### Priority Initiative 1: Reporting and Tracking

<table>
<thead>
<tr>
<th>Action #</th>
<th>Description</th>
<th>Performance Target(s)</th>
<th>Responsible Party(ies) and Partnerships</th>
<th>Geographic Location</th>
<th>Expected Timeline</th>
<th>Potential Implementation Challenges or Recommendations</th>
<th>Resources Available</th>
<th>Resources Needed</th>
<th>Progress to Date</th>
</tr>
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<tbody>
<tr>
<td>1.1</td>
<td>Initiate additional water quality monitoring sites that promote long-term trend evaluation at key locations in Adams County</td>
<td>Additional sites as needed to evaluate Adams County progress as well as progress for specific land uses or projects in the county</td>
<td>WAAC, USGS, DEP, USGS, Conservation District</td>
<td>Adams County</td>
<td>2025</td>
<td>Additional funding and coordination with USGS</td>
<td>Year 1 equipment cost/setting up East Berlin &amp; Bridgeport to collect N &amp; P</td>
<td>$190,000</td>
<td>$175,000/yr per site East Berlin &amp; Bridgeport</td>
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<td>Reached out to York County to discuss how they got nutrient monitoring accomplished in their County, York County Commissioners agreed to a cost sharing agreement with USGS</td>
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| 1.2      | Improve data collection on urban Chapter 102 provide more credit for non-structural practices. | | ACOPD, Conservation District, DEP, | Adams County | Ongoing | Long-term compliance. | | | | Some BMPs are being tracked when Conservation District receives Notice Of |}

**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
### Priority Initiative 2: Achieve Pollutant Reductions

<table>
<thead>
<tr>
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<th>BMP Implementation</th>
<th>Resource Base</th>
<th>Timeframe</th>
<th>Resource Details</th>
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<tbody>
<tr>
<td>2.1</td>
<td>Establish a set of BMPs that will achieve desired pollutant reductions in an efficient and cost-effective manner</td>
<td>ACOPD, Conservation District, NRCS, Municipalities, DEP, EPA, Stakeholders</td>
<td>Adams County</td>
<td>2025</td>
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**There are considerable resource limitations to implement BMPs as described throughout this template.**

- **Resources available for implementation of existing programs**
- **Resources available for implementation of proposed BMPs**
- **Substantial staffing and technical resources will be needed to fully implement the proposed BMPs**

- **Set of BMPs has been compiled into a technical appendix, which is being evaluated by the Conservation District Staff (See Attached)**
- **Prioritizing BMPs based on our resources and county needs.**
- **Working with private sector is being brought in to accomplish our goals.**
- **Buffers continue to be a priority, as does Advanced Nutrient Management**
| 2.2 | Identify key areas for installation of BMPs with greatest net effect on nutrients | Complete GIS analysis to identify priority areas. Support legislation as necessary to achieve reductions that make the most economic sense. | ACOPD, Conservation District, DEP, WAAC, ICPRB, SRBC | Adams County | 2025 | This information is needed to prioritize key areas. Landowner buy-in. | GIS expertise | Resources available for ongoing GIS analyses | Technical resources needed to complete GIS analysis | Funding needed for staff time and/or funding for external organization to conduct analysis | • Working with ICPRB to evaluate ground water/stream nutrient data to determine the heaviest loading areas to prioritize |
| 2.3 | Evaluate technologies to enhance BMP's | Identify additional technology or improvements to practices to enhance nutrient reductions | DEP, Penn State, NRCS, Conservation District | Adams County, Statewide | 2020/Ongoing | Utilize technology to process livestock manure for improved management and greater storage capacity, i.e., small capacity digesters. Landowner buy-in as well as funding remains a challenge. | * | * | * | * | • This has not yet been addressed |
| 2.4 | Conduct pilot studies to identify and/or confirm efficiency of practices. | Investigate opportunities to improve efficiency of BMP's | DEP, Penn State, NRCS, Conservation District | Adams County, Statewide | 2020/Ongoing | Financial and technical resources will be needed but will not be able to be specified until pilots are introduced Landowner participation will be crucial | * | * | * | * | • NRCS, Conservation District, and Penn State Extension are developing a program to test advanced nutrient management on field plots • NRCS identified that they may have funds available for this project • The collaborative group is in the process of gathering information from landowners. |
| 2.5 | Provide support for necessary legislation and regulatory changes. | Support legislation and regulatory changes that will allow the utilization of proven technology and ensure financial support to maintain operations that address specific pollutants, i.e. poultry manure, etc. | DEP and PA legislature | Statewide, Adams County | 2019/Ongoing | Support legislation and regulatory changes that will provide the ability to utilize proven technology to reduce pollutant levels. Specifically, support Senate Bill 799 establishing the PA Clean Water | * | * | * | * | • Again, Senate Bill 915 • Again, Need the bill to be passed in order to see benefits • Looking for other partners who can support legislation, working with Policy/Legislation Team, which will include local legislators |
Provide a framework for urban nutrient management that will establish requirements for the application of fertilizer for commercial operations (including golf courses) and homeowners.

Procurement Program committing funding to the purchase of long-term nutrient reduction credits.

Support SB 792 establishing requirements for urban nutrient management including planning for commercial operations (including golf courses) and homeowners regarding the application of fertilizer.

**Agricultural Sector**

| 2.6 General Challenges with BMP Implementation | Conservation District, NRCS, DEP, Army Corps, PDA, SCC, PAFB, FWS, PGC, NPS, landowners, Municipalities | Statewide | 2019 | Reduce administrative burdens of permits and current funding to better utilize our current resources: Simplify Chapter 105 permitting and create block grants for BMPs fixing existing resource concerns. Allow for MS4’s to install BMPs outside of their MS4 area (municipal cost savings but more load reduced). (1.5x rate?) | $150,000/yr |

- State
  - Permitting, specifically 105 is still a very time-consuming burden, Conservation District staff have reached out to chapter 105 program and taken members of 105, and Bay Office to tour sites. Multiple meetings have been held on this topic with little progress being made.
  - No funding for new ag techs
  - Verification Processes for many BMPs still unknown, but coordinator is working with DEP on this issue
  - MS4s now have a 1-mile buffer radius, a step in the right direction
  - CBF has offered a flexible buffer grant
  - Bay Office has offered block grants, and we have applied for funding through these grants
  - Continuing to have conversations with the bay office about 105 permitting
  - Partners in Adams County have applied for, and received buffer resources through Chesapeake Bay Foundation
<p>| Additional funding for technicians and BMPs needed to additionally increase current outputs |
| Allow flexible funding options to meet landowner’s needs |
| Confidentiality of agricultural operators/produce rs |
| Verification of BMPs: annual/periodic bmps and verification beyond installation would be difficult, time consuming, and require additional support. |
| Identify mechanism and party to verify BMPs. |
| Getting proper credit for current BMPs if there is value. |
| Include Orchard representation on State Ag Workgroup. |
| Need ability to implement BMPs |</p>
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<tr>
<th>2.7</th>
<th>Soil Health</th>
<th>on Nation Park Service property.</th>
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| 2.7 | High Residual Till - 55,000 acres annually  
Conservation Till - 13,000 acres annually  
Cover Crop - 30,000 acres annually  
Cover Crop w/Fall Nutrients – 10,000 acres annually  
Prescribed Grazing – 3,500 total acres  
Soil Conservation/Water Quality Plans – 103,000 acres annually  
Manure Incorporation – 10,000 acres annually | Conservation District, NRCS, RC&D, DEP, POA, SCC, Plan Writers, landowners and operators | Adams County | 2025 | Need dedicated source of funding for Cover Crops.  
Mechanism/staff to verifying plans and annual practices.  
Weather and soils severely impact feasibility of implementation.  
Determine where and how vertical tillage can be used in a farmer’s conservation plan and for incorporating manure. | Verification of practices | $1,600,000/yr for cover crops ($40/acre) (verification cost not included)  
$1,010,000 Ag E&S plans ($500 plan/50 acres) (verification of plans not included) | • Only way to accelerate implementation without additional technical resources or staffing is to work with private sector on projects that they can completely do on their own  
• Cover Crops- Working to create a more permanent cover crop program/funding source like in Maryland. Looking at this at the state of the county level, whichever is available  
• To increase cover cropping Adams County a more permanent source of funding is needed like that of Maryland  
• Manure Incorporation- No units have yet been verified, but this is a practice that the Coordinator is looking into getting on the ground soon. Working with DEP on the verification process  
• Soil Conservation and Water Quality Plans- Conservation District is sending operators through ag reimbursement program to get new plans written, and get plans put into practice keeper by our Chesapeake Bay Technician and Nutrient Management Specialist  
• *See Field Doc For BMP Numbers |

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<tr>
<th>2.8</th>
<th>Nutrient Management</th>
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| 2.8 | Nutrient Management Core N&P - 104,000 N&P acres annually  
Nutrient Management Rate N&P – 10,000 N&P acres annually  
Nutrient Management Time N&P - 10,000 N&P acres annually | Conservation District, NRCS, SCC, private agricultural contractors, local farmers | Adams County | 2025 | Mechanism/staff to verifying annual and current practices.  
Weather and soils severely impact feasibility of implementation.  
Three applications over the growing season rather than one impacted by weather  
Equipment to reduce overlap of fertilizer on fields  
Conservation District staff can educate about these recommended actions during routine conversations with farmers/landowners | Verification of practices  
1 FTE Adams Co Agronomist | $1,040,000 Ag Manure & Fertilizer plans ($500 plan/50 acres)  
$100,000/yr | • Verification still a hurdle  
• No funding for an Agronomist in Adams County, CD working with Private Sector on advanced nutrient management to reduce the burden on CD Staff  
• Adams County is not eligible for CEG  
• Private sector will provide incentive payments, and 1 on 1 consulting with landowners  
• Received funding through Implementation Grant for a nutrient management project in Adams County  
• Conservation District sending operators to states plan reimbursement program for manure management plans |
| 2.9 | Riparian | Stream Restoration — 10,000 new linear feet Grass Buffers w/Exclusion Fencing – 200 new acres Forest Buffer w/Exclusion Fencing – 100 new acres Grass Buffers – 1,000 new acres Forest Buffers – 500 new acres Wetland Restoration – 25 new acres | Conservation District, USDA, DEP, Army Corps, DCNR, contractors, local farmers, nonprofits, PFBC, CBF, PACD, nonprofits | Adams County | 2025 | Chapter 105 permitting a major hurdle for drainage and stream restoration projects.  
Prioritize grass waterways on areas of active field erosion to capture soil and nutrients and not based GIS database.  
Prioritize forest buffers on 3rd order streams on agricultural lands and 1st/2nd order | Third party maintenance of buffers | $2,400,000 Forest buffer planting ($4,000/ acre)  
$7,150,000 Grassed buffers in eroding fields ($6,500/ acre)  
$937,500 fencing associated w/ buffers ($3,125/ acre) | • Chapter 105 permitting still a major hurdle  
• Coordinator working with Watershed Specialist and advisory teams on these projects  
• Over 2,000 Seedlings distributed to local landowners by ACCD and partners through the CBF K10 program  
• 2.5 Acres of new Riparian Buffer in 2020  
• Met with municipal engineers to discuss funding for urban stream restoration, from these meetings applied for, and received partial funding for a restoration project that will include buffers and exclusion fencing among many other BMPs  
• 1,000 Acres of Grass Buffers, funding through EQUIP  
• 344 Acres of Forest Buffers, many funded through DCNR, CREP, WPC, and CBF  
* For Other BMP Numbers See Field Doc
Buffers are a labor intensive management practice. Incentive program needed to compensate for long-term loss of crops. Remove buffered lands from tax parcels. The ability to fix failing buffers is needed (e.g. stream movement over time undermines buffers and they cannot be fixed without permits and expense). Need more research on value of saturated buffers.

| 2.10 | Other Ag BMPs | Land Retirement – 1,500 new acres | Conservation District, NRCS, contractors, industry, local farmers, DCNR | Adams County | 2025 | Focus on small to mid-sized animal operations needing: well-placed fencing, dedicated sacrifice areas, and/or manure storage. Expand manure storage capacity for dairy operations to six months of storage: | $880,000 stream restoration ($88/linear ft) $156,250 wetland restoration ($6,250/acre) $4,000/0.5 acre of saturated buffers | • We are working with DEP to identify solar fields as retired ag land • * See Field Doc for BMP Numbers • Coordinator is working with ag techs to evaluate new waste storage facilities and innovative ways to find funding • Barnyard and Waste Management work being done by NRCS |
|  |  | Forest Harvesting Practices – 100% Waste Storage Facilities – 4,000 new Animal Units Barnyard Runoff Controls – 15 new acres |  |  |  |  |  |
### Urban Sector

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| **2.11** | Seek creative solutions to focus on the problem (pollution), not the geography (MS4 and urban areas) | Redefine MS4 area to allow mitigating efforts to occur outside of the urbanized areas | DEP, ACOPD, municipalities | Adams County | Ongoing | Policy or legislative change required. | * | * | * | * | • DEP released guidelines that allow MS4 communities to work in a mile radius outside of their designated zones

| **2.12** | Create a documentation program for urban nutrient management | Support current proposed fertilizer legislation for nutrient applications in urban environments. | DEP, Landscaping Industry | Statewide | 2020 | Legislation required. | * | * | * | * | • Senate Bill 915- Introduces statewide nutrient standards
• It's good that this bill has been introduced, but we need it passed in order for it to see benefit from it

**Proposed cost for reduction of N - $8-10/lb (1.1 M lb annual reduction = appx $10M)**
### 2.13 Install riparian buffers on public lands

| Implement riparian buffers on public lands. Try to coordinate -100' buffers on public parcels greater than 10 acres (96 acres of riparian buffer) -50' buffers on public parcels less than 10 acres (14 acres of riparian buffer) | ACOPD, Conservation District, WAAC, NRCS, landowners | Adams County | 2025 | Landowner cooperation and funding required for successful implementation. Security issues may be a constraint of planting trees on private properties. Forest buffer credit challenges – 20 years until tree maturity. Financial resources. | $500,000 |

- Continuing to work with local public partners, municipalities, and schools
- In the process of completing agreements for a 5 plus acre tree planting in a local park

### 2.14 Create additional natural areas

| Create forest buffers, meadowlands, and other natural areas that are not considered a nuisance | ACOPD, Conservation District, NRCS, municipalities | Adams County | 2025 | Coordination with municipalities will be needed to comply with ordinances and other planning tools. * | * |

* Looking heavily into the meadow plantings on both public and private lands, funding through DCNR

### 2.15 Establish more Shade Tree Commissions

| Establish additional Commissions 50 acres tree planting. | ACOPD, Municipalities, community members | Adams County | 2025 | Funding is required to develop and implement these programs. * | * |

- No further shade tree commissions have been established.
- Coordinator plans to reach out to municipalities across the county to garner interest in shade tree commissions from local leadership

### 2.16 Implement other urban initiatives

| Full implementation of the municipal PRP plans: Retrofit runoff reductions for 145 treated acres. 3,750 linear feet of urban stream restoration. 16 acres forest buffer. Install 2.5 acres of permeable pavement. Street sweep 109.43 miles. Dry detention ponds to treat 100 acres. 50 | ACOPD, Municipalities, community members | Adams County, municipalities | 2025 | Current resources being utilized | |

- Reached out to Adams County MS4s, and other Municipalities.
- Met with municipal engineers to discuss project ideas and assisting them with getting funding
- Creating a framework document to match projects with funding sources as they become available/are found
### Priority Initiative 2: Research, Education, and Training

| 3.1 | Develop a strategy to communicate parallel goals of the WIP3 and local goals such as water quality, public and environmental health, economic development, and others | Nutrient Management Workshop or similar forum | Conservation District, ACPD, Penn State Extension, WAAC, Municipalities, School Districts, Local farmers | Adams County | Ongoing | Financial resources, participant interest. | Annual No-till forum | Adams County State of the Waters forum | Penn State Extension Training |
| 3.2 | 20-acre pilot studies of agricultural BMPs to assess impacts to profitability | Analysis of the effects of BMP installation | Conservation District, ACPD, Penn State, NRCS | Adams County | 2025 | Landowner willingness to participate. | Current staff expertise | Laboratory Analysis, etc. |
| 3.3 | Conduct education of commercial landscape industry/golf course owners/homeowners regarding nutrient management | Nutrient reduction outside of agriculture | ACPD including Conservation District, WAAC, Penn State, DEP | Adams County | Ongoing | Legislation/Regulation required. | Nutrient Technician (1 FTE) |

- **No action to date**
- Coordinator will be reaching out to municipal governments and urban landowners to gather interest in this initiative.

- **No action to date**
- Coordinator will be working with County, and municipal officials to gather interest in beginning this process.

### 2.17 Promote creations of additional sewage management districts at the municipal level

| Proper on-site septic system management | ACPD, COG, Local municipalities | Adams County, municipalities | Ongoing | Current Staffing |

- No action to date
- Coordinator will be reaching out to municipal governments and urban landowners to gather interest in this initiative.

### 2.18 Evaluate formation of a Countywide Stormwater Authority

| Adams County | Adams County | Ongoing | Educating and garnering support of municipalities may be challenging. Additional financial resources would be required to initiate this effort. | * | * | * | * |

- No action to date
- Coordinator will be working with County, and municipal officials to gather interest in beginning this process.
Phase 3 Watershed Implementation Plan (WIP) Progress and Milestones Template

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

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

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

For each Priority Initiative or Program Element:

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

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

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

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

- **Geographic Location** = Where. This field identifies the geographic range of the planned implementation. This could extend to the entire county or down to a small watershed, based on the scale of the Priority Initiative, range of the Responsible Party, or planned funding/resources.

  NOTE: Resource limitations alone should not limit potential implementation as additional funding may become available in the future.

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

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

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

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

- **Progress to Date** = This field will be used for annual reporting on priority initiatives. This is a description of the action(s) your county took toward achieving the priority initiative. Examples include education and outreach, programmatic changes, etc. For numeric priority initiatives your county can retrieve those numbers directly from FieldDoc or put in the column “See FieldDoc.”

- **Justification for Change to Action Item** = This field will be used for two-year milestone updates. This field allows for your county to adjust your original targets and goals based on progress to date. Your county may adjust goals and targets up or down based on your progress to date. This field requires a justification as to the reason of change, whether up or down.