

Template 1. Phase 3 Watershed Implementation Plan (WIP) Planning and Progress 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			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source

Priority Initiative 1: Programmatic, Policy and Regulatory Changes

1.1	Integrate Chesapeake Bay planning efforts with county planning through dedicated personnel available to support local goals implementation and address capacity issues on a county by county basis	<p>Organizational chart for all participating entities with roles and responsibilities developed and shared with county planning teams to accompany where to turn for help guide;</p> <p>State level staff hired;</p> <p>Necessary information identified for exchange, reporting criteria and schedule for reports established and data verification process identified;</p>	EPA/DEP/SRBC/PRBC and counties/municipalities	Chesapeake Bay region	2022	<p>Integrated staff – should be at DEP level but with frequent interaction and collaboration with county staff. 2-3 staff at DEP for administration of program and at least one dedicated staff for Franklin County. Other counties may require more or less staffing based on pollution reduction goals.</p> <p>Counties are not one size fits all; program needs to recognize and provide support for plan implementation for county’s unique needs</p>	None	None	None	None	Staff will need to be hired to lead and coordinate the WIP effort	State/County part to be determined	State and local funds sufficient for staffing	State/Local
1.2	Agricultural Sector - Create a central county location for data collection and reporting regarding implemented BMPs, county conservation	Establish a centralized data collection and reporting system (enhancing existing systems where applicable)	FCCD, DEP, SRBC, PRBC, Farm Bureau, Penn State Extension, Department of Agriculture, NRCS	Countywide	2023-2024	Coordination between FCCD, NRCS, DEP, EPA, others – consistency and communication of data	None	None	None	None	Staff at state and local level to oversee and maintain system. Provide assistance to local reporting	DEP	Sufficient funds needed	State

	plans, restoration project permits, grant applications, 4R practices, etc.					Reporting system will require maintenance, updates and adequate tracking and verification Privacy concerns about data if subject to Right to Know					entities on an ongoing basis. Software - database			
1.3	Agricultural Sector - Implement a survey process for capturing current agricultural best management practices that are unreported	Pilot survey of 20 Franklin County farms in 2019 Expand survey to cover countywide total acres in production by 2023 Thereafter survey 20% of county agricultural acres on an annual basis	EPA, DEP, FCCD, 4R Alliance, The Nature Conservancy, Penn State Extension, Farm Bureau, consultants, others?	Chesapeake Bay Region with Countywide implementation	Ongoing - Wide scale survey to be completed by 2023	Coordination between agencies, requires EPA to authorize/approve survey methodology and verification; Privacy concerns about data if subject to Right to Know law Survey needs to be standardized across the region and implemented in an organized fashion. We have heard from stakeholders that they feel they have answered surveys in the past but not certain what was done with the data.	Limited	USDA FSA DEP FCCD		Federal State Local	Hire WIP Agricultural Coordinator(s) to conduct survey and tabulate data (Includes 1.2) Short term would likely require several FT staff, ongoing funding for at least one FT staff would be key link to reporting	DEP, other state agencies	Sufficient funds needed	State
1.4	Municipal sector – There needs to be a coordinated approach to storm water management planning on the watershed or county level (Act 167). Create a systematic process and	Evaluation of stormwater management rules and regulation at state, county and local level. Examine existing inventory and database systems in municipalities operating under MS4; Receive cost estimates for	TBD – Multimunicipal coordinating structure, look at possibility of utilizing COG structure or other forum	Countywide	Ongoing – Need to identify coordinating entity to compile information to be initiated in 2019	Stormwater planning best at a watershed or higher level. Coordination between local governments, disagreement on structure	None	None	None	None	Hire WIP Stormwater Coordinator to develop process for coordinating participants and researching database opportunities and costs (Includes 1.4 and	DEP County, local municipalities	Funds needed for staffing	State County Local

	database for inventorying stormwater management practices and facilities in MS4 and non-MS4 municipalities	countywide inventory; Capture unreported BMPs on the ground for import into data system				Needs to be an owner of the data, identifying that entity How will financial responsibility and authority of coordinating structure be defined					1.5)			
1.5	Municipal sector - Evaluate feasibility of multimunicipal stormwater entity to implement stormwater management practices on a regional scale	Coordinate meeting to assess interest and establish guidelines; Research collaborative models from other counties; Develop guidelines for implementation and ordinances for adoption	TBD – municipalities and funding structure will need to be worked out	Open to countywide participation	Initial meeting to be held in 2019	Coordination between local governments, disagreement on structure Needs to be an owner of the data, identifying that entity How will financial responsibility and authority of coordinating structure be defined	See1.4				See 1.4			

Priority Initiative 2: Achieve Pollution Reduction Goals

2.1	Establish a set of BMPs that will achieve required nutrient load reductions in an efficient and cost effective manner (see BMP template)	Identify BMPs that may be reasonably achieved by 2025 (BMPs must be further refined before plan can be implemented); Implement BMPs as indicated Prioritized groupings of practices include Agricultural Sector 1. Cover Crop Establishment	FCCD, FCPC, Municipalities, DEP, EPA, Stakeholders	Franklin County	2025	There are many unknowns that must be sorted before the BMP list can be finalized; considerable resource limitations on municipal and private enterprise levels to collect data and implement BMPs; complex regulatory and information silos do not currently allow	Federal State Local Private	Federal State Local Private	Federal State Local Private	Federal State Local Private	Trained engineering & technical staff to oversee, design, install and maintain BMP initiatives	Federal State Local Private	Sufficient funds needed to implement BMPs, maintenance, inspections Initial estimate \$15,000,000 for Ag BMPs with possible another \$10,000,000 for addition	Federal State Local
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		<ul style="list-style-type: none"> 2. Nutrient Management and Waste Storage 3. Tillage Management 4. Buffer establishment 5. Barnyard Runoff Control 6. Waste Management Systems 7. Land Retirement 8. Stream & Wetland Restoration – non urban 9. Conservation Plans 10. Stream Bank Fencing <p>Municipal Sector</p> <ul style="list-style-type: none"> 1. Urban stream restoration 2. Stormwater performance standards 3. Bio-retention strategies 4. Permeable Pavement 5. Street Sweeping 6. Tree Planting 				<p>for ready access to data; Programmatic changes identified in Priority 1 must come before nutrient load reductions can be demonstrated to be achieved.</p> <p>Cost of BMPs Incentives for BMPs Trading from development sector to Ag sector for cost/benefit.</p> <p>Consideration of regionalized block grants for BMP implementation; incentive programs for cover crops, stream bank fencing, etc.</p>						<p>waste management</p> <p>Initial estimate \$4,500,000 for municipal sector BMPs</p>		
2.2	Evaluate current system of incentives/penalties for agricultural practices and define enhanced incentive program for BMPs with greatest impact on nutrient loads to get landowner buy in	Review overall impact of CREP, REAP, EQIP, Act 319, Growing Greener and other programs, evaluate feedback on what hasn't worked and communicate with local farmers/landowners on what incentives are being considered	EPA, DEP, USDA, local partners	Chesapeake Bay region	2021	<p>Landowner buy in is a challenge, existing incentive programs don't pay for maintenance, which is a great concern with buffer plantings</p> <p>Also cover crop practices involve costs for equipment, pest management,</p>	State Local gov.				Staffing	<p>State Local Consultants to work with Ag community</p> <p>State</p>	<p>Funds needed</p> <p>Funds needed</p>	State

						etc. Incentive programs should account for more than planting alone.								
2.3	Identify key areas for installation of BMPs with greatest net effect	Complete GIS mapping/inventory of areas for priority riparian buffer installation	FCCD, FCPS, FCGIS, Shippensburg University Center for Land Use Studies, Chesapeake Bay Foundation, The Nature Conservancy, Antietam Watershed Association, Franklin County Watershed Association, others	Franklin County – prioritized locations	2021	Payment for land taken out of production					Trained staff	State County	Funds need for staff and analysis	State
				Franklin County	2023	Landowner buy in is a challenge, existing incentive programs don't pay for maintenance, which is a great concern with buffer plantings. Gathering data for GIS	Limited	State Local	Limited	State Local	Trained staff Data	State County Local	Sufficient Funds needed for task	State County of Franklin Local
a)	Define priority areas for riparian buffers	Establish stream monitoring to assist in determining priority area and to document impact of installation of BMPs.	Monitoring will identify priority area and document water quality improvements of BMP installation		2013						Monitoring equipment	Federal State County	Sufficient funding or ongoing operation of monitoring equipment	Federal State
		Identify targeted funding for these installations			2021	Limited staff availability. Staff needed for outreach & coordination					Staff for outreach & coordination	State County Non Profits	Funding Needed for staffing	State County
		Conduct landowner outreach												
		Engage watershed organizations, other groups in planting buffers												
		Conduct maintenance/assessments of buffers												
2.4	Prepare GIS mapping of proposed	Provide mapping of existing	FCCD, FCPS, FCGIS,	Countywide	2023	Coordination	Limited				Staffing	State	Sufficient	State

	installation of all BMPs for WIP3	BMPs and proposed BMPs to aid in planning purposes Provides ongoing data, bench mark	Shippensburg University Center for Land Use Studies, Chesapeake Bay Foundation, The Nature Conservancy, Antietam Watershed Association, Franklin County Watershed Association, others			between agencies, privacy concerns about data if subject to right to know Need to define who will own mapping and database This would be a further development of project initiated under 1.4 and 1.5 and would engage staff assisting in inventory efforts More funds needed for consultants, staff to support mapping and analysis effort						County Non Profits	funding needed to carry out task	County
2.5	Implement a better documentation program for commercial and homeowner nutrient applications in developed lands	Provide support for current fertilizer legislation; Conduct education of commercial landscape industry and homeowners; Identify acreage for urban nutrient management plans	DEP, Landscape industry organizations Non Profits	Statewide	2020	Commercial and home use of nutrients should be evaluated in the CAST model, more data is needed on what application levels currently are If Bill doesn't pass, will not be able to implement this action.					State Private Non Profits	State Private	Funding needed	State Private
2.6	Evaluate feasibility for establishment of ordinances on a countywide or multimunicipal scale to promote best management practices around	Research model ordinances and Conservation by Design; Convene municipal working group to discuss best practices;	FCPC, Municipalities, Non Profits, others	Countywide	2020	This would be a further development of project initiated under 1.4 Municipalities have	Limited	State Local	Limited	Limited	Staffing	DEP County	Sufficient funding needed to carry out activities	State County

	stormwater for land use and development plans	Provide incentives for establishment of ordinances at municipal level, utilize tools such as preservation easements, and include educational goals for residents which attain benefits for reducing fertilizer use or establishing rain gardens, other BMPs.				varying levels of capacity and history with establishment of ordinances around water resources								
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2.7	<p>Revise model ordinances to reflect current pollution reduction targets and BMPs</p> <p>Develop incentive programs for voluntary adoption of BMPs in developed areas and consider an offset program for implementation of high-impact BMPs in agricultural areas</p>	<p>Consult with communities, particularly those under MS4 regulations, to develop model ordinances that address nutrient, sediment, and stormwater management.</p> <p>Identify BMPs most suited to conditions found within Franklin County municipalities</p> <p>Provide educational materials and meetings to broaden understanding of updated ordinances and the application of BMPs</p> <p>Adoption of ordinance revisions by county municipalities</p>	DEP FCPC FCCD Local Municipalities	Countywide	<p>2019 Initial fact finding regarding ordinances and incentive program structure</p> <p>2020-2021 Development and distribution of ordinances for comment and /or adoption</p> <p>2020- Provide guidance and support for incentive programs</p>	Resistance to new or increased regulation is the largest obstacle to this action					See 2.6 above	See 2.6 above	See 2.6 above	See 2.6 above
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Priority Initiative 3: Implement Education and Coordination/Outreach

3.1	Develop a communications strategy to communicate parallel goals of WIP3 and local goals such as public and environmental health, economic	<p>Hold a county-wide event (such as water week or watershed snapshot) where each partner brings something to the table</p> <p>Additional educational</p>	FCCD, FCPC, Penn State Extension, Watershed Organizations, Renfrew Institute, Municipalities, School Districts, Non profits	Franklin County – multiple locations	2020	With a variety of organizational partners, could include volunteer stream monitoring, enviroscape and watershed educational					Staffing for outreach, education and coordination	State County Non- profits	Funding needed to carry out tasks	State
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	development and others	programming to be defined and implemented – could include installation of BMPs for homeowners/landowners in urban and rural landscapes. Soil health and appropriate use of soil amendments in developed lands could be another.				resources, recreational opportunities. Perhaps this participation could build on activities already underway and help coordinate MS4 education and outreach objectives across municipalities.								
3.2	Utilize existing resources to engage educational objectives	Publicize and share information regarding educational resources such as online courses and webinars, Penn State Stormwater Basics, program resources such as Renfrew Institute and Pheasants Forever and volunteer resources such as Penn State Master Watershed Stewards program; Utilize existing BMP installations such as bioretention area in Chambersburg, riparian buffer plantings, pollinator meadows as teaching tools for municipalities and landowners	EPA, DEP, Chesapeake Bay related program offices, FCCD, FCPC, PennState Extension, Municipalities, PennState Extension, educational institutions and others	Countywide	2020	Through coordinating a municipal outreach and education group, resources could be shared and efficiencies gained					See 3.1	See 3.1	See 3.1	See 3.1
3.3	Develop a focused effort to promote BMPs in agricultural community	Evaluate best way to communicate innovative practices and models such as precision ag – cost/benefit tools; Consider establishing additional communities of practice such as grazing group forums so that practitioners can learn	EPA, DEP, USDA, Chesapeake Bay related program offices, FCCD, PennState Extension, 4R Alliance Capital RC&D, Farming Community, others	Countywide	2022	Through coordinating an agricultural outreach and education group, resources could be shared and efficiencies gained; could be done on wider scale with					See 3.1	See 3.1	See 3.1	See 3.1

		from others				additional funding								
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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 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)