

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

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) <small>*add new 2023 progress above the existing 2021 and 2022 progress. Date each entry</small>	Reason for Change to Action Item (2024-2025 milestone period)
							Technical	Financial	Technical	Financial		
Priority Initiative 1: Agriculture												
1.1	Implement Nutrient Management Analysis Program to Agricultural Landowners	Create Program for farmers to apply for soil sampling, manure analysis, and agronomics assistance to allow technical assistance and recommendations for nutrient management implementation based on sampling/analysis. Approximately 3000 acres or more depending on funding	PSU Extension, BCCD, Consultant	Agricultural and Hunting properties Headwaters Towanda Creek, South Branch Sugar Creek, Sattlerlee Creek, and Laning Creek Watersheds	2022-Creation of program with evaluation in 2025.	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 for Soil and \$40 for Manure)	Contracted Source for NMP analysis/recommendations List of recommended contacts for analysis completion.	Dedicated funding to assist in management and development of this program.	2023 - Nutrient management analysis is being provided for the development of new or updated plans although a separate program for designated funding hasn't been developed. 2022- Program establishment and funding options have been under discussion. Funding has been applied to through the 2023 CAP implementation funds to complete this effort.	
1.1a	Soil Sampling Program	Develop Soil Sample Collection Program and Analysis – 25 sites annually, Approximately 10 fields per farm	PSU Extension, BCCD, Consultant Target Hunting Clubs	Agricultural and Hunting properties Lanning Creek, Hammond Creek, Bailey Creek, and Gaffers Creek	2022-2025		Education Materials Soil Sampling				2023- This program has been started to offer soil sampling kits to operations completing new plan development or yearly testing. 2022- Program establishment and funding options have been under discussion. Funding has been applied to through the 2023 CAP implementation funds to complete this effort. This program will include purchasing	
	Manure Testing Program	Develop Manure Testing Program and Analysis – 25 sites annually	PSU Extension, BCCD, Consultant	Agricultural and Hunting properties Headwaters Towanda Creek, South Branch Sugar Creek, Sattlerlee Creek, and Laning Creek Watersheds	2022-2025		Education Materials Manure testing Labs				2023 - Manure testing has been completed for operations that are having new plans developed although a separate program has not yet been established. 2022- A program specific to manure testing has not been established although funds for manure testing will	

	Agronomy Assistance/Analysis Program	Develop Agronomic Analysis Program – 25 sites annually	PSU Extension, BCCD, Consultant	Agricultural and Hunting properties. Headwaters Towanda Creek, South Branch Sugar Creek, Sattlerlee Creek, and Laning Creek Watersheds	2022-2025		Education Materials, Analysis			Analysis	2023 - A agronomy assistance program has not yet been completed but will hopefully be added to the soil sampling program shortly. 2022- An agronomy assistance program has not been established although is still important to complete. This project will be prioritized after soil and manure sampling programs are rolled out.	
1.2 *	Increase Reporting and Verification of Existing BMP's	Collect data through use of landowner reporting forms and verify existing BMP's on Agricultural Operations. Report and Verify 50 farms a year.	DEP, BCCD, NRCS, PFB	County	2021-ongoing	Time Capacity, Data Entry, Release of Records, producer participation and resistance	BMP's and plans that were funded through agencies and grants are already known	Agency verification	One dedicated staff or contracted staff to complete entry and inspections.	Dedicated funding to this position,	2023 - BMP verification and reporting was completed throughout 2023 and is being prioritized going forward. 2022- BMP reporting and verification is underway and being completed on schedule.	
1.2a	Create Farmer Survey	Create and deploy Farmer Survey to collect private landowner data on existing BMPs 100 Completed surveys a year	DEP, BCCD, NRCS, PFB	County	2021-ongoing	Time Capacity, Data Entry, Release of Records, producer participation and resistance	BMPs and plans that were funded through agencies and grants are already known	Agency verification	Refer to 1.2	Refer to 1.2	2023 - This has not been established due to the amount of BMPs able to be identified through the BMP verification process but may be rolled out at a later date. 2022- The farmer survey has been under discussion but has not been developed. This farmer survey roll-out may occur following BMP verification and reporting to locate and verify additional BMPs.	
1.3	Existing BMP Maintenance Program	Assist producers with maintenance of existing BMP to keep them functioning, through cost-share labor or funding. Approx. 10 farms per year (projects size will determine if more or less operations can be completed) Completing maintenance on riparian buffers, fencing, rain gutters, heavy use areas, manure storages, etc.	BCCD, NRCS, PSU Extension	Agricultural Producers	2023-ongoing	Funding and Producer participation, Identifying BMPs that need maintenance	Technical assistance	Funding Source that allows for the maintenance of existing BMP's	Consultants, Engineers	Grant funding	2023 - BMP maintenance and upgrade projects are underway for completion this year. 2022- Existing BMPs that require maintenance and upgrades are being noted while completing BMP verification as well as from landowners contacting the district directly and are being assisted as funding becomes available. The rollout of the farmer survey will allow for more maintenance and upgrade project needs to be noted and addressed in the future. Funding to implement identified	

1.4 *	Riparian Buffer and Stream Fencing	Implement Stream fencing and riparian buffer on crop and pasture lands. 7880 Acres of new or verified existing	BCCD, NRCS, PSU Extension	Streams of Agricultural Properties Target Hunting and Fishing clubs	2021-ongoing	Funding and Producer participation, Importance of maintenance	NRCS, PSU Extension, Consultants, SCC	N/A	K-10 Labor to plant/install	Stream fencing costs, Trees if not available, planting and maintenance	2023 - Riparian buffer and stream fencing projects have been completed this year. 2022- Riparian Buffer and Stream Fencing projects are being planned and implemented on agricultural properties. Multiple stream fencing projects were sent for bids and will be installed by the spring.	
1.5	Soil Health	Promote Soil Health by increasing No Till and Cover Cropping Increase No Till by 1,250 acres per year and Cover Cropping by 3,000 acres	BCCD, NRCS	Agricultural Landowners operations Seeley Creek, North and South Branch Sugar Creek, Head Waters of Tioga River, Headwaters Towanda Creek, Laning Creek, and Black Creek-Little Loyalsock Creek Watersheds	2021-2025	Producer Participation and Resistance. Education on overall management change importance, equipment availability	Cases Studies, Educational Materials, Seminars	Seed Costs	Outreach support, event development, Deliverables through existing publications	Dedicated funding to this position,	2023 - Soil health was increased this year with the addition of the new No-Till Drill rental. This equipment increased no-till acreage throughout the county. 2022- No-till and cover cropping is being promoted through the education and expanded use of no-till rental programs. Funding was received to purchase a new No-Till Drill this year which will allow for increased equipment use and promote smaller operations to utilize the practice. Drill purchase is currently underway.	
1.6	Equipment Rental and Availability	Provide equipment rental to farmers to encourage more BMP implementation on small operations and reduce nutrients being applied incorrectly	BCCD	Agricultural Landowners operations	2021-2025	Logistics and maintenance	No-Till Equipment	Funds to purchase and maintain equipment	Rental Agreement Delivery of equipment Contracting a delivery service for equipment Contracting a custom farming operator to assist in equipment usage	No Till Drill - \$30,000.00 Lime Spreader \$10,000.00 Manure Injection Equipment - \$150,000.00 Manure Spreader - \$10,000.00	2023 - The purchase and availability for the new no-till drill rental has increased rental availability and implemented no-till acres throughout the county. 2022- Received funding to purchase another No-Till Drill to increase implementation and allow smaller farms to utilize the practice. Prices have been received for drill purchase and is being completed this year. Overall equipment rental programs are still underway and being implemented.	
1.7 *	Barnyard, Heavy Use Management, and Manure Storage	Implement BMP's on farms where the most nutrient concentration occurs (heavy use) and reduce the travel of nutrients into streams and construct roofed manure stacking pads to reduce winter spreading BMP's include Barnyards, manure storage, buffer strips, rain gutters, etc. Increase number of total projects by 5 per year on top of current county and NRCS workload. Project number could increase if smaller projects are obtained. Potentially 10-12 additional projects	BCCD, NRCS, SCC,	County Seeley Creek, North and South Branch Sugar Creek, Head Waters of Tioga River, Headwaters Towanda Creek, Laning Creek, and Black Creek-Little Loyalsock Creek Watersheds	2021-2025	Project match on larger projects. Prevailing wage, increased wait times for funding and farmer resistance	Engineering and design support		Engineering, design, and permitting support	\$1,000,000.00 per year to increase overall project numbers	2023 - BMP projects have been ongoing at farm operations this year. Multiple implementations have occurred as well as maintenance and upgrades to existing facilities. 2022- Planning and discussions regarding heavy use area management are occurring and ongoing. Barnyard heavy use areas and manure storages have been proposed projects for implementation and some are on hold due to the increase in prices for construction and the landowners match requirements increasing. One project was	

1.8	Operation Transition and Land Retirement Assistance	Assist farmers that are transitioning operation types with the necessary BMP and management practices and consult individuals that are removing lands from production. Provide assistance with reforestation, recreational management, CREP and Wildlife habitat improvements 10 farms per year	BCCD, NRCS, PSU Extension	County	2022-2025	Outreach to Landowners, Potential for Long Term Contracts. Maintenance for proposed BMP's	Planning Documents, Education	Plantings, and seed for land retirement plantings	Staff to complete recommendations	Funds for Plan Writers and new BMP being implemented, Plan Revisions	2023 - Operation transition and land retirement assistance is still being provided to those who contacts the district although a program or educational series has not been developed. 2022- Operational transition and land retirement assistance has been provided to those who contact the district, but a program has not been developed. Operation Transition has been a large topic of discussion to get landowners thinking about the future and creating a plan. This program is of high interest although
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Priority Initiative 2: Urban and Developed Stormwater

2.1	Nutrient and Fertilizer Planning for Turf Grass	Develop and implements plans and guidance for Turf Grass 600 acres per year either planned or verified	BCCD, PSU Extension, NRCS,	Urban	2024+	Collecting Reporting from existing plans, (i.e., Golf course, school plans) and lack of participation from private landowners	Guidance documents,	Funds to development management plans	Example plans, outreach to increase importance of plans, Enforcement for possible adapted ordinances or policies.	Dedicate funds to launch the program to achieve nutrient stormwater reductions	2023 - This program has not been developed but is still a priority. 2022- This program has not yet been developed but is still of high importance and needs a funding source for implementation.
2.1a	Turf Grass Management	Management of Turf grass fertilizer application and potentially reduce unnecessary areas 40 acres per year	Golf Courses, BCCD, County Planner	County	2023+	Resistance to additional changes and reporting	Technical Guidance documents and proven BMP's	Funds to implement Turf grass reduction areas by tree or wildflower planting	Education and training to understand the importance and the actual implementation of these projects	Funding to implement projects	2023 - This program has not been developed but is still a priority. 2022- This program has not yet been developed but is still of high importance and needs a funding source for implementation.
2.2	Existing Stormwater BMP retrofit Program	Upgrade existing basins, drainage systems to improve function 10 system upgrades or maintenance per year	Municipalities, landowners, rec properties	Existing Sites	2022-2025	Funding to complete necessary maintenance or upgrades	Example projects, Guidance documents	Private funds	Site data collection; Design development, implementation	Design funds, construction funds	2023 - Existing stormwater projects on farming operations are being discussed and prioritized for implementation. 2022- Existing stormwater BMPs have been discussed although halted due to lack of design funding and construction costs.
2.2a	Stormwater BMP Prioritization Tool	Creation of a prioritization tool, to identify beneficial potential project locations that consists of a database mapper and scoresheet.	County Planning	Existing g Stormwater BMP's within the county Starting with higher population and impervious areas	2022-2025	Identifying suitable facilities and collecting data to create a tool	Existing data for permitted systems	Funds to develop and maintain tool and data collection	Creation of Tool/database , setting up quantifiable system and keeping it up to date, data collection Maintaining the tool	Fund to create database and collect to digitize data	2023 - This tool has not been developed although is still a priority for completion. 2022- Conversations about program implementation have occurred although halted due lack of design funding and construction costs for projects to be implemented.

2.3	Bridge Stormwater Management	Look at stormwater Management to reduce nutrient flowing directly into River.	PennDOT, County	Towanda Bridge and other River Crossings	2024+	Funding Determining proper course of action	Land acquisition, design, construction	Funding for engineering and construction	Design of Stormwater management system that is applicable	Funding	2023 - Stormwater infrastructure on all ongoing bridge repair projects have also been inspected and upgraded if needed throughout the county. 2022- Stormwater management on bridge facilities have been upgraded as needed during overall construction/repair events. A program to identify future repair needs has not yet been developed.
2.4	Roadway Stormwater Management	Manage stormwater on local and forest roads on public land to reduce runoff and flooding potential Complete 10-15 road miles per year	BCCD, DCNR, PGC, Municipalities	Roads on SGL and State Forest Roads, Areas with known flooding issues	2024+	Funding to develop guidance and implement project on identified areas Resistance to utilize different methods	Technical guidance and details	Current roadway maintenance funds	N/A	Funding for upgrades	2023 - Roadway stormwater management has been upgraded at ongoing construction projects throughout the county this year. 2022- Roadway stormwater management has been upgraded and occurring during construction/repair as needed. A program to identify future repair needs has not yet been developed.
2.4a *	Culvert Replacement and Flood control BMP's	Replace undersized culverts that cause issues within the watershed and assist flood control abilities with new or maintenance to existing controls 10 culverts per year, additional can be completed based upon project size and funding allotment	County, Engineers, TU	County Targeting high flood frequency areas	2022-2025	Funding, Participation and Implementation of Municipalities	Technical Guidance	Funds to complete replacements	Permitting, design, H&H, Identifying culverts in need of upgrade	Funding Replacement and permitting process	2023 - Culvert replacements have been ongoing as needed on planned construction projects this year. The replacement of additional undersized culverts has not yet occurred. 2022- Culvert replacements and flood control BMPs are being planned and implemented within ongoing construction and repair projects. A program to identify future repair and upgrade needs has not yet been developed.
2.4b	Culvert Size and Flood Control Educational Program	Culvert sizing education and flood control program for county staff and private contractors. 2 in person programs per year	County, Engineers, TU	County Targeting high flood frequency areas	2022-2025	Funding, Participation	Educational Materials and set up for stakeholder meetings	Funds to create handouts and meeting space rental	Program coordinator	Funding Education	2023 - This project is still of priority although has not had dedicated funding to create the program. 2022- Program discussion has occurred and will require designated education funding to compete.

Priority Initiative 3: Wastewater

3.1	Upgrades and Maintenance on Public Sewer	Complete necessary upgrades and Implement proper Maintenance on public sewer systems. 1 system	County Planning, Local Authority	County	2025	Cost of upgrades and maintenance, design and permitting	Sewer inspections, permit reviews	Cost of upgrades and maintenance	Engineering support	Cost of upgrades	2023 - Public sewer maintenance activities are being completed as needed. 2022 - Public sewer maintenance activities are ongoing and being completed on an as needed basis. Additional funding opportunities would increase the amount of upgrades available to these facilities.	
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Priority Initiative 4: Watershed Health

4.1	Farmland and Forestry Preservation	Preserve Farmland and Forest Lands 1,250 acres per year	BCCD, NPC	County	2021-2025	Funding for preserved lands and landowner participation	Existing programs	Farmland Preservation Program, Land Conservation Programs, Land donations	Additional outreach and support	Funding for farmland and forestry preservation.	2023 - Farmland and forestry preservation are occurring as funding becomes available. Additional funds would increase preservation amounts. 2022 - Farmland and Forestry preservation have	
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4.2	Forestry Management	Provide Forest Management plans and technical assistance 10 plans per year	BCCD, DCNR	Private forest lands	2021-2025	Qualified foresters to complete management plans and assistance and landowner participation	Plan writing and technical assistance	Cost of plan writing	Plan writing, Education, outreach	Funds for plan development	2023 - The second year of grant funding for the Forestry Education Symposium was awarded with the first event occurring this September. 2022 - Bradford County Received grant funding through the 2022 Environmental Education Grant to implement a Forestry Education Symposium and project implementation is underway.	
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4.3 *	Stream Quality Improvements	Improve overall stream quality by creating grass and forested buffers, bed and bank stabilization, and headwater protection 1.5 Miles of stream per year (Both banks) Projects to include buffers, bed and bank stabilization, and floodplain reconnection.	BCCD, NRCS, DCNR, Landowners	County Forest lands	2022-2025	Overall costs of projects and landowner participation, permitting constraints	Project design and permitting, site identification, landowner outreach	Cost for permitting, design, and construction	Engineering, design, permitting	Additional funds to complete projects	2023 - Stream improvement projects are being implemented through the utilization of CAP implementation funds. 2022 - Stream quality improvements are being completed and planned through the utilization of CAP implementation	
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