		Phase 3 Waters	hed Implementat	ion Plan (WI	P) Annual P	rogress Update and Two	-Year Miles	tones Repo	ort – MONTO	DUR County	1	
<u>Green</u> - acti	on has been completed or is m	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 Highlight changes for 2024-2025 milestone period										
							Resource	Available	Resource	s Needed	Annual Progress to	
Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Technical	Financial	Technical Financial		Annual Progress to Date (2021 + 2022+2023) *add new 2023 progress above the existing 2021 and 2022 progress. Date each entry	Reason for Change to Action Item (2024-2025milestone period)
Agricult	ure Priority Initiative 1	: Planning, Manure N	lanagement, and F	ertilizer App	lication							
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	N/A	Additional Staff	\$50,000	7/2022 - 342 Manure Management Plans were developed since 2011 (16) MMPs were developed since March 2021-August 2022. (8) MMPs were developed since August 2022- August 2023	
1.2	Develop Ag Erosion and Sedimentation Plans	Develop 18,000 acres 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	N/A	Advertiseme nt to landowners.	\$25,000	7/2022-214 Conservation Plans have been completed 41 plans have been developed from Jan 2021 to August 2022. 30 plans have been developed from August 2022- August 2023	
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	N/A	Training for farmers and staff about nutrients and how they affect crops and soil.	\$10,000	7/2023- Plans are continuing to be developed for operations. There are 6 nutrient management plans 3 CAFOs and 2 CAOs.	
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	The willingness of landowners and farmers to test a new idea.	Agronomy knowledge, MCCD Staff	N/A	Organization of field days	\$5,000	Test plots of biological microbes were planted to see the effects on crops and soil health. Soil Health field day on 8/22/2023 showed successful results.	
1.5	Barnyard Runoff Controls	Install 3 acres of barnyard runoff control BMPs.	NRCS, MCCD Staff, Farmers	Countywide	2021-2023	None	Engineering and Inspection	\$756,000	1 Engineer for design	\$1,000,000	There is one completed and 2 planned for construction for 2023.	
1.6	Manure Storage	Install 5 acres of manure storage BMPs.	NRCS, MCCD Staff & Farmers	Countywide	2021-2023	None	Engineering and Inspection	\$200,000	1 Engineer for design	\$1,000,000	There are 2 planned for construction in 2023 and one planned for 2024.	
1.7	Conversion of Cropland to Pasture	Establish 200 new acres of pastureland.	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	Some landowners are unwilling to give up cropland and convert it to pasture.	Grazing Specialist	\$108,000	None	\$500,000	7/2022- 43.72 acres have been converted from cropland to pasture in the County.	
1.8	Watering Systems	Install 1 acre of watering system BMPs.	NRCS, MCCD Staff & Farmers	Countywide	2022-2024	None	Engineering and Inspection	\$20,000	1 Engineer for design	\$100,000	7/2022- We installed 27.82 acres of Watering Systems	
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	\$64,000	1 Engineer for design	\$500,000	One Walkway completed in 2023.	
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	N/A	1 Engineer for design	TBD	7/2023- We have written a few plans for Amish and Mennonite farmers in this past year, we hope to expand in the future to figure out a way to implement projects and overcome the hurdle of funding.	
1.11	Milk House Waste Systems	Install 2 milk house waste system BMPs	Farmers	Chillisquaque Creek Watershed	2023-2025	Plain Sect does not accept cost share from the government.	Engineering and Inspection	N/A	1 Engineer for design	TBD	Only 1 Operation Needs Milkhouse Waste System. We only have 3 non Amish Dairy Farms left in the County	

1.12	Establish Funding/Staff support to the Agricultural Community	Write plans and continue installation of BMPs for planned implementation. Establish demo plots and plan field days.	MCCD, DEP and NRCS	Countywide	2022-2024	Limited funding available.	MCCD Staff	N/A	2 Technicians and 1 Engineer	\$250,000 per year	7/2023- We have continued to support the Agricultural community by writing plans and implementing projects and providing education opportunities. We hope to obtain more funding for the agricultural community to implement more projects.	
1.13	Chesapeake Bay Inspection Program	Collect data on admin complete plans and review records for manure application rates (70 per year).	MCCD	Countywide	2021-2025	Limited time for staff.	Bay Staff	\$65,500	None	\$150,000 per year	7/2023- Inspections have been conducted ahead of schedule and landowners are complying.	
1.14	Seek funding options for BMP Implementation	Utilize Growing Greener, REAP and EQUIP	MCCD and NRCS	Countywide	2021-2023	Limited funding is available.	MCCD Staff	\$1,000,000	None	\$500,000	7/2023- Applied for Growing Greener Grant for Tworkoski, Beachel, and Hummer Manure Storage Projects in 2023. CAP funds received for fencing projects and pollinator program. Will apply for CAP funding for Ag projects October 2023. Received ACAP funding to be utilized for AG projects in 2023- 2024.	
Agricult	ure Priority Initiative 2	: Soil Health										
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	Grant	1 person with soil health and no-till knowledge	\$5,000	7/2023- In a joint effort, the Montour, Luzerne, and Columbia County Districts teamed up to hold a soil health field day 8/22/2023.	
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	Grant	1 person with soil health and no-till knowledge	20,000- 45,000/year	7/2023- The cover crop program continues as planned with the hopes of attracting more farmers. We have 1640.52 acres signed up.	
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	Grant	1 person with soil health and no-till knowledge	\$5,000	7/2022-7/2023 We are having signups for cover crop programs and have 1000 acres available	
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	Grant	1 person with soil health and no-till knowledge	\$5,000	7/2022- 1000 acre cover crop signup on going 7/2023 - 1640.52 acre cover crop signup ongoing	
Agricult	ure 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	Landowners' willingness to give up cropland as a buffer.	Botanists Arborists Biologists	As Needed	Botanists Arborists Biologists	\$200,000	2022-2023 we have installed 1.3 acres on the Bogart farm and 7.2 acres on the Beachel Farm	
3.2*	Provide an incentives- based program for buffers	Provide incentives for farmers to install buffers on farms.	DEP, PDA, FDA, MCCD	Countywide	2022-2024	Landowners' willingness to trust the program and give up cropland.	N/A	None	Land developer	\$50,000	7/2023 Through the ACAP program, farmers receive a higher ranking by installing buffers. We have had 7.2 acres installed through this incentive	
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	Landowners' concerns about the CREP program and the loss of cropland.	Biologist	None	Biologist	\$300,000	8/2023 NRCS will not share information on CREP signups.	

3.4 *		Install buffers on farms and educate landowners in workshops.	MCCD, Private Sector	Countywide	2021-2023	Landowners' willingness to convert cropland to buffer.	Biologists Botanists and Arborists		Biologists Botanists and Arborists	\$25,000	12/2022-No activity 12/2023-We have successfully planted large buffers this year. In the coming	
3.5	Educate landowners maintenance of buffers	Control and monitor invasive species in acreage of buffers.	NRCS, MCCD Staff, Private Sector	Countywide	2022-2024	Landowners' willingness to cooperate and properly maintain buffers.	Invasive species knowledge and pesticide certification.	None	Field Days	\$5,000	8/2023-No activity. 12/2023-We have successfully planted large buffers this year. In the coming year we can use photos to make a presentation to share the benefits with other interested landowners	
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 an ordinance.	None	Ordinance developer and enforcement	N/A	8/2023-No activity	
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	None	Crop Consulting	N/A	8/2023-No activity	
3.8	Streambank fencing	Keep cattle out/ limit access to 20 acres of the stream.	MCCD, NPC	Countywide	2022-2025	Plain Sect & Funding from the government.	Project planner	\$100,000	Fence contractor	\$50,000	Raup project completed summer 2022. Bogart project completed summer 2023.	
Agricultu	ure Priority Initiative 4	: Reporting and Track	ing			-						
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	N/A	Additional Staff to manage records	\$60,000	7/2023- We continue to use Practice Keeper to track plans, inspections, BMPs, etc. We use FieldDoc for cropland conversion and	
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	N/A	Additional staff to manage records	\$60,000	7/2023- We have been tracking projects, plans, BMP verifications to count towards load reductions.	
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	N/A	GIS Software	Funding to purchase GIS software	7/2023- We have not obtained access to GIS software.	
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	N/A	None	None	7/2023- We have verified some records along with inspections/plans, but there is still more work to be done.	
Agricultu	ure Priority Initiative 5	: AgLand Preservatior	n and Cropland Ret	tirement						_		
5.1	Solar Panel development will take cropland out of production	Transition 6,000 acres of cropland into solar panels		Countywide	2021-2025	Loss of cropland and stormwater management	None	None	None	N/A	7/2023- The Solar Farm project was delayed.	
5.2	Stormwater management on solar farms	Install 6,000 acres of stormwater management	MCCD, County Planning, Municipalities	Countywide	Ongoing	Maintenance and implementation	Engineers	None	Engineers	\$500,000	7/2023- The Solar Farm project was delayed.	
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	50,000	None	\$500,000	7/2023- Gary Hertzler Farm 52 acres was preserved this year. Eugene Martin farm projected to be preserved in 2024.	
Partners	hips Priority Initiative	1: Partners									7/2023- We have	
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 the implementation	Street Workers	N/A	Designers	N/A	7/2023- We have not worked with Penn DOT much because we did not have the opportunity this year, We hope to include them in some future projects.	

1.2	Continue to monitor macroinvertebrates on Chillisquaque Creek	Track progress of stream health and disclose existing macro assessment data to DEP Track progress of stream health. Disclose existing macro assessment data	Mike Bilger, MCCD Staff Susquehanna University/NPC, MCCD Staff	Chillisquaque Creek Watershed Limestone Run Watershed	2021-2022 2022-2024	Finding a funding source.	Biologist with knowledge to ID macroinverte brates Biologists with knowledge to ID Fish and	None N/A	Mike Bilger Tracking of stream health.	\$2,500/ year	7/2023-We monitored the Chillisquaque Creek with Mike Bilger in the Spring of 2023. 7/2023- no monitoring has been completed this year. 7/2022-Interns did sampling of	
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	Varies	None	\$75,000/ year	7/2023- We have continued to implement fish habitat structures in streams. This year we have completed the Cero and Chamberlain projects.	
1.8 Stormw	Involve Montour Area Recreation Commission (MARC) in various activities ater Priority Initiative :	GIS software program		Countywide	2022-2025	None	Help to educate the public	N/A	Help to implement practices	N/A	7/2023- We have talked and met with MARC to discuss potential projects and community events. We discussed the removal of fallen trees on Chillisquaque Creek.	
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	N/A	Additional help to implement practices	N/A	We work with Municipal and Borough Officials. Danville Borough on pollinator plantings and Valley Township on Bioswale and Fish Habitat for MS4. Mahoning Twsp for stormwater BMPs	
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 implementer S	N/A	None	None	7/2023- We continue to work with NPC through our partnership on projects throughout the county.	
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, implementati on, and upkeep	Varies	None	None	7/2023-We continue to work with US Fish and Wildlife on our wetland projects. Over 50 acres of wetlands constructed since 2009. 3 acres of wetlands installed in 2023 on the Pentz Farm.	
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 implementati on	Varies	N/A	N/A	7/2023- We continue to work with PA Fish and Boat on the Design, Permitting, and Implementation of our stream projects.	
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 a lack of knowledge of projects	Game Commission Officers	N/A	More partnerships with them in the county	None	7/2023- We have not had an opportunity or need to work with the PA Game commission in the past year, but we hope to work alongside them in the future.	
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	N/A	Additional Programs	N/A	worked with NRCS, but their updated privacy policy makes it difficult to gather information from them. However, we have seen improvements over the past year	

1.2.1Continue to work with MAS implementation and flood during name participantsObtain funding to construct basins and other structures management practicesCounty wile2022-2024Landowners paying a math contributionState Basins sold designState Pain soldState Pain soldCAP funding received for alteration basins in alteration basins in alteratio												
1.3 beinder meter der beinder werden sollte in verden sollte in verden sollte in verden sollte	1.4	Fallen Tree Removal Program where trees have fallen due to flooding and	streambanks by clearing	Anthony and Derry	Derry	2022-2025	dealing with limited	Tree removal	None			been discussion on this topic with MARC, but no decisions or progress has been made. NO
1 Outflow to restore and increase influency and restore in	1.5			DEP and MCCD	Watershed Limestone	2021-2025	None	Data	None	None	None	gathered Macro data for review 7/2022- We have the Macro data and have talked to DEP officials about the numbers. It has not been officially submitted for
2.1 Ordering to recover wellow? Note of the recover wellow?   2.2 Concrision: to recover wellow? Note of the recover wellow else of the recover herecover here of the recover here of the re	Stormw	ater Priority Initiative	2: Flooding, Wetlands	s, and Stormwater	BMPs							
2.2.   Reset entropy control starmwater inmagement through the inserting transmission of administration start inmagement through the inserting transmission of administration start inserting transmission of administratin start inserting tradministration start inse	2.1		reduce runoff for 80	MCCD Staff Blue	Countywide	2022-2024			\$150,000	None		completed a 3 acre wetland on the
2.3   Pronote the installation uniference is deviced whice redevice   Encourage provide biname of control uniference whice redevice   Line Court (and court week and control week and control week assiss for landownees provide redevice   Court (and court week and control week and control week and contro control week and control week and control wee	2.2	impacts of stormwater on streams and methods to	management through workshops and meetings to lessen the impact on		Countywide	2022-2024	interest and meeting		GG			Township has slowed the progress of a potential growing greener grant to fund projects in the watershed. There is
2.4.   Construction of Infinition of Infinite Infinite Infinition of Infinite Infinition of Infini	2.3	infiltration basins for	landowners to install basins and other stormwater control		Countywide	2022-2025			None		\$5,000	watershed was completed by township engineers and CAP funding was
1.5.*Update and Enforce At 167 plannetaddress stormwater unonfance for operance for DEPCounty plannet operance for DEPCounty plannet operance DEPCounty plannet operanceCounty p	2.4	construction of infiltrations	construct basins and other stormwater	MCCD	Countywide	2022-2024			\$70,000			received for infiltration basins in Blizzard Run
2.6Continue to work with MSP on stormwater MAP implementation including updementation including indexens, and buffersTownships, count planning, CP an MCCDValley valley2021-2025NoneStormwater designN/AEngineer to design MAP structuresNone8/A <td>2.5*</td> <td></td> <td>addresses stormwater runoff and model ordinance for</td> <td>townships, MCCD and</td> <td>Countywide</td> <td>2022-2024</td> <td>There is no funding available.</td> <td></td> <td>N/A</td> <td></td> <td>\$300,000</td> <td>7/2023 No funding available for updates</td>	2.5*		addresses stormwater runoff and model ordinance for	townships, MCCD and	Countywide	2022-2024	There is no funding available.		N/A		\$300,000	7/2023 No funding available for updates
2.7*Heard mitigation and floodplain managementLimit impacts of floodingTownships and county planning officeCountywideOngoingEnforcement and lack of nowledge of floodplainN/AKnowledge of floodplain1 millionreport on the progress of the progress of the mining office and the townships.2.8*Prevent dumping near streams and roadside ditches.Provide harsher provide harsher found dumping or iltering near streams and roadside ditches.Provide harsher provide harsher found dumping or iltering near streams and roadside ditches.Provide harsher provide harsher found dumping or iltering near streams and roadside ditches.Provide harsher provide harsher found dumping or iltering near streams and roadside ditches.Pastate Police, Montour CountyCountywide place2023 and beyondLack of time and resources to placeLiter laws in placeN/AKnowledge of the ordumping or stricterStricter punishments.Stricter punishmen	2.6	on stormwater BMP	runoff and assist townships with plan implementation including bio-retention areas, rain	planning, DEP and	township and Mahoning	2021-2025	None		N/A	design BMP	None	is worked with Valley Township to implement the
2.8Prevent dumping near streams and roadsideProvide harsher found dumping or initiative yet but A State Police, Montour CourtyPastate Police, Montour CourtyPountsProvide harsher and litteringProvide harsher streams and roadsideProvide harsher found dumping or initiative yet but beyondLack of time and resources to develop new laws with stricter punishments.Inter any streamsStricterStricter punishmentsStricter soon we hope to work with law enforcement and develop new laws with stricter punishments.Inter any streamsStricter punishments.Stricter punishmentsStricter punishments.Stricter <br< td=""><td>2.7*</td><td></td><td></td><td>county planning</td><td>Countywide</td><td>Ongoing</td><td>knowledge of floodplain</td><td>ordinance</td><td>N/A</td><td>floodplain</td><td></td><td>report on the progress of the Planning office and</td></br<>	2.7*			county planning	Countywide	Ongoing	knowledge of floodplain	ordinance	N/A	floodplain		report on the progress of the Planning office and
3.1Educate landowners on the importance and purpose of buffersInstall buffers in urban areas and educate landowners on the importance of buffersMCCDUrban Areas2022-2024Lack of interest among landowners in urban areasAgronomist, Biologist, BotanistNoneAgronomist, Biologist, BotanistAgronomist, Biologist, Biologist, BotanistAgronomist, Biologist, BotanistAgronomist, Biologist, BotanistAgronomist, Biologist, Biologist, BotanistAgronomist, Biologist, Biologist, Biologist, BotanistAgronomist, Biologist, 	2.8	streams and roadside	punishments for those found dumping or littering near streams and	Montour County	Countywide		develop new laws with		N/A	Punishments for dumping	\$500,000	not worked on this initiative yet but soon we hope to work with law enforcement and communities to try to reduce the amount of illegal dumping throughout
3.1Educate landowners on the importance and purpose of buffersInstall buffers in urban areas and educate landowners on the importance of buffersMCCDUrban Areas2022-2024Lack of interest among landowners in urban areasAgronomist, Biologist, BotanistNoneAgronomist, Biologist, BotanistAgronomist, Biologist, Biologist, BotanistAgronomist, Biologist, BotanistAgronomist, Biologist, BotanistAgronomist, Biologist, Biologist, BotanistAgronomist, Biologist, Biologist, Biologist, BotanistAgronomist, Biologist, 	Stormw	ater Priority Initiative	3: BMPs in Developed	and Urban Areas								
	3.1	importance and purpose of	areas and educate landowners on the	MCCD	Urban Areas	2022-2024		Biologist,	None	Biologist,	\$5,000 / Year	worked with landowners about buffers but We hope to have more public events and notifications about this topic in the

3.2	Develop a strategy to make buffers visually attractive to landowners by using pollinator mixes and flowering trees and shrubs	Develop appealing buffer designs and present them to landowners	MCCD, Private Sector	Urban Areas	2022-2024	Lack of public interest and knowledge of buffers	Buffer designs and education materials	None	Buffer designs and education materials	\$5,000/ Year	7/2023- We have provided landowners with a pollinator mix we to increase increase interest in buffers and habitat. We order trees and shrubs for free for landowners through the 10 Million Trees program.
3.3*	Develop an 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	None	Develop incentive program	\$50,000/ year	7/2023- We developed a pollinator program that provides landowners with seeds at no cost, an we have been using the Keystone 10 Million Trees Program, we just have to focus implementation more on buffers in the future.
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	None	Program developer	\$25,000 / year	7/2023- We have not had the chance to develop an ordinance or talk with the county about this.
3.5	Plant Buffers	Install buffers in urban areas	Private Sector	Urban Areas	2021-2025	Landowner willingness to participate	Agronomist, Biologist, Botanist	None	Planting, plans, and design developer	\$10,000/ year	7/2023- Landowner and farmers have been willing to plan meadows, buffer strips, and stream buffers. Urban Nutrient Management Plans have been created
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	None	Nutrient/ lawn specialist	TBD	7/2023- We have provided landowners who take place in the buffer program witi Urban Nutrient Management plans to help them monitor the nutrients on their lawns.
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	None	Botany and landscaping knowledge.	TBD	7/2023- We have looked into this ide: but have not implemented it yet we hope to use more conservation landscaping at our office to promote the idea to locals.
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	\$140,000 per year	Engineering and road resurfacing	\$50,000	7/2023- The program is successfully continuing to implement projects
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	N/A	Constant information through teaching and handouts	\$70,000	7/2023- Not enougl funding or time to organize this position.