Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update and Two-Year Milestones Report – Lebanon County

Green - action has been completed or is moving forward as planned   Yellow - action has encountered minor obstacles   Red - action has not been taken or has encountered a serious barrier   **Highlight changes for 2023-2024 milestone period**

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022) *add new 2022 progress above the existing 2021 progress. Date each entry	Reason for Change to Action Item (2023-2024 milestone period)
							Technical	Financial	Technical	Financial		
Priority Initiative 1: Agriculture												
1.1	Reconcile ag-specific Bay model theoretical BMP implementation and loading numbers with on-the-ground and real conditions		Ag Action Team, Legacy Partners	Countywide	2022-2024	Populate Catchment Management Database (CMD) to prioritize BMP implementation locations	Local and state experts, agencies, and environmentally related entities Catchment Management Database	GG 319 Funds		Funding for "boots-on-the-ground" assessments for ag-specific considerations @ $80,000/ watershed, 3 watersheds: $240,000	2021-2022: Continuing to work on CMD data and working with partners, like USGS and the Quittapahilla Watershed Association, to get real time data to support modeled data	Previously scheduled to be completed by Late 2020-2022 timeframe, however, CMD is still in-process of completion.
1.2	Expand implementation of cover crops (specific focus on alternative approaches that may count as reductions)	Cover Crop Traditional, cover Crop Traditional with Fall Nutrients, Cover Crop Commodity	Ag Action Team	Countywide	Late 2020 – mid 2021	Limit definition of cover crops and what would count as a reduction	BMP Quick Reference Guide Local experts and agencies		Approve additional cover crop definition to include a harvested cover crop receiving nutrients		2022: Draft cover crop program was tabled by LCCD Board of Directors due to cover crop definition restrictions. 2021: Creating a cover crop incentive program by using examples from the other counties to form our own county-specific program.	Draft cover crop program was tabled by Board of Directors. No further action has been completed. Seeking additional funding options that allows harvested cover crop so program can continue being pursued.
1.3	Capture existing conservation plans and BMPs into PracticeKeeper		LCCD, Ag Action Team, NRCS, ag consultants	Countywide	2021-2024	Updated NRCS information release requirements will not allow CCD's to receive ag plans directly from NRCS like historically. Potential time and resource limitations for plan entry	Local agencies, PracticeKeeper, CAP BMP Verification Technician, LandStudies	BMP Verification Funds			2022: BMP Verification Technician was hired and continues to input existing conservation plans and BMPs into PracticeKeeper. Hired LandStudies to create sub-watershed master BMP lists to assist BMP Verification Technician with inputting plans and verifying BMPs. Intent is to compile a master spreadsheet of all existing BMPs in the County to be verified.	

1.4	Engage industrial and large ag operation farmers		Ag Action Team, Management Team, Steering Committee	Countywide								
1.5	Promote and assist implementation of Agricultural Compliance practices in priority areas	*Soil Conservation and Water Quality Plans (57,000 total acres)* *Core Nitrogen Nutrient Management (56,000 total acres)* *Core Phosphorus Nutrient Management (17,000 total acres)* *Barnyard Runoff Controls (112 new acres)*	Ag Action Team,LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas (or where current initiatives are underway)	Game plan by early 2021; imp. 2021 – 2025 (and beyond)	Farmer resistance or buy-in Resources to develop plans	LCCD, NRCS, ag consultants	EQIP, Ag Planning Reimbursement Program, CEG, REAP	Additional personnel, consultants for magnitude of required new or updated plans	Total-Soil Conser./WQ Plans (94 acres/avg farm @ $1,200/plan; 606 farms): $727,200	2022: Received NFWF Small Watershed grant to hire ag consultants to develop 7,624 acres of plans within the Little Swatara and Swatara Creek watersheds. 2021: LCCD verifies plans via Chesapeake Bay, Agricultural Land and Act 38 inspections. Operators contact LCCD throughout the year to request assistance for developing new/updated plans.	
1.6	Promote and assist implementation of soil health practices in priority areas	*High Residue Tillage Management (24,000 acres/year)* *Conservation Tillage Management (13,000 acres/year)* *Traditional Cover Crops (13,700 acres/year)* *Traditional Cover Crops with Fall Nutrients (18,000 acres/year)* *Commodity Cover Crops (3,000 acres/year)* *Prescribed Grazing (6,000 totalacres)*	Ag Action Team,LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas (or where current initiatives are underway)	Game plan by early 2021; imp. 2021 – 2025 (and beyond)	Farmer resistance or buy-in Resources to writeplans	LCCD, NRCS, ag consultants	EQIP, Ag Planning Reimbursement Program, CEG, REAP	Additional personnel, consultants for magnitude of required new or updated plans	Total-Revised SC/WQ Plans or captured by newplans in Ag 1.6 @ $500/farm, 763 farms: $381,500 Long-term funding for inspections, etc.(TBD) Seed money for incentive program (TBD)	2022: Lebanon program documents were created and continue to be utilized by interested ag producers. 2021: Our CAP AG Action Team is working on focusing on our priority areas first and have developed a cost share program to fund soil health and other bmp projects. We also are working with NRCS and EQIP to get additional projects funded	
1.7	Promote and assist implementation of	*Core Nitrogen Nutrient Management*	Ag Action Team, LCCD, NRCS,	Contiguous agriculture land use areas, with	2021 – 2025 (and beyond)	Farmer resistance orbuy-in	LCCD, NRCS, RoseTree	EQIP, REAP, CEG	Additional personnel, consultants for	Total- Revised NM Plans or	2022: Various discussions with RoseTree and other partners to discuss	

#	Objective	BMPs	Partners	Location	Timeline	Challenges	Technical Assistance	Funding Sources		Cost Basis	Cost	Status/Notes
	expanded nutrient management practices in priority areas	*(6,000 acres)* *Core Phosphorus Nutrient Management (2,000 acres)* *Nutrient Management-Nitrogen Rate (10,000 acres)* *Nutrient Management-Phosphorus Rate (10,000 acres)* *Nutrient Management-NitrogenPlacement (12,000 acres)* *Nutrient Management-Phosphorus Placement (10,000 acres)* *Nutrient Management-Nitrogen Timing (13,000 acres)* *Nutrient Management-Phosphorus Timing (10,000 acres)*	Penn State, farmers	initial focus on red-coded catchment areas			Consulting, ag consultants		magnitude of required new or updated plans	included with new plans in Ag 1.6 @ $500/ farm, 436 farms: $218,000	==partnering on these efforts with intent to find producers interested in obtaining and implementing Core NMPs.== 2021: The CAP Team is addressing resistance from farmers, like lack of interest in spending the money to implement through cost-share, we have been coming up with incentives and other promoting factors to address any other challenges that may arise. Working on financial resources for plans.
1.8	Promote and assist implementation of improved animal unit practices in priority areas	*Manure Storage Facilities (118,000 New Animal Units (AUs))* *Dairy Cow Precision Feed Management (20,000 Dairy Cow Animal Units (AUs))* *Manure Transport out of Lebanon County (25,000 drytons/year)*	Ag Action Team,LCCD, NRCS, Penn State, farmers, manure haulers/ brokers, ag retail entities	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	Game planby early 2021; imp. 2021 – 2025 (and beyond)	Farmer resistance or buy-in	Local experts and agencies	EQIP, REAP, CEG		Full BMP implementation dollars (~$14.84 million, overall estimate until game plan fully in place)	==2022: Construction has commenced on one 50' x 208' poultry manure storage.== 2021: The CAP Team is addressing resistance from farmers and coming up with incentives and other promoting factors to address any other challenges that may arise. Continuously assisting farmers with implementing projects and identifying

ID	Action	Metrics	Partners	Location	Timeline	Challenges	Resources	Funding		Cost	Notes	
											funding options. Our most common project interest this year was manure storage facilities. We did not see much interest in the other two options. Two projects we implemented this year were roofed poultry manure and composting structures	
1.9	Promote and assist implementation of buffers in agricultural riparian zones in priority areas	*Forest Buffer (3,100 new acres)* *Forest Buffer with Streamside Exclusion Fencing (962 new acres)* *Grass Buffer (1,900 new acres)* *Grass Buffer with Streamside Exclusion Fencing (550 new acres)*	Ag Action Team, LCCD, NRCS, Penn State AEC, Alliance for the Bay, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	2021 – 2025 (and beyond)	Farmer resistance or buy-in Engagement with Penn State AEC for program development for other watersheds	Local experts and agencies, non-profit partners (ACB, etc.)	EQIP, REAP, CEG		Total-Forest Buffers (w/ or w/o fencing) @ $4,000/acre = $16.25 million Total-Grass Buffers (w/ or w/o fencing) @ $2,000/acre = $4.9 million	==2022: Various field visits with Penn State and Alliance for the Bay to riparian-interested ag producers. Goal is to find producers interested in implementing forest and/or grass buffers.== 2021: The CAP Team is addressing resistance from farmers and coming up with incentives and other promoting factors to address any other challenges that may arise. Continuously assisting farmers with implementing projects and identifying funding options. There was not much interest in doing buffer projects specifically on Ag land this year. We have plans to work with our partners to implement more projects next year.	
1.10	Engage the Conewago Initiative to align over-arching CAP goals with efforts		Penn State AEC, LCCD, CI partners	Conewago Watershed	Continuous	Achievement of significant BMP implementation through existing comprehensive effort					==2022: Partnership continues as we attend joint field visits to interested producers.== 2021: In communication with the initiative, but working on taking actions and partnering on projects	
1.11	Identify and foster ag-specific funding streams and opportunities to assist farmers with BMP implementation		Ag Action Team, LCCD	Countywide	Continuous	BMP packaging for funding multiple projects through single source assistance programs					==2022: Applied for NFWF Small Watershed and Most Effective Basin grants, secured CEG & ACAP funding.== 2021: Identified funding for Ag projects, such as CEG funding program and plan	

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022) *add new 2022 progress above the existing 2021 progress. Date each entry	Reason for Change to Action Item (2023-2024 milestone period)
						Incentive program(s)	Technical	Financial	Technical	Financial	to use some of that funding for a Cover Crops Program	
Priority Initiative 2: Stormwater (Developed Areas)												
2.1	Engage legacy partners (Stormwater Consortium, etc.) to ensure capture and support of initiatives as it relates to local water quality improvements		Stormwater Action Team, watershed groups, MS4 municipalities, non-profits	Countywide	Comm Plan developed by early 2021 Followed by initialimp.	Ensure efforts are notduplicated and focus on filling in gaps or providing collaboration arenas Project capture and reporting processes	FieldDoc			Resources for long-term verification processes (TBD)	2022: Legacy partners are active members of our Action Teams and Steering Committee. Our 3 funded watershed projects have been led by our members (Trout Unlimited & Steckbeck Engineering). 2021: We have engaged with the legacy partners and have had members join our action team	
2.2	Integrate other water resources initiatives (e.g.source water protection) into overall approaches		Stormwater Action Team, LCCWA, Lebanon County Stormwater Consortium, local agencies (LCPD,etc.)	Countywide	Game plan by late 2020 with initial imp.	Conflicting regulatory requirements	Local consultants/ engineers, local and state agencies SWP entities				2022: Involved in MS4 meetings to discuss regulatory requirements. 2021: Working on the conflicting regulatory requirements and creating a plan to take action in the next few months.	2022: Game plan has not yet been secured.
2.3	Pursue regional stream and wetland restorationprojects that provide additional benefits to multiple communities and MS4s	*Urban Stream Restoration (6,000 new linear feet)* *Non-urban Stream Restoration(55,068 new linear feet)* *Wetland Restoration (125 acres)*	Watershed groups, non-profits, MS4 municipaliti es, LCCD	Countywide with initial focus on priority watersheds/ catchments	Late 2020 – 2025 (and beyond)	Tight timeframe for significant BMP implementation Local landowner willingness to participate Incorporate floodplain restoration approaches into stream restorations	Local consultants/ engineers Non-profits (TU,etc.)	NFWF, GG, EPA, DCNR		Full BMP implementatio n dollars (~$16.25 million)	2022: Contracted one stormwater retrofit/dry pond project. 2021: Working with the Consortium to collaborate on holistic projects that include all sectors. We have applied to a couple grants as partners to implement Ag & Urban projects.	
2.4	Engage and collaborate with PSU Extension to coordinate efforts for protection of private wells		Stormwater Action Team, PSU Extension	Countywide (non-public utility service areas)	2024	Collaborate with Source Water Protection (SWP) entities an efforts	PSU Extension, SWP entities				2022: Was not identified as an immediate priority, 2021: Have begun discussions, but no action has been taken yet	2022: Was not identified as an immediate priority so timeframe will be extended.

2.5	Engage Lebanon County MS4 permittees for identification and support for known BMPs for implementation, funding streams, maintenance, and related needs		Stormwater Action Team, Stormwater Consortium, LCCWA, MS4 municipalities	MS4 communities	Late 2020 – 2025 (and beyond)	Ensure efforts are notduplicated and focus on filling in gaps or providing collaboration arenas Municipal buy-in or resistance Long-term verification processes Lebanon County-specific funding program through	Local engineers, consultants, municipalities				2022: Working with MS4/Stormwater Consortium to create game plan for identifying BMPs throughout County. 2021: We have engaged and plan to continue to work with them on projects in the future. The Stormwater Consortium has been very active with the CAP team and we are working on getting more engagement from other MS4 communities outside of the Consortium.	
2.6	Identify and foster potential alternative stormwater BMP implementation approaches (e.g. developer implemented regional stormwater facilities)		Stormwater Action Team, developers, private consultants/ engineers	Countywide	Game planby early 2021 with initial imp.	Buy-in may be a largehurdle Buy-in or resistance from developers						2022: Conversations have been held with MS4/Stormwater Consortium but game plan has not been identified at this time. 2021: We have begun working on this, and have identified that buy-in will be a challenge and are working on overcoming that. There have been discussions in the previous months about how we could implement alternative approaches, however those conversations did hit a lull and will be picked back up in the coming weeks	
2.7	Promote and assist implementation of riparian zone, habitat, and tree canopy, and conservation practices inpriority areas	*MS4 Riparian Forest Buffers (69 new acres)* *Non-MS4 Forest Buffers (50 new acres)* *Conservation Landscaping (125 new acres)* *Urban Forest Planting (125 new acres)* *MS4 Urban Tree Canopy (12 new acres)*	LCCD, non-profits, MS4/non-MS4 communities	Countywide with initial focus on MS4 communitie sand priority catchments	Late 2020 – 2025 (and beyond)	Tight timeframe for significant BMP implementation Long-term verification processes	Local consultants/ engineers Municipalities LCPD Non-profits (ACB, etc.)			Potential: Full BMP implementation dollars (~$825,000) 2022-2023 anticipated shovel-ready projects: $303,000	2021 & 2022: We are continuously promoting and offering assistance with projects. We have helped groups apply to grant programs like Growing Greener and several NFWF grants to implement projects. We have also promoted the Keystone 10 million Trees program.	

		Farmland Conservation (2,000 total acres) *Forest Conservation (2,300 total acres)* *Wetland Conservation (125 total acres)*									
2.8	Promote and assist implementation of urban/suburban sector controls for nutrient and sediment reductions	*Advanced Grey Infrastructure for IDD&E Control (4,000 acres treated)* *Impervious Surface Reduction (15acres)* *Urban Nutrient Management (2,000 acres)*	MS4 municipalities	Countywide with initial focus on MS4 communities and priority catchments	Late 2020 – 2025 (and beyond)	Urban nutrient management is dependent on fertilizer legislation Tight timeframe for significant BMP implementation Long-term verification processes	Local consultants /engineers Municipalities			Anticipated: Full BMP Implementation dollars (~$398,500)	2021 & 2022: We are continuously promoting and offering assistance with projects. The Stormwater Consortium has spearheaded this in the 6 municipalities that it covers. As for the other municipalities in the county we have reached out to offer our assistance in any way needed. Street Sweeping is very popular in Lebanon City specifically.	
2.9	Promote and assist implementation of stormwater control measures that incorporate Low Impact Development (LID) approaches	*Wet Ponds and Wetlands (197acres treated)* *Stormwater Performance Standards-Runoff Reduction (915acres treated)* *Bioretention/Raing ardens (24acres treated)* *Bioswale (9 acres treated)* *Vegetated Open Channels (15acres treated)* *Filtering Practices (8 acres treated)*	MS4/non-MS4 communities	Countywide with initial focus on MS4 communities and priority catchments	Late 2020 – 2025 (and beyond)	Tight timeframe for significant BMP implementation Long-term verificationprocesses				Anticipated: Full BMP implementation dollars (~$1.8 million) 2022 anticipated shovel-ready projects: ~$400,000	2021 & 2022: We are continuously promoting and offering assistance with projects. The Stormwater Consortium has spearheaded this in the 6 municipalities that it covers. As for the other municipalities in the county we have reached out to offer our assistance in any way needed.	

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Priority Initiative 3: Education & Outreach												
3.1	Identify alternative and creative messaging and outreach methods		Education & Outreach Action Team	Countywide	On-going	Overcome stagnant approaches and improve public buy-in					2022: DEP Educational Grant was submitted for county-wide project & watershed signage but was not approved. Continue researching different funding programs that may allow this expenditure. 2021: The team has created a mission statement and logo for the Lebanon CAP team. The team held a logo contest open to the community and had 9 submissions. We narrowed it down to a top three who all received prizes. The first-place logo also was implemented as our new CAP Team logo. This created great community involvement.	Grant was not received so project and watershed signage has not yet been developed.
3.2	Collaborate with the state to improve statewide branding and messaging		Education Action Team, PADEP	Countywide and statewide	On-going	Ensure messaging is uniform region to region	DEP/Water Words That Work tools and materials				2021 & 2022: We used the Clean Waters, Healthy Communities materials and resources to help create our own Lebanon tailored message and branding	
3.3	Unify messaging and outreach methods across sectors		Education Action Team, PADEP, LCCWA,	Countywide	On-going	Amplify the common goals Statewide PSAs and outreach efforts	DEP/ Water Words that Work				2021 & 2022: We used the CAP action teams to unify the message across the sectors	

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available	Resources Needed	Annual Progress to Date (2021 + 2022)	Reason for Change to Action Item (2023-2024 milestone period)
3.4	Support and build on existing education and outreach efforts while preserving the messaging the central focus is Lebanon County		Education Action Team, LCCWA, municipalities, LCCD, non-profits, Stormwater Action Team	Countywide	On-going	Reduce loss of interest by the general public or stakeholders	Existing outreach materials		2022: Distribute created brochures and applications, continue to update materials as needed. 2021: Continuously updating the outreach methods to keep public interest up. We created online materials for people to review for more information. We held an online stakeholder event to explain the CAP document and our work that we are doing to better the county's water.	
3.5	Provide oversight and guidance for CAP-specificmedia outreach approaches and methods (website, radio, etc.)		Education Action Team, CAP Management Team	Countywide	On-going	Ensure appropriate information is available DEP EE Grant for start-ups of outreach platforms	Lebanon Clean Water Action Team website		2022: CAP website updated frequently to include CAP Action Team agendas and meeting minutes so public have easy access to information. 2021: Created website and social media and continue to update with more information and events that the team comes up with. www.lebanoncleanwater actionteam.com	

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022) *add new 2022 progress above the existing 2021 progress. Date each entry	Reason for Change to Action Item (2023-2024 milestone period)
							Technical	Financial	Technical	Financial		
Priority Initiative 4: Data Management & Monitoring												
4.1			DM&M Action Team,	Countywide	On-going	Incompatible data/	GIS tools, WQ portal, USGS	$105,300 from USGS		$327,240 for remaining WQ	2022: Established proposed WQ monitoring	

	Action		Partners	Location	Timeline	Considerations	Resources	Funding		Budget/Cost	Progress/Status
	Identify and expand water quality monitoring efforts to assist with prioritization of BMP implementation and measure long-term success		PADEP, SRBC, watershed groups, LCPD, municipalities, local agencies			information Adequate amount of relevant water quality and macro data for decision points Securing funding to purchase/maintain WQ monitoring station located in Swatara Creek = $712,540		~$280,000 from NRCS		monitoring station expenses	==station location in Swatara Creek. Secured USGS & NRCS funding contributions, met with County Commissioners to explain importance of project, in-process of obtaining rest of funding needs.== 2021: Working with USGS and NRCS to put in more real time WQ stations in Lebanon County to compare to modelled data
4.2	Build a Lebanon County-specific monitoring network		DM&M Action Team	Countywide (organized by watersheds)	Game plan by early 2021, imp. early 2021- 2023	Potentially duplicate QWA monitoring efforts across other watersheds Alignment of various platforms for data collection and reporting	Catchment Management Database Local experts, consultants, etc. SRBC, PADEP			Potential: Equipment and resources for data capture and analysis (TBD)	==2022: CMD database is still in-process. Met with County to discuss obtaining non-ag BMP information for comprehensive County database. It was recommended that we contact individual municipalities to see what information is currently available to input into our database. In the future, a game plan will be created for information that is existing but not identified. Ag information continues to be inputted to continue building comprehensive database.== 2021: Working on creating this network using the CMD data and GIS. We will include a web map feature that will have the monitoring and project points on it specific for Lebanon County. We plan to ask

#	Description		Responsible Parties	Geographic	Timeline	Resources	Tools			Funding	Progress	
											organizations to continue to report their projects and progress back to us, as well as using volunteers to help with monitoring.	
4.3	Maintain an inventory of acceptable BMP verification processes for long-term monitoring efforts		DM&M Action Team, Municipalities, LCCD, state/ local agencies, Capital RC&D, Penn State AEC, local consultants/ engineers	Countywide	Ongoing	Resources for inputting and verifying all BMPs	Verification Processes Inventory BMP Quick Reference Guide			Potential: Funding for inspectors (TBD)	2022: Met with County to discuss obtaining non-ag BMP information for comprehensive County database. It was recommended that we contact individual municipalities to see what information is currently available to input into our database. In the future, a game plan will be created for information that is existing but not identified. Ag information continues to be inputted to continue building comprehensive database. 2021: Have an inventory from DEP for CAP specific BMPs, will continue to find ways for long-term verification	
4.4	Identify potential additional monitoring activities that may accompany existing monitoring activities to capture missing or needed information		Capital RC&D, LCCD, watershed groups, Penn State, municipalities, local consultants/ engineers	Countywide (initial focus on priority watersheds)	Full inventory by late 2020; imp. 2021-2023	Expansion of transect survey processes and data SRBC data and information	Transect survey				2021 & 2022: We have started working with USGS to provide additional monitoring stations for WQ data and also are working with local GIS department team to create a web map for project tracking	
4.5	Establish FieldDoc use and access protocols (SOPs)		DM&M Action Team	Countywide	Early 2021	Ensure quality of information displayed and entered	FieldDoc/PAD EP, LCCD, NRCS Local consultants, agencies, etc.				2022: FieldDoc access has been granted, completed non-ag projects have been inputted into FieldDoc.	

											2021: Plan to input data collected in excel spreadsheet into FieldDoc once access is granted	

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022) *add new 2022 progress above the existing 2021 progress. Date each entry	Reason for Change to Action Item (2023-2024 milestone period)
							Technical	Financial	Technical	Financial		
Priority Initiative 5: Coordination												
5.1	Establish and maintain a coordination sub-committee focused on implementation of the QWA plan and local municipal PRPs/efforts		Watershed Action Team, QWA, MS4 Municipalities in Quittapahilla Watershed	Quittapahilla Watershed	Establish by early 2021, on-going efforts	Provide final approvals for QWA generated 319 plan	QWA, local consultants/engineers				2022: Watershed Action Team includes MS4/PRP representative to discuss our local efforts and needs. 2021: Sub-committee was not created; however, we did create a Watershed Action Team that will address this initiative	
5.2	Engage and support the Conewago initiative		Penn State AEC, CAP Management Team, Ag Action Team, farmers, non-profits	Conewago watershed	On-going	Ag focused effort for BMP and riparian buffer implementation	Penn State AEC, LCCD				2022: LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners. 2021: This has been addressed and will continue to support the initiative as needed	
5.3	Continually engage and update local legislators for CAP implementation support		Legislative & Policy Updates Action Team	Countywide	On-going						2022: Held Legislative Roundtable to discuss ACAP funding and CAP initiatives to increase awareness and encourage support from Legislators. 2021: Our team is in contact with the	

											legislators regularly and continue to seek support	
5.4	Collaborate with Lancaster County for shared watersheds (Upper Hammer, Chiques, etc.)			Non-profits, local agencies, municipalities	Lancaster/Lebanon boundary region	On-going	Project collaboration may help both counties achieve goals and objectives					2022: LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners. 2021: Multiple projects were completed in the Hammer by both Lebanon and Lancaster county and we have continued to keep each other informed to make sure they are in collaboration with each other	
5.5	Engage local/regional programs (e.g. Master Watershed Stewards) to coordinate efforts for long-term CAP implementation success			Education & Outreach Action Team	Countywide	Game plan by late 2020 followed by initial implementation	CAP-related goals and objectives may be achieved through existing programs and efforts					2021 & 2022: Have engaged with Master Watershed Stewards for assistance and collaboration with the CAP projects and progress. They plan to offer their time to help with monitoring efforts	
5.6	Assist with progressingefforts in the Swatara (with the Lower Little Swatara as a priority watershed)			Education & Outreach Action Team, CAP Management Team, Swatara Watershed Association, NRCS, LCCD	Swatara (and Lower Little Swatara)	2021- 2023	Use NRCS plan as basis of approach and funding requests	NWQI Watershed Assessment Plan Catchment Management Database				2022: Applied for NFWF MEB grant to construct two manure storages within Swatara Watershed. 2022: Received NFWF Small Watershed grant to hire ag consultants to develop 7,624 acres of plans within the Little Swatara and Swatara Creek watersheds. 2021: Have identified Lower Little Swatara as a priority watershed and are working with the SWA on projects. We have one project currently being implemented in the Swatara and a few more	

									planned to be implemented in the coming months.	

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*."

Reason 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 reason as to the reason of change, whether up or down.