue to develop basic Manure Management Plans
- Action 1.2 Continue to develop Ag Erosion and Sedimentation Plans
- Action 1.3 Expanded Nutrient Management
 - Develop Nutrient Balance Sheets (NBS)
 - Activity 1 Convince farmers to reduce fertilizer applications by 40-50 lbs on corn following legumes
 - Activity 2 Focus on Core N Fertilizer Acres & N rates For Manure Applications
 - Activity 3 Develop plans Involving placement and timing of N and P
- Action 1.4 Barnyard Runoff Controls
- Action 1.5 Manure Storages
- Action 1.6 Stabilized Walkways
- Action 1.7 Establish Funding/Staff to support the Agriculture Community
- Action 1.8 Continue the Chesapeake Bay Inspection Program
- Action 1.9 Seek Funding for BMP implementations

Priority Initiative #2 Soil Health and Cover Crops

Action 2.1 Continue to educate farmers on the importance of soil health

- Activity 1 Continue to have annual soil health training
- Activity 2. Continue to educate farmers on Soil Health and the importance of no-till and cover cropping
- Activity 3 Soil Health Breakfast for farmers to discuss cover cropping and soil health

Action 2.2 Continue Bay Inspections and provide incentives for farmers to plant cover crops

- Activity 1 Continue to utilize Bay inspection Program to track farming practices
- Activity 2 Create Cover Crop Incentive Programs that provides more flexibility

Action 2.3 Convince farmers to plant legume cover crops previous of corn for Nitrogen need

Priority Initiative #3 Buffers

Action 3.1 Increase buffers on streams and road side ditches

- Activity 1 Provide Education to farmers and landowners on importance of buffers

Action 3.2 Provide incentive-based program for Buffers

- Activity 1 Buffer program must include funding for establishment and maintenance
- Activity 2 Soil testing and liming will be required

Action 3.3 Use CREP program since it is already established

Action 3.4 Utilize Native Creations for education on buffers and tree plantings and Buffer establishment

- Activity 1 Utilize and work in Coordination with Native Creation Grant for Funding of Buffers and creation of Buffers

Action 3.5 Educate farmers and landowners on the correct maintenance of buffers

Action 3.6 Discuss Mandatory Stream Buffer Program Ordinance with Townships

- Develop model ordinance

Action 3.7 Grass strips along streams

Action 3.8 Streambank Fencing

Priority Initiative #4 Reporting and Tracking Results

Action 4.1 Use Practice Keeper and Field Doc to report plans and BMP Installation

Action 4.2 Montour CD Staff needs to keep track of all implemented practices and plans to evaluate where the County stands to reach nutrient reduction goals

Action 4.3 Utilize GIS Mapping system to help track projects and location

Action 4.4 Meet with farmers on Record Keeping, focusing on manure application rates, and verifying their plans

Priority Initiative #5 Ag-Land Preservation

Action 5.1 Administer the farmland preservation program

Stormwater Management

Priority Initiative 1 Road Runoff

Action 1.1 Continue work on dirt and gravel road projects

Priority Initiative 2 Stream Restoration

Action 2.1 Install Fish Habitat Structures on Ag Impaired Streams

- Activity 1 Continue to work with Northcentral Pennsylvania Conservancy, DEP and PA Fish and Boat Commission Partnership to establish fish habitat structures
- Activity 2 Search for additional grants funding to support additional stream restoration projects to meet increased demands
- Activity 3 Continue to identify design and construct fish habitat projects through other funding sources

Action 2.2 Continue to work to monitor macroinvertebrates

Action 2.3 Community Tree Clearing of fallen trees in streams due to flooding

- Activity 1 Hire logging company to cut trees creating erosion in Mud Creek and West Chillsquaque Creek
- Activity 2 Utilize townships to remove trees with trucks and equipment

Priority Initiative #3 Buffers and Stormwater in Developed and Urban Areas

Action 3.1 Educate private landowners on buffers and fertilizer applications for their lawns

Action 3.2 Use Pollinator Mixes flowering trees and shrubs, fruit bearing trees to convince private landowners to plant buffers versus mowing along streams

Action 3.3 Develop Incentive Based Buffer program that pays for establishment and maintenance

- Activity 1 The wider the buffer the more the incentive payment

Action 3.4 Discuss Mandatory Stream Buffer Program Ordinance with Townships in Urban areas

- Activity 1 Develop model ordinance

Action 3.5 Plant Buffers

Action 3.6 Educate Landowners on stormwater and stream control

Action 3.7 Promote Stormwater infiltration basins