

Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update and Two-Year Milestones Report – Lackawanna 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(s) 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	Assist producers in obtaining nutrient management planning (including soil samples, manure analysis, and agronomy assistance). BMP's will include Nutrient Core N and Nutrient Core P, Rate, Placement, and Timing. 25 Sites per year	PSU Extension, LCCD, Consultant	County Agricultural properties	2022 creation of program with evaluation in 2025	Funding for program creation, Producer Participation, and understanding of importance	Local agency educational materials and sampling kits Consultant assistance	EQIP	Contracted Source for NMP analysis/recommendations List of recommended contacts for analysis completion	Dedicated funding to assist in this program \$15 per soil sample kit \$40 per manure testing kit \$60,000 per year	2023 - Nutrient management and soil sampling have been offered to landowners when developing new or updated MMP's and CNMP's. 100 soil test kits have been purchased to continue to provide this resource to landowners. Over 10 operations have been worked with to develop nutrient management plans, conservation plans, and Engineering I&E's. 2022- Nutrient management analysis has been offered through the district to provide 50+ soil sampling kits and manure analysis assistance. Designated funded is required to increase soil sampling and manure testing availability to more landowners each year and expand the existing program.	
1.2*	Reporting and Verification of Existing BMPs	Collect data using landowner reporting forms and verify existing BMPs on agricultural operations. Report and verify 50 operations per year	DEP, LCCD, NRCS	County Agricultural properties	2021-2025	Time Capacity, Data Entry, Release of Records, producer participation and resistance	Existing BMPs funded through Government programs are already known	Agency verification	Dedicated staff or contracted staff to complete entry and inspections	Dedicated funding to this position. \$40,000 per year for staff salary (1/2 FTE)	2023 - BMP verification and reporting was completed this year and verified over 300 BMP sites for resource improvement practices. Farm operation BMP implementations are currently being verified and reported throughout the county by the qualified individuals to receive nutrient reduction credits. 2022- BMP verification and reporting is being completed through BMP verification funding and is on schedule. \$30,000.00 Grant funding through the Bay Office is being utilized to support the BMP Verification effort through the Conservation District and LDG. LDG is identifying BMPs on Aerial imagery and BMP verification is occurring through LCCD.	
1.3*	Existing BMP Maintenance Program	Assist producers with maintenance of existing BMPs to keep them functioning, through education and funding resources. 10 projects per year	LCCD, NRCS, PSU Extension	County Agricultural communities targeting impaired watersheds	2022-2025	Lack of existing funds for maintenance, farmer resistance to project completion	Design, inspection, support, specifications and details	Private funds	Design, permitting, engineering, and construction Prioritization of BMPs in need of maintenance	Funds to complete maintenance activities, including design, permitting, and construction \$250,000 per year	2023 - The BMP maintenance program implemented various projects this year such as stream crossings and roofs for manure structures. Additional projects are approved for funding this year including stream exclusion fencing, rotational grazing, watering systems, roof runoff systems, spring development, and stabilized animal walkways. 2022- BMP maintenance and upgrades are being addressed when presented to keep them functioning at a high level. A program to evaluate BMP maintenance projects and expand available project upgrades is under planning.	

1.4	Farmland Preservation	Assist in the preservation and conservation of Farmland. Maintain 250 preserved acres per year, and additional funding to preserve 200 additional acres per year	LCCD, Farmland Preservation Board	County farmlands	2021-2025	Financial assistance and participation in preservation	Reviews and applications of existing preservation sites	Final application and site payments	Educational materials on farmland preservation importance	Funding for farmland preservation costs \$500,000 per year	2023 - Farmland preservation is ongoing throughout the county with the funding available. Lackawanna CCD has secured an additional \$25,000/yr. from the county to purchase easements. These funds plan to be leveraged to increase state matching grant funds. 2021-2022 program applications for Farmland Preservation were received and are in process. 4 parcels are totaling ~208 acres (pending final surveys) are being purchased using existing State/County funds. Additional program funding has been secured through a cooperative agreement with the NRCS Agricultural Conservation Easement Program – Agricultural Land Easements (ACEP-ALE) to allow for the purchase of additional acreage. 3 farms have been approved through ACEP-ALE totaling 248.91 acres in Lackawanna County.	
1.5	Manure to Mine lands Program	Utilize excess manure to treat abandoned mine lands to improve available nutrients for vegetative cover.	EPCAMR, LCCD, NRCS, Earth Conservancy, DEP, BAMR	County agricultural lands and AML areas	2022-2025	Farmer and Landowner Participation, extensive coordination effort, BAMR's modification of existing reclamation practices, Availability of excess manure	Historic programs	N/A	Feasibility study, Develop/ coordinate program	Funding to complete a study to identify program utilization. \$50,000 for feasibility study \$250,000 per year if program is determined as feasible	2023 - This project is still under discussion now that the BAMR funding has been released. 2022- This program is still important and is looking for a dedicated funding source to complete this initiative. It is planned to utilize BAMR, OMR, or infrastructure bill funds to help secure this program.	
1.6	Crop Management	Promote crop management by increasing no-till and cover cropping through education and outreach. Increase existing Crop management by 250 acres a year	LCCD, NRCS, SCC, Farm Bureau, PSU Extension	Agricultural community	2021 ongoing	Participation and eagerness to change existing practices.	Educational materials, planting recommendations	Funds for crop management	Agricultural planning, education and outreach	Funding for seed and implementation \$50,000 per year	2023 - The no-till planter was highly utilized this year and was increased due to the access of more rental equipment by the residents. 2022- A no-till corn planter was purchased and supplied for rental this year to increase no-till implementation. A no-till reimbursement rental program was also employed to boost participation. 375.8 acres of no-till planting was implemented this year with the conservation district equipment.	
Priority Initiative 2: Urban and Developed Stormwater												
2.1	MS4 Community Partnership Projects	Partner with MS4 Communities to assist with sediment and nutrient removal projects.	LCCD, County Planning	MS4 Communities	2021- on going	Cost of implementation and development of partnership.	Program Guidance, project design	Cost of implementations	Provide input and identify possible cooperative efforts for project implementation and enhancement	Dedicated and sustainable funding source for district staff position and implementation of projects \$20,000 per year for staff (1/4 FTE) \$150,000 per year	2023 - MS4 community partnerships are still under development to identify projects and possible nutrient removal sites. 2022- MS4 community partnerships are under development to identify projects to work together and improve nutrient removal processes.	
2.1a*	Collecting existing and planned PRPs from MS4 Permittees	Meet with MS4s within Lackawanna to collect existing and planned PRP's to quantify data.	Municipalities, LCCD, PennDOT	MS4 Communities	2021-ongoing	Staffing to collect and report existing pollution reduction plans.	Knowledge of existing MS4 permits	N/A	Dedicated staff to compile existing data and complete outreach to MS4 permittees, and data entry.	Dedicated and sustainable funding source for district staff position \$40,000 per year for staff person (1/2 FTE)	2023 - This action item is still being discussed for the collection and sharing of this data. 2022- This initiative is under development and is working through the collection of existing PRP's. There is potential to verify and collect this data through BMP verification methods.	

2.2*	Existing Stormwater BMP retrofit and maintenance Program	Upgrade and maintain existing basins and drainage systems to improve function. 5 projects per year	Municipalities, LCCD, School Districts, Landowners	Existing sites within the County Recreational and Industrial Properties, Landfill	2022-2025	Funding; identifying suitable facilities	Example projects, Guidance documents, development of planting specs, landowner project coordination	Municipal/authority funds	Site data collection; Design development, landowner outreach, and permitting	Dedicated and sustainable funding source for staff position(s) and implementation funds \$20,000 per year for staff (1/4 FTE) \$750,000 per year	2023 - Some maintenance activities are occurring to stormwater BMPs that need assistance although a program has not been developed to address these projects. 2022 - Existing stormwater BMP retrofit, and maintenance projects are under planning phases to find existing sites in need and potential owners interested in participating.	
2.2a *	Development of Stormwater Design and Retrofit on Municipal owned Subdivision Basins	Design and Retrofit PCSM on older developments with subdivision basins released to municipalities. 2 projects per year	Municipalities, Engineers,	Jefferson Township, other released sites	2021-2025	Cost of upgrades to existing facilities	Engineering support, technical documents	Funding to complete upgrades	N/A	Funding to implement upgrades to existing stormwater features \$500,000 per year	2023 - This project is still of interest although a previous project lined up has fallen through due to the cost and amount of drainage area that would actually be treated. More sites are being identified. 2022 - Retrofit and maintenance projects are under planning and proposed construction phases for completion. A project is under completion to establish a stormwater basin within a community that is lacking stormwater management due to its age to increase stormwater retention and flood mitigation within the area.	
2.3*	Roadway Stormwater Management	Implement new BMP guide for Supervisors and PennDOT to reduce runoff from roadways and minimize nutrient carrying capacity. Assess 15 miles per year	LCCD, DCNR, PGC, Planning Department, Municipalities	County Roadways	2021-2025	Follow through on protocol and lack of updates with new techniques.	Training design manuals	BMP implementations on roadways	Technical guide and reference material, Additional project identification, design, permitting, and implementation	Cost associated with additional BMP implementation and project identification \$300,000 per year	2023 - This action item is still a priority and dedicated funding is needed to develop these materials for the county. 2022 - This program is still under discussion and of high importance. Dedicated funding is needed to create and develop these materials for increased assessment each year.	
2.3a	Street Sweeping	Increase the miles of streets swept per year and increase opportunity for additional municipalities to utilize management practice. Includes tracking of miles of roadway completed for reporting.	COG; County Planning	Countywide	2022-2025	Cost of implementation and municipality involvement, Potential to share with adjacent municipalities	Contracted street sweepers, Corps Of America	Cost of street sweeping	Cooperative agreement with multiple municipalities to share labor and/or equipment Coordination of sharing employees and/or equipment	Funds to purchase or rent sweeper \$150,000 for new street sweeper	2023 - Street sweeping is ongoing although information about tracking mileage and increasing overall miles swept is still in process. 2022 - Existing street sweeping is commencing as usual and increased street sweeping programs are still being planned and organized to provide the most practical use of county staffs time and resources available. Street sweeping currently takes place on a municipality or private organization basis. It is not known how much street sweeping occurs within the County. This information would need gathered before increasing reach.	
2.4	Residential Stormwater Management and Rain Barrel Program	Develop Educational outreach and material Program for residential and small commercial properties. BMPs include: Bioretention/Rain Gardens and Rain Barrels 2 workshops per year	LCCD, PSU Extension MWS	County	2022-2025	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 \$50,000 per year	2023 - Residential stormwater management programs were applied for funding through the Environmental Education Grant and was awarded. This grant is being utilized to provide stormwater BMP outreach opportunities to local residents, students, and municipal leaders and engineers through 2024. It will also fund the implementation of permanent, public stormwater BMP displays, including permeable pavement parking lot, rain barrels, and rain gardens to provide long-term BMP learning opportunities. 2022 - Educational and outreach events are under discussion for this residential stormwater management initiative. A dedicated funding source is being identified to host the educational events and provide materials to landowners. An EE Grant is being submitted to provide stormwater management education through an interpretive trail at the District Office featuring porous pavement, rain barrels, and green infrastructure.	

2.5	Nutrient and Fertilizer Planning for Turf Grass	Develop and implement plans and guidance for application on Turf Grass areas. Host contractor and landscaper workshops. Achieve 200 planned acres per year	LCCD, PSU Extension, NRCS	County Turf Grass Areas	2024+	Reporting and lack of participation. Guidance, regulations	Guidance documents	N/A	Example plans, outreach, Enforcement	Dedicate funds to launch the program and implement BMPs \$200,000 per year	2023 - This project is still of high importance and is being discussed for appropriate funding and timing of implementation. 2022 - This program is still of high importance and project locations are being identified and discussed to gain interest and availability for project sites once the program is kicked off.
2.6	Riparian Buffer and Tree Plantings	Increase Riparian buffers and tree plantings within urban settings. Implement and verify approximately 100 acres a year	LCCD, County Planning, Municipalities	County	2022-2025	Landowner cooperation/willingness to enter into long-term agreements (DCNR program), volunteers for planting, limited availability of certain tree species	Development of planting specs, coordinating projects with landowners, Standard guidance, education/outreach materials	Plantings and materials, Existing Grant Programs	Example planting specs, planting coordination, project identification	Dedicated and sustainable funding source for district staff positions & implementation of buffer projects \$20,000 per year for staff (1/4 FTE) \$120 per tree, for planting, warranty, and maintenance \$150,000 per year	2023 - Multiple riparian buffer plantings occurred this year and over 17 acres have been implemented this year. BMP verification of riparian areas is also ongoing. 2022 - Multiple riparian buffer and tree planting projects have been implemented and are under planning throughout the county. 7.67 acres of riparian buffer were installed with 1,918 trees and shrubs planted.
2.7	Mine land Planting and Protection	Promote new growth on mine lands to reduce runoff and protect currently established growth.	EPCAMR, LRCA, Municipalities, County Planning	Disturbed Mine lands	2021-2025	Keeping mine lands vegetated when leaving undeveloped to reduce stormwater runoff.	Existing program to plant and protect mine lands	Plantings and materials	Implementation of projects, outreach and education	Cost of project implementation \$20,000 per year for staff (1/4 FTE) \$150,000 per year	2023 - This program has not been established although has funding available for implementation. Can now plan for possible project implementation activities. 2022 - This program has not been established due to the lack of funding to dedicate to the initiative. It is planned to utilize BAMR, OSM, and infrastructure bill funding as a source to implement this program in the next couple years.
Priority Initiative 3: Watershed Health											
3.1*	Stream Channel Restoration and Protection	Provide bank protection, instream habitat and riparian buffers on streams in developed areas. 500 linear feet per year, with additional possible based on funding, design and permitting conditions	LCCD, municipalities, Trout Unlimited, Watershed associations	Urban/developed	2022-2025	Lack of available land for stream restoration, landowner participation	Standard stream design guidance,	Public lands in urban areas (parks, trails, etc.)	Design services for restoration, construction, permitting	Design and construction funding for restoration and protection project implementation \$800,000 per year	2023 - Multiple stream channel restoration projects have been implemented this year in addition to the restoration of two historical dam locations. 2022 - Stream restoration and protection projects have been implemented and planned throughout the year. Additional project locations are being discussed for completion. A NFWF Small Watershed Grant was applied for for stream restoration, bank stabilization, and riparian plantings along Roaring Brook within Lackawanna County although was not funded. This project has been applied for funding through 2023 CAP Implementation funds.
4.2*	Stream Bank Stabilization	Protecting stream banks and securing for stabilization. 500 linear feet per year, with additional possible based on funding, design and permitting conditions	LCCD, watershed associations, Trout Unlimited	At risk streams in Environmental Justice areas	2022-2025	Landowner cooperation, volunteers for planting and installation	Standard guidance, education/outreach materials	Plantings and materials	Coordinators, outreach for volunteer support Materials and design	Funding for coordinator positions, materials, design, and implementation \$800,000 per year	2023 - Stream bank stabilization occurred this year in partnership with riparian buffer planting projects to increase stream stabilization within the county. 2022 - A NFWF Small Watershed Grant was applied to for stream restoration, bank stabilization, and riparian plantings along Roaring Brook within Lackawanna County although was not funded. This project has been applied for funding through 2023 CAP Implementation funds. Additional project sites have also received stream bank stabilization this year and future projects are being planned.
3.2a	Riparian Buffer Development	Protect and plant trees along critical stream sections. Implement and verify 100 acres per year	LCCD, watershed associations, Trout Unlimited	At risk streams in Environmental Justice areas	2022-2025	Landowner cooperation/willingness to enter into long-term agreements (DCNR program), volunteers for planting, limited availability of certain tree species	Development of planting specs, coordinating projects with landowners, Standard guidance, education/outreach materials	Plantings and materials, Existing Grant Programs	Coordinators, outreach for volunteer support, example planting plans	Dedicated and sustainable funding source for district staff positions & implementation of buffer projects \$250,000 per year	2023 - Multiple riparian buffers were planted this year including stream buffers as well as at the two dam restoration sites. Over 17 acres of tree plantings have occurred this year. 2022 - A NFWF Small Watershed Grant was applied to for stream restoration, bank stabilization, and riparian plantings along Roaring Brook within Lackawanna County although wasn't funded. This project has been applied for funding through 2023 CAP Implementation funds. Additional project sites have also received riparian buffer implementation this year and future buffers are planned.
3.3	AML Reclamation Planning and AMD Restoration	Restoring AML impacted areas and treating AMD discharges to restore water quality. Operation and maintenance on existing reclamation and restoration sites. Assess or restore 2 sites per year	EPCAMR, LRCA, BAMR	AML and AMD areas within Lackawanna County	2024+	High costs associated with planning and restoration	Technical assistance, Support, documentation and case study's	AMD restoration funds	Planning and restoration labor, permitting	Costs associated with restoration and reclamation planning \$1,000,000 per year	2023 - AMD/AML sites are being discussed for possible application to the BAMR Subgrants grant program. 2022 - AML reclamation and planning and AMD restoration projects are being discussed for site feasibility and planning measures. This initiative is planned to apply for funding through the BAMR, OSM, and infrastructure bill funds in the upcoming years for completion.

4.3a	Mine Pool Water Treatment for Irrigation	Treating mine pool water to remove heavy metals to be used for irrigation on golf courses and other Turf grass areas. This will increase irrigation and reduce nutrient application on these areas. 1 site per year	LCCD, EPCAMR, BAMR, SRBC, Golf Course Superintendents	Pine Hills Golf Course, other Golf Courses and Entities using mine pool water for irrigation	2023+	Existing regulation on water withdraws, high cost treatment facilities	Technical guidance for treatment design and permitting	Funding to complete Design Permitting and Construction of project	Support to alter existing water withdraw permits and complete permitting and design	Costs associated with the project, include design permitting and construction \$750,000 per project	2023 - The golf course treatment facility is still under planning with multiple site meetings and water testing occurring. This project will be applied for through the BAMR Subgrants awards. 2022- Mine pool water treatment and irrigation are being discussed for site feasibility and planning measures at a specific golf course. This initiative is planned to apply for funding through the BAMR, OSM, and infrastructure bill funds in the upcoming years for completion.	
3.4	Forest Land Conservation and Management	Preserve Quality Forest Land Surrounding Quality Resources through conservation easements, deed restrictions, land conservancies.	LCCD, NRCS, DCNR, Landowners, PGC	Forest lands near quality resources	2022-2025	Funding for conserved lands and landowner participation	Conservation efforts, existing land conservancy programs	Conservation and management	Addition outreach and support	Cost associated with conservation, planning, and management \$150,000 per year	2023 - Lackawanna has been included in the 2023 grant application for the Forestry Education Symposium and this grant was awarded. The first event will be this September with a second occurring next spring. 2022- Forest land conservation efforts have been discussed and excess funding needs allocated to increase these efforts. A Forestry education day has been proposed to increase overall forestry management and conservation measures. Lackawanna County was invited to participate in the Forestry Education Symposium EE Grant currently held by Bradford, Susquehanna, and Wyoming County to increase forestry education within the county.	
3.4a	Forestry Harvest ED and Outreach	Educating private forest landowners on the importance of proper harvesting and selecting a qualified timber harvester. 2 programs per year	DCNR, NRCS, LCCD	Private forest landowners	2023	Participation from landowners and interest and technical assistance	Educational materials	N/A	Outreach events, education programs, county specific harvest information	Costs associated with in person events, county specific materials, and outreach. Dedicated Funding for part time staff to coordinate program. ½ FTE, \$40,000 per year.	2023 - Lackawanna has been included in the 2023 grant application for the Forestry Education Symposium and this grant was awarded. The first event will be this September with a second occurring next spring. 2022- A Forestry education day has been proposed to increase overall forestry management and conservation measures. Lackawanna County was invited to participate in the Forestry Education Symposium EE Grant currently held by Bradford, Susquehanna, and Wyoming County to increase forestry education within the county.	