	Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update – Lackawanna County												
	<u>Green</u> - ac	tion has been com	pleted or is movir	ng forward as plan	ned <u>Yell</u>	w - action has enco	ountered minor obstac	cles <u>Red</u> - action	has not been taken or	has encountered a			
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expecte d Timeline	Potential Implementation Challenges or Recommendatio ns	Resources	<u>Available</u>	Resource	es <u>Needed</u>	Annual Progress to Date (2022) *add new 2022 progress above the existing 2021 progress. Date each entry		
							Technical	Financial	Technical	Financial			
Priorit	y Initiative 4	l: Watershed	Health										
4.1*	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	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 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.		
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	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.		
4.2a	Riparian Buffer Development	Protect and plant trees along critical stream sections.	LCCD, watershed associations,	At risk streams in Environmental Justice areas	2022- 2025	Landowner cooperation/willi ngness to enter into long-term	Development of planting specs, coordinating projects with	Plantings and materials, Existing Grant Programs	Coordinators, outreach for volunteer support,	Dedicated and sustainable funding source for district staff positions &	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		

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						ns	Technical	Financial	Technical	Financial				
			Trout			agreements	landowners,	rillalicial	example planting	implementation of	applied for funding through 2023 CAP Implementation			
		Implement and verify 100 acres	Unlimited			(DCNR program),	Standard guidance, education/outreac		plans	buffer projects	funds.			
		per year				volunteers for planting, limited availability of certain tree species	h materials			\$250,000 per year	Additional project sites have also received riparian buffer implementation this year and future buffers are planned.			
4.3	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.	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	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.			
		Assess or restore 2 sites												
		per year												

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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 Superintenden ts	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	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.
4.4	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	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.

Action	Description	Performance	Responsible	Geographic	Expecte	Potential					Annual Progress to Date
#		Target(s)	Party(ies) and	Location	d	Implementation					(2022)
			Partnerships		Timeline	Challenges or	Resources A	<u> Available</u>	Resource	es <u>Needed</u>	*add new 2022 progress above the existing 2021
						Recommendatio					progress. Date each entry
						ns					
							Technical	Financial	Technical	Financial	
		Educating	DCNR, NRCS,	Private forest	2023	Participation	Educational	N/A	Outreach events,	Costs associated	2022- A Forestry education day has been proposed to
		private forest	LCCD	landowners		from landowners	materials		education	with in person	increase overall forestry management and conservation
		landowners on				and interest and			programs, county	events, county	measures.
		the importance				technical			specific harvest	specific materials,	Lackawanna County was invited to participate in the
		of proper				assistance			information	and outreach.	Forestry Education Symposium EE Grant currently held
	Famata	harvesting and									by Bradford, Susquehanna, and Wyoming County to
0.0-	Forestry	selecting a								Dedicated Funding	increase forestry education within the county.
<mark>4.4a</mark>	Harvest ED	qualified timber								for part time staff to	
	and Outreach	harvester.								coordinate	
										program.	
		2 programs per									
		year								½ FTE, \$40,000 per	
										year.	

tion #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources	Resources <u>Available</u> Resources <u>Needed</u>		s <u>Needed</u>	Annual Progress to Date (2022) *add new 2022 progress above the existing 202 progress. Date each entry
							Technical	Financial	Technical	Financial	
	•	L: Agriculture			ı						
.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.	PSU Extension, LCCD, Consultant	County Agricultural properties	creation of program with evaluatio n in 2025	Funding for program creation, Producer Participation, and understanding of importance	educational materials and sampling kits Consultant assistance	EQIP	Contracted Source for NMP analysis/recommenda tions 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	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.
. <mark>2*</mark>	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)	2022- BMP verification and reporting is being completed through BMP verification funding and on schedule. \$30,000.00 Grant funding through the Bay Office 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.
<mark>3*</mark>	Existing BMP Maintenance Program	Assist producers with maintenance of existing BMPs to keep them functioning, through education	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	Funds to complete maintenance activities, including design, permitting, and construction \$250,000 per year	2022- BMP maintenance and upgrades are bein addressed when presented to keep them functioning at a high level. A program to evaluate BMP maintenance project and expand available project upgrades is under planning.

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Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources	<u>Available</u>	Resource	s <u>Needed</u>	Annual Progress to Date (2022) *add new 2022 progress above the existing 202 progress. Date each entry
							Technical	Financial	Technical	Financial	
		and funding resources. 10 projects per year									
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	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	2022- This program is still important and is lookin 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	LCCD, NRCS, SCC, Farm	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	2022- A no-till corn planter was purchased and supplied for rental this year to increase no-till

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Antino	Description	Doufoussones	Doonousible	Coornanhia	Francisco d				<u> </u>		Ammuel Duesuses to Date
Action	Description	Performance	Responsible	Geographic							Annual Progress to Date
#		Target(s)	Party(ies)	Location	Timeline	Implementation	Resources	Available	Resource	es Needed	(2022)
			and			Challenges or	Resources	Available	Resources <u>recueu</u>		*add new 2022 progress above the existing 2021
			Partnerships			Recommendations					progress. Date each entry
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		and cover cropping	Bureau, PSU							\$50,000 per year	implementation. A no-till reimbursement rental
		through education	Extension								program was also employed to boost participation.
		and outreach.									
											375.8 acres of no-till planting was implemented
		Increase existing									this year with the conservation district equipment.
		Crop management									
		by 250 acres a year									

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Priorit	y Initiative	2: Urban and	Developed S	tormwater	'						
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	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 Permitees	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 permitees, and data entry.	Dedicated and sustainable funding source for district staff position \$40,000 per year for staff person (1/2 FTE)	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	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/authori ty 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)	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 *	Developmen t of Stormwater	year Design and Retrofit PCSM on older	Municipalities, Engineers,	Jefferson Township, other	2021-2025	Cost of upgrades to existing facilities	Engineering support, technical documents	Funding to complete upgrades	N/A	\$750,000 per year Funding to implement upgrades to existing stormwater features	2022- Retrofit and maintenance projects are under planning and proposed construction phases for completion.

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	Design and Retrofit on Municipal owned Subdivision Basins	developments with subdivision basins released to municipalities. 2 projects per year		released sites			Technical	Financial	Technical	\$500,000 per year	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.
<mark>2.3*</mark>	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	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	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.

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2.4	Residential Stormwater Management and Rain Barrel Program	Develop Educational outreach and material Program for residential and small commercial properties. BMPs include: Bioretention/Rai n Gardens and Rain Barrels	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	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	2 workshops per year 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	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.	LCCD, County Planning, Municipalities	County	2022-2025	Landowner cooperation/willing ness to enter into long-term agreements (DCNR	Development of planting specs, coordinating projects with landowners, Standard guidance,	Plantings and materials, Existing Grant Programs	Example planting specs, planting coordination, project identification	Dedicated and sustainable funding source for district staff positions &	2022- Multiple riparian buffer and tree planting projects have been implemented and are under planning throughout the county.

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		Implement and				program),	education/outreach			implementation of	7.67 acres of riparian buffer were installed
		verify				volunteers for	materials			buffer projects	with 1.918 trees and shrubs planted.
		approximately				planting, limited					
		100 acres a year				availability of				\$20,000 per year for	
						certain tree species				staff (1/4 FTE)	
										\$120 per tree, for	
										planting, warranty,	
										and maintenance	
										and manifemanie	
										\$150,000 per year	
	Mine land	Promote new	EPCAMR,	Disturbed	2021-2025	Keeping mine lands	Existing program to	Plantings and	Implementation of	Cost of project	2022- This program has not been established
	Planting and	growth on mine	LRCA,	Mine lands		vegetated when	plant and protect	materials	projects, outreach and	implementation	due to the lack of funding to dedicate to the
	Protection	lands to reduce	Municipalities,			leaving	mine lands		education		initiative. It is planned to utilize BAMR, OSM,
		runoff and	County			undeveloped to				\$20,000 per year for	and infrastructure bill funding as a source to
<mark>2.7</mark>		protect currently	Planning			reduce stormwater				staff (1/4 FTE)	implement this program in the next couple
		established				runoff.					years.
		growth.								\$150,000 per year	

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Priori	ty Initiative	3: Wastewate	r									
3.1	Private Septic/Sewer Maintenance	Develop a program to provide maintenance and education to residential on-lot septic systems focusing on environmental justice areas.	County Planning, SEOs	Countywide, environment al justice areas	2022-2025	Cost of maintenance and upgrades and Community Participation	Septic Professionals, Guidance Documents	Maintenance funds	Educational programs for maintenance activities and outreach, Maintenance completion	Cost associated with development of program and public outreach, and maintenance \$200,000 per year	2022- Private septic and sewer maintenance activities have been ongoing. A plan to increase available maintenance activities is being discussed and needs a dedicated funding source identified. Program evaluation is still underway. Potential funding source of PennVEST will be targeted.	
		500 participants										

per year