Phase 3 Watershed Implementation Plan (WIP) Progress and 2 Year Milestones Report- Adams County 09/01/2021

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 Highlight changes for 2022-2023 milestone period

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		2020+2021 Progress to Date 2022-2023 Milestone Changes to Action Items (highlighted)
							Technical	Financial	Technical	Financial	
Priority Initiative 1: Reporting and Tracking											
1.1	Initiate additional water quality monitoring sites that promote long-term trend evaluation at key locations in Adams County	Additional sites as needed to evaluate Adams County progress as well as progress for specific land uses or projects in the county Additional monitoring capabilities needed at monitoring station at East Berlin and Bridgeport Stations to analyze nitrogen and phosphorus Increase technical capacity to be able to evaluate loading trends Work w/ state so citizen stream monitoring data can be utilized It is important to monitor implementation	WAAC, USGS, DEP, USGS, Conservation District	Adams County	2025	Additional funding and coordination with USGS	*	Cost savings may be realized if existing stations can be upgraded where possible	Year 1 equipment cost/setting up East Berlin & Bridgeport to collect N &P Annual costs maintaining equipment, developing regression models, calibration, displaying on the web	$190,000 $75,000/yr per site East Berlin & Bridgeport	**2023** • Still no significant funding towards monitor upgrades, costs have only gone up since these initial estimates. • WACC volunteers still continue local water testing throughout the county. **2022** • Still not significant funding available for the monitor upgrades, which will be a significant cost. • Still working with WACC volunteers doing water testing throughout the county. **2021** • Discussions were held with USGS about installing the two monitors at the locations listed. However, project ran into significant funding barriers. • DEP discussed the idea of SRBC getting more into water nutrient monitoring. • Staff will be partnering with local WAAC volunteers to do targeted water monitoring in the Conewago Watershed. **2020** • Reached out to York County to discuss how they pursued nutrient monitoring in their

		progress in terms of water quality, not just using the model									County. York County Commissioners agreed to a cost sharing agreement with USGS. • Received information and will be reaching out to USGS to begin the conversation. • Adams County has not found the same funding source that was utilized in York County.
1.2	Improve data collection on urban non-structural practices	Chapter 102 provide more credit for non-structural practices.	ACOPD, Conservation District, DEP, developers, municipalities	Adams County	Ongoing	Long-term compliance. Maintaining accurate BMP inventory.	*	*	*	*	**2023** • Some BMPs are being tracked when the Conservation District receives Notice of Termination (NOT) forms for National Pollutant Discharge Eliminations System (NPDES) sites. • E&S Staff are evaluating using Practice Keeper and database for new E&S/NPDES Plan submissions. • E&S staff have come to CAP Coordinator with potential projects found through site inspections. **2022** • Some BMPs are being tracked when the Conservation District receives Notice of Termination (NOT) forms for National Pollutant Discharge Eliminations System (NPDES) sites. • E&S Staff are evaluating using Practice Keeper and database for new E&S/NPDES Plan submissions. **2021** • Some BMPs are being tracked when the Conservation District receives Notice of Termination (NOT) forms for National Pollutant Discharge Eliminations System (NPDES) sites. • Some municipalities are beginning to implement on property BMP inspections. **2020** • Some BMPs are being tracked when Conservation District receives Notice of

											Termination forms (NOT) for National Pollutant Discharge Elimination System (NPDES) sites. • Coordinator/Urban Team can work with Municipalities to track non-structural BMPs through Field Doc.
1.3	Implement a documentation program for commercial and homeowner nutrient applications in developed lands	Required Urban Nutrient management plans	DEP, SCC, Landscape Industry	Statewide	2020	Commercial and home use of nutrients should be evaluated in the CAST model, more data are needed on current application levels.	*	*	*	*	**2023** • Coordinator and DEP have worked out a template to be used for Urban Nutrient Management • We have gotten some interest from the Gettysburg National Park in writing an Urban Nutrient Management plan. Golf courses, small landowners, and schools have been less interested. **2022** • Still working with DEP on templates for Urban Nutrient Management Plans (Homes, Golf Courses, Schools, Parks, etc). • Looking at utilizing a template for Urban Nutrient Management Planning used by Virginia National Parks, hoping to work with Gettysburg National Park on this effort • Legislation has been passed regarding Urban Nutrient Management. **2021** • Statewide Urban Nutrient Management Legislation has been introduced but will need to be passed to see benefits. **2020** • Senate Bill 915- Introduces statewide nutrient standards. • It's good that this bill has been introduced, but we need it passed for us to see benefit from it.

1.4	Establish baseline of current practices	Develop/implement a process for capturing current agricultural best management practices that are unreported Create a systematic process and database for inventorying stormwater management practices and facilities in MS4 and non-MS4 municipalities	DEP	Adams County and Statewide	Ongoing	Verification of BMP's is time intensive. Identify the types of unreported, currently installed BMPs that would provide significant credit if verified. Focus on verifying those BMPs. Privacy concern	*	*	*Staffing	*	**2023** • Very little progress to date on Precision Dairy Feeding still attempting to work with SCC/DEP on verification methods • Adams County partnering with Franklin and Cumberland Counties as well as Capital RC&D and the Alliance for the Bay on a NFWF funded BMP Re-verification program. This project will also look to install new BMPs. • Adams County worked with an Ag BMP Re-verification tech this year with funding provided through DEP. **2022** • No progress has been made on Precision Dairy Feeding. • Adams partnered with Franklin and Cumberland Counties, as well as Capital RC&D on a NFWF Grant to fund a BMP Re-verification program. • Coordinator is assisting with Ag Plan entry on Practice Keeper. • Adams County applied for Ag BMP verification assistance through CB Tech application. • Manure Incorporation is now verifiable/reportable in Practice Keeper. **2021** • Coordinator's job is not necessarily to do verification, additional staffing could be helpful in this regard. • Many BMPs are falling out of practice and are not able to be reverified for various reasons. • DEP/Bay Program still unsure of verification on many BMPs such as Manure Incorporation and Dairy Precision Feeding. • Coordinator is discussing a verification program with other county coordinators.

											However, there are issues such as practice keeper access and funding. **2020** • Coordinator is working with DEP to develop standards verifications processes and standards. • Coordinator sharing DEP/EPA acceptable reporting methods with planning team. • Working with technical team to help develop new verification standards for Precision Dairy Feeding. • DEP is unsure of how to verify Manure Incorporation and Dairy Precision Feeding. • Coordinator role is not necessarily help with verification of practices.

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	BMP Implementation	ACOPD, Conservation District, NRCS, Municipalities, DEP, EPA, Stakeholders	Adams County	2025	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 existing programs	Substantial staffing and technical resources will be needed to fully implement the proposed BMPs	Substantial staffing and technical resources will be needed to fully implement the proposed BMPs	**2023** • Technical Appendix continues to be shared with new partners and local events, meetings, and site visits. • Priority continues to be buffers and stream restoration work as there is a lot of need for that kind of work in Adams County. **2022** • Technical Appendix continues to be shared at local events and meetings. • Buffers and Advanced Nutrient Management continue to be priority projects, Adams County is also moving into Ag Plan entry and a potential BMP re-verification program (Pending funding). **2021** • Technical Appendix has been shared with staff, and many local partner organizations. • Priority projects continue to be Buffers (both Ag and Urban), Advanced Nutrient Management, and Stream Restoration (both Ag and Urban). Dairy Precision Feeding and Manure Incorporation will be priority once verification methods are understood.

											2020 • 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 to accomplish our county 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	**2023** • Continue to identify projects in or below HQ/EV streams to be able to have quicker upgrade results. **2022** • Continue to identify projects in or below HQ/EV streams to be able to have quicker upgrade results. • Coordinator looking to partner with Chesapeake Conservancy to work on watershed prioritization **2021** • Some projects being done in Possum Creek, one of our priority watersheds. • Coordinator has also started putting together landowners lists for other priority watersheds. **2020** • Working with ICPRB to evaluate ground water/stream nutrient data to determine the heaviest loading areas to prioritize.
2.3	Evaluate new 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	Farm operator buy-in as well as funding remains a challenge.	*	*	*	*	**2023** • Our discussions with experts and operators in the fruit growing industry did not reveal many opportunities for projects and BMPs. Looking into potential for erosion control on orchard roads

											2022 • Continuing to work with Penn State Extension on Nutrient Management opportunities within the Fruit Growing industry. • Coordinator looking to partner with Chesapeake Conservancy to work on watershed prioritization **2021** • Held a meeting with Penn State Extension to begin working on new BMPs for the fruit growing industry. **2020** • 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, Private Sector	Adams Count, 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	*	*	*	*	**2023** • The Rosetree Project was relatively successful. There were serious communication issues with Rosetree as well as missed deadlines. **2022** • The Rosetree Project has been fairly successful throughout the county and is something the Conservation District may look to expand on this program. **2021** • Contracted with Rosetree Consulting to test the efficiency of Advanced Nitrogen Management programs. **2020** • 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 and policy changes that will support county initiatives. Support legislation for urban nutrient management that will establish requirements for the application of fertilizer for commercial operations (including golf courses) and homeowners.	DEP and PA legislature, local non-profit groups	Statewide, Adams County	2019/Ongoing	Support legislation and regulatory and policy changes that will provide the ability to utilize new and proven technology to reduce pollutant levels. Support establishing requirements for urban nutrient management including planning for commercial operations (including golf courses) and homeowners regarding the application of fertilizer.	*	*	*	*	**2023** • Legislative video presentation was sent to local legislators and has also been posted on our new/updated Conservation District Website. **2022** • Coordinator recorded video presentation that was sent to local and state legislators. This video discussed potential legislative changes, and issues that legislators at both levels could assist with. **2021** • Once the Legislative/Policy Team is fully established, legislative support will be their role. • Supporting legislation could also be done by local groups such as ACTU and WAAC. **2020** • Urban Nutrient Management legislation introduced, however it must be passed in order to see benefit. • Looking for partners to support legislation, working with Policy/Legislation Team, which will include local legislators.
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.				$150,000/yr	**2023** • Chapter 105 permits remain an extremely time consuming and burdensome process. Moving to a strictly electronic version has made the process even more complicated. • Positions within the district have been shuffled around to create a new ACAP Coordinator position to handle the ACAP funding. • Thanks to DEP funding the District was able to bring in a BMP verification tech • Despite this there still remains issues with consistent

						Allow for MS4's to install BMPs outside of their MS4 area (municipal cost savings but more load reduced). (1.5x rate?) 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/producers Verification of BMPs: annual/periodic BMPs and verification beyond installation would be difficult, time consuming, and require additional support. Identify mechanism and				• Flexible block funding offered by DEP continues to be very helpful, it would be great to see this simplicity expand to other funding sources and permitting programs. **2022** • Still no funding for new Ag Techs in Adams County. • Chapter 105 permits remain an extremely time consuming and burdensome process. Moving to a strictly electronic version has made the process even more complicated. • Verification issues for some BMPs still have not been addressed or solved. • Flexible block funding offered by DEP has been very helpful, it would be great to see this simplicity expand to other funding sources and permitting programs. **2021** • No funding for new Ag-Techs. • Little progress has been made on 105 permitting process and it remains an extremely time-consuming burden. • Verification processes for many BMPs still unknown, Coordinator continues to work with DEP and others on this issue. • MS4s now have a 1-mile buffer radius to perform work outside their MS4 zone. • DEP, and other programs have offered flexible block grants that have proven to be helpful. **2020** • 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.

						party to verify BMPs. Getting proper credit for current BMPs if there is value. Need ability to implement BMPs on Nation Park Service property.					• 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 CBF.
2.7	Soil Health	*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 – 101,000 acres annually* *Manure Incorporation – 10,000 acres annually*	Conservation District, NRCS, RC&D, DEP, PDA, 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 Verification of plans	$1,800,000/yr for cover crops ($45/acre) (verification cost not included) $1,010,000 Ag E&S plans ($500 plan/50 acres) (verification of plans not included)	**<u>2023</u>** • District is looking at using ACAP to fund a temporary cover crop program in Adams County. However, the same issues (weather, timing of harvest, etc) will continue to affect these numbers. • Coordinator participated in the RC&D Cover Crop Survey this year. • More staff required for a significant advance in plan writing. Adams County does not have a designated plan writer. • NRCS continues to help fund many of these projects • See Practice Keeper/Field Doc for BMP details **<u>2022</u>** • Many issues can affect cover crop numbers that are beyond our control, (Weather, timing, etc.) • The benefits of cover cropping are well understood by the Ag Community in Adams County. A more permanent funding source will be needed to consistently see higher numbers. This suggestion comes from Ag staff, and local farmers from our Cover Crops Advisory Team. • Only significant way to accelerate BMP implementation is through more staffing, and an increase in flexible grant funding.

											• More staff also required for a significant advance in plan writing. Adams County does not have a designated plan writer. • Coordinator is entering backdated plans into Practice Keeper. • Manure Incorporation is now a reportable BMP in Practice Keeper. • NRCS also helping to fund and implement these practices. • See Field Doc/Practice Keeper for more detailed BMP information. **2021** • To increase cover cropping in Adams County a permanent funding source is needed, similar to Maryland. This conclusion has been reached by our Ag staff, and our Cover Crops Advisory Team. • Many uncontrollable issues such as timing and weather exist that hinder cover crop numbers. • Staff is working on developing a grant-based cover crops program, but this program will be very costly to significantly increase numbers. • Only way to accelerate BMP implementation without more staffing resources is to work with private sector on projects they implement almost completely on their own. • Manure Incorporation is a BMP that Adams County wants to begin work on, but verification is not yet known. • See Field Doc for more detailed BMP Numbers. **2020** • 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 or 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 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.
2.8	Nutrient Management	*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 $30K/per spreader (not practical)	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	**<u>2023</u>** • The Rosetree Project was relatively successful. There were serious communication issues with Rosetree as well as missed deadlines. • Adams County has given the Nutrient Management delegation back to SCC so we will no longer be reviewing/inspecting/reporting on nutrient management plans as we have no one at the district to do that job. **<u>2022</u>** • Still no funding for Adams County Agronomist, but Conservation District has been working with private sector (Rosetree) on Advanced Nutrient Management. • Adams County and Rosetree Consulting have met their acreage goals for the Advanced Nutrient Management program specified in our grant.

						Currently no template plans for inorganic fertilizer plans. Yields vary based on soils and weather. Establishing soil specific, realistic yield goals requires considerable one-on-one interaction Several years of results are needed for review and development of a variable rate technology program.					• Agriculture Conservation Assistance Program will be a significant source of funding over the next 3 years. **2021** • No funding for an Agronomist in Adams County, Conservation District working with Private Sector on advanced nutrient management to reduce the burden on CD Staff. • District Staff have been working with DEP on a way to implement fertilizer only plans using nutrient balance sheets. • Rosetree Consulting currently working on an Advanced Nutrient Management program covering on numerous farms county wide. **2020** • 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*	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			Third party maintenance of buffers	$2,400,000 Forest buffer planting ($4,000/ acre)	**2023** • 2 acres of buffer is being added to an existing buffer with the Gettysburg Municipal Authority, in partnership with the Alliance for the Bay. • 5 Stream restoration projects being constructed this summer with CAP funds, with another 3 being explored for the future.

		Forest Buffers – 500 new acres *Wetland Restoration – 25 new acres*				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 in abandoned ag land. 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				$7,150,000 Grassed buffers in eroding fields ($6,500/ acre) $937,500 fencing associated w/ buffers ($3,125/ acre) $880,000 stream restoration ($88/ linear ft) $156,250 wetland restoration ($6,250/ acre) $4,000/0.5 acre of saturated buffers	• Almost 25,000 trees and shrubs have been distributed to local landowners through the District's spring and fall Tree Distribution Events. **2022** • 5 Ongoing stream restoration projects, with more opportunities being explored. One of these 5 is being constructed currently, 2 more are funded and will begin construction late fall 2022, the last 2 are shovel ready and looking for funding. • Over 12,000 trees will be distributed to local landowners at the District's Tree Distribution Event. Over 10,000 trees were distributed during the Spring Tree Distribution Event. • CAP Funds paid for a nearly 6-acre buffer with a private landowner this summer. **2021** • 6 Stream Restoration Projects ongoing in different stages. Projects taking place on both Ag and Non-Ag lands. • Nearly 3-acre buffer being installed on local business land in multiple locations. • 30 Acres of buffers have been planted this year, with another 20 plus planned for next year. • Multiple other Riparian Buffers being planted on the land of various resident's county wide. • 17 plus acres of grass buffers have been installed by Conservation District and NRCS staff with another 25 acres planned for next year. • Over 8,000 trees will be distributed to Adams County residents and landowners through the CBF K10 program. Trees distributed by District staff and local partners. **2020** • Chapter 105 permitting still a major hurdle.

						of saturated buffers.					• 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.
2.10	Other Ag BMPs	*Land Retirement – 1,500 new acres* *Forest Harvesting Practices – 100%* *Waste Storage Facilities – 4,000 new Animal Units* *Barnyard Runoff Controls – 15 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: expand infrastructure, covering and/or digesters. Evaluate exporting or the reintroduction of existing technology (utilize local energy				$5,000,000 new waste storage ($1,250/AU) $1,875,000 Barnyard runoff controls ($125,000/ acre) Proposed cost for reduction of N - $8-10/lb (1.1 M lb annual reduction = appx $10M)	**<u>2023</u>** • Trying to work with DEP to get solar farms to be reported as land retirement. • Waste storage facility applied for through CAP funds last year will be an ACAP project. • NRCS is also assisting with funding and implementation of some of these BMPs. • See Practice Keeper/Field Doc for more details. **<u>2022</u>** • Conservation District planning a new Waste Storage Facility, this will likely be a CAP Implementation Grant project. • NRCS is also assisting with funding and implementation of some of these BMPs. • See Field Doc and Practice Keeper for more detailed BMP information. **<u>2021</u>**

						and nutrient reduction facility) to address local poultry manure management Land retirement would be implemented when converted to solar farm Options for extending manure storages may be outside normal funding priorities Satellite storage facilities for manure may not be used for multiple purposes.					• NRCS has installed many barnyard runoff and other ag projects, with more planned for next year. • 4 new Waste Storage Facilities have been constructed using EQIP funds with more planned for the near future. **2020** • Conservation District is 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.
Urban Sector											
2.11	Seek creative solutions to focus on the problem (pollution) within the contributing area (not just within the close vicinity of the MS4/Urban Area)	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.	*	*	*	*	**2023** • DEP released guidelines that allow MS4 communities to work in a mile radius outside of their designated zones. We have not had a good project to utilize this buffer yet. **2022** • DEP released guidelines that allow MS4 communities to work in a mile radius outside of their designated zones. • Coordinator will look to work with MS4s in order to see how best to utilize this buffer area. **2021**

											• DEP released guidelines that allow MS4 communities to work in a mile radius outside of their designated zones. • MS4 engineers have suggested that 1 mile is still not enough. They suggest looking at more of a watershed approach. Allowing MS4s to do work within local watersheds would be more helpful than a small distance outside of their municipal boundary. **2020** • 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.	*	*	*	*	**2023** • Coordinator and DEP have worked out a template to be used for Urban Nutrient Management. **2022** • No documentation program exists. Coordinator trying to work with DEP on this issue. • Reaching out to local golf courses, and parks to gauge interest in Urban Nutrient Management **2021** • No real progress made. Legislation will be required for this initiative. **2020** • Senate introduced statewide nutrient standard legislation. • Benefits from the statewide nutrient management bill will not be realized until the bill is passed.
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*	ACOPD, Conservation District, WAAC, NRCS, landowners	Adams County	2025	Landowner cooperation and funding required for successful implementation. Security issues may be a constraint of				$500,000	**2023** • Our next buffer project will be near a water treatment plant owned by Gettysburg Municipal Authority. • Another buffer/stream restoration project is in the engineering phase currently at a

		acres (96 acres of riparian buffer) *-50' buffers on public parcels less than 10 acres (14 acres of riparian buffer)*				planting trees on private properties. Forest buffer credit challenges – 20 years until tree maturity. Financial resources.					local public park. Project should begin construction summer 2025, hopefully with CAP funds. **2022** • Buffers installed have all been on private land this year. • Looking to work with public parks and schools on this initiative moving froward. **2021** • 2 acres of Riparian Buffers have been planted on public land in 2021, with another 5 planned for next year. **2020** • Continuing 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, Alliance for the Bay	Adams County	2025	Coordination with municipalities will be needed to comply with ordinances and other planning tools.	*	*	*	*	**2023** • The PA Fish and Boat Commission land, kept up by Adams County Trout Unlimited is being turned into a largely natural area. One retired farm field is being planted with trees, there is a stream restoration project on the Conewago Creek that flows through the property, and the partnership is also creating a nature trail to show off all of the work being done on the site. **2022** • Purchased 58 acres of farm/wetland/trout stream that will be preserved and protected in perpetuity. **2021** • ACCD is working with Alliance for the Bay and local business to implement 12.83

											acres of lawn conversion on multiple properties across the county. • A total of 47 acres of natural areas will be created this year between upland tree planting and lawn conversion, with another 20 plus planned for next year. **2020** • 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.	*	*	*	*	**2023** • This project was being handled by someone who has since retired. This initiative will be picked up once someone new has been hired for that position. **2022** • This project was being handled by someone who has since retired. This initiative will be picked up once someone new has been hired for that position. **2021** • One borough in the County has established a Shade Tree Commissions. • ACOPD will be sending information regarding the establishment of Shade Tree Commissions to our other borough partners. **2020** • 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:*	ACOPD, Municipalities, community members	Adams County, municipalities	2025		Current resources being utilized				**2023** • CAP funds are paying for 5 stream restoration projects in Adams County

		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 acres treated by rain gardens and 25 acres treated by bioswales.*									covering over 2,000 linear feet of stream bank. • Coordinator working with municipalities on future Urban BMP Projects. **2022** • Coordinator working with Municipalities to install Urban Stormwater BMPs. • CAP Grant is funding multiple Basin Retrofits and Stream Restorations. Cumberland Township is also implementing a Retention Basin and other Stream Restoration Projects. **2021** • Coordinator is currently working closely with multiple municipalities to implement many of these BMPs including Stream Restoration, Retrofit, Detention Ponds, Swales, and Raingardens. **2020** • 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.
2.17	Promote creations of additional sewage management districts at the municipal level	Proper on-site septic system management	ACOPD, COG, Local municipalities	Adams County, municipalities	Ongoing		Current Staffing				**2023** • This project was being handled by someone who has since retired. This initiative will be picked up once someone new has been hired for that position. **2022**

											• This project was being handled by someone who has since retired. This initiative will be picked up once someone new has been hired for that position. **2021** • Currently 9 townships in Adams County have Sewage Management Districts. **2020** • No action to date. • Coordinator will be reaching out to municipal governments and urban landowners to gather interest in this initiative.

Priority Initiative 2: Research, Education, and Training

3.1	Develop a strategy to communicate parallel goals of the CAP and local goals such as water quality, public and environmental health, economic development, and others	Nutrient Management Workshop or similar forum Annual No-till Forum Adams County State of the Waters forum	Conservation District, ACOPD, 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				**2023** • The Adams County Soil Health Meeting was held this year in partnership with the Pennsylvania No Till Alliance. The meeting was attended by over 120 people. • Coordinator has continued writing newsletters for the district and DEP, as well as articles for local newspapers discussing CAP goals and progress. **2022** • Adams County Soil Health Meeting was held this year (both in person and virtual options) and dozens of farmers and agency staff attended. The topic of the meeting was organic farming of Corn and Soybean. • Eric Rosenbaum from Rosetree presented his findings so far through the Advanced Nutrient Management Program, and gathered more interest for the program. **2021** • The annual Adams County Soil Health Meeting was held virtually this year but was still attended by a couple dozen people.

											• A member of Rosetree Consulting spoke about Adams County's Advanced Nutrient Management Program and began signing people up for the program. **2020** • Held annual Soil Health Meeting in February of 2020, and plan on holding it virtually in February of 2021. The 2020 meeting was attended by over 125 farmers, topics discussed include advanced nutrient management, and the Adams County CAP. • 2021 Meeting will feature a representative from Rosetree LLC to speak about our Adams County, Advanced Nutrient Management project, which we applied for CAP funds to complete. • Act 220 process has made the Phase 3 WIP a priority and is being incorporated in those discussions, Potomac Regional Committee Prioritizing WIP, this puts a spotlight on the importance of the County CAP.
3.2	Conduct education of commercial landscape industry, golf course owners, school districts, and homeowners regarding nutrient management	Nutrient reduction outside of agriculture	ACOPD including Conservation District, WAAC, Penn State, DEP	Adams County	Ongoing	Legislation/regulation required.			Nutrient Technician (1 FTE)		**2023** • No progress towards Nutrient Management Tech in Adams County. • Interest level from golf courses and schools on nutrient management has thus far been marginal. • The Gettysburg National Military Park has shown interest in working on a nutrient management plan for all of their non ag property. • Coordinator and DEP have worked out a template to be used for Urban Nutrient Management **2022** • No progress towards Nutrient Management Tech in Adams County. • Coordinator has reached out to many large landowners including all county golf courses, and Gettysburg National Military

											Park. Unfortunately, response/interest level has been marginal. • Coordinator will also be reaching out to schools to see if they hold more interest in Urban Nutrient Management. **2021** • No progress towards a nutrient management tech in Adams County. • Staff is looking into the possibility of getting voluntary NM plans written for large landowners such as golf courses, schools, and share other potential project ideas. **2020** • No progress towards a nutrient management tech in Adams County. • Strategizing with staff about setting up a group meeting/call with golf course owners in the county to discuss use.

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.