

Countywide Action Plan Overview

Montour County



Plan Purpose

The Montour County Countywide Action Plan is a Watershed Implementation Plan to meet statewide pollution reduction goals by implementing best management practices to improve water quality in our local watersheds and ultimately the Chesapeake Bay. It is required by the Department Environmental Protection by direction of the Environmental Protection Agency. The plan will focus on nitrogen and phosphorus but will also address sediment pollution as well.

Plan Highlights

The Montour Countywide Action Plan is a compilation of initiatives, best management practices and strategies to improve water quality within the county. The intent of this plan is not only to reduce nitrogen loading by 486,000 pounds and phosphorus by 5,000 pounds by 2025 as DEP requires, but to lay the foundation for future actions to achieve further nutrient and sediment reductions beyond 2025.

The Montour County Conservation District staff have met with stakeholders to obtain guidance on the development of the Montour County Action Plan. The Montour County Stakeholders included all municipalities and boroughs of Montour County, the Montour Conservation District, the Montour County Planning Commission, the Montour County Farm Bureau, and the Chillisquaque/Limestone Run Watershed Association. All stakeholders brought their own unique perspectives and had varying issues of concern when considering the causes of nutrient and sediment runoff in Montour County.

Key Findings

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

- Over applications of nitrogen fertilizers on crop fields and from private residences
- Winter application of manure
- Cattle access to streams (Valley and Derry Townships)
- Field stacking of imported poultry manure from other counties
- Lack of buffers on streams and roadside ditches
- Lack of cover on crop fields over winter
- Nitrogen and Phosphorus pollution from overland flow/flooding (Mud Creek)
- Streambank erosion from storm water and falling trees (Anthony and Derry Townships)

The focus will continue to be on agriculture since it represents 71% of the nutrient and sediment runoff in Montour County, but efforts need to be taken to address urban/developed areas as well. There have been limited efforts taken to address urban/developed areas which account for 13% of the pollution load to the streams in Montour County. 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 Montour 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 pumping of private septic systems along with additional funding for Act 537 would assist with reductions.
- Floodplain Management enforcement by the municipalities will help avoid flood related issues when structures are built near streams.
- Enforcing Act 167 would help with excess stormwater issues and prevent streambank erosion.
- Developing new grants to be used between counties would help fund the implementation of these practices.

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 will 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 initiative will focus on educating farmers about no till and the importance of cover crop establishment and how it relates to soil health. It will also include expansion of an existing incentive program for cover crop establishment that Montour County has been working on with Columbia County Conservation District over the last several years.

- **Priority Initiative #3 Buffers**

This Initiative will include educating farmers on the importance of buffers and 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 Montour 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 and Cropland Retirement**

There is currently a push to retire cropland and put in solar panels within the next three years. There would be no fertilizers after initial grass plantings and land would not be cropped again for at least 30 years. Storm water management on solar farms will have to be addressed. Ag-land preservation has to be a continued priority in Montour County to prevent development of invaluable farmland.

Storm water

- **Priority Initiative #1 Stream Restoration**

Identification of projects and seeking alternative funding sources within specified watershed will be a priority. Continuing efforts through an established partnership that exists between the Montour Conservation District, PA Fish and Boat Commission, the Department of Environmental Protection and the North Central Pennsylvania Conservancy that funds and constructs fish habitat structures on Ag impaired streams will be a primary focus of this initiative.

- **Priority Initiative #2 Flooding Wetlands and Storm Water BMP's**

Wetland restoration has been a priority in Montour County over the last decade and will continue to be a priority. A partnership established between the Conservation District and US Fish and Wildlife Service has led to the restoration over 50 acres. The more urban townships have ongoing issues with storm water runoff so construction of infiltration basin to reduce storm water from entering our streams to needs to be a goal. The Montour Conservation District has installed an infiltration basin in our back yard for storm water management. The basin is an effort to not only control storm water but it was planted with pollinator mixes and trees and shrubs to convince neighboring landowners to install storm water basins on their property.

- **Priority Initiative #3 BMP's 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. We will also focus on proper fertilization of lawns and lawn care.

Partnerships

- **Priority Initiative #1 Partners**

This initiative will showcase the partners within our county in which we hope to continue working with or develop a closer working relationship with. In order to implement the Countywide Action Plan, additional help and resources will be needed and we can find this help within our county.

Opportunities for Success

Since 2011 the Montour County Conservation District has been focused on Ag compliance by prioritizing the development and implementation of manure management plans to improve water quality in our local watersheds. To date 93% of known operations have their manure management plans in Montour County and approximately 90% of the plans have been implemented with the required best management practices. Clearly the Agricultural Community has shown their commitment to reduce nutrient and sediment runoff from entering our local streams. Plan development and the implementation of best management practices on farms in Montour County has helped us establish a good working relationship within the Ag Community. This relationship will be key to our success in convincing the agricultural community what still needs to be done to reach our goals.

Experienced staff that communicate well and have the trust of famers within the community is vital to continued success. The staff are knowledgeable on various funding sources and know how to limit out of pocket expenses to the landowner by utilization of the REAP program and developing innovative methods to get matching funds towards Growing Greener funded projects.

The Montour Conservation District has collaborated with the Northcentral Pennsylvania Conservancy, Pennsylvania Fish and Boat Commission, US Fish and Wildlife Service and the Department of Environmental Protection to install fish habitat, buffers and stream crossings on Ag impaired streams in Montour County. We also work with the Chillisquaque/Limestone Run Watershed Association on identifying priority projects within Chillisquaque Creek and Limestone Run Watersheds. The US Fish and Wildlife Service also has partnered with us on the construction of over 60 acres of wetlands on farmland in Montour County. Relying on existing partnerships and creating new ones focused on the urban community will help lead us to success.

The CAP will help to better the community by improving water quality in the county therefore increasing funding received within the County. Along the way we do expect to experience some positive outcomes that may involve some additional projects we have not become aware of yet. Including the possibility of buffers and storm water control projects located in urban settings. We also expect to see an increase in the local economy with the use of our local contractors and supplies, in which we already apply into our current projects and plans.

The Montour County Conservation District has long been committed to work to reach goals of reducing Nitrogen and Phosphorus levels and improve water quality locally and ultimately in the Chesapeake Bay. The Implementation of the Countywide Action Plan will help us further our efforts on what still needs to be done to achieve our reduction goals by 2025.

Challenges to Implementation

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

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 new to the Montour 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. Generating interest in buffer plantings and having private landowners attend meetings may be difficult.

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 Enforce Act 167
- Action 1.6 Develop Sewer Pumping Ordinance
- Action 1.7 Funding source for Act 537
- Action 1.8 Floodplain Management
- Action 1.9 Develop block grant to be used between counties and partnerships

Agriculture

Priority Initiative #1 Planning, Manure Management and Fertilizer Applications

- Action 1.1 Develop basic Manure Management Plans
- Action 1.2 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 Develop Demonstration Plots
 - Activity 1: Compare fields with reduced N fertilizer rates as per NBS to those fields where farmers continue to apply the regular N fertilizer rates
- Action 1.5 Barnyard Runoff Controls
- Action 1.6 Manure Storages
- Action 1.7 Conversion of cropland to pasture
- Action 1.8 Watering systems
- Action 1.9 Stabilize animal walkways and travel lanes
- Action 1.10 Work with Plain Sect Farmers on plan implementation
- Action 1.11 Milk house waste system
- Action 1.12 Establish funding/staff support to the agriculture community
- Action 1.13 Chesapeake Bay Inspection Program
- Action 1.14 Seek funding options for BMP implementation

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 2 Soil Health Breakfast for farmers to discuss cover cropping and soil health
- Action 2.2 Provide Incentives for farmers to plant cover crops
 - Activity 1 Continue to utilize Growing Greener Grant with Columbia County Conservation District to pay farmers to establish multi species cover crops
 - Activity 2 Create Cover Crop Incentive Programs that provides more flexibility
- Action 2.3 Educate and Work with Plain Sect Farmers on Soil Health and Cover Crops
- Action 2.4 Convince farmers to plant legume cover crops previous to corn for n 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

Priority Initiative #5 Ag-land Preservation and Cropland Retirement

- Action 5.1 Solar panel development will take cropland out of production
- Action 5.2 Storm water management on solar farms.
- Action 5.3 implement Ag-land preservation program

Storm water Management

Priority Initiative #1 Stream Restoration

- Action 1.1 Install Fish Habitat Structures on Ag Impaired Streams and reconnect floodplains
- Activity 1 Continue to work with Northcentral Pennsylvania Conservancy, DEP and PA Fish and Boat Commission Partnership to establish fish habitat structures on ag impaired streams
 - 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 1.2 Continue to monitor macroinvertebrates on Chillisquaque Creek to compare IBO scores for possible de-listing
- Action 1.3 Continue to work with Susquehanna University and PA Fish & Boat Commission on macroinvertebrate studies and electro-fishing to monitor status of wild brook trout in Limestone Run
- Action 1.4 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
- Action 1.5 Submit macro data for DEP review

Priority Initiative #2 Flooding, Wetlands and Infiltration Basins

- Action 2.1 Continue to restore wetlands through the partnership with US Fish & Wildlife Service
- Action 2.2 Educate private landowners on impacts of storm water on streams and the importance of storm water management
- Action 2.3 Promote the construction of infiltration basins on private residences
- Activity 1 Show private residences our Demo Basin for the office
 - Activity 2 Utilize pollinator mixes, flowering trees and shrubs fruit bearing trees to convince landowners to construct infiltration basins
- Action 2.4 Apply for grant to fund Infiltration basins on private residences
- Action 2.5 Update Act 167 Plan
- Action 2.6 Continue to work with MS4 Stormwater BMP Implementation
- Action 2.7 Hazard Mitigation and Floodplain Management

Priority Initiative #3 BMP's 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 Nutrient application reduction on lawns
- Action 3.7 Conservation landscaping
- Action 3.8 Continue to administer the dirt & gravel roads and low volume roads program

Partnerships

Priority Initiative #1 Partners

- Action 1.1 Involve Penn DOT in implementation practices
- Action 1.2 Work with NRCS on programs in the county
- Action 1.3 Work with PA Game Commission
- Action 1.4 Work with PA Fish and Boat Commission.
- Action 1.5 Work with US Fish and Wildlife
- Action 1.6 Continue work with NPC
- Action 1.7 Involve County workers in implementation

Phase 3 Watershed Implementation Plan (WIP) Programmatic Recommendations Template

[illegible]

Phase 3 Watershed Implementation Plan (WIP) Programmatic Recommendations Template									
Action #	Description	Performance Target(s)	Expected Timeline	Potential Implementation Challenges	Potential Recommendations on Improvement	Resources <u>Needed</u>			
						Technical	Suggested Source	Financial	Suggested Source
1.7	Funding for Act 537	Proper disposal and treatment of sewage waste to prevent stream contamination.	2022	Government budgeting and the availability of funds.	Enforcing the act and working more with private residents.	SEO	DEP, Townships	4,000,000	DEP
1.8	Floodplain Management	Follow ordinances to manage the floodplain.	2022	Lack of knowledge of Floodplain Ordinance.	Educate Townships of their responsibilities.	Training	FEMA	None	N/A
1.9	Develop block grant to be used between counties and partnerships.	Offer a grant that counties can apply for to make project implementation more efficient.	2022	Organizing the grant so that the application process is efficient and there is enough money to be distributed as needed.	Have another separate source of money for these types of grants.	Grant Program	DEP, MCCD, GG	Money to cover the grants	DEP, GG

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template

Each county-based local area will use this template to identify:

- 1. **Inputs** – The statewide and/or federal policies, regulations, initiatives, programs, funding and resources that will help your county meet its goal.
- 2. **Process** – What are the changes that need to occur for the county to be successful in the process? These are the action items listed under each priority recommendation.
- 3. **Outputs and outcomes** – Both short and long-term. These are the programmatic recommendations identified by each county. Performance targets identify your county’s needed change in order to meet your county goal.
- 4. **Implementation challenges** – Any potential issues or roadblocks to implementation that could impede outputs and outcomes.

Asterisk: Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

For each Programmatic Recommendation: Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the “what, when and how” of the plan:

Description = What. This may include programs that address prevention, education, or changes to the current policy and regulation. A programmatic or policy effort will allow for the completion of cation items listed in the Planning and Progress Template.

Performance Target = How. This is an extension of the Description above. The performance target details the programmatic change that will enable you to complete the action items identified in the Planning and Progress Template. This can be a further description of the challenge to implementation from the Planning and Progress Template.

Expected Timeline = When. Provide the needed completion date for the programmatic recommendation that will assist your county in meeting its goal. This should be a reasonable expectation, based on knowledge and experience, that will aid in tracking progress toward addressing the Priority Initiative.

Potential Implementation Challenges = This field will note challenges and issues that may delay program implementation (Description). Potential challenges may relate to your county Planning and Progress Template.

Potential Recommendations on Improvement = This field will note recommendations on how to change or improve the program (Description).

Resources Needed: Technical & Funding = This field will note technical and financial resources needed/outstanding to implement the program (Description).

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Agriculture Priority Initiative 1: Planning, Manure Management & Fertilizer Applications														
1.1	Develop Basic Manure Management Plans Core N	Develop 24,000 acres worth of plans for farmers.	MCCD Staff, Farmers, Penn State Extension	Countywide	2021-2025	New operations coming in and lack of cooperation.	Nutrient Management Planners	MCCD	N/A	Bay Program	Additional Staff	N/A	\$50,000	CAP
1.2	Develop Ag Erosion and Sedimentation Plans	Develop 18,000 acres worth of Ag E&S plans for farmers.	MCCD Staff & Farmers	Countywide	2021-2025	Landowners that do not farm getting Ag E&S plans completed.	Conservation Planners	MCCD	N/A	Bay Program	Advertiseme nt to landowners.	County	\$25,000	CAP
1.3	Expanded Nutrient Management Planning focusing on 4R’s especially focusing on legume and manure N availability and the reduction of N Fertilizer.	Develop 10,000 acres worth of nutrient management plans for farmers.	MCCD Staff, Farmers, Penn State Extension, NRCS	Countywide	2021-2025	Convincing farmers that they are over applying fertilizers.	Nutrient Management Planners	MCCD	N/A	Bay Program	Training for farmers and staff about nutrients and how they affect crops and soil.	MCCD, DEP, USDA	\$10,000	CAP, Grants
1.4	Demonstration Plots & Field Days	Compare yields for reduced fertilizer applications on a test plot of 5 acres.	MCCD Staff & Farmers	Countywide	2022-2024	Willingness of landowners and farmers to test a new idea.	Agronomy knowledge, MCCD Staff	MCCD, NRCS	N/A	N/A	Organization of field days	MCCD, DEP, USDA, Surroundin g counties	\$5,000	CAP, GG
1.5	Barneyard Runoff Controls	Install 3 acres of barnyard runoff control BMPs.	NRCS, MCCD Staff and farmers	Countywide	2021-2023	None	Engineering and inspection	MCCD, NRCS	\$756,000	Growing Greener	1 Engineer for design	Private Sector/NR CS	\$1,000,000	EQIP, Growing Greener
1.6	Manure Storage	Install 5 acres of manure storage BMPs.	NRCS, MCCD Staff & Farmers	Countywide	2021-2023	None	Engineering and inspection	MCCD, NRCS	\$200,000	Growing Greener	1 Engineer for design	Private Sector/NR CS	\$1,000,000	EQIP, Growing Greener
1.7	Conversion of cropland to pasture	Establish 200 new acres of pastureland.	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	Farmers unwilling to give up cropland and convert it to pasture.	Grazing specialist	MCCD, NRCS	\$108,000	Growing Greener	None	NRCS	\$500,000	EQIP, Growing Greener
1.8	Watering Systems	Install 1 acre of watering system BMPs.	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	None	Engineering and inspection	MCCD, NRCS	\$20,000	Growing Greener	1 Engineer for design	NRCS, Private Sector	\$100,000	EQIP, Growing Greener
1.9	Stabilization of animal walkways and travel lanes	Install 1 acre of walkway and travel lanes BMPs.	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	None	Engineering and inspection	MCCD, NRCS	\$64,000	Growing Greener	1 Engineer for design	NRCS, Private Sector	\$500,000	EQIP, Growing Greener

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
1.10	Work with Plain Sect Farmers on plan implementation	Install 24,000 acres of BMPs.	MCCD Staff Amish and Mennonite Farmers	Countywide	2023-2025	These farmers do not accept cost share from the government.	Engineering and inspection	MCCD	N/A	Private Source (non-profit)	1 Engineer for design	NRCS, Private Sector	TBD	TBD
1.11	Milk house waste systems	Install 2 milk house waste system BMPs	Farmers	Chillisquaqu e Creek Watershed	2023-2025	Plain Sect does not accept cost share from the government.	Engineering and inspection	MCCD, NRCS, Private Sector Engineers	N/A	N/A	1 engineer for design	NRCS, Private Sector	TBD	EQIP/Growing Greener
1.12	Establish funding/staff support to the ag community	Write plans and continue installation of BMPs for planned implementation. Establish demo plots and plan field days.	MCCD, DEP and NRCS	County wide	2022-2024	Limited funding available.	MCCD Staff	MCCD, NRCS and private sector	N/A	N/A	2 technicians and 1 Engineer	MCCD, NRCS and private sector	\$250,000 per year	CAP
1.13	Chesapeake Bay Inspection Program	Collect data on admin complete plans and review records for manure applications rates. 70 per year	MCCD	County wide	2021-2025	Limited time for staff.	Bay Staff	DEP	\$65,500	Bay and CAP	None	N/A	\$150,000 per year	Bay program
1.14	Seek funding options for BMP implementation	Utilize Growing Greener, REAP and EQUIP	MCCD and NRCS	County wide	2021-2023	Limited funding available.	MCCD Staff	NRCS, MCCD	\$1,000,000	Growing Greener, EQUIP	None	N/A	\$500,000	CAP

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Agriculture Priority Initiative 2: Soil Health and Cover Crops														
2.1	Promote the Importance of Soil Health	Educating farmers on the importance of soil health to lead to increased cover crops and no-till practices.	NRCS, MCCD Staff, Farmers, and Farm Bureau	Countywide	2022-2024	Lack of interest among the farming community.	Staff with soil health and no-till knowledge	Penn State Extension, NRCS, Private Sector, Seed dealers	Grant	Growing Greener Grant with Columbia CD	1 person with soil health and no-till knowledge	Penn State Extension, NRCS, Private Sector, Seed dealers	\$5,000	CAP
2.2	Plant cover crops and provide incentive payments	Install cover crops on 6,000 acres of farmland	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	Flexibility to pay for single species cover crops.	Staff with soil health and no-till knowledge	MCCD, Penn State Extension, NRCS	Grant	Growing Greener Grant with Columbia CD, REAP	1 person with soil health and no-till knowledge	MCCD, Penn State Extension, NRCS	20,000-45,000/year	CAP/ Growing Greener
2.3	Educate and work with Plain Sect farmers on cover crops	Install cover crops on 6,000 acres of farmland	NRCS, MCCD Staff & Amish and Mennonite Farmers	Anthony, Derry, Limestone Townships	2023-2025	Travel and getting farmers to meetings is limited. They will not accept cost share from government.	Staff with soil health and no-till knowledge	MCCD, Penn State Extension, NRCS	Grant	Growing Greener Grant with Columbia CD	1 person with soil health and no-till knowledge	MCCD, Penn State Extension, NRCS	\$5,000	Private funding.
2.4	Planting legume cover crops for next year's corn crop to reduce N fertilizer applications	Reduce nitrogen fertilizer applications on 4,000 acres of farmland	NRCS, MCCD Staff & Farmers	Countywide	2021-2025	Lack of research on amounts of Nitrogen available from cover crops.	Staff with soil health and no-till knowledge	NRCS, MCCD Penn State Extension	Grant	GG Grant with Columbia CD, REAP	1 person with soil health and no-till knowledge	NRCS, MCCD Penn State Extension	\$5,000	Growing Greener

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template

Each county-based local area will use this template to identify:

- 1. Inputs – These are both existing and needed resources, public and private, to implement the identified priority initiative. These include both technical and financial resources, such as personnel, supplies, equipment and funding.
- 2. Process – what is each partner able to do where and by when. These are the action items listed under each priority initiative.
- 3. Outputs and outcomes – both short and long-term. These are the priority initiatives identified by each county. The performance targets are the intermediate indicators that will measure progress.
- 4. Implementation challenges – any potential issues or roadblocks to implementation that could impede outputs and outcomes.

Asterisk: Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

For each Priority Initiative or Program Element: Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the “who, what, where, when and how” of the plan:

Description = What. This may include programs that address prevention, education, or as specific as planned BMP installations that will address the Priority Initiative. A programmatic or policy effort will require some ability to quantify the anticipated benefits which will allow calculation of the associated nutrient reductions.

Performance Target = How. This is an extension of the Description above. The Performance Target details the unique BMPs that will result from implementation of the Priority Initiative and serves as a benchmark to track progress in addressing the Priority Initiative. Performance Targets may be spread across multiple Responsible Parties, Geographies, and Timelines based on the specifics of the Initiative.

Responsible Party(ies) = Who. This is/are the key partner(s) who will implement the action items though outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

Geographic Location = Where. This field identifies the geographic range of the planned implementation. This could extend to the entire county or down to a small watershed, based on the scale of the Priority Initiative, range of the Responsible Party, or planned funding/resources. *NOTE: Resource limitations alone should not limit potential implementation as additional funding may become available in the future.*

Expected Timeline = When. Provide the expected completion date for the planned activity. This should be a reasonable expectation, based on knowledge and experience, that will aid in tracking progress toward addressing the Priority Initiative.

Resources Available: Technical & Funding = This field will note technical and financial resources secured/available to implement the program (Description). This is the total of the resources identified in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if available, to each action.

Resources Needed: Technical & Funding = This field will note technical and financial resources needed/outstanding to implement the program (Description). This is the total of the additional resources projected and identified as needed in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if possible, to each action.

Potential Implementation Challenges/Issues = This field will note challenges and issues that may delay program implementation (Description).

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Agriculture Priority Initiative 3: Buffers														
3.1*	Increase Buffers on streams and roadside ditches	Install 165 acres of buffers on farms.	MCCD, DEP, NPC, NRCS, CREP, Pheasants forever	Countywide	2021-2024	Landowner willingness to give up crop land as a buffer.	Botanists Arborists Biologists	Pheasants Forever, Native Creations	As Needed	10 million trees initiative, PACD Buffer Grant	Botanists Arborists Biologists	Pheasants Forever, Native Creations	\$200,000	Growing Greener Bay, CREP
3.2*	Provide incentives-based program for buffers	Provide incentives for farmers to install buffers on farms.	DEP, PDA, FDA, MCCD	Countywide	2022-2024	Landowner willingness to trust the program and give up cropland.	N/A	Pheasants Forever	None	N/A	Program developer	Establish partnership with Pheasants Forever	\$50,000	CREP
3.3*	Utilize CREP Program for buffers and rental payments	Install buffers on farms with the use of the CREP program.	NRCS	Countywide	2022-2024	Landowner concerns about the CREP program and loss of cropland.	Biologist	Pheasants Forever	None	N/A	Biologist	Establish partnership with Pheasants Forever	\$300,000	CREP
3.4 *	Partnership with Private Sector for education and buffer establishment	Install buffers on farms and educate landowners in workshops.	MCCD, Private Sector	Countywide	2021-2023	Landowner willingness to convert cropland to buffer.	Biologists Botanists and Arborists	Private Sector	None	N/A	Biologists Botanists and Arborists	Private Sector	\$25,000	TBD
3.5	Educate landowners maintenance of buffers	Control and monitor invasive species in acreage of buffers.	NRCS, MCCD Staff, Private Sector	Countywide	2022-2024	Landowner willingness to cooperate and properly maintain buffers.	Invasive species knowledge and pesticide certification.	Pheasants Forever, MCCD Staff	None	N/A	Field Days	Pheasants Forever, DEP, MCCD	\$5,000	CAP, GG

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
3.6*	Mandatory Buffer Ordinance	Install buffers as a result of a mandatory ordinance.	Townships, MCCD	Countywide	2023-2025	Enforcement of the ordinance in the county and guilt of telling landowners how to manage their land.	County Planning and Zoning to adopt ordinance.	MCCD, County offices, Zoning officer	None	N/A	Ordinance developer and enforcement	MCCD, townships, planning commission, zoning officer	N/A	N/A
3.7	Grass hay strips along streams	Install 20 acres of hay buffers along streams on farms.	MCD, NRCS	Countywide	2022-2024	Landowner willingness to install buffer.	Crop Consulting	MCCD, NRCS	None	N/A	Crop Consulting	MCCD, NRCS	N/A	N/A
3.8	Streambank fencing	Keep cattle out/ limit access to 20 acres of stream.	MCCD, NPC	Countywide	2022-2025	Plain Sect accepting funding from government.	Project planner	MCCD, NRCS	\$100,000	NPC, Growing greener	Fence contractor	MCCD, NRCS, Fence Contractors	\$50,000	Bay, NFWF, EQIP, GG

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Agriculture Priority Initiative 4: Reporting and Tracking														
4.1	Use Practice Keeper and Field Doc to track results	Track results for CAP with plans and maps	MCCD	Countywide	2021-2025	Unknown projects completed by landowners are difficult to track.	Staff to record plans and track results	MCCD, DEP	N/A	N/A	Additional Staff to manage records	N/A	\$60,000	CAP
4.2	Track results to evaluate progress with load reductions	Reduce Nitrogen and phosphorus loading	MCCD	Countywide	2021-2025	Unknown projects completed by landowners are difficult to track.	Staff to track results	MCCD, DEP	N/A	N/A	Additional staff to manage records	N/A	\$60,000	CAP
4.3	GIS Mapping for tracking project	Draw maps to show progress in each watershed	MCCD Interns	Countywide	2022-2024	Access to GIS mapping software.	Inters have GIS experience	MCCD	N/A	None	GIS Software	N/A	Funding to purchase GIS software	CAP
4.4	Verify manure application records	Ensure farmers are following their plans	MCCD	Countywide	2021-2025	Will be very time consuming.	Staff to complete inspections	MCCD	N/A	Bay Program	None	N/A	None	N/A

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Agriculture Priority Initiative 5: Ag Land Preservation and Cropland Retirement														
5.1	Solar Panel development will take cropland out of production	Transition 6,000 acres of cropland into solar panels	Landowners and Energy Suppliers	Countywide	2021-2025	Loss of cropland and stormwater management	None	N/A	None	N/A	None	DEP	N/A	N/A
5.2	Stormwater management on solar farms	Install 6,000 acres of stormwater management	MCCD, County Planning, Municipalities	Countywide	Ongoing	Maintenance and implementation	Engineers	Twp Engineers County Planning Engineers	None	N/A	Engineers	Energy Companies	\$500,000	N/A
5.3	Implement Ag Land Preservation Program	Protect 200 acres of farmland from development	PDA, MCCD, Montour County Commissioners	Countywide	2021-2025	Limited funding	Soil knowledge & legal advice	MCCD, PDA, Lawyers	50,000	PDA	None	PDA	\$500,000	PDA

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Stormwater Priority Initiative 1: Stream Restoration														
1.1	Continue to Install fish habitat structures on Ag Impaired Streams and reconnection of the floodplain where possible	Reduce erosion on streambanks with the instillation of structures on 20,000 linear feet of streams.	MCCD Staff, PA Fish& Boat, DEP, NPC	Chillisquque creek and Mahoning creek watersheds.	2021-2025	Obtaining funding to meet demand of fish habitat structures and eroding streams.	Design and Installation	MCCD, DEP, PA Fish& Boat	Varies	MCCD, DEP, PA Fish& Boat, NPC	None	N/A	\$75,000/ year	Growing Greener
1.2	Continue to monitor macroinvertebrates on Chillisquaque Creek	Track progress of stream health and disclose existing macro assessment data to DEP	Mike Bilger, MCCD Staff	Chillisquque Creek Watershed	2021-2022	Finding a funding source.	Biologist with knowledge to ID macroinvertebrates	Mike Bilger	None	Clean Water GG	Mike Bilger	N/A	\$2,500/ year	Clean Water
1.3	Continue to monitor macroinvertebrates and wild brook trout on Limestone Run	Track progress of stream health. Disclose existing macro assessment data to DEP	Susquehanna University/NPC MCCD Staff	Limestone Run Watershed	2022-2024	Finding a funding source.	Biologists with knowledge to ID Fish and macroinvertebrates	MCCD	N/A	N/A	Tracking of stream health.	Susquehanna University	\$2,500 / year	N/A
1.4	Organize Community Fallen Tree Removal Program where trees have fallen due to flooding and are creating bank erosion	Reduce erosion on streambanks by clearing brush from the stream.	MCCD Staff and Anthony and Derry Townships	Anthony and Derry Townships	2022-2025	Finding a funding source and dealing with limited resources.	Tree removal	Townships, MCCD	None	N/A	Tree removal service.	Local Business	\$20,000 / Year	County, CAP
1.5	Submit macro data for DEP review	Update integrated report yearly	DEP and MCCD	Chilly Watershed Limestone Run	2021-2025	None	Data	MCCD, DEP	None	N/A	None	N/A	None	N/A

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Storm Water Priority Initiative 2: Flooding, Wetlands and Storm Water BMP's														
2.1	Continue to restore and preserve wetlands	Increase infiltration and reduce runoff for 80 wetland acres	USF&W Service MCCD Staff Blue Acres Engineering	Countywide	2022-2024	Mark Roberts retirement from USF&W	Design and permitting	USF&W Service, Blue Acres Engineering	\$150,000	GG Grant	None	None	\$100,000 per year	Growing Greener
2.2	Educate landowners of the impacts of storm water on streams and methods to control storm water	Promote storm water management through workshops and meetings to lessen the impact on streams	MS4, MCCD, Municipalities	Countywide	2022-2024	Generating landowner interest and meeting attendance	Engineering, Hydrology	Penn State Extension, MCCD, Township Engineers	None	None	Engineering, Hydrology	Penn State Extension, MCCD, Township Engineers	\$20,000 per year	CAP
2.3	Promote the installation of infiltration basins for private residences	Encourage provide landowners to install basins and other stormwater control methods	MCCD, MS4, Municipalities	Countywide	2022-2025	Landowner willingness to consider an infiltration basin	Engineering Hydrology	Township Engineers, MCCD, county planning office	None	None	Engineering, Hydrology	Township Engineers, MCCD, County planning office	\$5,000	Growing Greener, CAP
2.4	Seek funding for and construction of infiltrations basins for landowners	Obtain funding to construct basins and other storm water management practices	MCCD	Countywide	2022-2024	Landowners paying a match contribution	Sizing basins and design	MCCD, Township Engineers	None	None	Sizing basins and design	Landscaping Companies, MCCD, Township Engineers	\$10,000 per year	Growing Greener
2.5*	Update and Enforce Act 167 plan	Create plan that address storm water runoff and model ordinance for homeowners	County planning, townships, MCCD and DEP	Countywide	2022-2024	There is no funding available.	Act 167 planning	MCCD, County Planning	N/A	DEP	Act 167 Plan development	Private engineer	\$300,000	DEP
2.6	Continue to work with MS4 on storm water BMP implementation	Reduce storm water runoff and assist townships with plan implementation including bio retention areas, rain gardens, and buffers	Townships, county planning, DEP and MCCD	Valley township and Mahoning township	2021-2025	None	Storm water design	Township and county planning engineers	N/A	N/A	Engineer to design BMP structures.	Private Engineer	None	N/A
2.7*	Hazard mitigation and floodplain management	Limit impacts of flooding in developed areas	Townships and county planning office	Countywide	Ongoing	Enforcement and lack of knowledge of floodplain ordinances	Some ordinance knowledge.	Township and county planning	N/A	N/A	Knowledge of floodplain ordinances	Townships	1 million	PEMA, FEMA

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
<div>Green - action has been completed or is moving forward as planned</div> <div>Yellow - action has encountered minor obstacles</div> <div>Red - action has not been taken or has encountered a serious barrier</div>														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
2.8	Prevent dumping near streams and roadside ditches.	Provide harsher punishments for those found dumping or littering near streams and roadside ditches.	PA State Police, Montour County	Countywide	2023 and beyond	Lack of time and resources to develop new laws with stricter punishments.	Litter laws in place	State Laws and County Laws	N/A	N/A	Stricter Punishments for dumping and littering.	State government, county government	\$500,000	N/A

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Stormwater Priority Initiative 3: BMPS in Developed and Urban Areas														
3.1	Educate landowners on importance and purpose of buffers	Install buffers in urban aeras and educate landowners on the importance of buffers	MCCD	Urban Areas	2022-2024	Lack of interest among landowners in urban aeras	Agronomist, Biologist, Botanist	MCCD, Penn State Extension, Private Sector	None	N/A	Agronomist, Biologist, Botanist	MCCD, Penn State Extension, Private Sector	\$5,000 / Year	CAP
3.2	Develop strategy to make buffers visually attractive to landowners by using pollinator mixes and flowering trees and shrubs	Develop appealing buffer designs and present to landowners	MCCD, Private Sector	Urban Areas	2022-2024	Lack of public interest and knowledge of buffers	Buffer designs and education materials	Private Sector, DEP	None	N/A	Buffer designs and education materials	Private Sector, DEP	\$5,000/ Year	CAP
3.3*	Develop incentive-based buffer Program that pays for buffer establishment and maintenance	Give landowners an incentive to establish and maintain buffers on their property	MCCD/DEP	Urban Areas	2022-2024	Lack of a funding source for these programs	Buffer planting groups	N/A	None	N/A	Develop incentive program	TBD	\$50,000 / year	DEP/DCN&R
3.4	Mandatory Stream Buffer Program	Develop an ordinance to implement stream buffers	County Planning, MCCD, Municipalities	Urban Areas	2022-2024	Adoption of the ordinance and cooperation from landowners	Zoning	Planning Commission	None	N/A	Program developer	Zoning/ Planning Commission	\$25,000 / year	TBD
3.5	Plant Buffers	Install buffers in urban areas	Private Sector	Urban Areas	2021-2025	Landowner willingness to participate	Agronomist, Biologist, Botanist	Private Sector	None	N/A	Planting, plans, and design developer	DCNR, Private Sector	\$10,000 / year	10 million trees initiative and PACP buffer program
3.6*	Nutrient application reduction on lawns	Reduce fertilizer applications on lawns	Private landowners	Urban Areas	2022-2025	Lack of interest from homeowners	Nutrient requirements for lawns	Lawn care specialist	None	N/A	Nutrient/ lawn specialist	N/A	TBD	CAP
3.7	Conservation landscaping	Reduced storm water runoff from yards by using conservation methods in landscaping	Private landowners, master gardener, Penn State Extension	Urban Areas	2023-2025	Lack of interest from homeowners to change landscaping and some county ordinances do not support overgrown vegetation	Botany and landscaping knowledge	Penn State master gardeners	None	N/A	Botany and landscaping knowledge.	Private landscaping companies	TBD	TBD

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
3.8	Continue dirt and gravel roads in low volume road program	Reduce sediment from dirt and gravel roads	Dirt and Gravel Roads Program and MCCD	Countywide	2021-2025	Limited amount of dirt and gravel roads left	Engineering and road resurfacing	Dirt and gravel roads and MCCD	\$140,000 per year	Dirt and gravel roads program	Engineering and road resurfacing	Townships	\$50,000	Dirt and gravel roads program, CAP
3.9	Establish an educator position	Establish a position for an environmental educator to inform the public about BMPs and more	County, MCCD, MARC	Countywide	2022 and beyond	Limited funding	Information to the public through MARC and the MCCD	MARC, MCCD	N/A	N/A	Constant information through teaching and handouts	County, MARC, MCCD	\$70,000	CAP

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template

Each county-based local area will use this template to identify:

- 1. Inputs – These are both existing and needed resources, public and private, to implement the identified priority initiative. These include both technical and financial resources, such as personnel, supplies, equipment and funding.
- 2. Process – what is each partner able to do where and by when. These are the action items listed under each priority initiative.
- 3. Outputs and outcomes – both short and long-term. These are the priority initiatives identified by each county. The performance targets are the intermediate indicators that will measure progress.
- 4. Implementation challenges – any potential issues or roadblocks to implementation that could impede outputs and outcomes.

Asterisk: Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

For each Priority Initiative or Program Element: Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the “who, what, where, when and how” of the plan:

Description = What. This may include programs that address prevention, education, or as specific as planned BMP installations that will address the Priority Initiative. A programmatic or policy effort will require some ability to quantify the anticipated benefits which will allow calculation of the associated nutrient reductions.

Performance Target = How. This is an extension of the Description above. The Performance Target details the unique BMPs that will result from implementation of the Priority Initiative and serves as a benchmark to track progress in addressing the Priority Initiative. Performance Targets may be spread across multiple Responsible Parties, Geographies, and Timelines based on the specifics of the Initiative.

Responsible Party(ies) = Who. This is/are the key partner(s) who will implement the action items though outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

Geographic Location = Where. This field identifies the geographic range of the planned implementation. This could extend to the entire county or down to a small watershed, based on the scale of the Priority Initiative, range of the Responsible Party, or planned funding/resources. *NOTE: Resource limitations alone should not limit potential implementation as additional funding may become available in the future.*

Expected Timeline = When. Provide the expected completion date for the planned activity. This should be a reasonable expectation, based on knowledge and experience, that will aid in tracking progress toward addressing the Priority Initiative.

Resources Available: Technical & Funding = This field will note technical and financial resources secured/available to implement the program (Description). This is the total of the resources identified in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if available, to each action.

Resources Needed: Technical & Funding = This field will note technical and financial resources needed/outstanding to implement the program (Description). This is the total of the additional resources projected and identified as needed in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if possible, to each action.

Potential Implementation Challenges/Issues = This field will note challenges and issues that may delay program implementation (Description).

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template														
Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier														
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>				Resources <u>Needed</u>			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
Partnerships Priority Initiative 1: Partners														
1.1	Have Penn DOT involved in various practices	Implement additional cover crop services and practices such as street sweeping	Penn DOT	Countywide	2022-2025	Lack of willingness or time to participate in implementation	Street Workers	Penn DOT	N/A	State	Designers	Penn DOT	N/A	State
1.2	Work with NRCS on their programs in the county	Implement programs such as EQIP and CREP	NRCS	Countywide	Present-2025	Farmer’s lack of trust in CREP	NRCS Workers	NRCS	N/A	N/A	Additional Programs	NRCS	N/A	N/A
1.3	Work with the PA Game Commission in the county	Plant food plots and partner with farmers	PA Game Commission	Liberty and Mahoning Township	2022-2024	Not abundant State Game Lands in the county and lack of knowledge of projects	Game Commission Officers	Game Commission	N/A	N/A	More partnerships with them in the county	PA Game Commission, MCCD, Farmers, etc...	None	N/A
1.4	Continue to work with PA Fish and Boat Commission in the county	Implement stream projects that include fish habitat structures	PA Fish and Boat, MCCD	Countywide	2022-2025	Lack of knowledge of their existing and additional projects	Project planning, project implementation	PA Fish and Boat, MCCD	Varies	Growing Greener	N/A	N/A	N/A	N/A
1.5	Continue to work with US Fish and Wildlife in the county	Implement wetland construction and stream projects	US Fish and Wildlife, MCCD	Countywide	2022-2024	Lack of knowledge of their existing and additional projects	Project planning, implementation, and upkeep	US Fish and Wildlife, MCCD	Varies	Federal, Growing Greener	None	N/A	None	N/A
1.6	Continue to work with NPC	Continue working relationship with NPC which includes installing buffers, fish habitat, and tree plantings	NPC MCCD	Countywide	2022-2025	None	Buffer planting, fish habitat designers and implementers	NPC, MCCD	N/A	NPC	None	N/A	None	N/A
1.7	Have County Workers involved in implementation practices	Help implement, fund, organize and monitor implementation of CAP practices	Commissioners Zoning Planning Grounds Crew	Countywide	2022-2024	Lack of time or willingness to participate in implementation	Additional help to implement practices	County workers	N/A	N/A	Additional help to implement practices	County workers	N/A	N/A
1.8	Involve Montour Area Recreation Commission (MARC) in various activities	Work with MARC on public education, use of natural lands in Montour County, and through the GIS software program	MARC, MCCD, County	Countywide	2022-2025	None	Help to educate the public	MARC	N/A	N/A	Help to implement practices	MARC	N/A	N/A