

Template 1. Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template - Stormwater

Certain priority initiatives proposed in this plan do not have specific representation in the CAST model (e.g. reductions in winter manure spreading). In these cases, recommended BMPs were used in the CAST model to account for their associated reductions. As a result, targets listed here align with, but do not necessarily match numbers entered into the CAST model. Please see draft scenario tables and documentation for specific clarifications.

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	Resources Available: Technical & Funding	Resources Needed: Technical & Funding	Potential Implementation Challenges/Issues
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, Municipalities, Lancaster County Clean Water Consortium	Countywide	FY2020 (if funding is made available.)	N/A	\$3M for Lancaster County Technical lead organization. Consulting engineer/planner.	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.
1.2	Have 167 plan that has pollutants/ modeling	Consistent measurements across municipal boundaries will allow strategic	County Planning, Municipalities	Countywide	FY2020	Technical expertise is present; no funding available	New legislation at the state level to provide consistency	Modeling is not consistent with the CAST model and more

	parameters consistent with CAST	implementation of practices that will meet WIP goals irrespective of prior efforts.				at this time	between Act 167 and CAST model	accurate baselines are required
1.3	Update model ordinance(s) for countywide and/or watershed goals	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.	County Planning, Municipalities, Solicitors, Community Stakeholders,	Countywide	FY2020	Technical expertise is present; no funding	Funding for development of ordinance(s) \$200,000 per model ordinance	Time constraints and municipal adoption
1.4	Establish greater regionalization of runoff and flood management	Updated Act 167 and model ordinance(s) would establish basis for watershed-wide implementation of practices to cost-effectively achieve pollutant reduction goals.	County Planning, Municipalities	Countywide	FY2020	Technical expertise is present; no funding	Funding for development of ordinance(s), hazard mitigation, and GIS tools: \$180,000 total to do	Lack of flexibility in regional management of water quality under Act 167

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 to accommodate crediting for all BMPs.	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	CY 2019	Technical expertise is present; no funding available; DEP clarification letter/memo Watershed groups	12 plans (1 per watershed) at \$50,000 = \$600,000 minimum needed to do the plans	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.
2.2	Create goal line that is both definitive and does not stop at the end of a permit cycle	Milestones need to be consistent beyond those under current MS4 permits 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	CY 2019	Technical expertise is present; no funding available	\$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	Action is required by DEP and EPA to make this process less complicated DEP/EPA must provide clear direction to County and municipalities with regard to pollutant reduction calculation

								methodologies, verification protocols, and reporting requirements.
2.3	Seek creative solutions to focus on the problem (pollution), not the geography (MS4 and urban areas).	<p>Process established for meeting water quality goals outside of regulated geography and in a cost-efficient manner</p> <p>Example BMP's for PRP compliance and beyond</p> <ul style="list-style-type: none"> - Bioretention and rain garden 50 acres area treated - Erosion and sediment controls 500 acres - Filter strip runoff 10 acres - Urban forest buffer 10 acres - Impervious surface reduction 50 acres - Wet ponds and wetlands 290 acres - Stormdrain 	Lancaster County, municipalities	Countywide, Priority watersheds: Pequea Creek Cocalico Creek Chiques Creek, etc	FY2021	<p>Technical expertise is present</p> <p>Estimates \$45,000 per watershed plan</p> <ul style="list-style-type: none"> - Dollars would be mostly for BMP's that will be listed in other Priority Initiatives but can receive credit in stormwater work <p>Dollars for PRP projects are listed in the PRP report but need to be updated based on final, approved PRP's</p>	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.	<p>Current DEP and EPA requirements make it more difficult for municipalities to focus on water quality rather than specific, inefficient program requirements.</p> <p>MS4 permits shifting from TSS to TN reductions. –this will take new dollars and expertise from the municipalities and engineers.</p>

		<p>cleanout 29,610 lbs of sediment removed</p> <ul style="list-style-type: none"> - Grey infrastructure 23,772 acres - Street sweeping 63 acres - Dry ponds 312 acres - Infiltration practices 70 acres - Extended dry basins 77 acres - Vegetated open channel 384 acres 						
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Priority Initiative 3: Create Programmatic Consistency

3.1	Align permit parameters to water quality goals	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.	Lancaster County, municipalities	DEfP Countywide		Technical expertise is present; no funding	Staff time at DEP	Various DEP and EPA strategies are presently not aligned and improvements are not accounted for across programs (102, 105, 537, NPDES, MS4, etc.)
3.2	Create greater consistency and accountability for review, inspections, and	More funding for staff and staff training	Lancaster County, municipalities	Countywide		Technical expertise is present; no funding	Consistent inspection requires staff time from LCCD E&S staff and	County and municipalities should clarify and implement protocols to

	documentation of operation and maintenance of permit sites					PennDot Connect	DEP; documentation and reporting protocols for operation and maintenance.	ensure consistent reporting for Bay TMDL compliance.
							Funding	

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. <i>Nutrient management planning – 10, 577 acres</i>	Lancaster County, municipalities, private companies related to fertilizer legislation	Countywide		Technical expertise is present; no funding or legislation to support larger goal	Funding	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. <i>The goal for this BMP is taken from the state recommendation, which relies on a change in the fertilizer legislation. Without that legislative</i>
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								<i>change, we can only strive to treat 100 acres.</i>
4.2	Employ market-driven solutions for project funding	Establish a process for environmental impact bonds and/or green-crowd funding and other private investments to be used to achieve water quality goals. Establish a stormwater offset and credit trading program.	Lancaster County, municipalities	Countywide		Technical expertise is present; no funding	Funding	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.
4.3	Revise funding criteria to ensure alignment with adopted policy and planning goals	Increase funding for Green Infrastructure and water quality BMPs for preserved farms, transportation and bridge projects, and complete streets	Lancaster County MPO/TIP, Smart Growth Funds, Lancaster County Ag Preserve Board, LGH Lighten Up Lancaster	Countywide		Technical expertise is present; no funding		
4.4	Build water quality improvement measures into	Increase # of green infrastructure projects and water quality BMPs installed with municipal	Municipalities, Municipal Authorities, Lancaster	Countywide				

	capital and maintenance projects	capital and maintenance projects <i>Dirt and Gravel Roads E&S – 158,000 new linear feet by 2025</i>	County Conservation District Watershed team for Dirt and Gravel Roads program					
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Priority Initiative 5: Identify alternative sources of project identification

5.1	Identify projects from hazard mitigation planning initiatives	Regular review of hazard mitigation plans	Municipalities, Lancaster County	Countywide		Dirt and Gravel Roads program and dollars DCNR buffer grants		Limited staffing to review materials
5.2	Identify projects from municipal capital improvement plans	Regular review of municipal capital improvement plans	Municipalities, Municipal Authorities, Lancaster County	Countywide		Dirt and Gravel Roads program and dollars DCNR buffer grants		Limited staffing to review materials
5.3	Identify projects from local, county, and state infrastructure improvement plans	Regular review of local, county, and state infrastructure improvement plans	Municipalities, Municipal Authorities, Lancaster County	Countywide		Dirt and Gravel Roads program and dollars DCNR buffer grants		Limited staffing to review materials
5.4	Identify projects from watershed plans	Regular review of watershed plans	Municipalities, Conservation District, Watershed groups,	Countywide		Dirt and Gravel Roads program and dollars DCNR buffer		Limited staffing to review materials

			Lancaster County			grants		

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress 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

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)