

Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update and Two-Year Milestones Report – Susquehanna County

Initiative Completed

Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier Highlight changes for 2024-2025 milestone period

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022+2023+2024+2025) <small>*add new 2025 progress above the existing 2024 progress. Date each entry</small>	Reason for Change to Action Item (2024-2025 milestone period)
							Technical	Financial	Technical	Financial		

Priority Initiative 1:

1.1	Implement Nutrient Management Analysis Program to Agricultural Landowners	Create Program for farmers to apply for soil sampling, manure analysis, and agronomic assistance to allow technical assistance and recommendations for nutrient management implementation.  BMP's will include Nutrient Core N and Nutrient Core P, Rate, Placement, and Timing.	PSU Extension, SCCD, Consultant	Agricultural and Hunting properties  Targeting Appalachian Creek, Choconut Creek, Wappasening Creek, Snake Creek, Wyalusing Creek, Susquehanna River, Salt Lick Creek, Starrucca Creek, Meshoppen Creek, Tunkhannock Creek, and Lackawanna River Watersheds	2022-2027	Funding for initial 3 years of program, landowner participation, and understanding of data importance	Local agency educational materials and sampling kits  Consultant assistance	Sampling Kits (\$15)  Manure Test Kits (\$40)	Contracted Source for NMP analysis/recommendations  List of recommended contacts for analysis completion	Dedicated funding to assist in management and development of this program  \$30,000 for 1.1 – 1.1 a per year	<p><b>2025</b> - SCCD has been completing NMP and MMP for farmers and landowners throughout the county. SCCD completed 15 MMP in 2025.</p> <p><b>2024</b> - This effort is being completed by NRCS and PSU Extension as needed although a program to assist with this effort has not been established. Potential for outreach through new outreach coordinator with NRCS.</p> <p><b>2023</b> - Nutrient management analysis has been offered to landowners who contact the district or need this completed for plan development. A program with dedicated funding has not yet been established.</p> <p><b>2022</b> - Nutrient Management planning has been provided to those who have contacted the district although a specific program has not been developed. Funding is being identified to establish this program moving forward. CAP implementation monies may be applied for this program.</p>	
1.1a	Soil Sampling Program	Develop Soil Sample Collection Program and Analysis – 20 sites per year	PSU Extension, SCCD, Consultant	Agricultural and Hunting properties  Targeting  Lower, EB Tunkhannock Creek, Wilson Creek, Horton Creek, Thomas Creek, and Little Meshoppen Creek Watersheds	2022-2027		Education Materials Soil Sampling			\$15,000 per year	<p><b>2025</b> - SCCD has completed 8 soil sampling sites throughout the county for farmers and landowners.</p> <p><b>2024</b> - Soil sampling has occurred for landowners that have contacted the District although a specific program was not created.</p> <p><b>2023</b> - Soil sampling is occurring for landowners that contact the district or for the completion of plans however a specific program for this has not been established.</p> <p><b>2022</b> - Progress and discussion have occurred surrounding sampling programs and a funding source is needed to secure these programs, soil sampling and nutrient plan development. Funding was applied for 2023 CAP Implementation Funds</p>	
	Manure Testing Program	Develop Manure Testing Program and Analysis – 3 sites per year	PSU Extension, SCCD, Consultant	Agricultural and Hunting properties  Targeting Lower, EB Tunkhannock Creek, Wilson Creek, Horton Creek, Thomas Creek, and Little Meshoppen Creek Watersheds	2022-2027		Education Materials Manure testing Labs			\$5,000 per year	<p><b>2025</b> - Manure testing is not as high of a demand within the county, and SCCD think that it may be because of lack of knowledge. The farmer survey will ask farmers and operators about manure testing, to hopefully create a que to those in need of manure testing.</p> <p><b>2024</b> - Manure sampling is being completed for landowners that need to update their plans or have appropriate plans created although a specialized program has not been established.</p> <p><b>2023</b> - Manure sampling is being completed for individuals that contact the district for completion or need testing for the development or submission of a plan although a separate program has not been established.</p> <p><b>2022</b> - Progress and discussion have occurred surrounding sampling programs and a funding source is needed to secure this program. This program will be developed following the roll out of the Soil Sampling Program.</p>	
	Agronomy Assistance/ Analysis Program	Develop Agronomic Analysis Program – 12 sites per year	PSU Extension, SCCD, Consultant, FSA	Agricultural and Hunting properties  Targeting Lower, EB Tunkhannock Creek, Wilson Creek, Horton Creek, Thomas Creek, and Little Meshoppen Creek Watersheds	2022-2025		Education Materials, Analysis	Analysis		\$10,000 per year	<p><b>2024</b> - This is offered by USDA, NRCS, PSU Extension, and FSA. Little assistance has been provided for this through the District. Would like to rmark this as completed during the next two-year milestone period.</p> <p><b>2023</b> - This program has not been developed although is planned for expansion once the soil sampling program is created.</p> <p><b>2022</b> - Progress and discussion have occurred surrounding sampling programs and a funding source is needed to secure this program. This program will be developed following the roll out of the Soil Sampling Program.</p>	<p><b>2025</b> - The agronomy assistance/ analysis program exists through USDA, NRCS, PSU Extension, and FSA. This initiative has been completed.</p>

1.2*	Reporting and Verification of Existing BMPs	Collect data through the use of landowner reporting forms and verify existing BMPs on agricultural operations.  50 farms per year	DEP, SCCD, NRCS, PFB	County	2021-2025	Time Capacity, Data Entry, Release of Records, producer participation and resistance	Existing BMP's funded through Government programs are already recorded	Agency verification	Dedicated staff or contracted staff to complete entry and inspections	Dedicated funding to this position \$80,000 per year for staff salary	<p><b>2024</b> - BMP verification efforts were completed in 2023, with additional practice reporting occurring as they are identified.</p> <p><b>2023</b> - BMP verification has been completed with over 400 BMP locations being identified and verified.</p> <p><b>2022</b> - BMP verification is underway through the use of Bay Office Funding for verification and reporting completion.</p> <p>An aerial identification platform was created to located BMPs and field verification is taking place to collect BMP information.</p>	<b>2025</b> - This initiative has been completed with over 400 BMPs identified and verified.
1.3	Existing BMP Maintenance Program	Assist producers with maintenance of existing BMP to keep them functioning.  10 farms per year	SCCD, NRCS, PSU Extension, Farmland Preservation Board	Agricultural communities targeting impaired watersheds	2022-2027	Lack of existing funds for maintenance, farmer resistance to project completion	Design and inspection support, specifications and details	Private funds	Design, permitting, engineering, and construction  Prioritization of BMP's in need of maintenance	Funds to complete maintenance activities, including design, permitting, and construction \$150,000 per year	<p><b>2025</b> - In 2025, SCCD replanted a portion of a previously implemented riparian buffer, due to low survival rate and mortality. SCCD hopes to grow this initiative within the following years.</p> <p><b>2024</b> - BMP Maintenance projects have been completed through CAP implementation funds with the addition of BMP upgrades being completed in 2024 such as Neenan improving drainage access and animal walkways. Riparian buffer maintenance has also been completed with Master Watershed Stewards Volunteers. Several projects are proposed for 2025 on landowners' agriculture operations.</p> <p><b>2023</b> - BMP maintenance projects are being implemented at multiple project sites this year. Larger projects are being implemented utilizing ACAP funding.</p> <p><b>2022</b> - Existing BMPs that require maintenance, or upgrades are being noted and completed as available. Additional maintenance activities will be implemented once a funding source becomes available.</p>	
1.4a	Riparian Buffer Implementation	Implement riparian buffers on crop and pasture lands.  Implement or verify 50 acres per year	SCCD, NRCS, PSU Extension	County Appalachian Creek, Choconut Creek, Wappasening Creek, Snake Creek, Wyalusing Creek, Susquehanna River, Salt Lick Creek, Starrucca Creek, Meshoppen Creek, Tunkhannock Creek, and Lackawanna River Watersheds	2021-2027	Lack of landowner participation, large match requirements for existing programs, lengthy contract terms	Design and project identification	Plantings and materials	Planting and maintenance assistance	Funding for professional planters or purchasing materials \$350,000 per year	<p><b>2025</b> - SCCD planted 3.5 acres of riparian buffers in 2025.</p> <p><b>2024</b> - Multiple sites have been under discussion for the installation in 2025, maintenance of existing riparian buffers occurred in 2024.</p> <p><b>2023</b> - Riparian buffer areas have been implemented this year at multiple sites and have been recorded for nutrient reductions.</p> <p><b>2022</b> - Riparian buffer zones are being planted and restored on crop and pasture fields to allow nutrients and animals from reaching the waterways through CAP implementation funds. 13.62 acres of riparian buffer was installed this year.</p>	
1.4b*	Riparian Stream Fencing	Implement Riparian Stream fencing along pasture lands.  5000 linear ft per year	SCCD, NRCS, PSU Extension	Agricultural communities targeting impaired watersheds	2021-2027	Lack of landowner participation, large match requirements for existing programs, lengthy contract terms	Design and project identification	Cost of materials and installation	Installation labor and materials  Outreach to landowners for project identification	Additional funds to complete more projects	<p><b>2025</b> - No stream exclusion fencing projects occurred in 2025, but multiple stream exclusion fencing projects are being applied for in 2026, including Brozonis, Harvatin, McKee, and Zattleskie.</p> <p><b>2024</b> - Zayleskie project will be fenced in partially in 2024 and extending into 2025, fencing completed in 2024 included 4,613.1 feet of five strand HT fence, 20 corners, 14 ends, 7 (16') Priefert pasture gates, and 144 feet of underground wire. Projects are proposed for 2025 that include Stream bank fencing for an agriculture operation. Mercier is planned for implementation in 2025.</p> <p><b>2023</b> - Stream fencing projects have been implemented this year.</p> <p><b>2022</b> - Riparian stream fencing is being installed on agricultural properties to exclude livestock from stream and pond systems through CAP implementation funds. 10,470 linear feet of stream fencing was installed this year.</p>	



Priority Initiative 2: Urban and Developed Stormwater											
2.1	Update and amend local Stormwater regulations	Update the Local regulations to include proven BMPs to be utilized in project to prevent increase stormwater and nutrient discharges.  5 Stormwater ordinance updates per year	County Planning, Municipal Government	County Stormwater Regulations and Municipalities with existing stormwater ordinances.	2022 - 2027	Enforcement, Resistance for Townships and Developers, Coordination	Guidance Documents, Existing plans, BMP recommendations	Funding sources to implement and amend local regulations	Technical guidance	Funds to amend and implement regulations	<p><b>2025</b> - SCCD is interested in an Act 167 Plan to update and amend local Stormwater Regulations, and contact has been made with the Planning office.</p> <p><b>2024</b> - County is not interested in having an effort in Act 167 updates. The District provides education on stormwater management where they can. The District is trying to reaching out to Municipalities to review ordinances, but do not have buy in from Municipalities.</p> <p><b>2023</b> - Funding is still being identified to complete these upgrades as well as participation from the county municipalities.</p> <p><b>2022</b> - Updates and amendments to the local stormwater regulations are proposed to occur once funding has been secured. The SALDO is under evaluation for update needs.</p>
2.1a	Update and Amend ACT 167 Plan	Finalized Act 167 Plan from previously completed Draft Plan.	County Planning, Municipal Government	County	2021-2027	Funding, Resistance, Local Enforcement, Education	Existing plans, Stormwater BMP recommendations	Funding for amendments and implementations	Review and edits/approval of document, technical guidance	Funds to amend existing ACT 167 Plan	<p><b>2025</b> - Contact with county planning has been made to address the want and need for an Act 167 plan.</p> <p><b>2024</b> - County is not interested in having an effort in Act 167 updates.</p> <p><b>2023</b> - These upgrades are being planned to occur once funding has been secured.</p> <p><b>2022</b> - This program has been discussed but is waiting to see how ACT 167 planning funding is allocated. Updates and amendments to the ACT 167 plan are proposed to occur once funding is secured.</p>
2.3	Residential Stormwater Management and Rain Barrel Program	Develop Education and material Program for residential, small commercial properties, and lake communities.  2 in-person programs per year  Implement 50 stormwater management practice son residential lands per year  BMPs include: Bio-retention/Raingardens	SCCD	County	2022-2027	Funding for materials; resistance to participation; maintaining use	Existing example programs and educational materials	Cost of project implementation	Rain barrels, Rain gardens, and associated small rain mitigation project materials, educational programs	Funding for materials	<p><b>2025</b> - During 2025 SCCD held educational programs surrounding residential stormwater management and rain barrel programs at the county fair and through the master gardeners.</p> <p><b>2024</b> - One project was completed this year to manage stormwater. The Salt Springs State Park rain garden was installed with educational signage to help mitigate for parking lot runoff. Educational events have taken place at the Salt Spring Rain Garden to educate landowners on the benefits and functionality. The District has rain barrel workshops and educational events, along with rain barrel kits for sale through the Master Watershed Stewards.</p> <p><b>2023</b> - This program is still of interest for completion to increase education and outreach although funding was not applied to this year for program completion.</p> <p><b>2022</b> - This program is in discussion and will need a funding source to complete the in-person events and provide necessary materials. Possible funding for this would be an EE Grant.</p>
2.4a	Stormwater and Nutrient Management for Turf Grass	Implement BMPs on Non-Ag lands to reduce nutrient pollution. These include, buffer and tree plantings, turf grass reduction, grass buffers, etc.  5 acres	SCCD, NRCS, PSU Extension	Urban Tall Pines Players Club, Panorama Golf Course. And Montrose Country Club	2023-2027	Reporting and lack of participation, guidance, and regulations	Guidance documentation and existing programs	Outreach and education funding. Privates funds from organizations to improve their own lands, Tree plantings	Design planning, BMP recommendations, area management and maintenance	Cost share program, funding	<p><b>2025</b> - The performance target for this initiative was readressed to promote more projects within this initiative for 2026.</p> <p><b>2024</b> - There is a lack of need/ interest for this initiative. Would like to remove from CAP during the next two-year milestone period.</p> <p><b>2023</b> - This program is still of interest and would be completed with 2.4 once funding was secured for both initiatives.</p> <p><b>2022</b> - This program has not been developed but is still of interest to complete. Funding will need dedicated to launch this program and will be planned for in the future.</p>
2.5*	Roadway Stormwater Management	Implement new BMPs for Supervisors and PennDOT to reduce runoff from roadways and minimize nutrient carrying capacity.  10 miles of road per year	SCCD, DCNR, PGC, Municipalities, DGLVR	County	2021-2027	Follow through on protocol and lack of updates with new techniques.	Training, design manuals	BMP implementations on roadways	Additional project identification and design permitting and implementations	Cost associated with additional BMP implementations	<p><b>2025</b> - Dirt and gravel low volume roads program has completed 0.22 miles in 2025.</p> <p><b>2024</b> - Projects are ongoing by PennDOT and Municipalities around the County. This topic would be beneficial to add to the Municipal workshop in 2025.</p> <p><b>2023</b> - This program has not yet been created although management activities are ongoing through the DGLVR projects.</p> <p><b>2022</b> - This program has not been established but is being addressed through ongoing DGLVR projects although larger scale projects haven't been undertaken.</p>



Priority Initiative 3: Wastewater											
3.1	Upgrades and Maintenance on Public Sewer	Complete necessary upgrades on WTP and Implement proper Maintenance on remaining.  1 system	County Planning, Local Authority	County - Susquehanna Wastewater Treatment Plant	2022-2027	Cost of upgrades and maintenance, design and permitting	Engineers, Authority, Operators, inspections and permit reviews	Costs associated with upgrades and maintenance	Design Feasibility, engineering and construction support, permitting	Cost of upgrades and maintenance	<p><b>2025</b> - Montrose Borough is completing upgrades and Hartford has completed the upgrades.</p> <p><b>2024</b> - Montrose Borough is completing upgrades to their system. Harford Township received a grant for upgrades their system.</p> <p><b>2023</b> - This action item was under discussion for feasibility.</p> <p><b>2022</b> - This program is in the beginning stages of discussion and is on hold due to cost of upgrades and no secured funding source.</p>
Priority Initiative 4: Lake Management											
4.1	Source Water Protection	Implement BMPs that will reduce nutrients in lake source water to reduce algal chemical treatments.  BMP's to include Agricultural Farmland management, Reforestation, Forest Land Management  3 acres per year	Landowners, SCCD, Lake associations	Lake Property and surrounding landscape	2023-2027	Funding to implement BMP's on lands contributing to the source water and Surrounding landowner participation	Project Identification, Design, permitting and implementation	Funds to complete project design and implementation	Outreach to landowner and support for project design, permitting, and implementation	Funds need to complete BMP's	<p><b>2025</b> - Some landowners have reached out to SCCD for guidance on source water protection around lake communities. In 2025, there was 1 BMP implemented.</p> <p><b>2024</b> - Silver Lake phosphorus removal bags for nutrient removal have been installed this year Havertine is proposed for 2025 and involves the removal of livestock from a pond/lake community.</p> <p><b>2023</b> - Source water protection projects have been implemented this year which consist of phosphorus filter bags within lake systems to reduce overall phosphorus levels.</p> <p><b>2022</b> - Lakefront riparian plantings have been discussed to help source water protection and are being completed this year at two different lake communities, Hart Lake and Silver Lake.</p> <p>Grant funding is being discussed to continue lake community improvements to find potential project sites and feasible grant funding.</p> <p>2023 CAP Implementation funding was applied to for Lake community improvements.</p>

Priority Initiative 5: Natural												
5.1	Forest Land Conservation and Management	Preserve Quality Forest Land Surrounding Quality Resources through deed restrictions and land conservancies.  2,500 acres per year	SCCD, NRCS, DCNR, Landowners	Forest lands near quality resources	2022-2027	Funding for preserved lands and landowner participation	Conservation efforts, existing land conservancy programs	Existing grant programs and private funds	Additional outreach and support	Costs associated with conservation planning and management	<p><b>2025</b> - This initiative is occurring within the county, and SCCD is working to identify specific instances.</p> <p><b>2024</b>- Agencies around the County are likely to have been conserving additional acreage this year and these metrics will need to be received.</p> <p><b>2023</b> - Susquehanna County has partnered with Bradford County Conservation District to participate in the Forestry Education Symposium. This event provides education on conservation of forest land and management. This program to increase conserved acres is still a priority although funding to do so is limited.</p> <p><b>2022</b> - Conservation planning and discussions have occurred although preservation is limited until a funding source is secured.</p>	
5.1a	Forest Management Plans	Create Forest Management Plans for private landowners.  20 plans per year	SCCD, NRCS, Foresters, DCNR	Private Forest Owners	2022-2027	Funding, capturing plans, plan writers, available lands	Writing/assistance	Forest Management plan costs	Plan writers	Cost associated with plan writing	<p><b>2025</b> - This initiative is occurring within the county, and SCCD is working to identify specific instances. Foresters and DCNR are the primary providers for this initiative within the County.</p> <p><b>2024</b> - Forestry Education was offered again through the Forestry Education Symposium which included the partnership of 8 Conservation Districts. Forestry Management plans were a speaker topic and this effort is being completed by NRCS.</p> <p><b>2023</b> - Susquehanna County has partnered with Bradford County Conservation District to be included in the next grant round of the Forestry Education Symposium. This event provides education on conservation of forest land and management. This event highlights the need for management planning and educates landowners on how to receive one.</p> <p><b>2022</b> - Forest management plans have not been completed through the district due to the lack of a plan writers and funding will need to be secured to offer this assistance.</p> <p>There is a potential for NRCS funding to allow for plan</p>	
5.1b	Forestry Harvest ED and Outreach	Educating private forest landowners on the importance of proper harvesting and selecting a qualified timber harvester.  2 in-person program events per year	DCNR, NRCS, SCCD	Private Forest Owners	2023	Participation from landowners, interest, and technical assistance.	Educational materials	N/A	Outreach events, in-person programs, county specific informational packets	Costs associated with in-person programs and outreach events, and county specific material development	<p><b>2024</b> - Forestry Education was offered again through the Forestry Education Symposium which included the partnership of 8 Conservation Districts.</p> <p><b>2023</b> - Susquehanna County has partnered with Bradford County Conservation District to be included in the next grant round of the Forestry Education Symposium. This event provides education on conservation of forest land and management. This event highlights the need for management planning and educates landowners on how to receive one.</p> <p><b>2022</b> - Susquehanna County has partnered with Bradford County to complete a Forestry Education Symposium funded through the 2022 Environmental Education Grant award.</p> <p>The first event was held to provide education and outreach to the local landowners and professionals. A presentation on forestry harvest was also given during</p>	2025 - Completed.
5.2	Stream Restoration and Streambank stabilization	Stream restoration and streambank protection and stabilization for overall watershed health.  1,500 linear feet per year	SCCD, TU, NRCS	County impaired streams	2022- 2027	Cost associated with design and construction, and landowner participation	Project design, details, and permitting support	Existing Grant Programs and private funds	Prioritization and watershed approach, planning and design	Dedicated funding source to continue establishing new projects	<p><b>2025</b> - Clifford Township Park resulted in 1,800 linear feet of streambank restoration and stabilization, through the use of log-deflectors, boulder placements, and modified mudsills.</p> <p><b>2024</b> - Two projects completed on Burdick Creek in 2024 on residential properties for stream stabilization. These projects were completed through CAP implementation funds. Clifford Township project is planned for implementation in 2025.</p> <p><b>2023</b> - Stream restoration and streambank stabilization projects have been under discussion although funding options for implementation are limited as well as identifying watershed priority.</p> <p><b>2022</b>- Stream stabilization has been implemented in stream crossing projects although no separate stream restoration projects have occurred this year.</p>	

5.3	Establish Master Watershed Steward Coordinator Position	<p>Establish a coordinator for Susquehanna County or a shared position between multiple counties.</p> <p>This position could assist with the implementation of this plan and be a vital asset for numerous initiatives</p>	PSU Extension, SCCD, County Commissioners	County	2021+	Initial establishment of the program and finding a qualified candidate	Existing Program and outline of duties	N/A	Qualified Candidate to function as the coordinator	Dedicated funding for new position, or shared county position	<p>2024- Position created and partnered with Master Watershed Stewards for Salt Springs State Park rain garden install through the 2024 CAP implementation funds.</p> <p>2023 - This program has been developed and is very helpful.</p> <p>2022- This program has been developed through the partnership of multiple counties to share this position.</p>	<p>2025 - The position was established and filled. The county no longer has a master Watershed Steward, but the initiative has been completed. This initiative could be readdressed if a Master Watershed Steward is reestablished within the county.</p>
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