

YORK COUNTY

Countywide Clean Water Action Plan Overview

January 2019

PLAN HIGHLIGHTS

The York County Clean Water Action Plan identifies three Priority Initiatives for York County to make progress improving water quality as it relates to Chesapeake Bay TMDL goals. Within each Priority Initiative are clear Actions that must be implemented for York County to meet the goal of reducing Nitrogen loading by 4 million pounds from our streams and waterways. This would reduce our current estimated loading from 11.9 million pounds to 7.9 million pounds. York County has met its Phosphorous reduction goal, and there is not a Bay goal for Sediment, so Nitrogen is the pollutant of concern and the focus of the Actions in this Plan.

As set forth on the Planning and Progress Template (Template 1), the three Priority Initiatives are *Programmatic Initiatives*, *Achieve Pollutant Reductions*, and *York County Conservation District (YCCD) Clean Water/Healthy Watersheds Program*. A brief description of these initiatives follows.

- *Programmatic Initiatives* identifies policy and funding Actions for York County to undertake in order to improve local water quality. In addition, there are Programmatic Initiatives that the State must undertake to achieve water quality improvement and enable the success of the countywide efforts. The State Actions are on a separate *State Programmatic Recommendations* template.
- *Achieve Pollutant Reductions* lists Actions for implementation through existing MS4 permittees and environmental entities. It also lists concrete Actions for the agricultural community to implement. Both categories of Actions rely on partnerships with municipalities; agricultural landowners and suppliers; federal, state, and local agencies; the York County Stormwater Consortium; Master Watershed Stewards; the Susquehanna Riverkeeper; and others.
- *York County Conservation District (YCCD)* identifies Actions for implementation through existing programs administered by the YCCD.

York County applauds PA DEP for taking a new approach compared to previous WIP efforts. The emphasis in the development of this Plan has been on local buy in and partnerships at all levels, including local, state, and federal agencies. Through this approach, we have seen community awareness of local water quality grow. York County still has far to go, but with continued multi-level support and resources, we have the best chance to date of achieving the goal.

KEY FINDINGS

Key findings from the development of this Plan include:

- York County agencies and key stakeholders understand their role within the Chesapeake Bay Watershed and the need to improve local water quality. However, that message isn't widely known or understood in the broader community. Simple and consistent messaging

from federal and state agencies about the problem, the PA approach to address the problem/reach the goal, and the penalties or backstops if we don't achieve the goal would help broaden the understanding of the importance of the Plan.

- The people and agencies involved in developing the Plan appreciated the “bottom up” approach that PA DEP initiated. It helped broaden the message and develop buy in for implementation. There is a desire to have a similar approach used when developing other water quality efforts, such as MS4 permit regulations and agricultural compliance.
- There is a desire for a more holistic approach to improve water quality in general, and to achieve the Chesapeake Bay goals in specific. A more holistic approach would require programmatic changes at all levels and would include: ongoing cooperation and support to maintain partnerships at all levels of government, streamlined permitting for water quality improvement projects within the Bay watershed, consistent enforcement for compliance, recognition of successful efforts, and funding, always funding.

OPPORTUNITIES FOR SUCCESS

York County has several active water quality groups in place that will be key to helping achieve some level of success toward our Nitrogen reduction goal. The York County Coalition for Clean Waters developed the first York County WIP. Thus, they were engaged to develop this Plan as well. The Coalition is an established stakeholder group with representation from various municipalities, the York County Conservation District, the York County Planning Commission, Master Watershed Stewards, the Susquehanna Riverkeeper, the York County Farm Bureau, sanitary treatment plant operators, and others. This Coalition will be a key to implementing the Plan and communicating awareness of its success.

The York County Stormwater Consortium is another established group comprised of municipalities working to implement the York County Regional Chesapeake Bay Pollutant Reduction Plan (CBPRP). The municipalities work together through an intergovernmental cooperation agreement to manage, fund, and implement the Regional CBPRP stormwater BMP projects. They will also be a key group to implementing the Clean Water Action Plan.

The YCCD administers various programs that focus on projects to improve water quality. The District also has a strong working relationship with the agricultural community, which will be important in promoting the implementation of water quality best practices by farmers.

CHALLENGES TO IMPLEMENTATION

As an implementation effort of the Phase II PA WIP, the York County Coalition for Clean Waters developed a County WIP. This first York County WIP relied on voluntary implementation efforts to achieve the goals. Through that effort, we learned that voluntary efforts are not enough, and that lesson carries over into this Plan. This Plan will not be successful if we rely solely on voluntary efforts. To achieve the goals, we will need a designated entity to coordinate, provide assistance, report progress, and assist with verification. This will require funding, staff, and technical resources.

One of our Programmatic Initiatives is the potential formation of a countywide stormwater authority. An authority could not only suffice for the “designated entity” mentioned above, but also provide a funding mechanism to implement the County Action Plan and likewise help the state meet its Phase III WIP. However, the challenge is educating and garnering the support of municipalities, the agricultural community, and the public. Without support, the County Commissioners may not take action to create an authority.

Through development of this Plan, it became evident that achieving compliance and monitoring for ongoing verification is drastically different between sectors. The MS4 permit provides a mechanism to determine compliance and on-going verification for the stormwater sector. The agricultural sector has requirements for Conservation or Ag. E&S Plans, but it is nearly impossible to quantify compliance at the local level. Cooperation and assistance from state and federal agencies is critical if we want to achieve compliance and perform ongoing monitoring and verification of agricultural accomplishments.

The biggest challenge, in our opinion, is implementation of the State Programmatic Recommendations. The recommended initiatives attempt to unify and integrate Pennsylvania’s regulatory agencies so that there is coordination and consistency in providing the technical assistance, support, funding, and direction needed for local efforts to be successful in achieving the Nitrogen reduction goal. It is important to note that these programmatic changes are actually the first steps toward achieving the recommendations in Pennsylvania’s State Water Plan and SRBC’s Comprehensive Plan....Integrated Water Resources Management (IWRM).



The York County Action Plan for Clean Water includes projects that will install riparian buffers and livestock stream crossings on farms to improve water quality.



The York County Action Plan for Clean Water includes stream restoration projects in both urban and agricultural areas. These projects include restoring the stream channel, installing riparian buffers, and reconnection to the floodplain when possible.

PLAN SUMMARY

The York County Clean Water Action Plan consists of four (4) parts: this Narrative, the State Programmatic Recommendations Template, the York County Planning and Progress Template, and the York County Detailed BMP Template. Summarized below are the Action items on the State Programmatic Recommendations and the York County Planning and Progress Templates.

State Programmatic Recommendations Template

This template only includes one priority initiative, which is Recommendations for State Programmatic Changes. The Actions listed are of utmost importance for implementation of the countywide actions and achievement of the Nitrogen reduction goal by 2025.

- Action 1.1 Establish an integrated planning program at DEP within the Chesapeake Bay or Planning office to spearhead implementation of the programmatic changes listed below.
- Action 1.2 Develop a method /model/template to capture and report non-permitted BMPs at the municipal level for credit in model/ permit.
- Action 1.3 Develop a method/model /template to capture and report non-manure nutrient management.
- Action 1.4 Develop a Standardized/Centralized system to collect and report all BMP data for credit in the Model, including O & M
- Action 1.5 Provide flexibility to combine MS4/ TMDL/WIP III requirements into a single Plan. Implement ONE plan in order to meet all requirements.
- Action 1.6 Develop a regulatory model that allows for meeting water quality goals under a results oriented program vs. the current performance based program.
- Action 1.7 Establish watershed permits to expedite/ simplify permitting process for similar BMP projects.
- Action 1.8 Enforce Act 167.
- Action 1.9 Create/establish incentives (positive-economic/water quality; negative-noncompliance penalties) for all stakeholders to comply with State law.
- Action 1.10 Utilize Bay Model to establish assigned MS4 Permit baseloads/reduction requirements/ BMP credits so as to eliminate the need for permittee calculations, justifications, and rationale.

York County Planning and Progress Template

This template includes three priority initiatives: Programmatic Changes, Achieve Pollutant Reductions, and York County Conservation District Clean Water/Healthy Watersheds Program. Below is a summary of these initiatives and accompanying Action items.

Priority Initiative 1 - Programmatic Changes

The York County Clean Water Action Plan identifies Programmatic changes for local agencies to implement. The projects and efforts to improve water quality in York County streams are not coordinated across watersheds, across agencies, or between the different water sectors as identified in the Chesapeake Bay program. Consequently, progress in and by York County is difficult to identify and quantify. The Actions identified in Priority Initiative 1 would create a coordinating entity that would identify priority locations for improvement, fund projects, and monitor water quality to identify and quantify improvement.

- Action 1.1 Form a Countywide Stormwater Authority in order to develop a sustainable, efficient, responsible County entity that can fund, administer, coordinate, and achieve Countywide water quality/flooding efforts on behalf of all County stakeholders including the agricultural community, municipalities, industrial/commercial entities, and residents.
- Action 1.2 Continue to implement the County Comprehensive Plan that calls for development/land use strategies that restore/preserve water resources.
- Action 1.3 Establish staffing/funding program that provides realistic resources to achieve agricultural planning and implementation obligations.
- Action 1.4 Establish a sustainable real time stream monitoring network Countywide that will establish local water quality trends, impairments, hotspots, and restoration BMP needs. In the future, this system should indicate/verify countywide progress toward WIP 3 goals.

Priority Initiative 2 - Achieve Pollutant Reductions

Priority Initiative 2 includes Actions proposed by municipalities that are MS4 permittees and are participating in the York County Stormwater Consortium to implement projects from the Regional Chesapeake Bay Pollutant Reduction Plan. It is important to note that while these projects have a dedicated funding source for implementation, that funding is not sufficient to implement the full array of projects. Participating municipalities are seeking additional funds, such as grants, to carry out projects. Additionally, many of these projects focus on maximizing sediment reduction (local waterways goal)' while the York County goal for the Phase 3 WIP is Nitrogen reduction (Chesapeake Bay goal). There are also numerous Actions listed for agricultural projects, which provide greater reductions in Nitrogen, but do not have a dedicated funding source identified or property owner approval for implementation. Both categories of Actions need dedicated staff to manage the projects through implementation and on-going verification.

- Action 2.1 Establish a set of BMPs that will achieve desired pollutant reductions in an efficient and cost effective manner (see BMP template)

- Action 2.2 Encourage and provide support to municipalities to incorporate green infrastructure (GI) and Low Impact Development (LDI) into land use ordinances
- Action 2.3 Support local and County initiatives for pollutant reducing activities
- Action 2.4 Develop/advertise a performance-based RFP seeking bids to site, design, install, operate, and maintain BMPs to reduce a specified amount of sediment to meet PRP goals and shortfall of WIP 3 nitrogen goals in the County.
- Action 2.5 Tree Planting - Canopy
- Action 2.6 Bio swale
- Action 2.7 Forest Buffer
- Action 2.8 Wetland Restoration
- Action 2.9 Infiltration Basin
- Action 2.10 Bio retention/ Raingardens
- Action 2.11 Stormwater Performance Standard- Stormwater Treatment
- Action 2.12 Stormwater Performance Standard - Runoff Reduction
- Action 2.13 Urban Stream Restoration
- Action 2.14 Nutrient Management Plan (urban)
- Action 2.15 Land Retirement to Ag Open Space
- Action 2.16 Nutrient Management Core N
- Action 2.17 Nutrient Management Core P
- Action 2.18 Nutrient Management N Rate
- Action 2.19 Nutrient Management N Timing
- Action 2.20 Tillage Management- High Residue
- Action 2.21 Tillage Management-Conservation
- Action 2.22 Cover Crops Traditional
- Action 2.23 Animal Waste Management System
- Action 2.24 Barnyard Runoff Control
- Action 2.25 Precision Intensive Rotational/ Prescribed Grazing
- Action 2.26 Non-Urban Stream Restoration
- Action 2.27 Grass Buffer (ag)
- Action 2.28 Forest Buffer (ag)
- Action 2.29 Manure Incorporation
- Action 2.30 Off Stream Watering without fencing
- Action 2.31 Tree Planting
- Action 2.32 Soil Conservation and Water Quality Plans
- Action 2.33 Wetland Restoration – Floodplain (ag)

Priority Initiative 3 - York County Conservation District

Priority Initiative 3 includes Actions for implementation by the York County Conservation District (YCCD) through the Dirt and Gravel Road (DGR) and Low Volume Road (LVR) Programs to control erosion and sediment runoff. It also includes Actions that YCCD will implement with the Exelon settlement funding it administers. Although dedicated funding

sources exist, the existing funds provided for the DGR and LVR Programs need to be increased and/or other funding sources sought to achieve the full array of actions.

- Action 3.1 Erosion & Sediment Control Level 2
- Action 3.2 Dirt & Gravel Road (DGR) Erosion & Sediment Control-Driving Surface Aggregate + Raising the Roadbed [includes Low Volume Road (LVR) projects]
- Action 3.3 Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate with Outlets (includes LVR projects)
- Action 3.4 Dirt & Gravel Road Erosion & Sediment Control - Outlets only (includes LVR projects)
- Action 3.5 Forest Buffer
- Action 3.6 Forest Buffer-Streamside with Exclusion Fencing
- Action 3.7 Grass Buffer – Streamside with Exclusion Fencing
- Action 3.8 Forest Buffer – Narrow with Exclusion Fencing
- Action 3.9 Grass Buffer – Narrow with Exclusion Fencing
- Action 3.10 Grass Buffer
- Action 3.11 Grass Buffer- Narrow
- Action 3.12 Non-Urban Stream Restoration - Floodplain
- Action 3.13 Urban Stream Restoration
- Action 3.14 Wetland Restoration – Headwater
- Action 3.15 Wetland Restoration – Floodplain
- Action 3.16 Wetland Creation – Floodplain
- Action 3.17 Wetland Creation – Headwater
- Action 3.18 Wetland Enhancement

Phase 3 Watershed Implementation Plan (WIP) State Programmatic Recommendations Template (January 2019)

| Action # | Description | Performance Target(s) | Expected Timeline | Potential Implementation Challenges | Potential Recommendations on Improvement | Resources Needed | | | |
|--|--|--|-------------------|--|---|--|---|--|-----------------------------------|
| | | | | | | Technical | Suggested Source | Financial | Suggested Source |
| Programmatic Initiative 1: Recommendations for State Programmatic Changes | | | | | | | | | |
| 1.1 | Establish an integrated planning program at DEP within the Chesapeake Bay or Planning office to spearhead implementation of the programmatic changes listed below. | With the WIP 3 philosophy of local plans/effort to meet State requirements, this action is necessary to integrate water programs at the State level and make local efforts possible. | 2020 | <p>Development of staff consisting of state and local planners knowledgeable of integrated water resource planning.</p> <p>Costs associated with staffing, meeting, planning, either added planning department and/or expanding existing departments.</p> <p>Convincing regulatory/political agencies of the need/benefit for sound integrated planning/implementation.</p> <p>Having constant attendance by the same State/County staff due to complexity/specialized needs of integrating water issues/programs.</p> | <p>Dedicate a leadership entity within DEP to promote and implement collaboration, integrated water resource planning, and permitting changes that are important to the success of the PA WIP and County Action Plans.</p> <p>The collaborative planning team should contain at least a county planner (county level is the entity that has the big picture from local up to Federal level).</p> <p>Integrated planning means not only local/county/state collaboration...but also all DEP water related departments collaboration/participation.</p> <p>The financial resources spent to do prudent integrated water planning should actually be offset by increasing efficiency of water related initiatives, reducing redundancy, and providing stacked benefits</p> | Dedicated staff to lead coordination, planning and integrated water resources management efforts at least at the State and County/ municipal level | Dedicated DEP planning staff to lead integrated planning efforts. Staff from State Departments (Ag, DCNR, PennDOT, etc.) to participate in planning meetings. County staff dedicated for participation. | At least 2 dedicated Integrated planning staff at DEP and 1 at each County. Participation by other State departments \$6M | DEP/Dept Ag/DCNR general funding. |
| 1.2 | Develop a method /model/template to capture and report non-permitted BMPs at the municipal level for credit in model/ permit | Acceptable method to capture municipal SW BMPs not needing a Chapter 102 permit | 2023 | <p>Municipal resources, DEP resources, DEP involvement, will credit be worth effort?</p> <p>Limited municipal resources make added work difficult to achieve without added funding sources.</p> | <p>Any municipal stormwater ordinance requiring s/w management for development less than one acre is above and beyond the law. A standard system of tracking and reporting these BMPs is necessary to enable municipalities/PA to get pollution reduction credits.</p> | State/County/ Municipal staff | DEP/County planning and/or Conservation Districts to develop template and then Municipal staff to track/report. | Cost of added municipal staff work. | DEP |
| 1.3 | Develop a method/model /template to capture and report non-manure nutrient management | A method developed to encourage, perform, capture, and report the 4R program | 2023 | <p>Will require close coordination and cooperation between regulatory agencies, private fertilizer companies, & farmers to achieve statewide model.</p> <p>Requesting fertilizer companies to participate in a program that could potentially reduce sales.</p> | <p>Dept Ag/DEP /farmers to coordinate at State level with the fertilizer industry; State or Baywide system needed for consistency.</p> <p>Added pollutant reductions reported from work already being done.</p> | State ag/farming/ fertilizer industry experts | DEP/willing farmers/ fertilizer companies | Tracking/ reporting expenses not offset by increased production for farmer. | DEP/Dept Ag/DCNR general funding. |

Phase 3 Watershed Implementation Plan (WIP) State Programmatic Recommendations Template (January 2019)

| Action # | Description | Performance Target(s) | Expected Timeline | Potential Implementation Challenges | Potential Recommendations on Improvement | Resources Needed | | | |
|----------|--|---|-------------------|--|---|--|--|----------------------------|--|
| | | | | | | Technical | Suggested Source | Financial | Suggested Source |
| 1.4 | Develop a Standardized/ Centralized system to collect and report <u>all</u> BMP data for credit in the Model, including O & M | A standardized/ centralized data collection and reporting system | ASAP | Will need to address privacy concerns; may need changes to Right to Farm Act. | York Co online BMP reporting tool developed by the Chesapeake Conservancy or the Second Nature planning and reporting tool could potentially be modified for this purpose; York Co IWRP Flowchart Tool should also be explored. | State Ag staff/ Conservation districts/ County/ municipal planners /software experts | DEP/Dept. Ag/ Municipalities/ County staff | Software costs/staff costs | DEP/Dept Ag/DCNR general funding. |
| 1.5 | Provide flexibility to combine MS4/ TMDL/WIP III requirements into a single Plan. Implement <u>ONE</u> plan in order to meet <u>all</u> requirements | Elimination of WIP 3 sectors; Planning areas include entire jurisdiction; If countywide WIP 3 Plan is being implemented, it can be cited for MS4 Permit PRP/ TMDL Plan requirements | 2023 | EPA/DEP flexibility to allow MS4 Permittees to reduce required pollutants across entire jurisdiction; Present MS4 Permit reduces local effectiveness. May involve EPA flexibility/buy in. Requires collaboration/coordination/ involvement/ commitment by DEP/State departments/ counties/municipalities. Change in way of thinking/doing business. | Counties and municipalities need to be involved when developing MS4 Permits/ regulations PRIOR to and in addition to, public comment. Needs to be a partnership at all levels. | Included under Action #1.1 | Included under Action #1.1 | Included under Action #1.1 | DEP/Dept Ag/ DCNR general funding |
| 1.6 | Develop a regulatory model that allows for meeting water quality goals under a results oriented program vs. the current performance based program | Water Quality Monitoring system created that promotes a results oriented verification/ reporting/ permitting system; Water quality data dictates what needs to be done and where | 2025 | Permit changes that allow the use of water quality data to demonstrate permit compliance; Permitting Authority coordination with permittees to achieve flexibility. Change in philosophy. EPA buy-in. Delay in obtaining enough trend data to utilize for interpretation (not immediately useful). | Money savings in reporting/reviewing/assessing/ can be invested in expanded data base and enlarging real time sampling system Administrative savings for MS4s may provide incentives to fund such expanded water sampling resulting in stacked benefits for State, Federal, regional, and academic agencies. | Monitoring equipment, installation, monitoring, and O&M. Data interpretation, storage, and QC. | USGS/SRBC/ DEP/County | \$300,000 annually | DEP/general funds/grants/S RBC/York County |
| 1.7 | Establish watershed permits to expedite/ simplify permitting process for similar BMP projects | Establishment of a watershed permit | 2023 | Permitting Authority flexibility. Perceived reduced resource protection. | | Included under Action #1.1 | Included under Action #1.1 | Included under Action #1.1 | Included under Action #1.1 |

Phase 3 Watershed Implementation Plan (WIP) State Programmatic Recommendations Template (January 2019)

| Action # | Description | Performance Target(s) | Expected Timeline | Potential Implementation Challenges | Potential Recommendations on Improvement | Resources Needed | | | |
|----------|---|--|-------------------|---|--|---|------------------|---|-------------------------|
| | | | | | | Technical | Suggested Source | Financial | Suggested Source |
| 1.8 | Enforce Act 167 | All municipal SWM Ordinances consistent with County Stormwater Management Plan and being enforced. | 2025 | DEP staffing; Act 167 “consistent” criteria definition. | Act 167 plan development cost could be greatly reduced if York County’s Act 167 Plan & Flow Chart Tool was used as a model. Savings of plan preparation could then be directed to municipal staff to implement the plan, including tracking & reporting of BMPs. | 2 Act 167 enforcement staff | DEP | \$150,000 | DEP general fund |
| 1.9 | Create/establish incentives (positive-economic/water quality; negative-noncompliance penalties) for all stakeholders to comply with State law | Funding to implement BMPs and funding for regulatory agencies to meet responsibilities under established laws /regulations | ASAP | Political will; this includes county Storm Water Management (SWM) Plans and subsequent municipal SWM ordinances, which will result in development that addresses water quality. | Give municipalities in compliance with Act 167 credit/incentives toward MS4 Permit requirements. All municipalities that have land use authority should also have MS4 Permit requirements to address the impacts of that land use authority. | PA needs to adequately staff State agencies to carry out program responsibilities | DEP | Estimated cost to achieve PA’s WIP III obligation alone is \$380M | State Budget |
| 1.10 | Utilize Bay Model to establish assigned MS4 Permit baseloads/ reduction requirements/ BMP credits so as to eliminate the need for permittee calculations, justifications, and rationale | Permit assignment issued directly to permittees based on Bay Model so all Chesapeake Bay efforts are based on uniform criteria | 2023 | Change in philosophy. Bay Model may not be accurate/usable at municipal scale. Current MS4 permit identifies municipal level data but requires costly calculations. Various DEP/State programs attempt to manage/administer programs at differing scale which isolates these programs into “silos’ rather than working at the same scale in order to overlap/stack efficiencies of all programs (watershed scale...State Water Plan/Act 167, county scale...WIP III, municipal/partial municipal scale...MS4). | Utilize the resource developed for tracking/ improving/validating water quality for the Bay (CAST). Interpolate for the municipal level if need be for PLANNING purposes so that municipal money being spent on mapping, calculating, designing projects for PRPs can be utilized for BMP installment. | Existing CAST resources | EPA/DEP | No more than existing. | EPA/DEP/ municipalities |

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

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

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

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

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

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

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

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

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

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

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

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

Template 1. Phase 3 Watershed Implementation Plan (WIP) York County Planning and Progress Template (January 2019)

Green - action has been completed or is moving forward as planned **Yellow** - action has encountered minor obstacles **Red** - action has not been taken or has encountered a serious barrier

| Action # | Description | Performance Target(s) | Responsible Party(ies) and Partnerships | Geographic Location | Expected Timeline | Potential Implementation Challenges or Recommendations | Resources Available | | | Resources Needed | | | | |
|--|---|--|---|---------------------|------------------------------|---|--|-------------------------------------|---|---|--|--------------------------------------|---|--------------------------------------|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| Priority Initiative 1: Programmatic Initiatives | | | | | | | | | | | | | | |
| 1.1 | Potential formation of a Countywide Stormwater Authority | This effort could potentially establish an implementation and funding mechanism. | York County Commissioners | York County | 2019 – created 2021 - active | SWA Implementation Plan to be presented to Co Commissioners in early 2019; challenge is educating and garnering support of municipalities/ public | Would provide technical support staff to implement water quality initiatives across the County | Authority Staff | Grant for developing Implementation Plan; Grant for mapping SW assets | NFWF/USACE | As determined by Implementation Plan | As determined by Implementation Plan | As determined by Implementation Plan | As determined by Implementation Plan |
| 1.2 | Implement County Comprehensive Plan policies and actions | Development directed to established growth areas; limited development and protection of natural resources in established rural areas | YCPC, municipalities, YCALPB, FNLT | York County | Ongoing | Educating municipalities, Updating local plans and ordinances, Growth areas not consistent with Census Urbanized Areas (MS4 Permit area is too limited) | Education, outreach | YCPC staff | All YCPC Division Budgets | County Commissioners /CDBG Grant | None | None | None | None |
| 1.3 | Establish funding/staff support to assist the Agricultural community to develop and implement plans and BMP's to meet the York County Bay goals | Accomplish Action items 2.15 through 2.33 | YCPC, YCCD, Agricultural community | York County | 2019 - 2025 | No established statewide or county level system to track BMP reporting. Limited compliance activities by DEP. Lack of funding for staff to assist the ag community. | | YCCD,USDA-NRCS, Private Consultants | | State Planning Reimbursement Program, DEP and Dept Ag funds, federal funds to Districts. Local County funding for YCCD staff. | Experienced staff to assist ag operators to plan and implement BMPs; Staff to collect and report data. | YCCD | 12 staff from all sources (9 technical staff and 3 supporting administrative and data collection/verification staff (Total: \$1.2 m per year) | DEP, Dept Ag, Ag community |

Template 1. Phase 3 Watershed Implementation Plan (WIP) York County Planning and Progress Template (January 2019)

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| Action # | Description | Performance Target(s) | Responsible Party(ies) and Partnerships | Geographic Location | Expected Timeline | Potential Implementation Challenges or Recommendations | Resources Available | | | Resources Needed | | | | |
|--|---|---|---|---------------------|-------------------|---|--|--|---|--|---|---|---|--|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 1.4 | Establish a real-time stream monitoring program | Enough real-time monitors to obtain base data and be able to trend sediment and nutrients in 8 Act 167 watersheds | York County in partnership with YCCD, SRBC & USGS | York County | 2023 | Funding; Sustainability; Data storage and analysis | Technical experts | USGS/SRBC | In-Kind Services | York County | County Technical/Administrative Staff; Monitoring equipment; SRBC/USGS contracting | York County/USGS/SRBC | Funding for 2 staff persons; monitoring equipment; & SRBC/USGS contracts (\$5 million for 1 st five years) | York County/ grants/ Agency matching funds |
| Priority Initiative 2: Achieve Pollutant Reductions | | | | | | | | | | | | | | |
| 2.1 | Establish a set of BMPs that will achieve desired pollutant reductions in an efficient and cost effective manner (See BMP template) | Achieve required pollutant reductions | YCCD, YCPC, municipalities, DEP, EPA | York County | 2025 | “Sectors”/arbitrary boundaries within municipalities requiring differing/ competing regulations; lack of understanding of local issues by State/ Federal regulators AND vice versa; Permitting delays/protocol needs resolution; Need to implement programmatic changes in State template | Included under Action #1.1 on State template; Plus YCCD/ NRCS/private consultants for ag. technical assistance | Included under Action #1.1 on State template; Plus YCCD/ NRCS/ private consultants | Included under Action # 1.1 on State template | Included under Action #1.1 on State template | Included under Action #1.1 on State template; Plus more Ag. tech. staff funding for YCCD (3 staff) | Included under Action #1.1on State template; Plus DEP to fund additional YCCD staff | Included under Action #1.1 on State template; Plus additional \$250K annually for YCCD staff | DEP/Dept Ag/DCNR general funding |

Template 1. Phase 3 Watershed Implementation Plan (WIP) York County Planning and Progress Template (January 2019)

Green - action has been completed or is moving forward as planned **Yellow** - action has encountered minor obstacles **Red** - action has not been taken or has encountered a serious barrier

| Action # | Description | Performance Target(s) | Responsible Party(ies) and Partnerships | Geographic Location | Expected Timeline | Potential Implementation Challenges or Recommendations | Resources <u>Available</u> | | | Resources <u>Needed</u> | | | | |
|----------|---|--|--|-------------------------------|-------------------|--|--|---|--|---|---|---|---|---|
| | | | | | | | Technical | Source | Financial | Technical | Suggested Source | Financial | Suggested Source | |
| 2.2 | Encourage and provide support to municipalities to incorporate green infrastructure (GI) and Low Impact Development (LID) into land use ordinances | GI and LID provisions included in municipal land use ordinances | Municipalities/ YCPC/DEP | Municipalities in York County | 2023 | Lack of credit for municipal ordinance GI provisions in Chesapeake Bay (CB) Model | Education; Local ordinance samples, model ordinances, and CWP tool | YCPC/ municipalities /CWP | Funds to amend local ordinances | Municipalities | Included under Action # 1.1 on State template | Included under Action # 1.1 on State template | Included under Action # 1.1 on State template (1 dedicated integrated planning staff at county level) | DEP/Dept Ag/DCNR general funding |
| 2.3 | Support local and County initiatives for pollutant reducing activities | Report project BMP data for inclusion in Bay model. Credit using method developed under Action # 1.2 on State template | Master Watershed Stewards, Watershed organizations | York County | 2023 | Education/training of volunteers; Outreach to municipalities; Use of planning tools, such as York County BMP Reporting Tool, to obtain BMP data | Education, outreach, training | YCPC/YCCD/ PSCE/MWSs/ municipalities /watershed organizations | General budgets | YCPC/YCCD/ PSCE/MWSs/ municipalities/ watershed organizations | Included under Action #1.1 on State template | Included under Action #1.1 on State template | Included under Action #1.1 on State template (1 dedicated integrated planning staff at county level) | DEP/Dept Ag/ DCNR general funding |
| 2.4 | Develop/advertise a Performance-based RFP seeking private bids to site, design, permit, install, operate, and maintain BMPs to reduce a specified amount of sediment to meet PRP goals and shortfall of WIP 3 nitrogen goals in the County. | Bid awarded and projects completed per RFP proposal | YCSWC, DEP/EPA, private consultant, landowners | York Countywide | 2023 | This concept has been used for MS4 Permit sediment reductions; Consider this option for meeting Nitrogen reductions for WIP 3 efforts; Highly desirable, as consultant analysis to maximize efficiency/profits would guarantee best projects | Private consultants/ YCCD staff/ YCSWC members/ DEP staff | DEP/YCC4CW/ YCCD | Current limited staff funding, potentially YCSWC PRP funds | DEP/ YCCD/ YCSWC | Private consulting team to site, design, build, maintain BMPs; administrative staff to manage RFP /contract/ payments; Grant staff, DEP support staff | Private consulting firms with BMP and performance based RFP experience; Admin and grants by YCSWC or SWA (if created) | Sufficient money for consultants to make a profit and incentivize landowners to participate; Less money needed if current MS4 PRP money could be used to meet countywide Nitrogen reduction | Diverted YCSWC PRP money and/or State funding |

Template 1. Phase 3 Watershed Implementation Plan (WIP) York County Planning and Progress Template (January 2019)

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| Action # | Description | Performance Target(s) | Responsible Party(ies) and Partnerships | Geographic Location | Expected Timeline | Potential Implementation Challenges or Recommendations | Resources <u>Available</u> | | | | Resources <u>Needed</u> | | | |
|----------|------------------------|-----------------------|---|---------------------|-------------------|---|--|--|-----------------------------------|--|--|------------------|---|------------------|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.5 | Tree Planting - Canopy | 4.25 acres | YCSWC municipalities/ landowners/ watershed organizations | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Continue to fund grant programs | State/County /Municipal/ private staff/pubic agencies/ watershed organizations | DEP/York County/ municipalities /private consultants/ Alliance for CB/ CBF/ MWSs | \$2M per year through 2023/grants | YCSWC, Growing Greener/ Tree Vitalize/CBF | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.6 | Bioswale | 7.8 acres treated | YCSWC municipalities/ MWSs/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/ private staff | DEP/York County/ municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/DEP/ HM/Exelon/ YCCF grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |

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|----------|---------------------|-----------------------|---|---------------------|-------------------|---|---|---|-----------------------------------|--|--|------------------|---|------------------|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.7 | Forest Buffer | 98.2 acres | YCSWC municipalities/ landowners/ Watershed organizations/ MWSs/ Horn Farm Center | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/ public agencies/ private staff/ watershed organization s/ MWSs/ Horn Farm Center | DEP/York County/ municipalities /Chesapeake Conservancy/ CBF/Alliance for CB/ private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/ CBF/DEP/ DCNR/ Exelon grants | Local and State technical staff to identify/plan/ implement analyzed projects that most efficiently achieve goals. | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.8 | Wetland Restoration | 6 acres restored | YCSWC municipalities/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/ private staff | DEP/York County/ municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/ DEP/ DCNR/ Exelon grants | Local and State technical staff to identify/plan/ implement analyzed projects that most efficiently achieve goals. | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |

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|----------|---------------------------|-----------------------|---|---------------------|-------------------|---|--|---|-----------------------------------|--|---|------------|---|---------------|
| | | | | | | | Technical | Source | Financial | Technical | Suggested Source | Financial | Suggested Source | |
| 2.9 | Infiltration Basin | 32.4 acres | YCSWC municipalities/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/ private staff | DEP/York County/ municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/DEP/ HM/YCCF grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals. | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.10 | Bioretention/ Raingardens | 39.5 acres treated | YCSWC/ municipalities/ MWSs/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/ MWSs/ private staff/ volunteers | DEP/York County/PSCE/ municipalities /private consultants/ volunteers | \$2M per year through 2023/grants | YCSWC, Growing Greener/DEP/ HM/YCCF grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |

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|----------|---|-----------------------|---|---------------------|-------------------|---|---|--|-----------------------------------|---|--|------------|---|---------------|
| | | | | | | | Technical | Source | Financial | Technical | Suggested Source | Financial | Suggested Source | |
| 2.11 | Stormwater Performance Standard- Stormwater Treatment | 216.48 acres treated | YCSWC municipalities/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/private staff | DEP/York County/ Municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/ DEP/HM /YCCF grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.12 | Stormwater Performance Standard - Runoff Reduction | 0.34 acres treated | YCSWC/ municipalities/ landowners | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Continue to fund grant programs | Current State/County /Municipal/private staff | DEP/York County/ municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/YCCF grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |

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|----------|----------------------------------|-----------------------------|---|--|-------------------|--|---|--|--|---|--|---|---|---|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.13 | Urban Stream Restoration | 56,688 linear feet restored | YCSWC/ municipalities/ landowners/ watershed organizations/ PennDOT | Countywide | 2023 | Unanalyzed projects included in Regional PRP due to 9-month development deadline; MS4 PRP criteria mismatched with CB Model/WIP 3 goals; Permitting delays; Need for watershed permit; willing landowners, Continue to fund grant programs | Current State/County /Municipal/ private staff | DEP/York County/ municipalities /private consultants | \$2M per year through 2023/grants | YCSWC, Growing Greener/DEP/ DCNR/ DCED/ YCCF/ Exelon grants | Local and State technical staff to identify/ plan/ implement analyzed projects that most efficiently achieve goals | DEP/County | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.14 | Nutrient Management Plan (urban) | 50,000 acres | State legislation | Statewide, regulated and unregulated urban areas | 2025 | Failure to pass legislation | None, Program does not currently exist | None, Program does not currently exist | None, Program does not currently exist | None, Program does not currently exist | State technical staff to develop guidance and requirements related to credits in CB Model | DEP | Sufficient money to staff and support State/local coordination to achieve State and local water quality goals | State funding |
| 2.15 | Land Retirement to Ag Open Space | 1,500 acres retired | Landowners/ Operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; insufficient resources for data collection, design, implementation and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/ programs, private grants. Ag Land Preservation Board and Farm/Natural Land Trust | Federal/ State/ local agencies, private entities | 12 dedicated trained staff to educate, sell programs to farmers/ landowners, develop plans , and implement BMPs | Federal/State/local agencies. private consultants, conservation organizations | \$1.2M annually for dedicated staff (12 at \$100,000 each) | Federal, State, and local agency grants/ programs, customer |

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|----------|----------------------------|-----------------------|---|---------------------|-------------------|---|---|---|--|--|--|------------------------------|---|---|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.16 | Nutrient Management Core N | 185,000 acres | Landowners/operators, Federal/State/local agencies, Private consultants, fertilizer suppliers | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation and verification; need coordination with fertilizer reps; landowner participation | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action #2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customer |
| 2.17 | Nutrient Management Core P | 88,400 acres | Landowners/operators, Federal/State/local agencies, Private consultants, fertilizer suppliers | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification; need coordination with fertilizer reps; landowner participation | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action #2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.18 | Nutrient Management N Rate | 88,400 acres | Landowners/operators, Federal/State/local agencies, Private consultants, fertilizer suppliers | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation and verification; need coordination with fertilizer reps; landowner participation | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action #2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |

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|----------|---------------------------------|-----------------------|---|---------------------|-------------------|---|---|---|--|--|---|------------------------------|---|---|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.19 | Nutrient Management N Timing | 88,400 acres | Landowners/operators, Federal/State/local agencies, Private consultants, fertilizer suppliers | York County | 2025 | Lack of economic/regulatory incentives; resources for data collection, design, implementation, and verification; coordination with fertilizer reps; landowner participation | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.20 | Tillage Management-High Residue | 90,000 acres | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.21 | Tillage Management-Conservation | 35,000 acres | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.22 | Cover Crops Traditional | 55,000 acres planted | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |

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|----------|---|----------------------------|---|---------------------|-------------------|--|---|---|--|--|---|------------------------------|---|---|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.23 | Animal Waste Management System | 3,000 animal units | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.24 | Barnyard Runoff Control | 70 acres | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.25 | Precision Intensive Rotational/Prescribed Grazing | 16,000 acres | Landowners/operators, Federal/State/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |
| 2.26 | Non Urban Stream Restoration | 5,000 linear feet restored | Landowners/operators, Federal/State (DEP)/local agencies, Private consultants | York County | 2025 | Lack of economic/regulatory incentives; resources for data collection, design, implementation and verification; DEP permitting system delays/protocol needs resolution | Federal/State/local agency trained staff, private company trained staff | Federal/State/local agencies, private companies | Federal/State/local agency grants/programs, private grants | Federal/State/local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/programs, customers |

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|----------|----------------------|-----------------------|---|---------------------|-------------------|--|---|--|---|--|---|------------------------------|---|--|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.27 | Grass Buffer (ag) | 6,000 acres | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; Insufficient resources for data collection, design, Implementation, and verification; Develop simpler variation of CREP program | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State / local agency grants/ programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |
| 2.28 | Forest Buffer (ag) | 6,000 acres | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; Insufficient resources for data collection, design, implementation, and verification; Develop simpler variation of CREP program | Federal/ State /local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/ programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |
| 2.29 | Manure Incorporation | 10,000 acres | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; Insufficient resources for data collection, design, implementation, and verification | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/ programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |

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|----------|---|----------------------------------|---|---------------------|-------------------|--|---|--|--|---|---|------------------------------|---|--|
| | | | | | | | Technical | Source | Financial | Technical | Suggested Source | Financial | Suggested Source | |
| 2.30 | Off Stream Watering without fencing | 500 acres served | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/ programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |
| 2.31 | Tree Planting | 100 acres planted | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; insufficient resources for data collection, design, implementation, and verification | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/ programs, private grants | Federal/ State / local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |
| 2.32 | Soil Conservation and Water Quality Plans | 180,000 acres under conservation | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; insufficient resources for data collection, design, implementation, and verification; lack of regulatory oversight and follow through | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/ programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |

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|----------|---------------------------------------|-----------------------|---|---------------------|-------------------|--|---|--|---|--|---|------------------------------|---|--|
| | | | | | | | Technical | Source | Financial | Source | Technical | Suggested Source | Financial | Suggested Source |
| 2.33 | Wetland Restoration – Floodplain (ag) | 12 acres established | Landowners/ operators, Federal/State/ local agencies, Private consultants | York County | 2025 | Lack of economic/ regulatory incentives; insufficient resources for data collection, design, implementation, and verification; permitting delays/protocol needs resolution | Federal/ State/ local agency trained staff, private company trained staff | Federal/State /local agencies, private companies | Federal/State/ local agency grants/programs, private grants | Federal/ State/ local agencies, private entities | See Action # 2.15 for needs to implement Ag BMP Action #'s 2.15 thru 2.32 | Federal/State/local agencies | Included in \$1.2M annually for 12 dedicated staff from Action # 2.15 | Federal, State, and local agency grants/ programs, customers |

Priority Initiative 3: York County Conservation District

| | | | | | | | | | | | | | | |
|-----|--|--------------|------|------------|-----------|--------------------------|----------------------------|----------------------------|----------------------------|--|--------------|-----|--|-------------------------------|
| 3.1 | Erosion & Sediment Control Level 2 | 2,500 acres | YCCD | Countywide | 2019-2025 | DEP enforcement | 4 staff | YCCD | | DEP Del Agree & Permit Fees | Enforce-ment | DEP | | |
| 3.2 | Dirt & Gravel Road (DGR) Erosion & Sediment Control- Driving Surface Aggregate + Raising the Roadbed [includes Low Volume Road (LVR) projects] | 31,680 feet | YCCD | Countywide | 2019-2025 | Timely DEP GP-11 reviews | 1 staff | YCCD | \$623,801/yr | State Conservation Commission DGR & LVR Programs | | | Double State Conservation Commission LVR annual allocation | State Conservation Commission |
| 3.3 | Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate with Outlets (includes LVR projects) | 168,960 feet | YCCD | Countywide | 2019-2025 | Timely DEP GP-11 reviews | Included under Action #3.2 | Included under Action #3.2 | Included under Action #3.2 | Included under Action #3.2 | | | Included under Action #3.2 | Included under Action #3.2 |
| 3.4 | Dirt & Gravel Road Erosion & Sediment Control - Outlets only (includes LVR projects) | 31,680 feet | YCCD | Countywide | 2019-2025 | Timely DEP GP-11 reviews | Included under Action #3.2 | Included under Action #3.2 | Included under Action #3.2 | Included under Action #3.2 | | | Included under Action #3.2 | Included under Action #3.2 |

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

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

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

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

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

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

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

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

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

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

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

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

Template 2. Phase 3 Watershed Implementation Plan (WIP) York County Detailed BMP Entry Form (January 2019)

| <u>Action #</u> | <u>Sector</u> | <u>BMP Name</u> | <u>Units</u> | <u>Geographic Location</u> | <u>Amount</u> | <u>Cost</u> | <u>Total Cost</u> | <u>Notes</u> |
|-----------------|---------------|---|---------------|----------------------------|---------------|-------------|-------------------|--------------|
| 2.5 | Developed | Tree Planting - Canopy | Acres | York | 4.25 | \$ 107.78 | \$ 458.07 | |
| 2.6 | Developed | Bioswale | Acres Treated | York | 7.80 | \$ 865.95 | \$ 6,754.41 | |
| 2.7 | Developed | Forest Buffer | Acres | York | 98.20 | \$ 153.28 | \$ 15,052.10 | |
| 2.8 | Developed | Wetland Restoration | Acres | York | 6.00 | \$ 319.62 | \$ 1,917.72 | |
| 2.9 | Developed | Infiltration Basin | Acres Treated | York | 32.40 | \$ 1,093.35 | \$ 35,424.54 | |
| 2.1 | Developed | Bioretention/raingardens | Acres Treated | York | 39.50 | \$ 1,059.40 | \$ 41,846.30 | |
| 2.11 | Developed | Stormwater Performance Standard-Stormwater Treatment | Acres Treated | York | 216.48 | \$ 811.19 | \$ 175,606.41 | |
| 2.12 | Developed | Stormwater Performance Standard-Runoff Reduction | Acres Treated | York | 0.34 | \$ 1,584.68 | \$ 538.79 | |
| 2.13 | Developed | Urban Stream Restoration | Linear Feet | York | 56,688.00 | \$ 145.00 | \$ 8,219,760.00 | |
| 2.14 | Developed | Nutrient Management Plan | Acres | York | 50,000.00 | \$ - | \$ - | |
| | | | | | | | | |
| 2.15 | Agriculture | Land Retirement to Ag Open Space | Acres | York | 1,500.00 | \$ 168.87 | \$ 253,305.00 | |
| 2.16 | Agriculture | Nutrient Management Core N | Acres | York | 185,000.00 | \$ 16.62 | \$ 3,074,700.00 | |
| 2.17 | Agriculture | Nutrient Management Core P | Acres | York | 88,400.00 | \$ 24.91 | \$ 2,202,044.00 | |
| 2.18 | Agriculture | Nutrient Management N Rate | Acres | York | 88,400.00 | \$ 38.98 | \$ 3,445,832.00 | |
| 2.19 | Agriculture | Nutrient Management N Timing | Acres | York | 88,400.00 | \$ 33.74 | \$ 2,982,616.00 | |
| 2.20 | Agriculture | Tillage Management-High Residue | Acres | York | 90,000.00 | \$ - | \$ - | |
| 2.21 | Agriculture | Tillage Management-Conservation | Acres | York | 35,000.00 | \$ - | \$ - | |
| 2.22 | Agriculture | Cover Crop Traditional | Acres | York | 55,000.00 | \$ 33.33 | \$ 1,833,150.00 | |
| 2.23 | Animals | Animal Waste Management System | Animal Units | York | 3,000.00 | \$ 121.61 | \$ 364,830.00 | |
| 2.24 | Agriculture | Barnyard Runoff Control | Acres | York | 70.00 | \$ 567.46 | \$ 39,722.20 | |
| 2.25 | Agriculture | Precision Intensive Rotational/Prescribed Grazing | Acres | York | 16,000.00 | \$ 16.00 | \$ 256,000.00 | |
| 2.26 | Agriculture | Non Urban Stream Restoration | Linear Feet | York | 5,000.00 | \$ 5.10 | \$ 25,500.00 | |
| 2.27 | Agriculture | Grass Buffer | Acres | York | 6,000.00 | \$ 56.95 | \$ 341,700.00 | |
| 2.28 | Agriculture | Forest Buffer | Acres | York | 6,000.00 | \$ 153.28 | \$ 919,680.00 | |
| 2.29 | Agriculture | Manure Incorporation | Acres | York | 10,000.00 | \$ 17.34 | \$ 173,400.00 | |
| 2.30 | Agriculture | Off Stream Watering Without Fencing | Acres | York | 500.00 | \$ 29.53 | \$ 14,765.00 | |
| 2.31 | Agriculture | Tree Planting | Acres | York | 100.00 | \$ 115.18 | \$ 11,518.00 | |
| 2.32 | Agriculture | Soil Conservation and Water Quality Plans | Acres | York | 180,000.00 | \$ 1.94 | \$ 349,200.00 | |
| 2.33 | Agriculture | Wetland Restoration - Floodplain | Acres | York | 12.00 | \$ 96.58 | \$ 1,158.96 | |
| | | | | | | | | |
| 3.1 | Developed | Erosion and Sediment Control Level 2 | Acres | York | 2,500.00 | \$ 1,145.00 | \$ 2,862,500.00 | |
| 3.2 | Developed | Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate + Raising the Roadbed | Feet | York | 31,680.00 | \$ 0.83 | \$ 26,294.40 | |
| 3.3 | Developed | Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate with Outlets | Feet | York | 168,960.00 | \$ 0.83 | \$ 140,236.80 | |
| 3.4 | Developed | Dirt & Gravel Road Erosion & Sediment Control - Outlets only | Feet | York | 31,680.00 | \$ 0.83 | \$ 26,294.40 | |
| 3.5 | Agriculture | Forest Buffer | Acres | York | 20.00 | \$ 153.28 | \$ 3,065.60 | |
| 3.6 | Agriculture | Forest Buffer-Streamside with Exclusion Fencing | Acres | York | 2.50 | \$ 709.73 | \$ 1,774.33 | |
| 3.7 | Agriculture | Grass Buffer-Streamside with Exclusion Fencing | Acres | York | 5.00 | \$ 277.30 | \$ 1,386.50 | |
| 3.8 | Agriculture | Forest Buffer-Narrow with Exclusion Fencing | Acres | York | 2.50 | \$ 1,815.33 | \$ 4,538.33 | |
| 3.9 | Agriculture | Grass Buffer-Narrow with Exclusion Fencing | Acres | York | 5.00 | \$ 718.35 | \$ 3,591.75 | |
| 3.1 | Agriculture | Grass Buffer | Acres | York | 5.00 | \$ 56.95 | \$ 284.75 | |

Template 2. Phase 3 Watershed Implementation Plan (WIP) York County Detailed BMP Entry Form (January 2019)

| <u>Action #</u> | <u>Sector</u> | <u>BMP Name</u> | <u>Units</u> | <u>Geographic Location</u> | <u>Amount</u> | <u>Cost</u> | <u>Total Cost</u> | <u>Notes</u> |
|-----------------|---------------|----------------------------------|--------------|----------------------------|---------------|-------------|-------------------|--------------|
| 3.11 | Agriculture | Grass Buffer - Narrow | Acres | York | 5.00 | \$ 56.95 | \$ 284.75 | |
| 3.12 | Agriculture | Non Urban Stream Restoration | Linear Feet | York | 73,500.00 | \$ 5.10 | \$ 374,850.00 | |
| 3.13 | Developed | Urban Stream Restoration | Linear Feet | York | 7,000.00 | \$ 145.00 | \$ 1,015,000.00 | |
| 3.14 | Agriculture | Wetland Restoration - Headwater | Acres | York | 7.00 | \$ 319.62 | \$ 2,237.34 | |
| 3.15 | Agriculture | Wetland Restoration - Floodplain | Acres | York | 7.00 | \$ 96.58 | \$ 676.06 | |
| 3.16 | Agriculture | Wetland Creation - Floodplain | Acres | York | 7.00 | \$ 318.72 | \$ 2,231.04 | |
| 3.17 | Agriculture | Wetland Creation - Headwater | Acres | York | 7.00 | \$ 331.78 | \$ 2,322.46 | |
| 3.18 | Agriculture | Wetland Enhancement | Acres | York | 7.00 | \$ 161.98 | \$ 1,133.86 | |