

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 2024-2025 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+2023+2024) *add new 2024 progress above the existing 2021, 2022, 2023 progress. Date each entry	Reason for Change to Action Item (2025-2026 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	2023-2024	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			<p>(2024) The USGS Supergage water quality monitor is currently online and actively collecting data. StoryMap to highlight data for the public is in development.</p> <p>Ag BMPs previously identified are actively being installed.</p> <p>(2023) BMP verification spreadsheet has been created and supergauge water quality monitoring station has recently been implemented to support collection of real-time data.</p> <p>(2021-2022):</p>	
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 2023 –2024	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	Seeking out additional funding options for cover crop program	<p>(2024) The cover crop program is no longer being pursued by LCCD.</p> <p>(2023) Seeking additional funding sources that allow harvested cover crop so program can continue being pursued. Contacting other counties to learn how their cover crop programs are funded.</p> <p>(2022): Draft cover crop program was tabled by LCCD Board of directors due to cover crop definition restrictions.</p>	(2024) NRCS program is used by the County to implement a cover crop program. No need for 2 programs in Lebanon County.

1.3	Capture existing conservation plans and BMPs into PracticeKeeper		LCCD, Ag Action Team, NRCS, Ag consultants	Countywide	2021-2024	Potential time and resource limitations for plan entry	Local agencies, PracticeKeeper, CAP BMP Verification Technician, LandStudies	BMP Verificaiton Funds			<p>(2024) Hiring of a part-time Agricultural Tech allowing BMP verification to continue.</p> <p>Ag E&S plans are robust in the County and have increased to 6,051 acres. Practices have been verified and implemented into Practice Keeper</p> <p>(2023): Sub-watershed master BMP lists created to assist BMP verification staff with inputting plans and verifying BMPs. LCCD developed and/or inputted 42 Ag E&S Plans with associated BMPs encompassing over 3,000 acres into PracticeKeeper. 30 RI practices have been verified and inputted intoPractice Keeper.</p> <p>(2022):</p>	
1.4	Engage industrial and large ag operation farmers		Ag Action Team, Management Team, Steering Committee	Countywide	2023-2024	Finding Ag operators interested in participating on Action Team					<p>(2024) There are no further Stakeholder events planned currently as the necessity has changed. Most large Agricultural operations are regulated under Act 38 to work with LCCD.</p> <p>LCCD maintains a good working relationship with County stakeholders.</p> <p>(2023) Intend to hold another Stakeholder Kick-off Event in 2024. The plan is to obtain additional industrial/large ag operators on our respective Action Teams.</p> <p>(2022): Continue compiling list of stakeholders with intent of holding another Stakeholder Kick-off Event in 2023. The plan is to obtain additional industrial/large ag operators on our respective</p>	

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)	imp. 2021 –2025 (and beyond)	Farmer resistance or buy-in Resources to develop plans	LCCD, NRCS, Ag Consultants	Reimbursement	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	<p>(2024) The goal has been met to develop 51 conservation plans with hired TSP, NFWF SWG grant is ending.</p> <p>Continuing outreach through Ag BMP Implementation.</p> <p>(2023) LCCD has successfully applied for and received a grant from National Fish and Wildlife Foundation (NFWF) Small Watershed Grant (SWG) to hire a TSP to develop 51 Conservation Plans. The project is currently underway with a target completion date set for the end of 2024. Additionally, LCCD has developed/inputs 42 Ag E&S Plans encompassing over 3,000 acres and 30 RI practices into PracticeKeeper.</p> <p>(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.</p>	
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)	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 write plans.	LCCD, NRCS, Ag Consultants	EQIP, Ag Planning Reimbursement Program, CEG, REAP	Additional personnel, consultants for magnitude of required new or updated plans.	Long-term funding for inspections, etc. (TBD) Seed money for incentive program (TBD)	<p>(2024): A manure injection incentive program was started and implemented at LCCD. To date, 1,250 acres injected through this program.</p> <p>(2023): Lebanon program documents continue to be utilized by interested ag producers 2023 Prescribed grazing acres implemented. 15 acres this year</p> <p>(2022): Lebanon program documents were created and continue to be utilized by interested ag producers.</p> <p>(2021): Our CAP AG Action Team is working on focusing on our priority areas first and have developed a</p>	

1.7	Promote and assist implementation of expanded nutrient management practices in priority areas	<p>Core Nitrogen Nutrient Management (6,000 acres)</p> <p>Core Phosphorus Nutrient Management (2,000 acres)</p> <p>Nutrient Management-Nitrogen Rate (10,000 acres)</p> <p>Nutrient Management-Phosphorus Rate (10,000 acres)</p> <p>Nutrient Management-Nitrogen Placement (12,000 acres)</p> <p>Nutrient Management-Phosphorus Placement (10,000 acres)</p>	Ag Action Team, LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	2021 –2025 (and beyond)	Farmer resistance or buy-in	LCCD, NRCS, RoseTree Consulting, Ag consultants	EQIP, REAP, CEG	Additional personnel, consultants for magnitude of required new or updated plans	Total-Revised NM Plans or included with new plans in Ag 1.6 @ \$500/farm, 436 farms \$218,000	<p>(2024):</p> <p>Manure injection incentive program established. To date, 23 applications on file and 1,250 acres injected.</p> <p>A Pre-sidedress Nitrate (PSNT) Testing program is currently in development.</p> <p>(2023):</p> <p>Initiated a manure injection incentive program to encourage agricultural producers to apply nutrients efficiently and effectively. To date, 11 producers have injected 1,415.28 acres using the program. LCCD is also part of the PA Manure Injection Partnership to provide input and stay updated with changes.</p> <p>(2022):</p> <p>Various discussions with RoseTree and other partners to discuss partnering on these efforts with intent to find producers interested in obtaining and implementing Core NMPs.</p> <p>(2021):</p> <p>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</p>	
1.8	Promote and assist implementation of improved animal unit practices in priority area	<p>Manure Storage Facilities (118,000 New Animal Units (AUs))</p> <p>Dairy Cow Precision Feed Management (20,000 Dairy Cow Animal Units (AUs))</p> <p>Manure Transport out of Lebanon County (25,000 drytons/year)</p>	Ag Action Team, LCCD, NRCS, Penn State, farmers, Penn State, farmers, manure haulers/ brokers, ag retail entities	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	Game plan by 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)	<p>(2024):</p> <p>Completed and installed 17- Board approved manure storages.</p> <p>Stabilized 8 beef/dairy and 27 equine heavy use areas.</p> <p>In Lebanon County, there's been significant interest in BMP funding for animal unit practices, and applicants are currently awaiting board approval.</p> <p>(2023)</p> <p>Continuously assisting farmers with implementing projects and identifying funding options. Our most common project interest this year was manure storage facilities.</p> <p>Manure storages installed: 6</p>	

1.9	Promote and assist implementation of buffers in agricultural riparian zones in priority areas	<p>Forest Buffer (3,100 new acres)</p> <p>Forest Buffer with Streamside Exclusion Fencing (962 new acres)</p> <p>Grass Buffer (1,900 new acres)</p> <p>Grass Buffer with Streamside Exclusion Fencing (550 new acres)</p>	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 or other watersheds	Local experts and agencies, non-profit partners (ACB, etc.)	EQIP, REAP, CEG	<p>Total-Forest Buffers (w/ or w/o fencing) @ \$4,000/acre = \$16.25 million</p> <p>Total-Grass Buffers (w/ or w/o fencing) @ \$2,000/acre = \$4.9 million</p>	<p>(2024): 3 buffer projects were completed on Ag land this year. LCCD is working with Penn State Extension Director to implement a forest buffer program</p> <p>(2023) There was little interest in buffer projects, specifically on Ag land this year. We'll continue working with our partners to implement more projects next year. We are also a partner in the Keystone 10 million Trees program to supply landowners with free seedlings and planting.</p> <p>Buffers in Riparian zones in agriculture completed projects in 2023: 2 completed in 2023.</p> <p>Total through 2024: 3 projects</p> <p>(2022): Various field visits with Penn State and Alliance for the Bay to riparian-interested ag producers. The goal is to find producers interested in implementing forest and/or grass buffers.</p> <p>(2021): The CAP Team is addressing resistance from</p>	
1.10	Engage the Conewago Initiative to align overarching CAP goals with efforts		Penn State AEC, LCCD, CI partners	Conewago Watershed	Continuous	Achievement of significant BMP implementation through existing comprehensive effort				<p>(2024): Partnership continues as we attend joint field visits to interested producers.</p> <p>(2023): Partnership continues as we attend joint field visits to interested producers.</p> <p>(2022): Partnership continues as we attend joint field visits to interested producers.</p> <p>(2021): In communication with the initiative but working on taking actions and partnering on projects.</p>	

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					<p>(2024): CAP Coordinator position expanded to include Environmental Grant Coordinator role in order to research, identify, and apply for additional funding resources.</p> <p>(2023): Working on implementing agricultural as well as watershed project BMPS in order to effectively work towards fostering additional funding resources</p> <p>(2022): Applied for NFWF Small Watershed and Most Effective Basin grants, secured CEG & ACAP funding.</p> <p>(2021): Identified funding for Ag projects, such as CEG funding program and plan to use some of that funding for a Cover Crops</p>	
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Priority Initiative 2: Stormwater (Developed Areas)

<p>2.1</p>	<p>Engage legacy partners (Stormwater Consortium, etc.) to ensure capture and support of initiatives as it relates to local water quality improvements</p>		<p>Stormwater Action Team, watershed groups, MS4 municipalities, non-profits</p>	<p>Countywide</p>	<p>Comm Plan developed by early 2021. Followed by initial imp.</p>	<p>Ensure efforts are not duplicated and focus on filling in gaps or providing collaboration arenas. Project capture and reporting processes</p>	<p>FieldDoc</p>			<p>Resources for long-term verification processes (TBD)</p>	<p>(2024): Legacy partners continue to participate in our Watershed Action Team. Projects that are not CAP-funded and are done by MS4 permittees that are not a part of the Stormwater Consortium are not generally tracked by LCCD. 2 CAP-funded non-ag projects completed in 2023; A bioswale and vegetated swale at Spring Creek-Palmyra, and 834 LF of streambank restoration along the Quittapahilla Creek-Spruce St) 1 CAP-funded non-ag project completed in 2024. 900 LF of streambank restoration along Quittapahilla Creek-Syner Phase I. Additional phases to this project are currently in the planning and permitting process (2023) Legacy partners are active members of our Action Teams and Steering Committee. Our 3 funded watershed projects have been led by our members and completed. (Trout Unlimited & Steckbeck Engineering). (2022): Legacy partners are active members of our</p>	
<p>2.2</p>	<p>Integrate other water resources initiatives (e.g. source water protection) into overall approaches</p>		<p>Stormwater Action Team, LCCWA, Lebanon County Stormwater Consortium, local agencies (LCPD, etc.)</p>	<p>Countywide</p>	<p>Game plan by late 2020 with initial imp.</p>	<p>Conflicting regulatory requirements</p>	<p>Local consultants/engineers, local and state agencies, SWP entities</p>				<p>(2024): Not a focus at this time for LCCD, no plan has been developed. (2023): The game plan has not yet been secured. Looking to reevaluate action time in next few months- if no plan has been developed then action item will be taken off the progress report. (2022): Involved in MS4 meetings to discuss regulatory requirements. (2021):</p>	<p>(2024): This action item to be taken off of progress report due to difficulty with conflicting regulatory requirements.</p>

2.3

<p>Pursue regional stream and wetland restoration projects that provide additional benefits to multiple communities and MS4s</p>	<p>Urban Stream Restoration (6,000 new linear feet) Non-urban Stream Restoration (55,068 new linear feet) Wetland Restoration (125 acres)</p>	<p>Watershed groups, non-profits, MS4 Municipalities, LCCD</p>	<p>Countywide with initial focus on priority. Watersheds/catchments.</p>	<p>Late 202-2025 (and beyond)</p>	<p>Tight timeframe for significant BMP implementation Local landowner willingness to participate Incorporate floodplain restoration approaches into stream restorations.</p>	<p>Local consultants/engineers Non-profits (TU, etc.)</p>	<p>NFWF, GG, EPA, DCNR</p>		<p>Full BMP implementation dollars (~\$16.25 million)</p>	<p>(2024): Quittapahilla Creek floodplain restoration project upstream of the 22nd St. bridge completed by the Stormwater Consortium. MS4 permittees are hesitant to begin new projects due to uncertainty regarding current and new permit requirements. Regional approaches and wetland creation approaches have faced pushback. All 3 CAP-funded projects below (Spring Creek, and Spruce St. and Syner Rd. I along the Quittie) have been completed. (2023) Three in-process projects: First Project in Spring Creek to construct bioswale and vegetated swale to control urban runoff, project will be complete Dec 2023. Second project is located on Quittapahilla Creek. Project goal is to restore and stabilize a section of the creek. Completion date would be end of 2023. Third project is on Syner rd., consisting of a streambank restoration, target completion date would be end of this year or beginning of next year.</p>	
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2.4

<p>Engage and collaborate with PSU Extension to coordinate efforts for protection of private wells</p>		<p>Stormwater Action Team, PSU Extension</p>	<p>Countywide (non-public utility service areas)</p>	<p>2024</p>	<p>Collaborate with Source Water Protection (SWP) entities and efforts</p>	<p>PSU Extension, SWP entities</p>				<p>(2024): The Penn State Master Well Owner Network includes Lebanon County MWS participants, but LCCD has not engaged with them. No actions have been taken on this item. (2023): Was not identified as an immediate priority so timeframe will be extended, will discuss the action item in a few months- if action item or plan has been established then the action item will be taken off the progress report (2022): Was not identified as an immediate priority, (2021): Have begun discussions, but no action has been</p>	<p>(2024): Will remove this action item next year if there is still no collaboration with PSU extension.</p>
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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 2022-2025 (and beyond)	<p>Ensure efforts are not duplicated and focus on filling in gaps or providing collaboration arenas.</p> <p>Municipal buy-in or resistance</p> <p>Long-term verification processes Lebanon County-specific funding program through</p>	Local engineers, consultants, municipalities				<p>(2024):</p> <p>The Consortium continues to have a representative on the Watershed Action Team. LCCD staff are active members of the Lebanon County Clean Water Alliance, which includes 19 MS4 municipalities.</p> <p>MS4 permittees are hesitant to begin new projects due to uncertainty regarding current and new permit requirements.</p> <p>(2023):</p> <p>Working with MS4/Stormwater Consortium to create game plan for identifying BMPs throughout County. Consortium continues to be very active member of CAP Action Team.</p> <p>(2022):</p> <p>Working with MS4/Stormwater Consortium to create game plan for identifying BMPs throughout County.</p> <p>(2021):</p> <p>We have engaged and plan to continue to</p>	
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 plan by early 2021 with initial imp	<p>Buy-in may be a large hurdle</p> <p>Buy-in or resistance from developers</p>					<p>(2024):</p> <p>No update. MS4 permittees are reluctant to stray from PRPs or include alternative approaches in plans.</p> <p>(2023):</p> <p>Conversations have been held with MS4/Stormwater Consortium but game plan has not been identified at this time.</p> <p>(2022):</p> <p>Has not been identified at this time</p> <p>(2021):</p> <p>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</p>	

2.7	Promote and assist implementation of riparian zone, habitat, and tree canopy, and conservation practices in priority 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 communities and priority catchments	Late 202-2025 (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 on dollars (~\$825,000)	<p>(2024): LCCD is continuing as a Keystone 10 Million Trees partner. Several municipalities and watershed organizations are also planting and tracking trees through the partnership</p> <p>(2023): We are continuously promoting and assisting with projects. We have helped groups apply to grant programs like Growing Greener and several NFWF grants to implement projects. We are also a partner in the Keystone 10 million Trees program to supply landowners with free seedlings and planting.</p> <p>(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.</p>
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 202-2025 (and beyond)	Urban nutrient management is dependent on fertilizer legislation Tight timeframe for significant BMP implementation Long-term verification processes	Local consultant/engineers Municipalitiess			Anticipated: Full BMP implementation on dollars (~\$398,500)	<p>(2024): We remain committed to promoting and supporting projects that drive positive change. The Stormwater Consortium has taken the lead in implementing initiatives across the six municipalities it serves, and we continue to extend our support to additional counties, fostering broader collaboration and progress.</p> <p>(2023): We are continuously promoting and assisting with projects. The Stormwater Consortium has spearheaded this in the 6 municipalities that it covers. We continue to assist other counties as well</p> <p>(2021 & 2022): We are continuously promoting and offering assistance with projects. The Stormwater</p>

2.9

<p>Promote and assist implementation of stormwater control measures that incorporate Low Impact Development (LID) approaches</p>	<p>Wet Ponds and Wetlands (197 acres treated)</p> <p>Stormwater Performance Standards-Runoff Reduction (915 acres treated)</p> <p>Bioretention/Rain gardens (24 acres treated)</p> <p>Bioswale (9 acres treated)</p> <p>Vegetated Open Channels (15 acres treated)</p>	<p>MS4/non-MS4 communities</p>	<p>Countywide with initial focus on MS4 communities and priority catchments</p>	<p>Late 202-2025 (and beyond)</p>	<p>Tight timeframe for significant BMP implementation</p> <p>Long-term verification processes</p>				<p>Anticipated: Full BMP Implementation dollars (~\$1.8 million)</p>	<p>(2024): We remain committed to promoting and supporting projects that drive positive change. The Stormwater Consortium has taken the lead in implementing initiatives across the six municipalities it serves, and we continue to extend our support to additional counties, fostering broader collaboration and progress.</p> <p>(2023): We are continuously promoting and assisting with projects. The Stormwater Consortium has spearheaded this in the 6 municipalities that it covers. We continue to assist other counties as well</p> <p>(2021 & 2022): We are continuously promoting and offering assistance with projects. The Stormwater</p>	
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Priority Initiative 3: Education & Outreach

<p>3.1</p>	<p>Identify alternative and creative messaging and outreach methods</p>		<p>Education & Outreach Action Team</p>	<p>Countywide and statewide</p>	<p>On-going</p>	<p>Overcome stagnant approaches and improve public buy-in</p>					<p>(2024): Local news articles, social media posts, and presence at community events have provided information about Ag cost share funding opportunities, CAP, and watershed education. The CAP and LCCD websites are currently being updated. LCCD assisted in LCCWA's 2nd annual Arbor Day Celebration to raise community support for tree plantings and contributed to LCCWA's new StoryMap to highlight conservation in the county. (2023): DEP Educational grant was applied for again and was not awarded so project and watershed signage have not yet been developed. Ongoing research for alternate funding sources. (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.</p>	
<p>3.2</p>	<p>Collaborate with the state to improve statewide branding and messaging</p>	<p>Education Action Team, PADEP</p>	<p>Countywide and statewide</p>	<p>On-going</p>	<p>Ensure messaging is uniform region to region</p>	<p>DEP/Water Words That Work tools and materials</p>					<p>(2024): We continue to leverage the Clean Waters, Healthy Communities materials and resources to craft a Lebanon-specific message and branding that resonates with our local community. (2023) We continue to use the Clean Waters, Healthy Communities materials and resources to help create our own Lebanon- tailored message and branding (2021 & 2022): We used the Clean Waters, Healthy</p>	

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					<p>(2024): We continue to use CAP action teams to strengthen and unify our message across all sectors.</p> <p>(2023): Using CAP action teams to unify the message across the sectors</p> <p>(2021 & 2022): We used the CAP action teams to unify the message across the sectors</p>	
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				<p>(2024): Continued updating existing outreach materials and revising LCCD and CAP websites. Maintaining existing outreach and education programs, such as rain barrel workshops (2023 & 2024), ag field days (2023), and legislative roundtables (2023).</p> <p>Increasing presence at community events to discuss local resource protection and funding opportunities</p> <p>(2023): Distribute created brochures and applications, and continue to update materials as needed. Create new outreach and education materials to engage public through handouts and hands on experiences</p> <p>(2022): Distribute created brochures and applications, continue to update materials as needed.</p> <p>(2021):</p>	

3.5

Provide oversight and guidance for CAP-specific media 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				<p>(2024): Website redesign is continuing.</p> <p>The previous CAP website (www.lebanoncleanwateractionteam.com) is no longer active. All CAP-related information is currently housed on LCCD's website under the "Countywide Action Plan" tab.</p> <p>(2023): Website redesign to address public feedback, seamless integration of meeting documentation, and strengthening partnerships with local radio hosts.</p> <p>(2022): CAP website updated frequently to include CAP Action Team agendas and meeting minutes so the public have easy access to information.</p> <p>(2021):</p>	
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Priority Initiative 4: Data Management & Monitoring

4.1

Identify and expand water quality monitoring efforts to assist with prioritization of BMP implementation and measure long-term success

DM&M Action Team, PADEP, SRBC, watershed groups, LCPD, municipalities, local agencies

Countywide

On-going

Incompatible data/information

Adequate amount of relevant water quality and macro data for decision points

GIS tools, WQ portal, USGS

\$105,300 from USGS

~\$280,000 from NRCS

\$327,240 for remaining WQ monitoring station expenses

(2024):
Funding for FY25 was secured for the Swatara Supergage. Two other NTN Supergages were installed in December 2023; one on Hammer Creek and one on Little Conewago Creek.

Watershed groups and Penn State AEC continue to monitor in the Quittapahilla and Conewago watersheds. A plan is being developed to begin a countywide volunteer monitoring program.

(2023):
In partnership with USGS and NRCS, the Supergage water quality monitoring station was installed on the Swatara. Looking for funding after 2024 for the project to continue.

The first LCCD Supergage field day was held and was a great success with other 30 attendees including Secretary Redding and local partners and organizations. The purpose of the field day was to educate the public as well as seek potential future funding

(2022):
Established proposed WQ monitoring station location in Swatara Creek. Secured USGS & NRCS funding contributions, met with County Commissioners to explain importance of

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)	<p>(2024): A plan is being developed to begin a Countywide volunteer water monitoring program</p> <p>(2023) CMD database is still in- process</p> <p>(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.</p> <p>(2021): Working on creating this network using CMD</p>	
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)	<p>(2024): 2 DEP-Funded Summer interns verified stream BMP practices in two watersheds (Beck Creek and Bachman Run). Data will be compiled into a final report available for public review. This work completes stream BMP verification.</p> <p>2023 Summer Interns' data was compiled into the following 61-page final report. https://www.quittiecreek.org/documents/2023_Interns/Final_Report_2023_Interns.pdf</p> <p>(2023): CMD database is still in- process, however, BMP verification efforts have increased through hiring two seasonal interns to verify practices in two watersheds.</p> <p>(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</p>	

4.4	Identify potential additional monitoring activities that may accompany existing monitoring activities to capture missing or needed information		Capital RC&D, watershed groups, Penn State, municipalities, local consultants/engineers	Countywide (initial focus on priority watersheds)	Full inventory by late 2020; imp. 2021-2024	Expansion of transect survey processes and data. SRBC data and information	Transect survey				<p>(2024): LCCD worked in coordination with USGS to obtain funding from NRCS for FY25 in order to continue Swatara Supergage operations</p> <p>Supplemental funding for the Supergage was awarded by Lebanon County Commissioners through the Marcellus Shale Grant.</p> <p>2 years of data collection by the Swatara Supergage will be utilized and incorporated into a StoryMap, which is scheduled to be available online in 2024/2025 timeframe.</p> <p>(2023) Working with USGS for the potential implementation of another water quality monitoring station and collecting data from the one installed on the Swatara Creek</p> <p>(2021 & 2022): We have started working with USGS to provide</p>	
4.5	Establish FieldDoc use and access protocols (SOPs)		DM&M Action Team	Countywide	On-going	Ensure quality of information displayed and entered	FieldDoc/PADEP, LCCD, NRCS Local consultants, agencies, etc.				<p>(2024): 2023 projects have been inputted into FieldDoc.</p> <p>(2023): 2022 projects have been inputted into FieldDoc, waiting on 2023 project completion to be inputted as well</p> <p>(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</p>	

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				<p>(2024): The Watershed Action Team continues to bring together QWA and Consortium representatives. Non-Consortium municipalities are not typically engaged by LCCD.</p> <p>(2023): Watershed Action Team includes MS4/PRP representative to discuss our local efforts and needs. Continues to be a successful Action Team.</p> <p>(2022): Watershed Action Team includes MS4/PRP representative to discuss our local efforts and needs.</p> <p>(2021):</p>	
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				<p>(2024): LCCD staff attend meetings, conduct field visits, and participate in Penn State AEC's Conewago synoptic sampling.</p> <p>(2023): LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners.</p> <p>(2022): LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners.</p> <p>(2021): This has been addressed and will continue</p>	

5.3	Continually engage and update local legislators for CAP implementation support		Legislative & Policy Updates Action Team	Countywide	On-going						<p>(2024): LCCD to attend October tabling event at the Lebanon Municipal Officials Convention.</p> <p>Legislative Roundtable was not held this year. Will look to resume event next year</p> <p>(2023): Held Legislative Roundtable to discuss ACAP funding and CAP initiatives to increase awareness and encourage support from Legislators.</p> <p>(2022): Held Legislative Roundtable to discuss ACAP funding and CAP initiatives to increase awareness and encourage support from Legislators.</p> <p>(2021): Our team is in contact with the legislators</p>	
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					<p>(2024): LCCD staff participate in the Hammer Creek Headwaters ARP partnership and the Conewago Initiative, and Chiques Watershed Alliance meetings as able. LCCD and Lancaster CCD coordinate the Lancaster-Lebanon Watershed Forum annually.</p> <p>(2023): LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners.</p> <p>(2022): LCCD ag staff attend Conewago meetings and conduct field visits to interested landowners.</p> <p>(2021): Multiple projects</p>	

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					<p>(2024): Engage with MWS program for monitoring, tree plantings, and rain barrel construction.</p> <p>(2023): Have engaged with Master Watershed Stewards for assistance and collaboration with the CAP projects and progress.</p> <p>(2021 & 2022): Have engaged with Master Watershed Stewards for assistance and collaboration with the CAP projects and progress. They</p>	
5.6	Assist with progressing efforts 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)	2021-2024	Use NRCS plan as basis of approach and funding requests	NWQJ Watershed Assessment Plan , Catchment Management Database				<p>(2024): NFWF Small Watershed Grant completed. All 51 Conservation plans successfully developed.</p> <p>(2023): Received funding for NFWF Small Watershed Grant to hire TSP to develop 51 conservation plans. 19 plans have been written with a total of 930 acres.</p> <p>(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.</p> <p>(2021): Have identified Lower Little Swatara as a</p>	