

# Clinton County

## Clean Water Countywide Action Plan

September 2021

*A plan for reducing nutrients and sediment in Clinton County waterways.*





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## ACKNOWLEDGEMENTS

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THANK YOU TO THE PARTICIPANTS IN THE COUNTYWIDE ACTION PLAN.

### CLINTON COUNTY BOARD OF COMMISSIONERS

Miles Kessinger, Chairman  
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Angela Harding, Commissioner

### LEAD AGENCIES

Clinton County Conservation District  
Clinton County Planning Department

### CONSULTANTS

Denny Puko, Planning Consultant LLC  
Herbert, Rowland & Grubic, Inc.

### CORE WORK TEAM

Wade Jodun, Clinton County Conservation District  
Toby Boyer, Clinton County Conservation District  
Scott Koser, Clinton County Conservation District  
Katie de Silva, Clinton County Planning Department  
Gabe Caprio, Clinton County Planning Department  
Jared Dressler, PA Department of Environmental Protection  
Denny Puko, Planning Consultant  
Erin Letavic, Herbert, Rowland & Grubic, Inc.  
Steve Gibson, McTish, Kunkel and Associates

### COUNTYWIDE PLANNING TEAM

Lisa Blazure, Stroud Water Research Center, PA Soil Health Coalition  
John Blesh, Surveyor, Wayne Township Landfill  
Renee Carey, North Central Pennsylvania Conservancy  
John Clune, USGS Pennsylvania Water Science Center  
Bryan Conklin, Natural Resources Conservation Service  
Jason Detar, PA Fish and Boat Commission  
John Dotterer, Clinton County Planning Commission, Farmer  
Erin Frederick, Penn State Cooperative Extension  
Adrienne Gemberling, Chesapeake Conservancy  
Lin Greenaway, PA Department of Conservation and Natural Resources  
Jim Harbach, Schracks Farm Partnership  
Angela Harding, Clinton County Commissioner  
Dan Heggenstaller, Sugar Valley Watershed Association, Farmer  
Dr. Mohammad Kalequazeman, Lock Haven University  
Jeff Kreger, Sewage Enforcement Officer  
Elisabeth Lynch, Clinton County Cleanscapes  
Frank Rohrer, City of Lock Haven, Chesapeake Conservancy  
Gerald Seyler, Crawford Township Supervisor  
Tom Shervinskis, Retired PFBC, Clinton County Conservation District  
Justin Snook, Clinton County Farm Bureau, Farmer  
Richard Sodergren, Kettle Creek Watershed Association  
Paulette Trudell, Headwaters RC&D  
Jim Vaiana, First Quality

# CLINTON COUNTY CLEAN WATER COUNTYWIDE ACTION PLAN (CAP)

## SECTION ONE: NARRATIVE

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### PLAN HIGHLIGHTS

Clinton County was invited by the PA Department of Environmental Protection (DEP) to prepare an action plan to reduce pollution and improve the quality of waterways in the county. DEP sought Clinton County's involvement as part of larger efforts to reduce pollution entering the Chesapeake Bay into which Clinton County waters flow. Two lead agencies – Clinton County Conservation District and Clinton County Planning Department – worked with stakeholders from farming, conservation, industry, and government over a six-month period to prepare a Countywide Action Plan (CAP).

Clinton County has 89% natural areas, mostly forested, but it does have a productive agricultural sector and urban areas that generate nutrients and sediment, and it has a mining past that left 153 miles of streams impaired with acid mine drainage. Nutrient pollution is the particular concern for the Chesapeake Bay. DEP estimated that 3.3 million pounds of nitrogen and 179,000 pounds of phosphorus entered Clinton County waterways in 2019. DEP set a 2025 goal to reduce nitrogen by 727,000 pounds per year and phosphorus by 20,000 pounds per year.

Clinton County evaluated actions that could be taken within existing and reasonably available resources to reduce pollutants. There are opportunities. Many farmers are already using best management practices (BMPs) such as no-till and cover cropping, a significant amount of which may not be accounted for in watershed modeling data. With increased outreach and education, more farmers can be aided to use BMPs. County and municipal ordinances regulating development are ripe for updates. There are also challenges. Farmers already are burdened by regulations and hard pressed to do more. Funding is limited. Conservation groups lack “boots on the ground” to find and assist willing landowners, and not enough landowners are willing to install BMPs or even accept assistance.

In response, the Clinton County CAP proposes several priorities. One is to identify and get credit for existing BMPs and projects, agricultural and urban, that have gone unreported. Another is to seek additional resources to ramp up help to farmers to update conservation and manure management plans and implement BMPs like no-till farming, cover cropping, and riparian buffers. The emphasis is to promote more farm BMPs on a voluntary basis. Another priority is to update development regulations like the county subdivision and land development ordinance and municipal stormwater management ordinances, and to help municipalities be more effective and consistent in administering ordinances. These and other recommended actions are detailed in the next sections of the CAP.

## PROCESS

### Lead Agencies

The Clinton County Conservation District and the Clinton County Planning Department stepped up to serve as lead agencies for developing the CAP.

### Core Work Team

Principal work in developing the CAP was done by a Core Work Team consisting of staff of the Conservation District and Planning Department, project consulting team (Denny Puko, Planning Consultant, and Herbert, Rowland & Grubic, Inc.), a civil engineering consultant (McTish, Kunkel and Associates), and the DEP lead contact. The Core Work Team held five in-person work sessions and multiple other electronic interactions.

### Countywide Planning Team

Community and stakeholder input was provided by a Countywide Planning Team with 23 members representing farming, conservation, local governments, resource agencies, education, watershed associations, and businesses. The Countywide Planning Team held two virtual meetings, the first focusing on watershed conditions and goals, the second on options for BMPs and projects, and a third meeting, in-person, to provide input for the draft action plan.

### Work Sessions

Three action planning work sessions – one focusing on agriculture, one on urban/municipal issues, and one on conservation – were held to discuss BMPs and projects in detail. Work sessions were led by the Core Work Team. Participants included Countywide Planning Team members and other stakeholders.

## STATE GOALS

As part of its effort to reduce pollution to the Chesapeake Bay, the Commonwealth of Pennsylvania set goals for each county in the Bay watershed. The table below shows estimates for pollutants in 1985 and 2019 plus the 2025 state goals for Clinton County.

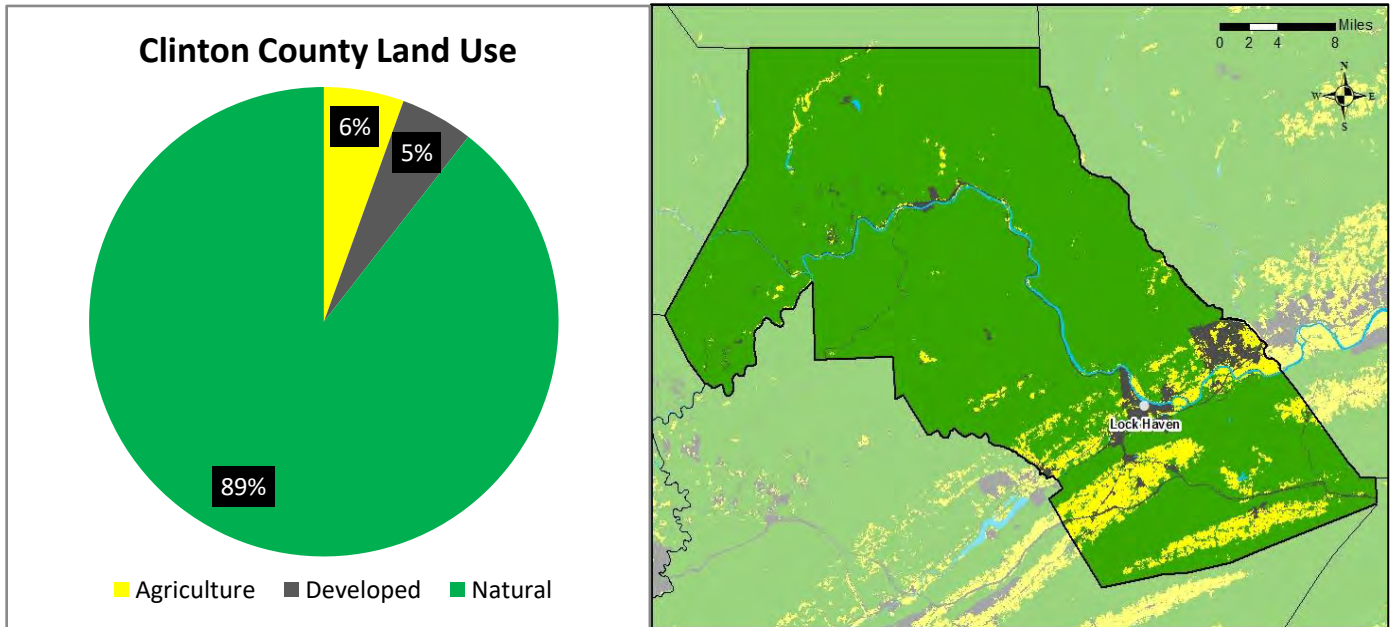
Year	Nitrogen (pounds/year) delivered to Clinton County waterways	Phosphorus (pounds/year) delivered to Clinton County waterways
1985	3,457,000	278,000
2019	3,292,000	179,000
2025 Goal	2,565,000	159,000
Targeted reduction	727,000	20,000

The Commonwealth proposes that a combination of state and local efforts is needed to achieve the above goals.

## KEY FINDINGS

Water quality is tied to land use.

- Only 11% of Clinton County land is used for agriculture and development, but these lands generate far more nutrients and sediment per acre than forested land.

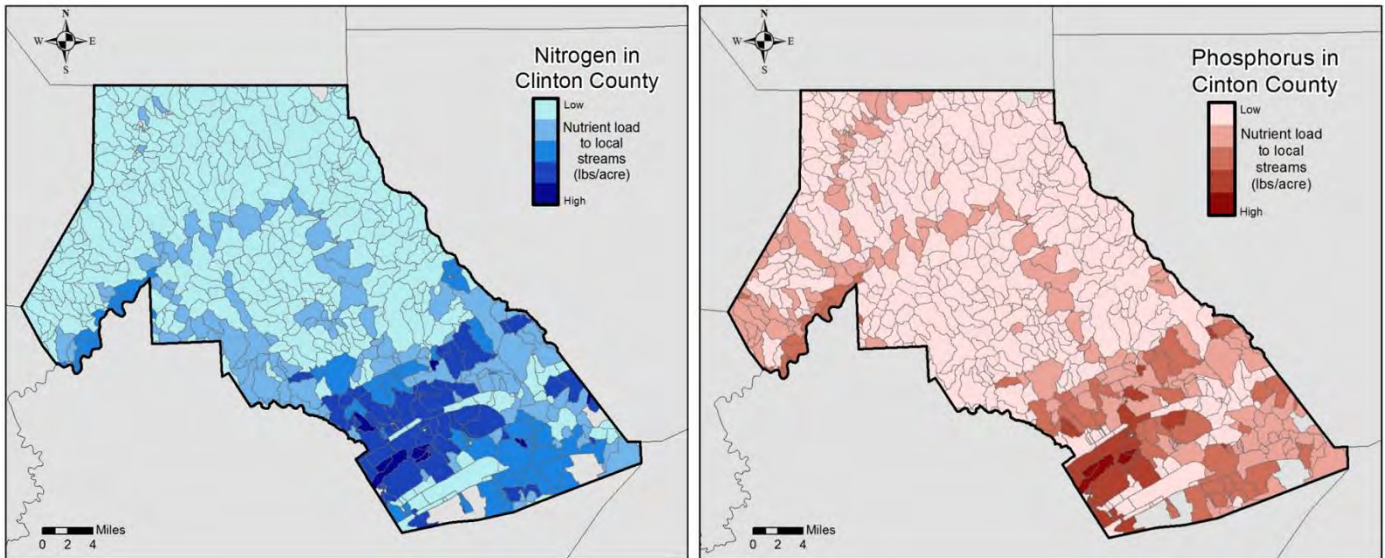


Source: PA Department of Environmental Protection, Clinton County Clean Water Technical Toolbox, October 2020

Agriculture and developed/urban lands are the primary “manageable” sources of nutrients and sediment in Clinton County streams.

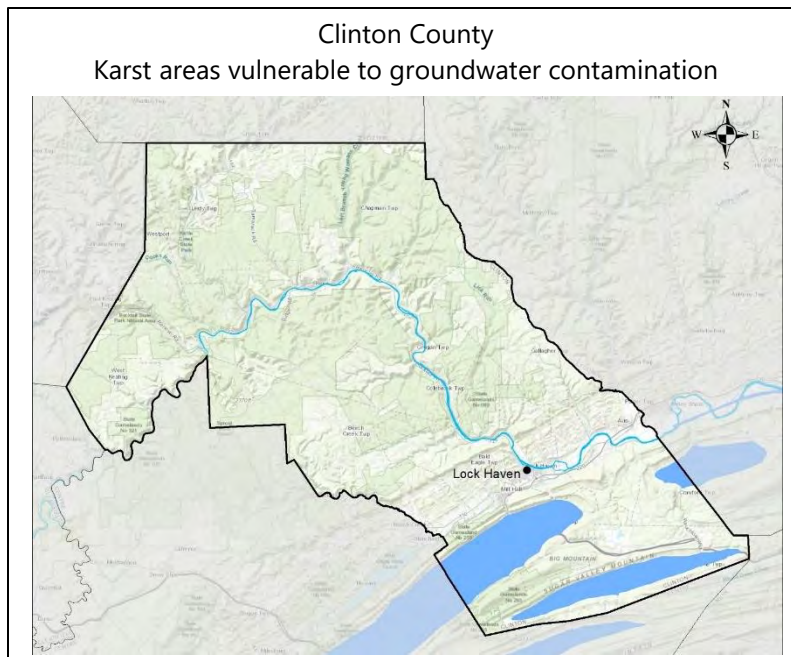
- On agricultural land, there is often a high application rate of fertilizer and manure. Most manure is applied from animal operations.
- Food processing residuals are a significant source of nutrients.
- Agriculture in the county is changing. More farms are producing vegetables and tobacco, which are not amendable to no-till farming, and more farmers are choosing to raise veal, which often results in hundreds of animals concentrated on small parcels, produces hundreds of thousands of gallons of liquid manure and necessitates the export of that manure to parcels across the County.
- On developed/urban land, a majority of nutrient load comes from turf grass and a majority of sediment load comes from impervious areas. Of particular concern are properties with large areas of maintained grass – parks, schools, and large institutional and business properties. Not to be overlooked are roads and bridges.
- There is a lack of data on the extent of non-farm fertilizer use, and it is believed that non-farm landowners overuse fertilizer.

The southeast region of the county stands out as a source of nutrients entering Clinton County streams.



Source: PA Department of Environmental Protection, Clinton County Clean Water Technical Toolbox, October 2020

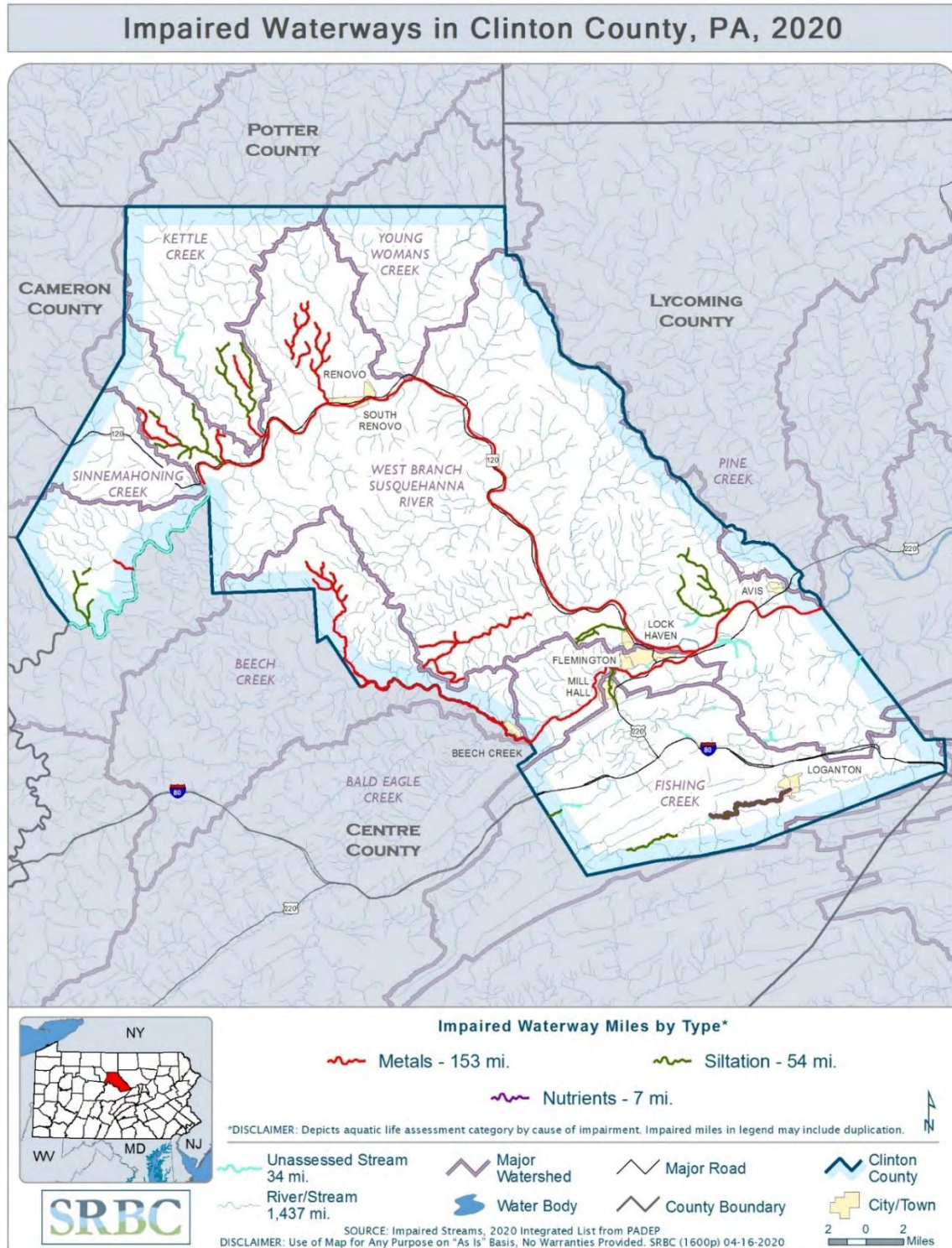
- Agriculture and developed/urban are the primary land uses in the southeast region.
- The watershed of Fishing Creek covers most of the region and its farms. Fishing Creek is a renowned trout fishery and an asset to a county whose heart and soul is hunting and fishing.
- Parts of the region are characterized by karst geology which subjects groundwater to greater chance of contamination from the application of manure and unchecked erosion.
- Many residents in rural areas of this region are solely dependent upon wells for drinking water.



Source: PA Department of Environmental Protection, Clinton County Clean Water Technical Toolbox, October 2020

Clinton County has 214 miles of streams identified as impaired.

- 7 miles of the Loganton Catchment of Fishing Creek are impaired by nutrients.
- 54 miles of streams are impaired by sediment.
- 153 miles of streams are impaired by acid mine drainage.



Source: PA Department of Environmental Protection, Clinton County Clean Water Technical Toolbox, October 2020



## OPPORTUNITIES FOR SUCCESS

There are opportunities for landowners and homeowners to undertake efforts known as BMPs – best management practices – to further reduce pollution to waterways and create a dramatic impact for good in Clinton County.

- Efforts of farmers, with help from local conservation agencies and groups, have led to many (an estimated 60%-70% of county farms) successfully implementing soil health practices such as no-till farming and cover cropping, with opportunities to promote more voluntary efforts.
- There could be more opportunities to plant additional riparian buffers, install stream fencing and crossings, and undertake meadow and pollinator plantings. However, additional resources will be required to undertake the outreach and education required to identify willing landowners.
- With a better evaluation of the transport of manure in Clinton County, there are opportunities to match manure needs with supplies. Particularly, there is an opportunity to move manure from ag areas for application to help reclaim lands degraded with acid mine drainage.
- There are active stakeholder groups in the county and region – government agencies, watershed associations, and other community, ag, and conservation nonprofits – that can assist in implementing BMPs.
- There are universities in and near the county – Lock Haven University and Penn State University – with programs and students that offer assistance.
- The Pennsylvania legislature is considering a bill (Senate Bill 251) to reduce the environmental impact of fertilizer applied to turf areas such as lawns, golf courses and athletic fields.

## CHALLENGES TO IMPLEMENTATION

Clinton County faces challenges to undertaking BMPs to further reduce pollution. Some are challenges most counties face and some are unique to Clinton County.

- BMPs come at a cost, and resources – funding, agency staff time, and volunteers – are limited.
- Farmers already are burdened by regulations and hard pressed to do more.
- For many of the remaining landowners that have not implemented BMPs, there is a lack of knowledge, interest, and willingness to do so.
- Many farmers still see installing BMPs such as riparian buffers as losing potential cropland.
- Clinton County has a large Plain sect population that resists participation in government programs.
- There is a lack of clarity and understanding of the extent to which existing BMPs are entered into the Chesapeake Bay watershed model which is relied upon to depict existing levels of pollution and to set goals for pollution reduction.
- The Clinton County Conservation District, one of the lead agencies in the CAP and the primary county agency assisting landowners with conservation practices, also has a regulatory role which in the public eye can overshadow its assistance role and make building partnerships with landowners challenging.

## CAP GOALS

The following are the overarching goals for the Clinton County CAP:

Identify and get credit for existing BMPs and projects not accounted for.

Ensure existing farms have implemented current conservation and manure management plans and have implemented the BMPs those plans require.

Increase voluntary use of BMPs including cover crops, no till farming, and riparian buffers and protections.

Update and promote more consistent and effective administration of county and municipal regulations for development, stormwater management, and floodplain management.

Improve communication and engagement.

- Get more groups to be active partners.
- Promote coordination and information sharing between groups active in BMPs.
- Identify willing landowners.
- Compile and promote available resources.
- Educate and promote best practices.

Work towards a common agenda for all involved agencies and groups.

Pursue priorities in the Clinton County Conservation District Strategic Plan.

- Encourage erosion and sedimentation control.
- Ensure nutrients are applied at the right amount, at the right time, and in the right place.
- Minimize and remedy negative impacts on water quality.
- Help meet nutrient pollution reduction goals to improve health of county waters and the Chesapeake Bay watershed.
- Provide environmental education programs and public outreach activities.

## SUMMARY OF PRIORITY BMPs AND PROJECTS

### Conservation

- Promote riparian BMPs – forest buffers, stream fencing, grassed waterways. Promote 3 forest buffer plantings in visible locations to promote education.
  - Lead agency: Multiple potential partners.
  - Possible funding: Multiple federal, state, and regional organizations.
- Promote new forest and meadowland. Create a pollinator/conservation-friendly certification program (or partner with PSU Extension’s Watershed Friendly Certified Property program). Promote conservation landscaping with homeowners, businesses, and public lands.
  - Lead agency: Conservation District with multiple partners.
  - Possible funding: DEP, DCNR, NRCS, PACD.
- Implement stream and wetland restoration projects. Estimated 6,000 linear feet of streams and 6 acres of wetlands.
  - Lead agency: Conservation District, NRCS, Trout Unlimited, other partners.
  - Possible funding: DEP, NRCS, others.
- Undertake and implement stream conservation and restoration plans. Fishing Creek/Bull Run watershed plan underway. Other plans for Beech Creek, Big Plum/Little Plum, Drury/Sandy Run, and Cooks Run.
  - Lead agency: Conservation District, Trout Unlimited, other partners.
  - Possible funding: DEP, DCNR, NRCS, NFWF, others.

### Urban and Municipal

- Create a multimunicipal agency to handle administration of development, stormwater, and floodplain regulations. 19+ municipalities have indicated interest.
  - Lead agency: County Planning.
  - Possible funding: DCED MAP and peer programs.
- Update county subdivision and land development ordinance. Include current best practices for development design and stormwater management.
  - Lead agency: County Planning.
  - Possible funding: DCED MAP.
- Update stormwater management planning. A short-term priority is creating a model stormwater management ordinance for use by municipalities. A longer-term objective is developing a countywide stormwater management plan.
  - Lead agency: County Planning with the Conservation District and municipalities.
  - Possible funding: DEP (though no funding available currently).
- Promote more consistent and effective administration of development, stormwater, and floodplain regulations. Provide training for local officials. Provide greater emphasis by county agencies on enforcement.
  - Lead agency: County Planning and Conservation District.
  - Possible funding: Municipal fees, other sponsors.
- Identify and capture unrecorded urban/development BMPs, particularly from NPDES permits since 2011.
  - Lead agency: County Planning.
  - Possible funding: Accomplish with existing staff.
- Improve technology capacity to aid BMP planning, implementation, and data management.
  - Lead agency: County Planning, County GIS

Agriculture

- Assist farmers and operators to update Agricultural Erosion and Sediment, Manure Management and Nutrient Management plans. Goal to update plans for 100 farms by 2025. Proposal to seek funding through a grant for a two-year program to provide 100% funding for plan updates.
  - Lead agency: Conservation District via two dedicated staff.
  - Possible funding: DEP, NRCS, SCC, PDA
- Continue promotion of no-till farming and cover cropping. Continue to offer no-till drill equipment. Initiate cover crop demonstration on lands with best potential for peer influence.
  - Lead agency: Conservation District. District has 2 no-till drills for rent.
  - Possible funding: DEP Growing Greener, PACD Adult Education
- Pilot project for manure transport to and application on AMD lands.
  - Lead agency: Conservation District and Trout Unlimited.
  - Possible funding: DEP Growing Greener, NRCS
- Capture current unreported BMPs. Implement a survey process to identify BMPs. Make entries into Practice Keeper. Additional temporary staff needed.
  - Lead agency: Conservation District via existing staff plus additional temporary staff.
  - Possible funding: DEP Growing Greener.
- Outreach and partnership building. Develop communication materials. Contact landowners.
  - Lead agency: Conservation District via temporary additional staff.
- Establish a real-time stream monitoring program. Deploy monitoring equipment to identify “hotspots” and priority areas for BMPs.
  - Lead agency: Conservation District with DEP, SRBC, EPA and USGS. Additional temporary District staff needed.
  - Possible funding: WPC mini-grant, PA American Water.

COST ESTIMATES

Below are estimates of costs *beyond existing staff and resources* needed to implement the CAP.

	New Staff Costs		Project Costs
	#FTEs	Total over 5 years	
Conservation BMPs & Projects	10.0	\$2,300,000	\$1,110,000
Urban and Municipal BMPs & Projects	0.5	\$25,000	\$35,000
Agriculture BMPs & Projects	5.3	\$759,750	\$2,798,000
TOTAL	15.8	\$3,084,750	\$3,943,000

Note: Costs have not yet been estimated for many Urban and Municipal BMPs and projects.

# CLINTON COUNTY CLEAN WATER COUNTYWIDE ACTION PLAN (CAP)

## SECTION TWO: PLANNING TEMPLATES

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Section Two provides details about priority BMPs, projects, and costs. Information includes specific activities, estimated results, lead and partner groups, resources available, and resources needed. Information is organized on standard planning templates provided by the PA Department of Environmental Protection (DEP).

There are separate planning templates for each of three groupings of BMPs and projects:

1. Conservation
2. Urban and Municipal
3. Agriculture

There is also a template for programmatic recommendations, i.e., recommendations for changes in state or federal programs, funding, or legislation which would aid CAP implementation.

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

**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			Review Checklist Comments
							Technical	Source	Financial	Source	Technical	Suggested Source	

**Priority Initiative 1: Conservation**

Actions in color print indicate additional results which could be generated if additional corresponding resources are provided.

1.1	Promote, Support, and Implement Riparian BMPs	<p>Promote Riparian Buffers in education and outreach initiatives</p> <p>Find 3 promotional Forest Buffer Plantings in visible locations to promote education of buffers – work with media for promotion</p> <p>Implement Forest Buffers (30 Acres)</p> <p>Implement Forest Buffers with Streamside Exclusion Fencing (20 Acres)</p> <p>Implement Grassed Waterways (20 Acres)</p> <p>Implement Grassed Waterways with Exclusion Fencing (8 Acres)</p> <p><b>NOTE: Numbers could be tripled if needed resources are funded</b></p>	<p>Army Corps of Engineers, PFBC, North Central PA Conservancy, NFWF, TU, NRCS, Chesapeake Conservancy, DCNR Bureau of Forestry, Clinton CD, PSU Turf Management Group, Amish Greenhouse</p>	<p>County-wide</p> <p>Fishing Creek and Nittany Valley Watershed</p> <p>West Branch of Susquehanna (Buffer opportunities)</p>	2022-2025	<p>Farmer resistance – seen as “loss of cropland”; failure of landowners to buy-in because aesthetics and access often valued more than clean water; far too often grants come with a “match” requirement; currently little or no coordination locally between NRCS and Conservation District; Current District workload limits opportunities. District would require a second watershed specialist and an engineer dedicated to this work full-time.</p> <p>Must have strong and continuous watershed association participation to include “boots-on-the-ground, door-knocking campaign” as well as stream walks to identify both willing landowners and potential sites.</p> <p>Flash grazing must be allowed with buffer installation</p> <p>The funding program (state grant) must include a 5-10-year maintenance program</p>	<p>District’s two (2) Agricultural Resource Conservationists and District Watershed Specialist for limited landowner outreach, educational support, mapping, and implementation</p>	<p>Clinton County CD,</p> <p>NRCS, DCNR, PSU Ext., Chesapeake Conservancy</p>	<p>Chesapeake Bay Technician Funding. Watershed Specialist funding.</p> <p>Sufficient funding to plant 5 acres of riparian buffer.</p>	<p>DEP</p> <p>Native Creations LLC</p>	<p><b>One additional watershed specialist, one engineer and one grant writer.</b></p>	<p><b>\$150,000 per year for 5 years (staffing)</b></p> <p><b>\$500,000 for trees, grass seed, fencing, annual maintenance</b></p>	<p>DEP Growing Greener, DCNR, PACD Chesapeake Conservancy, USDA Agricultural Stabilization and Conservation Service (ASCS), USDA-Soil Conservation Service (SCS), Pennsylvania Fish Commission, Pennsylvania Game Commission</p>
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						to establish buffers along with incentive program \$4K minimum per acre payment  Promote multifunctional buffers and the benefits of these buffers, work with watershed groups, neighbors and bishops to promote use of buffers									
1.2	Promote, Support, and Implement new forest and meadow-land	Promote the importance of trees and pollinators in education and outreach initiatives annually by conducting a pollinator workshop.  Create a certification program or partner with PSU Ext. to certify properties as pollinator/conservation friendly. Use this program to record acreages of lawn/turf to wood/meadow conversion  Work with commercial industries, public lands and homeowners to implement conservation landscaping  Convert 5 acres of turf/grass to forest  Convert 15 acres of turf/grass to meadow/pollinator habitat.  <b>NOTE: Numbers could be doubled or possibly tripled if identified resources needed are funded.</b>	Clinton County CD, NRCS, DCNR, PSU Ext., Lock Haven City Authority	County-wide  County property (Piper Building), golf courses, schools, LHU, McElhattan Industrial Park.	2022-2025	Failure of landowners to buy-in due to aesthetics and access often being valued more than clean water.  Far too often grants come with a “match” requirement;  Existing mowing and weed ordinances can be a challenge to implementation  Audubon Program for golf courses	District Watershed Specialist  Lock Haven City Authority	Clinton County CD  Location and funding	Watershed Specialist funding.  TBD	DEP  Lock Haven City Authority	<b>One full time grant writer.</b>		<b>\$40,000 per year for 5 years (staffing)</b>  <b>\$150,000 for 15 acres forest.</b>  <b>\$50,000 for perennial pollinator seed sufficient to seed 45 acres of pollinator habitat.</b>	DEP, DCNR, NRCS, PACD Chesapeake Conservancy, Growing Greener, DCNR, NPC	
1.3	Implement stream restoration projects	<b>Inventory/Install 6,000 linear feet of streambank restoration, floodplain connection, and bank stabilization</b>  Improve habitat for fish and species of special concern	Clinton CD, NRCS, NPC, PFBC, TU, KCWA, SVWA	County-wide  Stream Restoration (Queen’s Run, Kettle Creek, Fishing Creek)	2021-2025	Failure of landowners to buy-in due to aesthetics and access often being valued more than clean water.  Far too often grants come with a “match” requirement.  Streambank stabilization (which is a significant	District Watershed Specialist.	Clinton County CD	Watershed Specialist funding.	DEP	Landowner Outreach  Educational support  Design & Implementation	NRCS, TU, PFBC, USFWS, Chesapeake Conservancy	<b>\$350,000</b>  <b>NOTE: based upon two recent stabilization projects, cost per linear foot of streambank restored is</b>	DEP, NFWF, Foundation for PA Watersheds, CHP, DCNR, Pennsylvania Fish Commission.	

						source of erosion) does not receive credit in the Chesapeake Bay Model, recommended to revise crediting.  Must have strong and continuous watershed association participation to include “boots-on-the-ground, door-knocking campaign” as well as stream walks to identify both willing landowners and potential sites.					Grant Writing and Technical Assistance		<b>\$100 to \$120.</b> Expectation is significant economy of scale and lower mobilization and demobilization would be achieved with a number of larger-scale projects.		
1.4	Implement Wetland Restoration	<b>Identify/inventory/Implement wetlands on marginal ag lands, and other suitable sites (6 acres)</b>	NRCS, Clinton CD	County-wide	2021-2025	Landowner buy-in, staff time, funding.	District Watershed Specialist - Landowner Outreach and support.  Landowner Outreach; Educational support	Clinton County CD  NRCS	Watershed Specialist funding.	DEP	Engineering, wetlands delineation, design services	NRCS	\$60,000  <b>USDA pays up to 75 percent of the easement value and up to 75 percent of the restoration costs via Restoration Cost-Share Agreement.</b>	NRCS	
1.5	Fishing Creek/ Bull Run WIP	Create WIP for Fishing Creek/Bull Run Watershed	TU, Clinton CD, USGS	Fishing Creek/Bull Run Watershed	2022-2025	Grant funds have already been received.	District Watershed Specialist - Landowner Outreach and support.  Data collection and Final report	Clinton County CD  TU, USGS	Watershed Specialist funding.  319 grant \$96,000	DEP  TU					
1.6	Begin Implementation of Beech Creek	<b>Identify first steps needed to begin AMD remediation and stream restoration and formulate a cost for those steps (project scoping)</b>	Clinton County CD, TU, PFBC, BCWA, CHP	Beech Creek Watershed	2025+	Watershed association is currently inactive.	District Watershed Specialist - Landowner Outreach and support.	Clinton County CD,	Watershed Specialist funding.	DEP	<b>One additional watershed specialist, one engineer</b>		<b>\$150,000 per year for 5 years (staffing)</b>	DEP, DCNR, NRCS, PACD, NFWF, Foundation for PA	



	assessment /Restoration Plan	<p><b>Conduct a series (n=3) town hall events to help with the re-formation of the Beech Creek Watershed Association and to increase membership.</b></p> <p><b>Produce a series of informational brochures.</b></p>				<p>Funding: The total scope and scale of the project is expected to exceed \$10M.</p> <p>Landowner and stakeholder expectations (remediated in a short time frame).</p> <p>Current District staffing levels inadequate.</p>	<p>Technical assistance, potential funding, legislative outreach</p>	<p>WPCAMR, BAMR, SRBC.</p>			<p><b>and one grant writer.</b></p>			<p>Watersheds, CHP, EPCAMR</p>
1.7	Develop Big Plum and Little Plum Run Coldwater Conservation Plan	Develop plan and identify costs to restore Big and Little Plum Run (currently impaired by sediment).	Clinton County CD, Chesapeake Conservancy, CHP	Big and Little Plum Run Watershed	2025+	<p>No current Watershed association.</p> <p>Current District staffing levels inadequate.</p> <p>Significant technical expertise required.</p> <p>Although available resources and potential partners have been identified, a firm partnership has not coalesced to the point that any initiative exists for the project.</p>	<p>District Watershed Specialist - Landowner Outreach and support.</p> <p>Educational support; Water Quality Monitoring; Design &amp; Implementation</p>	<p>Clinton County CD</p> <p>Chesapeake Conservancy, CHP, TU, NRCS, DCNR</p>	<p>Watershed Specialist funding.</p>	DEP	<p><b>One full time grant writer.</b></p>	<p><b>\$40,000 per year for 5 years (staffing).</b></p>	<p>DEP, DCNR, NRCS, PACD, NFWF, Foundation for PA Watersheds, CHP</p>	
1.8	Develop Drury/Sandy Run Coldwater Conservation Plan	Develop plan and identify costs to restore Drury/Sandy Run (currently AMD impaired).	Clinton County CD, SRBC, CHP	Drury Run Watershed	2025+	<p>No current Watershed association.</p> <p>Current District staffing levels inadequate.</p> <p>Although available resources and potential partners have been identified, a firm partnership has not coalesced to the point that any initiative exists for the project.</p>	<p>District Watershed Specialist - Landowner Outreach and support.</p> <p>Grant Writing, Educational support, Water Quality Monitoring</p>	<p>Clinton County CD, SRBC, CHP, WPCAMR, BAMR, TU</p>	<p>Watershed Specialist funding.</p>	DEP	<p><b>One full time grant writer.</b></p>	<p><b>\$40,000 per year for 5 years (staffing).</b></p>	<p>DEP, NFWF, Foundation for PA Watersheds, CHP, WPCAMR</p>	

1.9	Develop Cooks Run Coldwater Heritage Plan	Develop plan and identify costs to restore Cook's Run (currently AMD impaired).	Clinton CD, PFBC, TU, PSU, DEP, SRBC, CHP	Cook's Run Watershed	2025+	No current Watershed association. Current District staffing levels inadequate.  Although available resources and potential partners have been identified, a firm partnership has not coalesced to the point that any initiative exists for the project.	District Watershed Specialist - Landowner Outreach and support.  Grant Writing, Educational support, Water Quality Monitoring	Clinton County CD.  PFBC, TU, PSU, DEP, SRBC, CHP, BAMR, WPCAMR, PSU, LHU	Watershed Specialist funding.	DEP	<b>One full time grant writer.</b>		<b>\$40,000 per year for 5 years (staffing).</b>	DEP, NFWF, Foundation for PA Watersheds, CHP, WPCAMR
1.10	Continue Dirt & Gravel/Low Volume Road Program	Continue working with local municipalities to address erosion and sediment management associated with poor drainage, undersized culverts, etc., on the County's 229 miles of dirt, gravel and low volume roads.  Undertake outreach/ education to each of the County's 6 remaining non-ESM-certified municipalities in hopes of getting them certified and, thereby, making DGLVR funding available to them.	Clinton County CD	County-wide	2022 - 2025	Repeated outreach attempts to non-ESM-certified municipalities have been unsuccessful.  Not all ESM-certified municipalities actively pursue funding.  A known reliable funding stream (DFGLVR) is available and has been secured for the foreseeable future.	Clinton County CD Roads Program Coord. Outreach and Technical Support	Clinton County CD; PSU Center for Dirt and Gravel Roads	\$225,000 annually	Clinton County CD, SCC.				
1.11	Enhance Capacity of watershed organizations and other conservation-based non-profits in the county	Continue to provide watershed support grants to watershed associations and focus those grants on "projects" that impact CAP.  Include organizations in on conservation work, monitoring, education/outreach, championing and demonstrating within their trusted communities  Project Showcases on digital media, CD newsletter, and television	SVWA, KCWA, Cleanscapes, Local TU Chapters	County-wide	2022-2025+	Watershed Association member recruitment is challenging.	Clinton County CD Watershed Specialist - Outreach and Education	Clinton County CD	\$6,000 annually	Clinton County CD				
<b>TOTAL COSTS BEYOND EXISTING STAFF AND RESOURCES NEEDED TO IMPLEMENT THE CAP</b>											<b>10 FTE Staff: \$2,300,000</b>		<b>Projects: \$1,110,000</b>	

**Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template – Clinton County**

**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			Review Checklist Comments		
							Technical	Source	Financial	Source	Technical	Suggested Source		Financial	Suggested Source
<b>Priority Initiative 2: Urban and Municipal Planning and Ordinances</b>															
<b>2.1A</b>	Create a multi-municipal planning/zoning agency for shared services. This entity would be staffed with trained providers of zoning, permitting, flood plain permitting, and stormwater plan reviews. Goal: Compliance of development with laws of the Commonwealth and present-day best practice.	Steps: Consultant-led feasibility analysis to identify how many municipalities will participate, what services will be provided and a funding structure; enter a multi-municipal agreement wherein municipalities turn over their zoning and permitting powers to this entity.	County Planning would coordinate and oversee startup. Each member municipality would retain oversight duties for operations within their municipality, perhaps via governing board.	19 or more municipalities might have interest.	2022-2025	Resistance to outside control of local development; multiplicity of local ordinances; loss of jobs for local zoning officers. Limitation of planning agency role to only recommend approval. Elected officials will still have decision making authority and could act independent of planning agency recommendation.	Research of models of other regional planning agencies; survey all county municipalities to gauge participation. Survey will be sent out in 2022.	County Planning	In-kind effort		Feasibility analysis; multi-municipal cooperative agreement; training for all involved parties; sustainability plan; consultant to guide the process	DCED Peer Program; DCED Municipal Assistance Program	Startup costs; ongoing operating costs; amounts need to be determined by feasibility analysis	DCED Municipal Assistance Program and municipal match for startup; fee structure for county and member municipalities for startup local share and ongoing costs	
<b>2.1B</b>	Update County Subdivision and Land Development Ordinance. Goal: Compliance of development to updated and improved stormwater BMPs.	Steps: Obtain a consultant to guide the update process, adopt the new ordinance and enforce it.	County Planning	15 municipalities covered under county ordinance	2021-2022	Lack of county funding	Research of other recent rural PA SALDOs; outreach and coordination	County Planning		Expertise for ordinance development	Consultant	\$30-35k for ordinance preparation	DCED Municipal Assistance Program, county 50% match		
<b>2.1C</b>	Prioritize Act 167 planning. Develop County Act 167 Stormwater Management Plan that includes updated information and modeling for every County watershed.	Steps: Seek funding to cover the cost of the full study of every county watershed. Conduct the studies, ensure compliance with the plans during stormwater reviews.	County Planning to lead the effort; Conservation District and municipalities to participate and provide guidance; engineers, solicitors, and	Countywide	2023-2025 (contingent on funding)	High cost and lack of funding. (DEP does not currently provide funding for Act 167 stormwater management plans.)  Educating municipalities and promoting their enactment of the model.	Institutional knowledge, capacity for outreach and coordination	Municipal staff, County Planning, Conservation District		Local planning coordination, expertise for plan development	County Planning, multi-municipal planning agency, Conservation District, Municipali-	Funding for plan development by consultant Municipal buy-in.	DEP Funding		

<p>Implementation required by Act 167 will result in each municipality having a current stormwater ordinance within 6 months of plan approval.</p> <p>Develop a model municipal stormwater ordinance for Clinton County that explicitly defines water quality goals, implementation requirements, buffer extents, and supports other initiatives in the County CAP.</p>		community stakeholders to provide input			Given greater challenges of going through the Act 167 Planning process first, a model SWM ordinance is a higher short-term priority.						ties, Consultant			
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**Permitting practices**

<b>2.2A</b>	<p>Training for local officials on stormwater and floodplain law, requirements, and proper procedures. Goals: Better trained permit officers; increased compliance of development with local and PA laws; greater consistency and accountability for review, inspections, enforcement, and reporting in development permitting</p>	<p>Steps: Design a training program and fact sheets; develop model admin policies and protocols; conduct a train the trainer program to establish a core of local trainers; deliver training</p>	<p>County Planning, multimunicipal agency to be created as per 2.1A, Conservation District, DEP</p>	Countywide	2022-2025	<p>Lack of local knowledge of stormwater and floodplain requirements. Need for training. Need to establish consistent admin protocols and policies. Lack of County Planning staff time to provide training</p>	<p>Capacity for outreach and coordination. Expertise and experience in some aspects of permitting</p>	<p>County Planning Conservation District</p>			<p>Assistance to design a training program; fact sheets; model policies</p>	<p>PA DCED, PA DEP, PMPEI, PSU Extension, consultant</p>	<p>Fees for training programs Funding for consultant help</p>	<p>Municipalities, other sponsors</p>	
<b>2.2B</b>	<p>Capture and get credit for unrecorded urban BMPs. Improve data collection efforts. Work with municipalities to record BMPs from NPDES permits.</p>	<p>Capture stormwater retrofits of redeveloped existing sites. 10% of existing impervious area since November 2011 has been considered meadow to retroactively capture additional stormwater.</p>	<p>County Planning could compile a list/Conservation District permits; municipalities; developers; engineers; DEP</p>	Countywide	2022-2023	<p>Lack of staff time. Note: NPDES Permits have Notice of Termination sealed by a PE that stormwater was constructed correctly. Some are recorded in the recorder's office.</p>	<p>Approved plans/CCCD/EFACTS; capacity for outreach and coordination; some technical expertise</p>	<p>County Planning, Conservation District</p>			<p>Inspections to verify installation (most have been inspected as requirement of permit termination).</p>	<p>Planning Office, Conservation District, DEP</p>			

	Work with oil and gas facilities to document BMPs.	Capture BMPs in new developments required by NPDES permits since 2011. Capture BMPs in oil and gas facilities required by NPDES. Explore new opportunities for BMPs.  150 new acres of stormwater performance standard – Runoff Reduction				Reverifying existing BMPs from older NPDES permits. Ensuring all are accurately recorded.  Local lack of understanding of data entry systems. Questions of reliability of data entry systems.					Training in data entry.			
<b>2.2C</b>	Emphasis on enforcement by county agencies of zoning, subdivision, floodplain, and stormwater regulations, resulting in increased compliance by development and increased use of BMPs	Make greater use of performance bonds allowable under SALDO to ensure compliance with approved plans; increase post-construction inspection of zoning permits and follow-through on enforcement actions; make sure all permits involving earth disturbance greater than 5000 sf have E&S plans reviewed by CCCD	County Planning Office, new multi-municipal zoning/permitting agency.	Countywide	2021-2025	Staffing	Existing expertise in admin and enforcement	County Planning, Conservation District			Increase of effort by reallocation of time or adding capacity; possible need for part-time inspector	County Planning, Conservation District		
<b>2.2D</b>	Address threats to forests from development including natural gas, utility and solar, and growing development of seasonal homes. Conservation of Forest Lands.	Adopt county zoning amendment covering utility scale and accessory scale solar. Consider other zoning amendments and admin measures.	County Planning Office, North Central PA Conservancy, Western Pennsylvania Conservancy, PA Wilds Planning Team			Solar farms are becoming more popular and are devastating standing forests, work to promote solar farms on brownfield locations.				CAP 106 NRCS, Forest Management Plans, DCNR Working Woodlands				
<b>Miscellaneous projects and BMPs</b>														
<b>2.3A</b>	Identify and promote implementation of various projects from the Clinton County Hazard Mitigation Plan.	Take part in the planning for the 2023 Hazard Mitigation Plan; Identify specific hazard mitigation projects for the plan's action items – for Planning Office to implement	County Planning, GIS, Emergency Services, Watershed Associations, Conservation		2021-2025	Lack of funding; lack of capacity of municipalities, agencies, and organizations to execute projects;	Capacity for outreach and coordination; expertise for various plans	County Planning; lead agencies for various plans			Planning, engineering, additional staff capacity to initiate project	Lead agencies' staff; consultants	Cost estimates from various plans or to be deter-	PEMA, FEMA, BRIC, DEP Growing Greener, PennVest, other

			District, TU, Municipalities								implement- tation		mined as needed		
<b>2.3B</b>	Encourage large-scale stormwater facility retrofits in problem areas. Upgraded facilities more effective at minimizing runoff and sedimentation.	As opportunities arise, work with re-developers to ensure stormwater facilities are adequately and properly built through SALDO enforcement.	County Planning, Conservation District, Municipal officials	Countywide, problem facilities identified by municipal officials	2023 – identify candidate sites  2024-2025 Work with municipalities on next steps	Feasibility, high cost, lack of funding, ownership/control of stormwater facilities	Capacity for outreach and coordination; some technical expertise	County Planning, Conservation District			Engineering to design retrofits and estimate costs	Consultants	Costs to be determined by further work	FEMA, PEMA, CDBG, Growing Greener, PennVest	
<b>2.3C</b>	Remove derelict buildings from flood plains	Identify and obtain access to target properties; identify funding sources; remove structures and implement riparian buffers  Blighted property removal resulting in 2 acres of impervious surface reduction.	County Planning, Conservation District, Municipalities, SEDA-COG, Clinton County EMA	Countywide, sites in FEMA-identified flood plain areas and in County Hazard Mitigation Plan	2022-2025	High cost, lack of funding, ownership/control of properties, potential environmental hazards	Capacity for outreach and coordination; some technical expertise	County Planning, Conservation District			Engineering/ environmental expertise for site evaluation and design	Consultants	Costs to be determined by further work	DCED, FEMA, PEMA, CDBG, Growing Greener, PennVest	
<b>2.3D</b>	Work with Water and Sewer Authorities to improve old infrastructure and degrading sewer lines	Improve degrading and leaking lines for wastewater facilities Encourage shared equipment and services among water and sewer system	County Planning, Water and Sewer Authorities	Countywide	2022-2025	Act 537 plans might have these improvements in them, but utilities might not be on track to address them or necessary rate structure might not be affordable for community. High cost of engineering.				County Entitlement CBDG, Competitive CBDG, EDA and ARC Funds					

**Technical**

<b>2.4</b>	Improve technology capacity to aid BMP planning, implementation and data management	Complete GIS analysis to identify priority areas for installation of BMPs with greatest net effect on nutrients. Upgrade capacity for inventorying and reporting of BMPs to	County Planning, GIS, Conservation District, Ag extension, DEP, Chesapeake conservancy, NRCS, Lock	Countywide  Initial priorities for stormwater outfall mapping are	2022-2025	Finding and integrating multiple sources of data	Existing data, GIS expertise	County Planning and GIS			0.5 FTE GIS Department employee	County GIS	\$25,000		
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		quantify pollution reductions. Map existing municipal stormwater outfalls to aid monitoring of water quality and illicit discharges.	Haven University	urban communities.																
<b>Administrative</b>																				
<b>2.5A</b>	Conduct fertilizer education for commercial landscape industry, homeowners, and large non-farm property owners. Goal: Reductions in nutrient runoff from improper and over application of fertilizer.	Support fertilizer legislation resulting in 300 acres of urban nutrient management.  Work with 3 golf courses to reduce fertilizer inputs.	Conservation District, County Planning, partner groups to be recruited, Penn State Extension	Focus on urban communities	2022-2025	Development of effective education, marketing, and communication; conventional outreach vs. digital and social media Partner with Williamsport on Education campaign	Expertise in fertilizer application	Conservation District, partner groups												Funding for preparation and dissemination of education
<b>2.5B</b>	Develop an education program to work with commercial businesses, public lands, and homeowners	Create "Keystone Demonstration Plots" to educate public on example BMPs  Install signs at urban stormwater inlets naming the destination of their stormwater.  Do demonstrations at popular businesses in the community	County Planning, Commercial Businesses, Penn State, DEP, PSU Extension, Clinton County Economic Partnership	Countywide	2022-2025	Willingness of the public to participate in educational opportunities  Use DEP fact sheets as produced														
<b>TOTAL COSTS BEYOND EXISTING STAFF AND RESOURCES NEEDED TO IMPLEMENT THE CAP</b>											0.5 FTE Staff:		Projects:							
(Note: Costs have not yet been estimated for many Urban and Municipal BMPs and projects.)											\$25,000		\$35,000							

## 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			Review Checklist Comments	
							Technical	Source	Financial	Source	Technical	Suggested Source		Financial
<b>Priority Initiative 3: Agriculture</b>														
Actions in color print indicate additional results which could be generated if additional corresponding resources are provided.														
3.1	Establish funding/staff to assist in data collection and accounting (i.e. Practice Keeper Entry)	Enter an average of 7 Nutrient Management Plans per year between 2022 and 2025. <b>Expected to result in the identification of 50 new acres riparian buffer, 1000 new acres of no-till and 2000 new acres of cover crops by end of 2025.</b>  <span style="color: purple;">Verify the existence of BMPs already reported in Practice Keeper and cross reference to required BMP re-verification / re-entry timelines</span>  <span style="color: purple;">Review 244 previously entered inspections encompassing 7,962.41 acres to determine if all BMPs from those inspections have been entered into Practice Keeper.</span>  <span style="color: purple;">Expected to result in 2,000 new acres of no-till, 2000 new acres of cover crops, 2000 new acres Core N and 2000 new acres Core P</span>	Clinton County CD	County-wide	2022-2025 and beyond	Ensures credit of already implemented BMPs.  Until 2014-2015, Ag erosion control and manure management plans were not entered into PK.  Private sector ag plans are only shared with the District during an inspection or complaint investigation.	District's two (2) Agricultural Resource Conservationists	Clinton County CD	Act 38 funding via State Conservation Commission  Chesapeake Bay Technician Funding via DEP	SCC, DEP	<span style="color: purple;">Temporary staff for database mining (1 FTE for 26 weeks) Intern</span>	<span style="color: purple;">\$22,000 for additional staffing.</span>		
3.2	Help farmers and operators to be in compliance with state planning requirements: updated and fully	<span style="color: purple;">Create a 4-year funding program to fund 100% of the funding for manure management plans to improve farming reporting.</span>	Clinton County CD, DEP, NRCS, private sector ag planners and consultants.	Loganton catchment and other priority areas.	2022-2025 and beyond	Aligns inspection work in areas (and on priority parcels) where funding for BMPs is known to exist for 2022-2025 with lower priority areas being addressed after 2025.	District's two (2) Agricultural Resource Conservationists	Clinton County CD	Chesapeake Bay Technician Funding via DEP	DEP, SCC	<span style="color: purple;">Funding for Ag Planners to provide plan writing and plan update services and</span>	Private Sector Ag Planners and consultants	<span style="color: purple;">\$12,500 per year for plan costs</span>	Chesapeake Bay Foundation, Growing Greener



	implemented Ag E&S, Manure and /or Nutrient Management Plans	<p>25 farm inspections per year (100 new entered into PK by 2025).</p> <p>Estimated to result in 50 new Ag E&amp;S plans and 50 new manure management plans entered into PK by 2025.</p> <p>Estimated to result in 1,000 acres / year being inspected between 2022 and 2025 (4,000 total acres).</p> <p>2000 new Core N acres. 2000 new Core P acres.</p> <p>NOTE: Number of inspections, plans and acres could be doubled with additional inspector</p>				<p>Second round of Bay inspections may turn up significant non-compliance with plans.</p> <p>Resistance from farmers to expend funds to update existing, outdated plans.</p> <p>Lack of Technical assistance to support agriculture planning and implementation.</p>				<p>spell out BMPs</p> <p>1 FTE per year for four years to help conduct inspections and specify BMPs</p>	<p>\$40,000 per year to increase inspection capacity</p>		
3.3	Implement a survey process for capturing current agricultural best management practices that are unreported and to re-verify the existence of plans prior to the implementation of Practice Keeper.	Wide scale survey to be completed by 2025	Clinton CD	County-wide	2022-2025 and beyond	<p>Farmer knowledge of the location and contents of their plans.</p> <p>Farmer resistance.</p> <p>We have heard from stakeholders that they feel they have answered surveys in the past and shared plans but are not certain what was done with the data.</p> <p>Ensures credit of already implemented BMPs.</p> <p>Potential time and resource limitations for plan entry.</p>	District's two (2) Agricultural Resource Conservationists	Chesapeake Bay Technician Funding via DEP	DEP	<p>Temporary staff 1 FTE for 26 weeks) for survey design, distribution and entry of data (BMPs) resulting from the survey.</p> <p>Survey Distribution (mailing costs)</p>	<p>\$9,750 for additional staffing plus \$2,000 for mailing.</p>	DEP Growing Greener	
3.4	Continue promotion of no-till farming practices and cover cropping.	<p>Continue to offer and promote no-till drill program.</p> <p>Incentivize the use of cover crops by initiating a "cover crop demonstration plot"</p>	Clinton CD	County-wide	2021-2025	<p>Neither DEP nor will Capital RC&amp;D will currently share what no-till and cover cropping is currently uploaded into PK nor will Capital RC&amp;D share transect</p>	Two (2) no-till drills (owned by District) and eight (8) farming	Chesapeake Bay Technician Funding via DEP		<p>Temporary staff (1 FTE for 16 weeks – 8 weeks in March and April and 8</p>	<p>\$12,000 per year staffing for 4 years.</p> <p>\$10,000 per year for the</p>	PACD Adult Education Non-Point Source Education Grant.	

		<p>initiative where Clinton County CD resources (no-till drill, seed, staff time) are used to seed 10 acres of non-cover cropped land in priority areas on the farms of potential peer-to-peer “influencers.”</p> <p><b>Increase conservation tillage by (100 acres per year)</b></p> <p><b>Increase cover cropping by (100 acres per year)</b></p> <p>By 2025, tillage and cover crop rates would be at follows: 10,000 acres per year high residue (4% increase from current), 3,400 acres conservation tillage (13% increase from current) 6,500 acres of traditional cover crops (7% from current).</p>				<p>survey routes. This results in significant duplication of effort by District staff, an additional burden on farmers and makes it impossible to effectively target outreach.</p> <p>Requires “seed” money to support / promote cover cropping and no-till demonstrations and initiatives.</p> <p>Encourage the private purchase of conservation equipment (no-till drills, manure injection equipment) and implementation of BMPs such as cover cropping, stream fencing, etc. by publicizing the much under-utilized REAP program.</p>	<p>demonstration lots. District currently rents no-till drills for 350 acres of no-till planting per year.</p> <p>District’s two (2) Agricultural Resource Conservationists</p>				<p>weeks in August and September) to deliver drill, promote program.</p>	<p>purchase of multi-species cover crop seeds that can be no-till planted using the District’s no-till drills.</p>	<p>Private Sector Donation / Sponsorship</p> <p>DEP Growing Greener</p>	
3.5	<p>Farmer Education:</p> <p>‘Promote and assist in implementation of Soil Health Practices/ BMPs in priority areas</p>	<p>Conduct a REAP workshop for local farmers to promote tax incentives for the purchase of conservation equipment and cover-cropping via the REAP program.</p> <p>Educate farmers on the private carbon credit market. This is a potential to find funding to implement BMPs.</p> <p>Conduct two (2) farm outreach town halls that include presentations from farmers currently utilizing cover cropping and no-till and include visits to farms where soil health practices have been adopted.</p>	<p>Clinton County CD, the Stroud Center, Penn State Extension, local farmers</p>	<p>Priority areas.</p>	<p>2022 and beyond (fall and winter of each year)</p>	<p>Encourage the purchase of conservation equipment (no-till drills, manure injection equipment) and implementation of BMPs such as cover cropping, stream fencing, etc. by publicizing the much under-utilized REAP program.</p> <p>Farmer resistance or buy-in.</p>	<p>District’s two (2) Agricultural Resource Conservationists</p>		<p>Chesapeake Bay Technician Funding via DEP</p>			<p>\$4,000 per year</p>	<p>PACD Adult Education Non-Point Source Education Grant.</p> <p>Private Sector Donation / Sponsorship.</p>	

		Host / facilitate farm Decision-maker trips to showcase BMPs that work.												
3.6	Pilot Program to move Manure from ag communities to AMD lands	<p>Take excess manure and FPR and apply to degraded land on reclaimed AMD</p> <p>Provide nutrients to nutrient poor soils in hopes of encouraging native plant growth.</p> <p>Target these areas for re-forestation and the planting of pollinator habitat.</p> <p>Reduce nutrients in nutrient rich areas of the county such as Fishing Creek.</p>	Clinton County CD,	Manure will be going to Tangascootac Region	2021-2025	<p>Will need to locate certified manure hauler.</p> <p>Lack of identified funding</p> <p>Lack of staffing.</p>	Clinton CD, NRCS, BAMR				Short-term or temporary hire /manure hauling fees	<p>\$40,000 per year for an additional staff (1 FTE) person.</p> <p>\$60,000 per year to cover the cost of having a broker deliver the manure.</p>	NRCS, DEP GG, Private Foundation	
3.7	Agricultural Preservation	<p>Put 3 new farms into the ag preservation program between 2021 and 2025 <b>resulting in 200 acres of “preserved” land.</b></p> <p>With additional funding could place 9 farms into the ag preservation program between 2021 and 2025 resulting in 600 acres of “preserved” land.</p> <p><b>Document that the 2,625 acres of “preserved” land already enrolled in the Ag Preservation program are identified and have received proper credit in the Bay model.</b></p>	Clinton County Planning Office, Chief Clerk’s Office, Clinton County CD		2021-2025	<p>Lack of economic incentives; Insufficient resources for data collection, design, implementation and verification.</p> <p>Conservation District staffing and expertise shortfalls.</p>	Clinton County CD		Federal/State /local agency grants/ programs, private grants. Ag Land Preservation Board and Farm/Natural Land Trust			<p>\$5,000 in salary cost for County CD to absorb the duties of the Ag Preservation Program.</p> <p><b>Would need an estimated \$500,000 per year annually to meet current Ag Preservation Demand.</b></p>	Clinton County	
3.8	Outreach and Partnership Building	Identify messaging that is more effective with the agricultural community (e.g.	Clinton County CD, Watershed Associations,	Clinton County	Priority Areas	Large numbers of potential landowners to contact.					Term or temporary hire	\$40,000 per year for an additional outreach and		

		herd health, building legacy options for families, economics, retention of soil and nutrients, cost savings) to foster enhanced collaboration in BMP implementation.	local stakeholders.			Current staffing level is insufficient for rapid relationship building with numerous partners.  Funding for additional staff.  Plain Sect are traditionally nervous about govt funding.						partnership building staff (1 FTE) person.			
3.9	Establish a real-time stream monitoring program	Establish the ability to deploy real-time stream monitoring equipment that will establish local water quality trends, point out areas of impairment, identify hotspots and priority locations, and, therefore, point the way to areas where BMP implementation may pay the most dividends. In the future, this system should indicate/verify countywide progress toward WIP 3 goals.	Clinton County CD, DEP, EPA, SRBC & USGS, TU.	Clinton County	2023	Funding; Sustainability; Data storage and analysis.  DEP/EPA accept third party monitoring data and include in the Chesapeake Bay Model  Work with Chesapeake Conservancy to gather data from auto samplers	Technical expertise	USGS/ SRBC			County Technical/ Administrative Staff  Monitoring Equipment  SRBC/USGS contracting	Clinton County CD/USGS/ SRBC	Funding for a staff position (1 FTE); monitoring equipment; & SRBC/USGS contracts (\$450,000 for five years)	WPC mini-grant for WQ monitoring  PA American Water	
3.10	Provide data transparency for practitioners who use Practice Keeper and data transparency relating to DEP's annual Progress Run dataset development and data input.	Add DEP data inputs to Practice Keeper so that, spatially, Conservation District staff can see the plans and BMPs that are already in the system above and beyond those that they input in-house.	DEP	Statewide	2022 and beyond	Essential in maximizing use of available resources by minimizing redundancy and duplication of effort.					More dedicated staff to assist coordination and implementation of CAP/ WIP 3	Dedicated DEP WIP Implementation staff to lead integrated efforts.		DEP	
<b>TOTAL COSTS BEYOND EXISTING STAFF AND RESOURCES NEEDED TO IMPLEMENT THE CAP</b>											<b>5.3 FTE Staff: \$759,750</b>		<b>Projects: \$2,798,000</b>		

## Phase 3 Watershed Implementation Plan (WIP) Programmatic Recommendations Template

Action #	Description	Performance Target(s)	Expected Timeline	Potential Implementation Challenges	Potential Recommendations on Improvement	Resources Needed				Review Checklist Comments
						Technical	Suggested Source	Financial	Suggested Source	
<b>Programmatic Recommendations</b>										
1.1	Restore DEP funding for Act 167 stormwater management plans	Will enable Clinton County to complete a countywide stormwater management plan and implement current, effective ordinances in all municipalities	2023-2025							
1.2	Align state and federal permit parameters to water quality goals	If a municipality is asked to submit the same information for each plan (102, 537, etc), they should not need to duplicate efforts like hiring engineers twice or reformulate the data each time. Various DEP and EPA strategies are presently not aligned and improvements are not accounted for across programs								
1.3	Align state project funding criteria with adopted policy and planning goals	Will ensure consistency and coordination between state agencies and ensure CAP implementation projects receive state funding priority	2022-2025							
1.4	Enact a law increasing oversight on residential and commercial fertilizer applications	Support passage of SB 251	2021-2022							
1.5	Create a DEP Capability Enhancement Program for Small Community Sewer Systems	Replicate the Capability Enhancement Program for Drinking Water	2022-2025							
1.6	Share no-till and cover cropping BMP data with Conservation Districts	Ensure DEP and RC&Ds will share what no-till and cover cropping data is currently uploaded into Practice Keeper. Ensure RC&Ds share transect survey routes. This will eliminate significant duplication of effort by Conservation District staff and additional burden on farmers.	2022							
1.7	DEP/EPA acceptance of third party monitoring data for the Chesapeake Bay Model	Alter policies to more readily allow input of data from a local stream monitoring station into CAST.	2022-2025							
1.8	Provide data transparency for practitioners who use Practice Keeper and data transparency relating to DEP's annual Progress Run dataset development and data input.	Add DEP data inputs to Practice Keeper so that, spatially, Conservation District staff can see the plans and BMPs that are already in the system above and beyond those that they input in-house.	2022							
1.9	Reduce or eliminate landowner match requirements	Establish as funding program policies for projects implementing the Chesapeake Bay WIP and county CAPs.								
2.0	Establish credit for streambank stabilization in Chesapeake Bay Model.	Streambank stabilization (which is a significant source of erosion) does not receive credit in the Chesapeake Bay Model, recommended to revise crediting.								