

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

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

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Progress to Date
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Stormwater Action Team											
Priority Initiative 1: Update Act 167 Integrated Water Resources County Plan											
1.1	Prioritize Act 167 planning in the County (develop new Act 167 plan that includes updated plan information and modeling for every County watershed. A new plan will provide updated ordinances to support regional runoff and flood management)		County Planning, Municipal, Lancaster County Clean Water Consortium	Countywide	FY2020-2021 (if funding is made available)	Act 167 work is not currently funded adequately in the general budget at the state level. This could be remedied by funding that line item or dedicating other grant funds. Because the funding went away, we do not have the necessary data.			Lead org. (Consulting engineer/ planner)	\$3 million for Lancaster County	There is consensus that both an Act 167 plan update is appropriate; and an update should incorporate data, considerations, etc. that reflects water quality information and modeling to better ensure stormwater management and flood mitigation planning and project implementation balances both water quantity and quality. Actions to move this initiative forward are limited by financial considerations.
1.2	Have 167 plan that has pollutants/modeling parameters consistent with CAST (dependent on 1.1)		County planning, Municipalities	Countywide	FY2020-2021	Modeling is not consistent with the CAST model and more accurate baselines are required. New legislation at the state level to provide consistency between Act 167 and CAST model	Local consultants				See progress to date on Action 1.1.
1.3	Update model ordinance(s) for countywide and/or watershed goals		County Planning, Municipalities, Solicitors, Community Stakeholders	Countywide	FY2020-2021	Develop a robust model municipal stormwater ordinance(s) for Lancaster County that explicitly defines water quality goals, implementation requirements, buffer extents, and supports other initiatives in the County WIP, including green infrastructure, conservation overlays, riparian corridor standards, and restricting development and construction within floodplains and advocate for municipal adoption. Time constraints, no funding, and municipal adoption	Local agencies, local consultants			\$200,000 per model ordinance	There is consensus an Act 167 plan update is appropriate, and a subsequent update to the model ordinance is necessary. The engineer's group has convened several times to move this action forward, but there is also consensus to wait until the next MS4 permit draft (2023-2028 cycle) is issued first.

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1.4	Establish greater regionalization of runoff and flood management		County Planning, Municipalities	Countywide	FY2020-2021	Updated Act 167 and model ordinance(s) would establish basis for watershed-wide implementation of practices to cost-effectively achieve pollutant reduction goals.	Local agencies, local consultants		Flexibility in regional management of water quality under Act 167	Funding for development of ordinance(s), hazard mitigation, and GIS tools: \$180,000 total to do	Implementation of projects that provide regional and extended community benefits have become more prevalent across the county. Mechanisms to better track or plan for more targeted project locations would be ideal (see Actions 1.1 and 1.2).
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Priority Initiative 2: Update MS4 Performance Criteria, Oversight, and Implementation

2.1	Clarify and broadly publicize flexibility criteria allowing focus on watersheds rather than municipally regulated MS4-UAs (process for watershed-based permits established, understood, and implemented by permittees to allow for greater documentation, recording, verification, and reporting of BMP beyond those located in MS4-UAs)		Lancaster County, municipalities	Countywide Priority Watersheds: Pequea Creek, Cocalico Creek, Chiques Creek, Others	CY2019-2021	As presented to permittees over the last ten years, DEP and EPA requirements and programs complicate this process and serve as a disincentive. However, recent guidance distributed to municipalities outlines a different methodology. Consistent training and regulation is vital.	Technical expertise is present; DEP clarification memo/letter watershed groups		12 plans (1 per watershed) at \$50,000 = \$600,000 minimum needed to do the plans	The development and implementation of watershed-based permits and plans is slowly progressing forward (Lititz Run WBP, Chiques Creek Report Card, Pequea WIP) that prioritizes watershed health have been moving along. Financial limitations are the primary hurdle for further efforts across other watersheds.
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2.2	Create goal line that is both definitive and does not stop at the end of a permit cycle (Establish quantifiable milestones that are consistent with CAST/Bay models, verifiable via consistent reporting templates that are consistent, accessible, and widely accepted)		Lancaster County, municipalities, Lancaster County Clean Water Consortium	Countywide	CY2019-2021	Milestones need to be consistent beyond those under current MS4 permits Action is required by DEP/EPA to make this process less complicated DEP/EPA must provide clear direction with regard to pollutant reduction calculation methodologies, verification protocols, and reporting	Technical expertise is present		\$20,000 per year is necessary to create and maintain a local report. \$80,000 – \$100,000 per year is necessary to host a point person for stormwater for the county	While there is consensus this is an appropriate action to undertake, it is difficult to establish definitive and broad milestones due to changing technologies, changing requirements, and so on. This action may come to the forefront through the further development of watershed-based documents (see Action 2.1).
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						requirements.					
2.3	Seek creative solutions to focus on the problem (pollution), not the geography (MS4 and urban areas) – Prioritize projects that include multiple benefits	Bioretention and rain garden – 202 acres treated	Lancaster County, Municipalities	Countywide, Priority watersheds: Pequea Creek Cocalico Creek Chiques Creek, etc	FY2021	Current DEP and EPA requirements make it more difficult for municipalities to focus on water quality rather than specific, inefficient program requirements.	Technical expertise is present	Dollars for PRP projects are listed in the PRP report but need to be updated based on final, approved PRP’s	Currently, Lancaster County MS4s will collectively spend appx. \$1M to achieve a 100,000-lb N reduction in the current MS4 permit cycle. This funding could be leveraged against future permit cycle compliance if it could be spent on watershed-based solutions that includes projects outside of the traditional MS4 area.	\$45,000 per watershed plan: - Dollars would be mostly for BMP’s that will be listed in other Priority Initiatives but can receive credit in stormwater work	Identifying and implementing projects that provide multiple benefits and extended community benefits is not the issue with this action. Changes to programmatic/policy requirements, coordination amongst multiple stakeholders, and so on inherently slows the overall process down. There are more opportunities (projects) than current funding streams.
		Erosion and sediment controls -500 acres				MS4 permits shifting from TSS to TN reductions. –this will take new dollars and expertise from the municipalities and engineers.					
		Filter strip runoff – 10 acres				Process established for meeting water quality goals outside of regulated geography and in a cost-efficient manner					
		Urban buffers – 211.31 acres				PennDOT/turnpike coordination and collaboration (including legislator support to help facilitate the process)					
		Impervious surface reduction – 50 acres									
		Wet ponds and wetlands – 290 acres treated									
		Stormdrain cleanout – 29,610 lbs. of sediment removed									
		Grey infrastructure – 23,772 acres									
		Street sweeping – 155 acres treated									
		Dry ponds – 312 acres treated									
Infiltration practices – 70 acres treated											
Extended dry basins – 301.79 acres treated											

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		Vegetated open channel – 384 acres treated									
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Priority Initiative 3: Create Programmatic Consistency

3.1	Align permit parameters to water quality goals		Lancaster County, municipalities, DEP	Countywide		<p>If a municipality is asked to submit the same information for each plan (102, 537, etc), they should not need to duplicate efforts like hiring engineers twice or reformulate the data each time.</p> <p>Various DEP and EPA strategies are presently not aligned and improvements are not accounted for across programs (102, 105, 537, NPDES, MS4, etc.)</p>	Technical expertise is present		Staff time at DEP		<p>The municipalities in the Lititz Run watershed are progressing with this action (but they are currently the only ones). There has been pushback from various departments at DEP regarding this effort. The draft Lititz Run WBP is anticipated to be submitted to DEP during the first quarter of 2021.</p>
3.2	Create greater consistency and accountability for review, inspections, and documentation of operation and maintenance of permit sites		Lancaster County, municipalities	Countywide		County and municipalities should clarify and implement protocols to ensure consistent reporting for Bay TMDL compliance.	Technical expertise is present		Consistent inspection requires staff time from LCCD E&S staff and DEP; documentation and reporting protocols for operation and maintenance.	More funding for staff and staff training	There is strong consensus and support for this action. Human and capital resources are the main limitations for fully implemented programs. There are several efforts underway to use stormwater fees to fund inspection and maintenance activities (including for privately-owned BMPs).

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						Tied to long-term verification processes inventory efforts	PennDOT Connect				
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Priority Initiative 4: Project Funding

4.1	Seek and acquire creative legislation and funding for implementation, operation, and maintenance of water quality projects (obtain sufficient funding for implementation and ongoing maintenance of all BMPs necessary to achieve Bay TMDL compliance)	Nutrient management planning – 10,577 acres	Lancaster County, municipalities, private companies related to fertilizer legislation	Countywide		Current state legislation that complicates and/or prohibits various public-private initiatives should be addressed to facilitate P3 initiatives and allow for private and public funds to be used collaboratively. The goal for this BMP is taken from the state recommendation, which relies on a change in the fertilizer legislation. Without that legislative change, we can only strive to treat 100 acres.	Technical expertise is present			Funding or legislation to support larger goal	This may always be a limiting factor.
4.2	Employ market-driven solutions for project funding (e.g. stormwater offset, credit trading, environmental impact bonds, etc.)		Lancaster County, municipalities	Countywide	On-going	Practices such as stormwater offsets and wetlands banking transfers need to be enabled and established by DEP. EIB, green-crowd funding, and other private investments programs must be permitted via legislative change.	Technical expertise is present			Funding	Efforts have been underway implementing strategies or components of market-driven solutions (developer implemented regional stormwater management projects, social impact bonds, mitigation banking, and so on). Legislative or programmatic support would be ideal to knocking down remaining barriers for desired actions related to P3 efforts.
4.3	Revise funding criteria to ensure alignment with adopted policy and planning goals		Lancaster County MPO/TIP, Smart Growth Funds, Lancaster County Ag Preserve Board, LGH Lighten Up Lancaster	Countywide	On-going	Increase funding for Green Infrastructure and water quality BMPs for preserved farms, transportation and bridge projects, and complete streets	Technical expertise is present			Funding	There is consensus this is needed, but limits to financial resources are real.

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4.4	Build water quality improvement measures into capital and maintenance projects	Dirt and Gravel Roads E&S – 158,000 new linear feet by 2025	Municipalities, Municipal Authorities, Lancaster County Conservation District Watershed team for Dirt and Gravel Roads program	Countywide	2025	Increase # of green infrastructure projects and water quality BMPs installed with municipal capital and maintenance projects					The Dirt & Gravel Road/Low-Volume Roads program is very popular (even amongst boroughs and urbanized areas). Several municipalities have been implementing true asset management programs that provides considerations for stormwater facilities and water quality improvements in other focus areas (e.g. transportation improvements).
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Priority Initiative 5: Identify alternate sources of project identification

5.1	Identify projects from hazard mitigation planning initiatives		Municipalities, Lancaster County	Countywide	On-going	Regular review of hazard mitigation plans Limited staffing to review materials		Dirt and Gravel Roads program and dollars			This is becoming more normal in overall project development and implementation efforts. However, human and capital resource limitations slow efforts to fully implement and coordinate/prioritize opportunities.
								DCNR buffer grants			
5.2	Identify projects from municipal capital improvement plans		Municipalities, Municipal Authorities, Lancaster County	Countywide	On-going	Regular review of municipal capital improvement plans Limited staffing to review materials		Dirt and Gravel Roads program and dollars			See Action 5.1
								DCNR buffer grants			
5.3	Identify projects from local, county, and state infrastructure improvement plans		Municipalities, Municipal Authorities, Lancaster County	Countywide	On-going	Regular review of local, county, and state infrastructure improvement plans Limited staffing to review materials		Dirt and Gravel Roads program and dollars			See Action 5.1
								DCNR buffer grants			
5.4	Identify projects from watershed plans		Municipalities, Conservation District, Watershed groups, Lancaster County	Countywide	On-going	Regular review of watershed plans Limited staffing to review materials		Dirt and Gravel Roads program and dollars			See Action 5.1
								DCNR buffer grants			

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Priority Initiative SR1: Stream Restoration

SR1.1	<p>50 projects plus basic, cost effective monitoring (field inspections) of before and after water quality results that are shared (include sourcewater protection work)</p>	<p><i>In-stream restoration - Urban (29,146 linear ft)</i></p>	<p>Municipalities, LCCD, WSI, watershed groups, DTU, USFWS, LandStudies, USACE, DEP, Lancaster County Clean Water Consortium, DEP, PAFBC, EPA</p>	<p>Contiguous projects in priority watersheds TBD</p> <p>Specific sites TBD based on opportunity, permit cycles, and compliance needs</p> <p>The intention is to address source water issues as well</p>	<p>2019 – 2025 (and beyond)</p>	<p>As site specific details become available, we will use the alternative BMP template for floodplain and stream restoration projects with legacy sediment.</p> <p>Lack of funding available to achieve the projects at the pace we need</p> <p>Long permit timelines</p> <p>Presumed contiguous willing landowners when that may not be the case, especially in the short term</p> <p>Develop an acceptable monitoring protocol that includes a publically viewable format</p> <p>Greater state/federal permit process speed (especially for commercial projects)</p> <p>Current MS4 set up limits municipal interest/availability to participate</p> <p>In general, current municipal ordinances do not make these projects an easy “yes” for a developer.</p>	<p>Practice Keeper as data hub for permits and projects</p>	<p>319 funding for Mill Creek, Conowingo, and Conewago</p>	<p>Outreach staff to make initial contact with landowners</p>	<p>Funding</p>	<p>There is no shortage of opportunities and potential projects. Shortage of financial resources is the only limiting factor.</p>
		<p><i>In-stream restoration – Non-urban (63,900 linear ft)</i></p>					<p>Data experts like the Academy of Natural Science, SRBC, WSI, Chesapeake Conservancy, PSU, and more</p>	<p>Growing Greener funding</p>	<p>Permit processors (Harrisburg-based work)</p>	<p>Estimates \$150 (bank stabilization, smaller –scale projects, etc) -\$350 (legacy sediment or floodplain restoration type projects) per linear foot (this includes staff time)</p>	
		<p><i>Wetland restoration/creation in floodplain – 52 acres</i></p>					<p>Exelon funding</p>	<p>Excavators</p>	<p>\$75,000 per acre of wetland restoration</p>		
							<p>Private funding</p>	<p>Technical assistants to install projects (contractors) and project managers</p>	<p>Add 20% on top of all costs for pre- and post-project work (finding willing land owners, identifying the best project locations, followed by monitoring, maintenance, etc)</p>		
							<p>NFWF funding</p>	<p>Monitoring equipment and data analysis experts</p>			

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SR1.2	Dam removal notification system so that appropriate restoration accompanies any removals (programmatic recommendation)		County, PAFBC, Water Science Institute	Priority watersheds TBD	2025	A necessary comprehensive approach with connection between dam removal and restoration work; current situation allows a dam to be removed and the permittee to walk away, which results in much more sediment pollution	County, PSU, watershed specialists, PAFBC				This became a specific issue in the Chiques Creek watershed and revealed an inherent gap in the overall coordination efforts that have been accomplished. Programmatic/policy changes are requested to address this issue.
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Priority Initiative LP1: Growth Management

LP1.1	Direct growth to UGA's and VGA's (DGA's). Prioritize redevelopment and infill in DGAs. Build more compactly and efficiently		Municipalities, Lancaster Co Planning Commission (LCPC), and developers.	Countywide (Focus: Designated Growth Areas)	LCPC Growth tracking - 2 year increments	Municipal participation Increase % of new dwellings in UGAs to accommodate projected pop and increase % of new non-residential SF. Increase residential net density to target density for each UGA; 9.0+ DU/Ac, 6.5 DU/Ac or 5.5 DU/Ac depending on the UGA.	Municipalities (Regs & Impl.). LCPC staff for growth tracking			Grants and resources needed by municipalities	There is consensus for this action. Economic and political realities limit observance from time to time.
LP1.2	Utilize low impact development (LID) practices		Municipalities, LC Clean Water Consortium, Developers, and LCPC	Countywide (Focus: Designated Growth Areas)	2019-2025	Increase use of LID practices. Municipal participation Developer resistance	Staff of various partners			Grants and funding for education & outreach	This is a fundamental component of implemented projects.
LP1.3	Limit large-lot suburban development in rural areas		Municipalities and LCPC	Countywide (Focus: Designated Growth Areas)	LCPC Growth tracking - 2 year increments	Reduce total acres developed per year in rural areas, and reduce % of new dwellings outside UGAs Municipal participation Developer resistance	LCPC staff for growth tracking				There is consensus for this action. Economic and political realities limit observance from time to time.

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LP1.4	Plan to fully serve Urban Growth Areas (UGAs) and align water and sewer service with UGA's	Septic connection of 3,000 systems (to municipal service)	Municipalities, Municipal Authorities and LCPC (education & advocacy)	Countywide (Focus: Designated Growth Areas)	LCPC Growth tracking - 2 year increments	Increase % parcels in UGA with water and sewer service Costs, Municipal participation, Authority participation	LCPC staff for growth tracking			Matching funds to municipalities for Act 537 plans (of approx. \$100,00 per muni)	There is consensus for this action. Economic and political realities limit observance from time to time. Financial resource limitations hinder full realization of this action.
LP1.5	Plan for appropriate wastewater management in rural areas	Septic pumping of 10,000 systems	Municipalities, Municipal Authorities, PA DEP and LCPC	Countywide (Focus: Rural Areas)	2019-2025	Reduce number of failing on-lot disposal systems (OLDS) Costs, Stricter regulations required from state, municipal participation				Funding	There is consensus for this action. Economic and political realities limit observance from time to time. Financial resource limitations hinder full realization of this action.
LP1.6	Adopt and/or Update Act 537 Plans		Municipalities, PA DEP, and LCPC	Countywide	2019-2025	Increase number of municipalities that adopt or update their Act 537 Plans Costs, Stricter regulations required from state, municipal participation				Matching funds to municipalities for Act 537 plans (approx. \$100,000 per muni) (programmatic recomm.)	Financial resource limitations hinder full realization of this action. This may be resolved through WBPs and fully integrated water resource plans as noted in previous initiatives.

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LP1.7	Utilize TDRs for Ag land, woodlots and other natural areas as a tool to promote greater density in UGAs/VGAs		Municipalities, LCPC (guidance)	Countywide	2019-2025	Increase # of muni using TDRs. Explore possibility of a pilot TDR ordinance between multiple municipalities Logistical hurdles, municipal participation					Funding/grants to revise or draft ordinances	This is a complicated subject, but interest in adopting this approach or elements of this approach is growing.
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Priority Initiative LP2: Improve Planning and Design

LP2.1	Improve Planning & Design and Utilize Integrated Water Resource Planning and Management (IWRP & IWRM)		Municipalities, with LCPC	Countywide	2019-2025	Increase number of Comprehensive watershed management, water/sewer infrastructure, rural wastewater management, stormwater management and green infrastructure plans Funding. Municipal participation					Grants and funding (\$50,000 - \$100,000 per plan/ordinance)	There is consensus for this action. Economic and political realities limit observance from time to time. Financial resource limitations hinder full realization of this action.
LP2.2	Amend or adopt local ordinances that minimize stormwater runoff and regulate development that protects water resources (tied to Act 167 focus areas and goals)		Municipalities, with LCPC	Countywide	2019-2025	Increase number of ordinances municipalities adopt that minimize stormwater runoff and regulate development that protects water resources; including Zoning, SALDO, stormwater and floodplain management, well head protection ordinances, conservation zoning district and natural resource protection standards) Municipal part.					Funding/grants to revise or draft ordinances (\$50,000 - \$100,000 per plan/ordinance)	There is consensus for this action. Economic and political realities limit observance from time to time.
LP2.3	Revise Project Funding Criteria		Municipalities, LCPC, Lancaster Co MPO (TTAC), DEP and DCNR	Countywide	2019-2025 (i.e. 2019-2022 MPO/TIP)	Funding criteria should be revised to ensure alignment with adopted policy and planning goals. Current PennDOT, DEP, and DCNR regs do not require consistency.	Various stakeholders. (i.e. PennDot Connects Program and County LRTP)				Need to leverage existing funding	Programmatic and/or policy changes outside the control of local governments is necessary for this action to be fully realized.

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						Consistency between Central office and districts. Coordination between MPO and municipalities					
LP2.4	Water quality improvement measures should be built into capital and maintenance projects		Municipalities, Municipal Authorities, LCPC, Lancaster MPO (TTAC)	Countywide	2019-205 (i.e. 2019-2022 MPO/TIP)	Increase # of green infrastructure projects installed with municipal capital and maintenance projects Municipal participation, funding	Various stakeholders. (i.e. PennDot Connects Program, and County LRTP)		Need to leverage existing funding	Programmatic and/or policy changes outside the control of local governments is necessary for this action to be fully realized.	
LP2.5	Practice regional and place-based planning and analysis		Municipalities, LCPC	Countywide	2019-2025	Increase # of municipalities with regional comprehensive plans and natural resource and water resource plans Municipal participation, resistance to regionalization	LCPC and municipal staffs			There is consensus for this action. Economic and political realities limit observance from time to time.	
LP2.6	Utilize official maps for regional stormwater management and protection of natural resources		Municipalities, LCPC	Countywide	2019-2025	Increase number of municipalities participating in regional official maps Municipal participation, lack of municipal familiarity with official maps under MPC	LCPC and municipal staffs		Funds to municipalities for utilizing official maps for regional SWM	There is consensus for this action. Economic and political realities limit observance from time to time.	

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LP2.7	Utilize agricultural preservation process to promote greater implementation of agricultural BMPs		Lancaster County Agricultural Preserve Board, Lancaster Farmland Trust, Lancaster County Conservation District	Countywide (Focus: Rural Areas)	2-19-2025	Increase number of BMPs implemented on preserved farms The purchase of development rights does not carry BMP obligations Ag Action Team coordination	APB and LFT staff				
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Priority Initiative LP3: Natural Resources, Open Space and Parks

LP3.1	Preserve natural and forested lands	Land retirement to open space of 500 acres	Lancaster County Conservancy, Municipalities, LCPC, State	Countywide (Focus: Rural Areas)	2019-2025	Preserve natural lands and land with forest cover (2,000-3,000 acres). Prioritize contiguous areas. Funding, landowner participation	Current LCC staff	Conservation Fund	Staff & maintenance	County funding	There is strong consensus and realized actions associated with this initiative. Human and financial resources for outreach, long-term maintenance, etc. are the primary limiting hurdles still working through.
							State agencies (Game Comm., State Parks, Forestry, DCNR)	State funding			
LP3.2	Conserve natural resources and services throughout Lancaster County's urban, suburban and rural areas		Municipalities, Lancaster County Conservancy, Lancaster County Parks, LCPC	Countywide		Funding, landowner participation Increase acreage (or number) of areas being conserved for wise use & management to maintain ecological functions (wetlands, steep slopes, erodible soils, forest blocks < 100 acres).					There is strong consensus and realized actions associated with this initiative. Human and financial resources for outreach, long-term maintenance, etc. are the primary limiting hurdles still working through.
LP3.3	Restore ecological connections and natural resource systems throughout Lancaster County's urban, suburban and rural areas		Municipalities, Lancaster County Parks, LCPC, Lancaster County Conservancy	Countywide	2019-2025	Increase number of ecological connections through restoration efforts. Funding, landowner participation					There is strong consensus and realized actions associated with this initiative. Human and financial resources for outreach, long-term maintenance, etc. are the primary limiting hurdles still working through.

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LP3.4	Neighborhood and regional parks, greenways and trails (5 acres in county/regional parks and 10 acres in local/municipal parks)		Municipalities, Lancaster County Parks, LCPC, Lancaster County Conservancy	Countywide	Check progress towards goal in 2025	Increase number and acreage of neighborhood and regional parks, greenways and trails. Adopted County standard: 15 acres of parkland/1,000 residents. Funding, County and municipal participation				Funding and grants	There is strong consensus and realized actions associated with this initiative. Human and financial resources for outreach, project implementation, long-term maintenance, etc. are the primary limiting hurdles.
LP3.5	Utilize TDRs as a tool to preserve high quality ag land, woodlots and other natural areas		Municipalities, LCPC	Countywide	2019-2025	Increase # of muni using TDRs. Explore possibility of a pilot TDR ordinance between multiple municipalities Logistical hurdles, municipal participation					See LP 1.7

Priority Initiative LP4: Tree Canopy

LP4.1a	Conduct a tree canopy assessment (Conduct a new tree canopy assessment in 2020, to compare to 2010 baseline)		County, Municipalities, Lancaster County Conservancy, Chesapeake Bay Conservancy	Countywide	2020	Funding, staffing	DCNR	CBF K10 Campaign, DCNR	GIS technology and staff		Activities are moving forward, but human and financial resource limitation hinder timely progress.
LP4.1b	Set tree canopy targets, and implement tree canopy action plans at county and municipal level		LCPC, Municipalities, Lancaster County Conservancy, and Lancaster Clean Water Consortium.	Countywide	2019-2025	Increase number of municipalities setting targets Funding, staffing Possibly select 3 priority large watersheds for initial imp.	DCNR	CBF K10 Campaign, DCNR	GIS technology and staff		Activities are moving forward, but human and financial resource limitation hinder timely progress.

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

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

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							Technical	Financial	Technical	Financial	
Stormwater Action Team							Technical	Financial	Technical	Financial	
LP4.1c	Increase tree canopy cover	<i>Tree planting of 50 acres (urban tree canopy)</i>		Priority watersheds	2030	Increase % tree canopy cover in priority watersheds by 2030 Municipal buy-in	Tree Canopy Report Releaf Report (DCNR)				Definitive buy-in and projects implemented.
LP4.2a	Create a model tree preservation ordinance or "Planning Guide"		LCPC, municipalities, developers	Countywide	2019-2025	Adopt a model tree preservation ordinance or "Planning Guide"	PA Land Trust Assoc. (PALTA). DCNR				No update at this time.
LP4.2b	Adopt (or amend) tree preservation ordinances at municipal level		Municipalities, developers, LCPC	Countywide	2019-2025	Increase number of tree preservation ordinances adopted Municipal capacity	PALTA				No update at this time.
LP4.2c	Enforce existing landscape ordinances and existing or new tree preservation ordinances		Municipalities, developers	Countywide	2019-2025	Preserve existing landscaping and trees Municipal Capacity, Developer/land owner cooperation			Municipal staffing		Conflicts between ordinance language and water quality goals have been encountered.
LP4.3	Education and Outreach		Lancaster County Conservancy, Tree Tenders, LCPC, DCNR	Countywide	2019-2025	Conduct trainings					Human and financial resource shortfalls limit capacity and ability to expand training efforts.

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

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Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Progress to Date
Stormwater Action Team							Technical	Financial	Technical	Financial	

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 through outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

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

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

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

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

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