Phase 3 Watershed Implementation Plan (WIP) Planning and Progress 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		Annual Progress to Date	Reasons for Change
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Priority Initiative 1: Catchment Targeting Initiative												
1.1	Catchment Assessments and Prioritization	TBD for each individual catchment group *Game plan by end of 2021*	Schuylkill County Conservation District (SCCD), watershed groups, local municipalities, County, NRCS, Kittatinny Coalition/ BerksNature, Eastern PA Abandoned Mine Coalition (AMC)	All areas (all catchments to be assessed) Catchment Management Database (CMD) determines order of assessments ("worst-to-first" order)	(Funding Assisted timeline): 87 total catchments 2021: 10, 2022: 30, 2023: 30, 2024: remaining (assuming funding stream) (No additional funding timeline): 87 total catchments, ~6/year (2022-2036, with 1-2 catchments late 2021)	Use the CMD as preliminary prioritization to assess individual catchments and outline conditions, needs, opportunities, etc. Overlay Comp Plan, Hazard Mitigation Plan, and Open Space and Greenway Plan during initial analyses "Boots-on-the-ground" funding and capacity for engagements, assessments, etc. (with existing funding, analysis of all catchments would continue through 2029) Coordinate with other action teams for agricultural, stream, buffer, and urban conservation opportunities and needs Include identification of infrastructure and replacements inventory in game plan (including red-yellow-green ranking system)	Catchment Management Database (CMD) County GIS Local engineers/ consultants Master Watershed Stewards	NFWF INSRG program $30k verifications funding		$304,500 ($3,500/ catchment) for accelerated analyses (without funding assistance for full analyses, projected timeframe for completion would be ~2036 utilizing existing resources and with limited findings) GIS hardware and software (See P.I. 5 Data Management for more info)	2024: Data assessments (by parcel) of 28 total catchments have been completed to date. A pause in assessments for remaining catchments is currently in effect to allow SCCD staff the time to process individual catchment CMD information for potential PK data capture. The current process is following a bi-annual data release "dump" for processing. 2023: 14 catchments reviewed and parcel lists organized; 6 more are currently planned for remaining 2023 timeframe. Primary data organized is for a reference checklist for ag parcels as a cross-reference checklist for PK data and/or PK data entry. Backlog of data exists, and with staff additions anticipate "chipping away" at data entry needs. 2022: test runs for assessments and background info discovery-Upper Mahatango-Headwaters catchment completed for test run (current efforts are in the remaining catchments of Upper Mahatango (3 additional catchments) and Upper Little Swatara (8 catchments) to finalize process for remaining watersheds/catchments). Mahatango was selected to help support the $750k GG	

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											funding awarded for a farm in Mahatango to build off the momentum. Current plan is to complete an additional 12 catchments in 2022. Need to finalize protocol/process to transfer data/info from written records to PK for ag-related BMPs. Current plan is to utilize partners with PK partner portal access for data entry and prioritize parcels for verifications by SCCD personnel and/or class 2 inspectors.	
1.2	Identify Conservation Opportunities during catchment assessments	*Farmland Conservation – 9,000 total acres* *Forest Conservation – 4,500 total acres* *Wetland Conservation – 40 total acres*	Ag Preserve. Board, BerksNature, local watershed groups, SCCD, Master Watershed Stewards	Follows Action 1.1		Sustained funding streams need to be established Private forests carbon credits program may provide alternative funding stream for forest conservation Identification of potential targets will occur during catchments assessments	Ag Preserve Board, BerksNature, Kittatinny Coalition	Nature Conserv., County			2024: Catchment data organization efforts inherently continues to lead to potential individual parcels for consideration to approach for conservation efforts. Additionally, a 50-acre crop farm was preserved this year through a combination of funds from the county and the State Land Preservation Board. 2023: Catchment data organization efforts inherently leads to potential individual parcels for consideration to approach for conservation efforts. Overall efforts to target conservation opportunities adjusted to watershed action plan development approaches. 2022: Nine (9) farms identified through catchment	

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											assessments process as potential candidates for preservation. An additional eight (8) preservation (conservation easement) applications were received in 2021 for the 2022 funding year, and these farms are in the review and finalization processes. With the finalization of the 2021 round, a total of 114 farms (~11,695 acres) have been preserved to date.	

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Priority Initiative 2: Agriculture												
2.1	General ag-focused education and outreach supporting overall efforts	No specific target, success will be measured by implementation rates of BMPs across the ag sector *Long-term metrics will be identified in game plan (late 2021)*	Schuylkill County Conservation District (SCCD), Ag Technical Service Providers (TSPs), Penn State Extension, NRCS, watershed groups	All areas with emphasis provided towards prioritized catchments	On-going, with game plan in late 2021	Piggy-back existing media platforms with outreach and messaging content (game plan should identify content development tasks)	SCCD, Penn State Extension, TSPs, NRCS, Ag Preserve Board, BerksNature, County, VISION	Environmental Education (EE) Grant for any supporting materials and/or equipment	Final Game Plan for potential EE grant application and content develop. tasks		2024: Continued development and distribution of outreach materials (newsletters, etc.) including one-on-one engagements with select farmers to gauge receptiveness towards conservation improvements and assist with development of plans. 2023: Continued development and distribution of quarterly newsletters. County Envirothon (elem., middle, and high school students) held in spring and was a success. County Fair held earlier this summer and included speakers, information, etc. promoting BMPs. Lakefront Festival included dedication of habitat improvement project recently completed. 2022: Game plan shelved with preference to continue existing efforts primarily involving one-on-one engagements and existing relationships with farmers. Three (3) educational events were held including “Ag Progress Days”.	

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2.2	Catchment Targeting Initiative (tied to P.I. 1 Catchment Targeting Initiative Action 1.1 for ag-specific details)	Metrics inherently tied to other action items (needs will be established on a catchment-to-catchment basis), see P.I. 1 for more info	Ag Action Team (AT), Data Management (DM) AT, Catchment Targeting (CT) AT, Municipal AT, (Streams and Natural Resources (SaNR) AT, watershed groups, local municipalities, County, SCCD, Center for Watershed Protection (CWP), NRCS	Prioritized catchments (TBD)	Late 2021 launch with inherent tie to P.I. 1	Partner with Catchment Targeting AT during catchment prioritization efforts to identify individual catchment needs, BMP probabilities, etc. Coordinate with CWP and Berks County for Upper Little Swatara 319 Plan development Ag AT to focus on ag-related/farmer conservation needs and opportunities in prioritized or analyzed catchment groups	SCCD, County, 3rd party partners, CAP Coordinator	$30k verifications funding	Increased TSP presence for Soil Conserv. plans and ag BMP engineering	Funding for SC Plan development by individual catchments after analysis and inventory of needs (potentially organize plan development bid packages by each catchment), intent is to draw more TSPs into the mix; $TBD for each catchment	2024: See P.I. 1.1. Bi-annual data release and review for PK cross-check. 2023: See P.I. 1.1. New staff hires and corresponding training underway to improve PK data entry efforts. 2022: Test runs through developing long-term verification processes (LTVPs) to capture and prioritize all ag parcels at a catchment-to-catchment basis is underway. Need to establish process to extrapolate written records information into PK. Current plan is to leverage 3rd party partners and the PK partner portal for data/information entry. Five catchments currently delineated and written records capture underway.	

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2.3	BMP Reporting Reconciliation (tied to P.I. 5 Data Management Action 5.3 for ag specific details)		Ag AT, Data Management AT, Catchment Targeting AT	All areas (reconciliation to occur in conjunction with catchment-to-catchment assessments)	Launch late 2021 and on-going with catchment targeting	Partner with Data Management AT for reconciliation of BMP reporting numbers (primarily through catchment targeting) Current perception/ organization of BMP targets is a mix of uncaptured/ underreported BMPs and SC plans; and additional BMP implementation. Reconciliation in conjunction with catchment targeting will provide a pathway to delineate (and capture) underreported BMPs/ SC Plans and needs for additional BMPs.	SCCD, TSPs, NRCS, Ag. Preserv. Board Practice Keeper (PK), PK Partner Portal	$30k verifications funding			2024: See Action 2.2 2023: See Action 2.2. Backlog of data to be entered, working on catching staff up with streamlined data entry processes. 2022: See Action 2.2 progress notes	
2.4	Focused Ag BMP implementation	*Soil Conservation and WQ Plans – 33,000 total acres* *Nutrient Management Core N – 22,000 total acres* *Nutrient Management Core P – 10,200 total acres* *Barnyard Runoff Control – 10 new acres*	SCCD, NRCS, TSPs	All areas with emphasis provided towards prioritized catchments	On-going with efforts prioritized through catchment targeting (Action 2.2)	Promote broad slate of BMP types across ag industry and based on individual farm conservation needs based on initial implementation scenario Future scenario adjustments based on rates of implementation realized and progress under BMP reconciliation efforts Assume increased realized and/or capture of unreported	Farm survey, Penn State Extension, NRCS, TSPs, SCCD, Ag Preserve Board	REAP, CEG, EQIP, RCPP, MEBF, State reimb. Program, PennVEST, PL566, CAP imp. funds, ACAP	Practice Keeper (PK) entry/ mngmnt at SCCD Increased TSPs presence NRCS data (BMPs details) Experienced technical staff	$55,000/yr (Practice Keeper (PK)) management-individual dedicated to PK and plan entry) Capital Costs (SC Plans development only-8,000 acres): ~$200,000 Capital Costs (all other BMPs): ~$27.5 million Catchment bidding platform for SC plan(s)	2024: Engineering/design remains a consistent bottleneck for developing out opportunities. However, staff and existing resources are progressing farm-by-farm to develop the opportunities for conservation improvements that do exist. This includes “conventional” ag BMPs, nutrient management, and so on. 2023: 2023 CAP funding geared towards ag BMP implementation. Backlog of probable “unreported” BMPs generated for PK data entry.	

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		Loafing Lot Management – 10 new acres *Prescribed Grazing – 1,100 total acres* *Pasture Alt. Watering – 744 total acres* *Manure Storage Facilities – 17,000 new AUs* *Precision Feeding – 1,800 Dairy Cow AUs* *Mortality Composter – 4 systems*				acres through catchment targeting and BMP reconc. Farmer resistance to buy-in (including farmers indicating they do not want assistance as they are unsure if they will still be in business in 2-3 years) Backlog of plans needed (including entry into PK); increase of TSPs presence would be ideal. Current plans development rate is roughly 2,000-2,500 acres/yr based on existing resources. High level review revealed roughly 25,000 acres with a SC Plan in past 10 years. Primary effort will be tied to PK entry of plans. Financial needs cost for plan development reflects 8,000 acres. **Rules for transfer of info in NRCS platform to PK based on NRCS buy-in***				development (see Action 2.2)	Staff challenges (enough resources) creates a data entry lag from verifications, BMP capture, etc. to data entry processes. 2022: An engineering/design bottleneck is the primary hurdle for increasing rate of implementation. 2021-2022 included 10+ Soil Conservation and Nutrient Management Plans development/approval and 5+ Manure Management Plans. Continued BMP implementation was realized for several dairy operations in the Mahantango and Upper Swatara watersheds.	

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2.5	Soil Health BMP Implementation	*Tillage Mgmnt High Residue – 15,100 acres/yr* *Tillage Mgmnt Conservation – 14,000 acres/yr* *Cover Crop Traditional – 6,000 acres/yr* *Cover Crop with Fall Nutrients – 9,700 acres/yr* *Cover Crop Commodity – 500 acres/yr*	SCCD, TSPs, NRCS	All areas with emphasis provided towards prioritized catchments	On-going with intent to build upon acres in a cumulative manner through catchment assessments (Action 2.2)	Future scenario adjustments based on rates of implementation realized and progress under BMP reconciliation efforts Assume increase on implementation through catchment targeting **Limited definition of cover crops and what counts as a reduction*** **Potential gap between FSA reporting and CAST reported data*** Lock down and potentially expand transect survey process **Cover crop incentive program would be ideal and would reduce barriers to initial implementation***	SCCD, Penn State Extension, NRCS, TSPs	REAP, CEG, EQIP, RCPP, MEBF, PennVEST, PL566	Increased TSPs presence	Capital Cost: ~$1.0 million Cover crop implement. Fund (incentive program)	2024: See Action 2.4 2023: See Action 2.4 2022: Decision was reached to use the catchment targeting approach to ascertain level of known soil health BMPs implemented prior to determining level of effort needed to promote these practices. Most written records include references to BMPs implemented, and the bottleneck currently being handled includes extrapolating the info from written records into PK.	
2.6	Expanded Nutrient Management	*NM N Rate – 5,000 acres* *NM N Placement – 5,000 acres* *NM N Timing – 5,000 acres* *NM P Rate – 5,000 acres*	NRCS, SCCD, TSPs	All areas with emphasis provided towards prioritized catchments	Coincides with Catchment Targeting Initiative (Action 2.2)	Aim to increase level of organization and understanding of developed, implemented, and back-logged SC plans prior to tackling expanded nutrient management planning and approaches	SCCD, Penn State Extension, NRCS, TSPs	REAP, CEG, EQIP, RCPP, MEBF, PennVEST		Capital Cost: ~$260,000	2024: See Action 2.4 2023: See Action 2.4 2022: See Action 2.4 progress notes	

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		NM P Placement – 5,000 acres *NM P Timing – 5,000 acres*				Approach and engage commercial vendors for messaging						
2.7	Manure Transport and Technologies	*Manure Transport out of Schuylkill County – 3,942 total DT/yr* *Manure Treatment Technologies in Area – 100 DT/yr* *ESPOMA facility fully operational*	Farmers, haulers, SCCD, TSPs, ESPOMA	On-going	Prior to 2025	Act 38 reporting ESPOMA facility in Frailey Twp (assume manure within Schuylkill County also transferred to facility) **Mushroom composting may be an additional potential alternative for reductions***	TSPs, NRCS, SCCD, DEP, EPA			Capital Cost (transport only): ~$35,000	2024: the ESPOMA facility is online and operational. An approximate $830,000 economic development grant for extending natural gas service lines to the ESPOMA facility was also awarded this year; which will improve operational capabilities of the facility. 2023: Facility development still underway. 2022: ESPOMA facility development still underway. Agreement to “wait and see” to results of Act 38 changes as it pertains to revealing quantities.	

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Priority Initiative 3: Streams and Natural Resources												
3.1	Stream/Buffer Opportunities and Targeting GIS Layer (tied to P.I. 1 Catchment Targeting Initiative)	*Game plan for "buffer bonus" program by spring 2022*	Data Management (DM) Action Team (AT), Catchment Targeting (CT) AT, Ag AT, Municipal AT, County	All areas with emphasis provided towards prioritized catchments	On-going with layer definitions outlined mid-2022	County GIS layer(s) for targeting direction and results needs developed Assume BMP reconciliation can be achieved through targeting tool Field verification required through Catchment Targeting Initiative as efforts progress through individual catchments Potential "buffer bonus" program to complement other ag funding streams for implementation	County GIS, BerksNature, Stroud, Alliance for the Ches. Bay (ACB), Ches. Bay Foundation (CBF), Technical Service Providers (TSPs), Schuylkill County Conservation District (SCCD)	NFWF, Growing Greener (GG)	Final game plan for potential "buffer bonus" (or similar program in 2022	$15,000-$25,000 (also depends on extent of platform-build (or expand) platforms and personnel) for additional licenses, hardware, etc.) (See P.I. 5 Data Management for more info)	2024: Process of assessments on a catchment-to-catchment (or sub-watershed to sub-watershed basis) continues. The unwritten process is utilization of CMD findings to pursue funding streams (e.g. NFWF) to complete conceptual assessments followed by funding for design and permitting with the intent to utilize CAP Implementation funding solely or as leverage for implementation of projects incorporating both stream and buffer improvements. 2023: Targeting efforts adjusted to conduct individual watershed assessments to identify both stream and buffer opportunities (across all sectors (ag, natural, and urban-suburban)). Assessment of Middle Creek watershed conducted in 2023.	

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											2022: Buffer bonus program limited to internal discussions of possibilities. Immediate future will entail expanding discussions with neighbors (e.g. Northumberland County) with their programs.	
3.2	Ag Riparian Zone	*Forest Buffer – 280 new acres* *Forest Buffer Narrow – 420 new acres* *Forest Buffer with exclusion fencing – 40 new acres* *Forest Buffer Narrow with exclusion fencing – 60 new acres* *Grass Buffer – 110 new acres* *Grass Buffer Narrow – 190 new acres*	SCCD, Ag Technical Service Providers (TSPs), NRCS, watershed groups, Alliance for Chesapeake Bay (ACB), Chesapeake Bay Found. (CBF), Stroud, municipalities, farmers, County	All areas with emphasis provided towards prioritized catchments (as catchments analyzed)	On-going with inherent tie to Action 3.1	Farmer resistance or buy-in Proposed implementation numbers need reconciled as general perception is proposed BMP rates are more than available or capable **Simple reference sheet outlining who, what, where, etc. for types of buffers and locations for implementation would be ideal to assist with targeting efforts and landowner engagements***	SCCD, NRCS, TSPs, Stroud, ACB, CBF, watershed groups	NFWF, GG, DCNR, CREP, Keystone, TreeVitalize, PACD, RCPP, EQIP, MEBF, Chesapeake Bay Trust (CBT) grants	Volunteers and/or contractors for implement.	Capital Cost: ~$4.6 million	2024: Resistance within the ag community still exists, but receptiveness for fenced pasture areas (grass buffers with fencing) along streams has increased. Eight projects with fenced buffers have progressed through the year with two completed as a carry-over from 2023 as well. 2023: Resistance within ag community still exists. See Action 3.1 for current targeting approach. 2022: engineering and contractor bottleneck; resistance to approach is	

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		Grass Buffer with exclusion fencing – 20 new acres *Grass Buffer Narrow with exclusion fencing – 30 new acres*				Coordinate with Ag AT for education (Action 2.1)					more common than not. Buffer opportunities mostly limited to natural sector areas.	
3.3	Urban/ Developed Areas Riparian Zone	*MS4 Riparian Forest Buffers – 2 new acres* *Non-MS4 Forest Buffers – 18 new acres*	Local municipalities, watershed groups, Stroud, ACB, SCCD, County	All areas with emphasis provided towards prioritized catchments (as catchments analyzed) Individual municipal engagements for promotion of buffers	On-going with inherent tie to Action 3.1	Landowner resistance or buy-in Tie buffer improvements where stream restoration improvements are pursued and where appropriate One-on-one municipal engagements will increase opportunities	SCCD, local municipalities, Stroud, ACB, local engineers/ consultants	NFWF, GG, DCNR, Keystone, TreeVitalize, CBT		Capital Cost: ~$81,000	2024: See Action 3.1 2023: See Action 3.1 2022: No progress to date	
3.4	Abandoned Mine Reclamation (AMR)	*Abandoned Mine Reclamation – 150 acres*	Eastern PA Abandoned Mine Coalition (AMC), SCCD, local watershed groups, local municipalities	All mixed open use areas (inventory through catchment targeting)	Ongoing	Provide or acquire complimentary funding to existing initiatives Community or land re-development in conjunction with AMR	Eastern PA AMC, DEP, App. Region Reforestation Initiative (ARRI)-thru Office of Surf. Mining	AMLF, GG+, AMLER		Capital Cost: ~$2.8 million	2024: Remains a popular program for addressing areas impacted from previous mining operations. AMD funding streams have been leveraged for AMR projects, but CAP goals and initiatives are included in approaches.	

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											2023: 2023 witnessed continued efforts from 2022. 2022: Popular program in the county, but minimal focus on expanding efforts in the immediate timeframe as focus has been primarily on stabilizing stream reaches (e.g. North End Swatara Creek Stream Stabilization Project)	
3.5	Focused Stream Corridor BMP implementation	*Urban Stream Restoration – 14,000 new LF* *Non-urban Stream Restoration – 8,000 new LF* *Wetland Creation – 30 new acres* *Wetland Restoration – 60 new acres*	Local municipalities, watershed groups, SCCD, County, National Trout Unlimited (TU)	All areas with emphasis provided towards prioritized catchments (as catchments analyzed)	On-going with inherent tie to Action 3.1	Direct tie to Catchment Targeting Initiative (P.I. 1) Threats to infrastructure should include a more comprehensive restoration strategy considering the entire floodplain (Hazard Mitigation Plan) **BMP implementation should ensure multiple regional benefits and reduced implementation barriers would increase receptiveness***	SCCD, Trout Unlimited (TU), watershed groups, local engineers/ consultants, County	NFWF, GG, CBT, PennVEST, TU National, private		Capital Cost: ~$9.9 million	2024: See Action 3.1. Additionally, the large "Devil's Hole" floodplain and stream restoration project has come online as of this year. 2023: Middle Creek assessment completed and opportunities generated. Funding assistance options are next step for implementation. 2022: North End Little Swatara Stream Stabilization project completed. NFWF funding was approved for a feasibility study in Middle Creek to identify stream reaches for improvement and BMP implementation.	

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3.6	Dirt & Gravel and LV Road improvements with WQ components	*Driving Surface + Raising the Roadbed – 5,000 new linear feet*	SCCD, County, local municipalities	All areas with emphasis provided towards prioritized catchments (as catchments analyzed)	On-going with possible annual inventory outlined 1st qtr of each year	Existing popular program ("don't fix what isn't broken")	SCCD, local municipalities	Low Volume (LV) Roads program (continued funding)		Capital Cost: ~$75,000	2024: No new projects proposed for 2024 implementation. 2023: No new projects installed for 2023 2022: Six Dirt & Gravel Road and one Low Volume Road contracted sites for the year.	

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Priority Initiative 4: Municipal												
4.1	Provide general education and assistance to individual municipalities for MS4 Permit compliance and regional opps.	*Advanced IDD&E Control – 75 acres treated* *Local training program game plan (spring 2022)*	County, local municipalities, SCCD, Emergency Management (EMA) Coord.	All areas and MS4s	Ongoing with engagements occurring in conjunction with Catchment Targeting Initiative and actions (Action 4.5)	Identify needs and assistance channels for compliant MS4 programs (specifically MCM #3 and education/outreach channels) Piggy-back existing media platforms (e.g. County website) with information and tools; update informational tools with SB3 elements Local demo projects platform demonstrating examples for all munis to "follow" that includes multiple benefits including Hazard Mitigation Plans (HMPs) and regional projects (booklet and story map approach)- generate primarily in-house, additional resources TBD On-line/in person trainings (Academy) developed by EMA and County for munis. Potentially build off CWA for a localized platform Explore possibility to develop Watershed Action Plans (WAPs)	DEP, local engineers/ consultants, EPA, County Clean Water Academy (CWA) Constant Contact for material distribution	Environ. Education (EE) Grant	Final game plan for localized training academy in spring 2022	TBD based on local training platform needs; current assumption is an approximate need of $25,000 to launch $15,000/ watershed if WAP approach pursued	2024: Consensus remains to hold until "new" MS4 Permit is released. 2023: Re-group on hold until new MS4 permit draft is released. 2022: Working towards establishing a baseline for perceived local needs and wants. Plan is to re-group early 2023 to outline potential next steps.	

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						to communicate visually proposed opps. With municipalities and local stakeholders						
4.2	Stormwater BMP Implementation	*Rate Reduction SWP Standards – 600 new acres treated* *Treatment SWP Standards – 100 new acres treated* *Infiltration Practices – 25 new acres treated* *Bioretention – 25 new acres treated* *Bioswale – 50 new acres treated* *Vegetated Open Channels – 25 new acres treated* *Impervious Surface Reduction – 0.4 acres*	Local municipalities, developers, SCCD, County	All areas with emphasis provided towards prioritized catchments	Ongoing (timing tied to catchment analyses; Action 4.5)	Significant uncaptured and/or underreported BMPs are assumed in this category and difficult to project. Assume significant progress achieved through BMP reporting reconciliation occurs for revisions to BMP implementation scenario in 2023 to better reflect rates. BMPs providing "flooding relief" are prioritized	Local engineers/ designers, DEP Inspection requirements in place	Developers, local municipal., Growing Greener (GG), NFWF, PennVEST, Chesapeake Bay Trust (CBT) grants, DCNR	Hardware/ software for BMP capture (ESRI phone-based info capture platform)-see P.I. 5 Data Manage.	Capital Cost: ~$TBD (after reconciliation and BMP rates revisions); current assumptions provide an overall range of anywhere from $14 million to $20 million	2024: See Action 4.1. It is anticipated this will be addressed more thoroughly based on the "new" MS4 Permit requirement; along with the improved capture of existing (and potentially underreported) BMPs. 2023: CMD efforts identified existing BMPs that may not be reported. It is anticipated new MS4 permit annual reporting will lead to capture of BMPs. 2022: Limited progress to date	

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress 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		Annual Progress to Date	Reasons for Change
							Technical	Financial	Technical	Financial		
4.3	Water quality components in the Urban Landscape	*Conservation Landscaping – 100 new acres* *Urban Forest Planting – 10 new acres* *MS4 Tree Canopy – 2 new acres* *Urban Nutrient Management – 1,600 acres*	SCCD, County, local municipalities, local watershed groups	All areas with emphasis provided towards prioritized catchments	Ongoing with inherent tie to Action 4.5	**Urban nutrient management is tied to fertilizer legislation at the state level*** Demo projects would be ideal to show alternatives to "Conventional" approaches (carve out SB3 funds to implement)	Alliance for the Chesapeake Bay (ACB), Chesapeake Bay Found. (CBF), DCNR, Master Watershed Stewards, Master Gardeners	DCNR, Keystone, NFWF, Growing Greener (GG), Chesapeake Bay Trust (CBT), local municipal.		Capital Cost: ~$28,000	2024: Opportunities identified, but until incentivization or purpose behind implementation ("new" MS4 Permit) arises, this is in a holding pattern. 2023: Approximately 16 acres of conservation landscaping opportunity sites identified via CMD efforts. Follow-up in late 2023/early 2024 anticipated for potential implementation. 2022: Fertilization legislation passed. Minimal progress to date, but county is currently marketing the Family Forest Carbon Program to increase potential.	

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4.4	Septic Systems	*Conventional Septic Denitrification – 800 systems* *Septic System Pumping – 4,000 systems* *Septic Connections – 20 systems* *Tracking game plan by late 2021*	Local municipalities, County, pumping entities	All areas outside public sewerage areas	On-going with game plan late 2021	Initial analysis reveals approximately 16,000 septic systems Build inventory in conjunction with catchment targeting inventory Assume portion of systems are operating per BMP definition(s) and to be captured as part of the reconciliation process	County, local municipalities, local engineers, SEOs		Game plan for tracking (late 2021) 537 plan updates	Possibly for tracking platform (TBD after game plan develop.)	2024: Next steps will require additional time for intermediary considerations (e.g. tracking) are flushed out. 2023: Additional data and information required for potential improved reporting processes. Do not anticipate next steps until winter 2023-2024. 2022: County planning exploring with local SEOs on info/data available and approaches to organize. Plan is to re-group in early 2023 to outline next steps.	
4.5	Catchment Targeting Initiative (tied to P.I. 1 Catchment Targeting Initiative Action 1.1 for municipal-specific details)	See P.I. 1 for more info	All Action Teams (Ag AT, Data Mgmt AT, Catchment Targeting AT, Muni AT, Stream and Natural Resources AT), SCCD, watershed groups, local municipalities, BerskNature, Eastern PA AMC	Prioritized Catchments (TBD)	Late 2021 Launch, long-term timelines tied to P.I. 1	Partner with Catchment Targeting AT during catchment prioritization efforts to identify individual catchment needs, BMP probabilities, BMP reconciliation, etc.	County GIS, Practice Keeper (PK) Catchment Management Database (CMD)			See P.I. 1 for more information	2024: See Action 1.1 2023: See Action 1.1 2022: See Priority Initiative 1 Notes	

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							Technical	Financial	Technical	Financial		
4.6	BMP Reporting Reconciliation (tied to P.I. 5 Data Management Action 5.3 for municipal-specific details)		All Action teams (Ag AT, Muni AT, Data Mgmt AT, Catchment Targeting AT, Streams and Natural Resources AT, local municipalities	All areas (Catchment targeting analyses will result in 2 data tables: 1) conservation needs/opps., and 2) existing BMPs for reconciliation	Launch late 2021 (in conjunction with Action 4.5)	Partner with Data Management AT for reconciliation of BMP reporting numbers (primarily through catchment targeting) All performance targets assume significant level of uncaptured BMPs in numbers. **Separate database may need to be considered for capturing all Ch. 102/ land development BMPs already in place***	County GIS, PK		Reference table or outline of Ch. 102/ land develop. BMPs data to be captured		2024: See Action 4.2 2023: See Action 1.1 2022: See Priority Initiative 1 Notes	

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4.7	Existing Plans Alignment		Local municipalities, County, local watershed groups	All areas	Ongoing with inherent tie to Action 4.5	Ensure efforts do not conflict and/or align with other efforts Existing plans for reference during alignment exercises for BMP implementation include the Comprehensive Plan, Open Space and Greenway Plan, and the Hazard Mitigation Plan at a minimum. **Developed Act 167 Plan(s) for all watersheds would provide ideal consolidated existing plans overlay platform*** Add applicable SB3 elements to upcoming Comp Plan update	Comp Plan, Hazard Mitigation Plan, Open Space and Greenway Plan Local engineers/ consultants, County		Countywide Act 167 Plan	Countywide Act 167 plan develop.: $150,000	2024: No plan conflicts identified. Hazard mitigation/CAP overlap planning will commence late 2024. 2023: No plan conflicts identified. General understanding CAP dollars could assist with implementation of projects incorporating WQ improvement elements. 2022: County planning approaching review efforts and communications with existing plans alignment considerations (primarily the Hazard Mitigation Plan)	

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							Technical	Financial	Technical	Financial		
Priority Initiative 5: Data Management												
5.1	Centralized data platform/ warehouse	*Tracking platform game plan by late 2021*	County, Schuylkill County Conservation District (SCCD)	All areas (catchments)	Ongoing; game plan by late 2021; long-term targets inherently tied to P.I. 1	House the master Catchment Management Database (CMD) and related attributes and inventory at County GIS Final game plan for Catchment Targeting Initiative will dictate layers and attributes table **Additional hardware and software will need to be considered in conjunction with any additional personnel needs*** Consider interns for data entry tasks	County GIS		GIS info capture hardware Game plan for warehouse/ database platform	Funding for IT hardware/ software for more complete and interactive platform-$10,000	2024: With the separation of SCCD from the county's organizational structure, this will be revisited. 2023: Inherently understood that one master data warehouse is infeasible due to restrictions with different types of data. County GIS still serves to a certain level as a central point for understanding opportunities and urban-suburban BMP considerations. All ag and select natural sector BMPs reserved to PK. 2022: County GIS providing central database. Currently working through processes to harmonize data across multiple platforms.	
5.2	Reporting QA/QC	*Flowchart-early 2022*	SCCD, NRCS, County, local municipalities, local watershed groups, DEP	All areas	Ongoing, but follows game plans required catchment assessments and related	Develop and monitor flowchart representing different BMP/data reporting processes to help ensure all new BMPs, captured BMPs, etc. are reported through the right mechanisms	Practice Keeper (PK), FieldDoc, County GIS				2024: Ag flow chart developed and underway. Municipal flowchart will be revisited after release of "new" MS4 Permit (see Action 4.1). 2023: Urban/suburban flow chart will be addressed after new MS4 permit is introduced to align with permit requirements.	

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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		Annual Progress to Date (2022 + 2023)	Reasons for Change
							Technical	Financial	Technical	Financial		
											2022: Ag flowchart developed, urban/suburban still under consideration (plan is to revisit in early 2023 for next steps)	
5.3	Catchment Targeting Initiative and BMP Reconciliation	See P.I. 1 for more info	SCCD, County, NRCS, local municipalities, local watershed groups, DEP, Eastern PA Abandoned Mine Coalition (AMC)	All areas (catchments)	Ongoing; tied to platform development	Ensure centralized platform appropriately captures and displays individual catchment needs, captured unreported BMPs, etc. and aligns with reporting processes Identify other parameters, information, data, etc. appropriate for capture and display in centralized platform	County GIS				2024: See Action 1.1 and 4.2 2023: See Action 1.1 2022: See Priority Initiative 1 Notes	
5.4	Long-term monitoring plan	*Game plan late 2022*	SCCD, SRBC, DEP, County			Ability to measure progress and improvements for future decision points is critical for long-term success and buy-in	DEP, SCCD, EPA		Game plan for long-term monitoring options and needs	Monitoring equipment	2024: A more definitive funding stream to support this effort over the long-term is currently unclear and initiative will remain on hold until identified. 2023: On hold 2022: Game plan yet to be developed. Perception is funding and resources to manage a program may be an inhibiting factor.	

Each county-based local area will use this template to identify:
1. Inputs – These are both existing and needed resources, public and private, to implement the identified priority initiative. These include both technical and financial resources, such as personnel, supplies, equipment and funding.
2. Process – what is each partner able to do where and by when. These are the action items listed under each priority initiative.
3. Outputs and outcomes – both short and long-term. These are the priority initiatives identified by each county. The performance targets are the intermediate indicators that will measure progress.
4. Implementation challenges – any potential issues or roadblocks to implementation that could impede outputs and outcomes.

Asterisk: Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

For each Priority Initiative or Program Element: Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the "who, what, where, when and how" of the plan:

Description = What. This may include programs that address prevention, education, or as specific as planned BMP installations that will address the Priority Initiative. A programmatic or policy effort will require some ability to quantify the anticipated benefits which will allow calculation of the associated nutrient reductions.

Performance Target = How. This is an extension of the Description above. The Performance Target details the unique BMPs that will result from implementation of the Priority Initiative and serves as a benchmark to track progress in addressing the Priority Initiative. Performance Targets may be spread across multiple Responsible Parties, Geographies, and Timelines based on the specifics of the Initiative.

Responsible Party(ies) = Who. This is/are the key partner(s) who will implement the action items though outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

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

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

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

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

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