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) *add new 2023 progress above the existing 2021 and 2022 progress. Date each entry	**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.	2024 - Nutrient Management assistance is being provided by NRCS and PSU Extension, although a specific program has not been developed for landowners through the Conservation District. BCCD is also included in a partnership with the Upper Susquehanna Coalition for assistance with agricultural planning, soil samples, and manure sampling as needed. 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	
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				2024 - Soil Sampling Kits are provided as needed to landowners seeking assistance. 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 soil sampling equipment for landowner rental moving forward.	

	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				2024 - Manure testing continues to be completed for landowners that need updated or new plans. 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 be included in various projects outlined within the 2023 CAP Implementation grant application.	
	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	2024 - Agronomy Assistance program has not been developed although PSU Extension and NRCS provides this assistance within the County. 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,	2024 - BMP Verification effort was completed and additional review of potential BMPs for verification is occurring. 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	2024 - This survey has not been developed through the District to identify existing BMPs although surveys have been completed through PSU to gather this information. 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	

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	2024 - A BMP maintenance project has been installed this year that was upgraded with ACAP funding, in addition to a practice that was upgraded by the landowner. 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 maintenance needs has been applied for through 2023 CAP Implementation	

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	Upper Susquehanna Coalition (USC), Stroud Water Research Center (SWRC)	K-10 Labor to plant/install	Stream fencing costs, Trees if not available, planting and maintenance	2024 - Riparian buffers have been installed on stream restoration projects completed in 2024. 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,	2024 - Soil Health initiative was continued this year by utilizing the No-Till Drill in the spring. 2023 - Soil health was increased this year with the addition of the ne 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. Approximately 400 acres of cover crops have been installed this year.	

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	No Till Drill - $30,000.00 Lime Spreader - $10,000.00 Manure Injection Equipment - $150,000.00 Manure Spreader - $10,000.00	2024 - Equipment Rental program was continued through the beginning of 2024 to provide the availability of no-till planting to operations. A partnership with Susquehanna County was created to borrow their planter for Bradford Landowners to increase equipment availability. 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	
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	2024 - Multiple projects for manure stack, HUA, and Barnyards are proposed for completion under the 2024 CAP Application and proposed for funding in the 2025 CAP Application. 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 approved through 2022 CAP Implementation Funds.	
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	2024 - Assistance is being provided to landowners through the help of the Conservation District or NRCS. A program or educational series has not been developed, but those who contact the District can receive assistance. The District received approximately 3 calls from landowners in 2024 for assistance. The District gave recommendations for best management practices and transitional advice, but there is no specific program developed currently. Penn State Extension has webinars and educational events aimed to help transition farms to the next step, and the District will reference this material. 2023 - Operation transition and land retirement assistance are still being provided to those who contacts the district although a program or educational series has not been developed.	

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	2024 - This program has not been established in 2024, but the District has plans for 2025 to reach out to Schools and Golf Courses to better understand their plans. DEP has a urban NMP available, and the District plans to utilize this once contact has been made with the schools and golf courses, if there is a need for NMP updates. 2023 - This program has not been developed but is still a priority. 2022- This program has not yet been	
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	2024 - The District is aware of approximately 3 landowners who have transitioned turf grass to meadows within 2024. These transitions resulted in 3.5 acres of turf grass reduction. The District plans to continue implementing more meadows in 2025. 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	2024 - Stormwater BMP retrofit has occurred this year on an agricultural property that altered the outlet of two diversion ditches where severe erosion has occurred. A rock-lined waterway now reduces the volume and velocity of water during storm events, reducing future erosion. 2023 - Existing stormwater projects on farming operations are being	
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	2024 - This tool has not been established regarding stormwater, although a BMP platform viewer has been created to assist with locating potential historic BMPs or locations that BMPs would be beneficial. 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	
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	2024 - Repairs are ongoing to bridges and crossings throughout the County as needed although protocol to address excess nutrient loads has not occurred. 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	

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	2024 - Stormwater management projects are being implemented by the municipalities and Game Commission, as needed. 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	BCCD, 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	2024 - Ten (10) stream crossing projects have been completed in 2024 with additional projects proposed for 2025. 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	2024 - The Conservation District hosted two educational programs in 2024 teaching municipal officials on the topic of culvert replacement. 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 complete.	
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	2024 - Public sewer maintenance and upgrades are occurring as needed. Bradford County received a $462,820 loan in 10/2023 to construct a new headworks building and replace equipment. 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 number of	

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.	2024 - Farmland preservation applications are being received and farms have been preserved in 2024. 2023 - Farmland and forestry preservation are occurring as funding becomes available. Additional funds would increase preservation amounts. 2022- Farmland and Forestry preservation have been discussed and applications have been received from landowners. Funding is needed to preserve these lands.	
4.2	Forestry Management	Provide Forest Management plans and technical assistance 10 plans per year	BCCD, DCNR, NRCS	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	2024 - The Forestry Education Program was completed in the Spring of 2024 and included the participation of 8 County Conservation Districts to educate landowners about the importance of Forestry Management Plans. During 2024, 7 forestry management plans were created, along with 30-35 site visits, and 21.5 acres of forest planted. 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	
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	2024 - 11 Stream restoration projects (approximately 0.6 miles) have been completed within the County through the use of Growing Greener, other DEP, County, and CAP funding. 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 funding.	