Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update and Two-Year Milestones Report – Lycoming County – 2024 draft

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** (2021-2024) *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: Achieve Pollution Reduction Goals												
A. Agriculture												
1.1	Increase cover crop BMPs	• 8,000 additional acres by 2025 (estimated $40/acre) • Have a supplemental cover crop sign up/survey at the conservation district to give more nuanced data than transect survey (Currently have 4000 acres reported in cover crop -can double that number with the supplemental sign up). This sign up could act like a local contract like is done for federal contracts. • 2000 of the 8000 acres are from Growing Greener grant	• LCCD • FSA • NRCS • Lycoming County	Countywide	2025 and beyond	Not getting expected ROI or outcome Buy-in from farmers may be limited – need more participation from landowners Requesting location data for X% of cover cropping, as wheat is the lowest category reported in transect survey, and no other locations have recorded numbers. Need more nuanced species for cover crop in sign up Transect survey should include additional species and consider existing cover crops further from the road, as current reporting only identifies short-distance crops.	County staff Equipment – Green Drill Operator list	• Growing Greener: Tiered funding for new and experienced cover croppers (multi-species) reimbursement for 3 years in a row • DEP Small Business Advantage grants • Use the Soil Health Enhancement Reimbursement Program through Columbia County Conservation District as a model	Acquire baseline cover crop numbers to supplement transect survey 1 clerical staff position for collecting cover crop data - $80,000/year 1 technical staff - $80,000/year	More incentives to participate ($40/acre) $320,000 2 additional vehicles - $100,000	2022 3,000 acres funded through GrowingGreener and CAP Implementation Grant. 2023 1235.6 acres of crop cover funded with GrowingGreener Grants. 2024 (11/25/24) 872.0 acres of cover crops planted in fall 2024 and will be paid out in spring 2025 with 2024 CAP funds 954.7 acres of cover crops planted in fall 2024 and will be paid out in spring/ summer of 2025 with	

											$40,000 in 2025 CAP funds 2011 acres total- 879.2 acres CAP funded and 1131.9 acres were GG funded	
1.2	Soil Conservation and Water Quality Plans	・Write Ag Erosion & Sediment (E&S) Plans for operations that still need them ・9,200 acres by 2025	・LCCD	Countywide	2025 and beyond		LCCD Staff		2 technical staff - $160,000/year		<u>2022</u> Limited staff time, communication with interested local farmers initiated. <u>2023</u> Working with Landowner and Pa Fish and Boat Commission to implement Brown Farm Fish Habitat to improve water quality in Little Muncy Creek <u>2024</u> (11/25/24) -Brown Farm Fish Habitat Project completed with CAP funds. -LCCD is working with the PA Fish & Boat Commission on German Run Soil Conservation and Water Quality Plans Write Ag E & S Plans: 2022- 596.9 ac., 2023- 1012.7 ac. over 25 plans, and 2024- 1073.7 ac. over 3 plans	

1.3	Animal Waste Management Systems	・Manage runoff with multiple BMPs ・Increase barnyard runoff control ・20 acres by 2025 ・Loafing lot management ・10 acres by 2025 ・Increase manure storage facilities ・2 projects/year – 10 systems by 2026	・LCCD	Countywide	2025 and beyond	Farmer willingness Engineering costs Takes over a year to get a project on the ground Permitting can be cumbersome		2 Growing Greener grants totaling $245,000	2 technical staff - $160,000/year 1 grant manager/coordinator -$80,000/year	DEP	<u>2022</u> About half of expected LCCD ACAP funding will go to Animal Waste Management plans <u>2023</u> 5 New Animal waste management systems in the planning stages. Design is slated for winter with implementation for serval of them next spring/summer <u>2024</u> (11/25/24) Designs are delayed a couple months due to the long process involved	
1.4	Increase rotational /prescribed grazing	・2,700 acres by 2025 ・Write grazing plans for grazing operations in the county	・LCCD	Countywide	2025 and beyond				1 technical staff - $80,000/year		<u>2022</u> Landowners identified, designs in progress <u>2023</u> No progress updates <u>2024</u> 12/ (12/12/24) There is interest in rotational grazing. NRCS does grazing plans for people who get livestock	

											contracts through EQIP	
1.5	Increase no till/conservation tillage BMPs	・Have a no-till reporting/sign up at the conservation district to give more nuanced data ・Expand equipment rental program – 300 acres/yr increase starting in 2023	・LCCD	Countywide	2025 and beyond			$5000 coming from Growing Greener	2 additional staff to coordinate - $160,000/year	Funding for equipment - DEP	<u>2022</u> New 10’ no till drill acquired for renting out - One new vehicle acquired <u>2023</u> LCCD continues to work with Land Owners to rent out no-till equipment. <u>2024</u> (11/25/24) LCCD continues to work with Land Owners to rent out no-till equipment. Increase no-till/ conservation tillage BMPs- 2022 Drill acres Total= 406.5 ac-273.2 on 10’ drill and 133.7 on 7’ drill; 2023 Drill acres Total= 352.1 ac-239.1 on 10’ drill and 113.0 on 7’ drill; 2024 Drill acres Total= 415.7 ac-276.8 on 10’ drill and 138.9 on 7’ drill; 2019-2021 yearly average on single 7’ drill = 263.4 ac.; 2022-2024 yearly average with two drills = 391.4 ac; net average increase of 49% per year	
1.6	Increase buffer BMPs	・Re-enroll in eligible areas by planting replacement trees.	・LCCD	Countywide	2025 and beyond	Buffer decline, reducing re-enrollment due to	FSA data 10 Million Trees program	DCNR C2P2 grant NFWF	Need assistance to encourage farmers to keep what they	Funding for program - DEP	<u>2022</u> 4,170 LCCD distributed	

		• Live stake harvesting • Initiate a field border program to improve buffer maintenance and provide incentives for planting crops. • Up to 500 acres of non-hay-producing grass buffer/year • Up to 3,500 acres of hay-producing pasture/year				invasive, based FSA data. 10 million tree program to place trees in buffer for farmers' renewal, 2 years before re-enrollment. Land use could change to forest land instead of agriculture after a certain period of time due to tree growth Buffers do not get counted for depth in CAST Model Make sure to put a turn in the field border Allow GP6 ag crossing in special protection watersheds	Chesapeake Conservancy – buffer maintenance Live Stake Collaborative: hiring personnel in the Fall 2021 (increased capacity) LCCD Nature Trail for cuttings (live stakes) NEIN data Technical outreach/Incentive program through DCNR buffer program and CREP	Growing Greener TreeVitalize PPL Community Roots	have by obtaining the resources to maintain their buffer 3 seasonal staff to spray new buffers - $40,000/yr - $120,000 total 1 technical staff - $80,000/yr 1 outreach staff - $80,000/yr		seedlings planted through the Keystone 10 Million Tree Plantings project over 33 properties <u>2023</u> 9.0 Arce CREP buffer was planted in Spring 2023 on Brown Farm that was formerly used as pasture 2023: Keystone 10 Million Tree Program: 2023 Spring- 20 Landowners, 2200 Seedlings, and 11.3 Acres 2023 Fall- 23 Landowners, 3400 Seedlings, and 17.5 Acres which included the Phase 1 Spring Garden FH Project. <u>2024</u> (11/25/24) Keystone 10 Million Tree Program: 2024 Fall- 21 Landowners, 1100 Seedlings, and 5.67 Acres which includes the Buffer replanting at Spring Garden Fish Habitat Project of 250. October 2024- LCCD will be	

											planting 150 live stakes (Silky Dogwood, Willow and Sycamores) at Lycoming Sportsman Fish Habitat Project. The stakes are being funded through the Fish and Boat CHIP program.	
1.7	Ag Land Nutrient Management – Basic Nutrient Management	・Write manure management plans for non-CAOs and non-CAFOs ・21,700 acres by 2025 (~200 management plans) ・Track nitrogen and phosphorus in PracticeKeeper (core N and P, placement, rate, and timing) ・-8,000 acres of basic nutrient management tracking by 2025	・LCCD	Countywide	2025 and beyond		Lycoming County staff Data from LCCD Centre County received grants for plan writing – look to them as an example		Case studies to showcase success Technical outreach 2 staff to write the manure management plans - $160,000/year		<u>2022</u> 18 manure management plans covering 599.5 acres and 21 IDNS plans covering 653.4 acres written by LCCD from Jan-Nov of 2022 <u>2023</u> County working with LCCD to implement 2 stream restoration projects currently. Each is set to reduce around 60K pounds of nitrogen and 600 pounds of phosphorus. Write MMPs for non-CAOs and non-CAFOs- 2023- 236.1 ac over 10 MMPs <u>2024</u> (11/25/24) County working with LCCD to implement stream restoration projects	

											currently that will result nitrogen and phosphorous reductions -Write MMPs for non-CAOs and non-CAFOs- 2024 20.8 ac over 3 MMPs	
1.8	Implement NRCS Projects	Agriculture Stormwater Management ・11.9 acres by 2025 (total of current NRCS projects) Soil Conservation and Water Quality Plans ・1,220 acres by 2025 Water Control Structures ・285.8 acres by 2025 Off Stream Watering Without Fencing ・20.3 acres by 2025 Forest Buffer-Narrow with Exclusion Fencing ・48.9 acres by 2025 Precision Intensive Rotational/Prescribed Grazing ・153 acres by 2025 Land Retirement to Pasture ・6 acres by 2025 Land Retirement to Ag Open Space ・9.75 acres by 2025 Forest Buffer ・9.2 acres by 2025 Grass Buffer ・117.2 acres by 2025 Conservation Planning ・1,500 acres/year Grass Buffer ・117.2 acres by 2025 Conservation Planning	・NRCS	Countywide	2025 and beyond						<u>2022</u> No Progress <u>2023</u> No progress updates. <u>2024</u> (11/25/24) No updates	

		• 1,500 acres/year										
1.9	Floodplain restoration	Lycoming College Biology Field Station project • 2,225 feet converted to floodplain	• LCCD • Lycoming County • Chesapeake Conservancy • Trout Unlimited • FWS • DEP • Lycoming College	Countywide	2025 and beyond		Chesapeake Conservancy data Trout Unlimited wetland delineations Kip Starks from DEP Mark Roberts from US FWS	Lyco College Clean Water Institute PennVest Growing Greener			<u>2022</u> Lycoming College Biology Field Station project applied for CAP Implementation funding <u>2023</u> Lycoming College is in coordination with USFWS to oversee Loyalsock creek restoration project and next steps. USFWS has the project on its calendar for fall/winter 2023. <u>2024</u> (11/25/24) Lycoming College is continuing to work with USFWL on the Biology Field Station-Loyalsock Creek Restoration. Th e have taken a different approach and are looking at providing habitat and stabilization in the new channel.	
B. Developed/Urban												
1.10	Turf Field nutrient management	Implement a documentation program for commercial and homeowner nutrient applications in developed lands Support fertilizer legislation Quantify artificial turf acres – ID data	• LCCD • Lycoming County • NRCS	• Little League • Churches • Hospitals • Cemeteries	2025 and beyond	Landowner buy-in Education of responsible parties Coordination between partners	Lycoming County staff Data from LCCD DCNR Lawn Conversion Program Penn State Extension soil testing resources Master naturalists/gardener program	DCNR Environmental Education grant DCNR Lawn Conversion program PennVest	Having solutions to offset fertilizer More soil tests 1 Edu/outreach staff -$80,000/yr	DEP Penn State Extension	<u>2022</u> No progress, staff constraints <u>2023</u> No progress. <u>2024</u>	

		Golf course improvements (use BMPs for PA Golf Courses Guide) ・White Deer Golf Course ・Williamsport Country Club Convert turf fields and lawns to meadow/riparian ・20 acres of turf conversion by 2025		・School Districts ・Golf Courses ・Colleges		Limited by plant height (don't want them to get too high on golf courses) Maintenance Landowners may be limited in their scope of interest Focus on benefits of managing land holistically/big-picture to increase quality of experience Better management with BMPs would lead to less costly maintenance Ensure local/county ordinances do not conflict with goal	Americore for educational outreach				(12/6/24) Fertilization legislation has passed 12/6/	
1.11	Green Infrastructure, buffers, and plantings	Ensure projects are equitably distributed and address environmental justice issues Improve stormwater management by implementing and expanding green infrastructure: Street trees ・Bioswales ・Rain gardens ・Plantings along local streets and bordering parking lots to capture and filter stormwater ・Establish Street Tree Committee Do plantings on hospital campuses Improve and increase trails/ID ways to improve the "Pathways to Health" Expand TreeVitalize program in County Plant buffers and basins on golf courses (use BMPs for PA Golf Courses Guide)	Flood buyout plantings ・FEMA ・Local Munis ・PEMA Airport Municipalities Lycoming County LCCD Businesses and campuses Golf courses Susquehanna Greenway Partnership (SGP) DCED DCNR	Countywide	2025 and beyond	Expand funding for targeted green infrastructure projects that are located in low-income/minority neighborhoods (e.g. Targeted Outreach for Green Infrastructure (TOGI)) Resistance from developers Expense Maintenance Look at what properties (authorities and muni land ownership) exist for long-term plantings for consistency of ownership If we rely on college interns, the internships may not	Landscapers Small businesses Chesapeake Conservancy data available Penn State Capstone Project for maintenance (internship) Universities/Colleges for internship for maintenance FSA data 10 Million Trees program Chesapeake Conservancy – buffer maintenance Live Stake Collaborative: hiring personnel in the Fall 2021 (increased capacity) LCCD Nature Trail for cuttings (live stakes)	NFWF DCNR C2P2 grant Growing Greener TreeVitalize DEP Private sector grants Keep Pennsylvania Beautiful Community Improvement Grants (Healing the Planet Grant Program) PennVest PPL Community Roots	Technical assistance Maintenance Penn State Capstone Project for maintenance (internship) Universities/Colleges for internship for maintenance 1 Lycoming County Planning staff to implement and run green infrastructure program - $80,000/year 1 grant coordinator for Lycoming County Planning and LCCD - $80,000/year Funding for edu/outreach staff and grant coordinator -$80,000/year	Funding for maintenance and programs - DEP	<u>2022</u> 6 floodplain buyouts completed in 2022 - (11/22) Awarded $25,000 Nature Based Solution grant to integrate Environmental considerations into the County Hazard Plan <u>2022</u> Stream bank stabilization project completed <u>2023</u> 4 Floodplain buyouts completed in 2023	

		• White Deer Golf Course riparian buffers/vegetated plantings • Remove earthen berm from White Deer Golf Course (county may own that land) • Continued maintenance in floodplain restoration site at White Deer • Williamsport Country Club Involve Lycoming County Little League Network to improve multiple potential planting sites on turf fields Plantings on flood buyout lots Expand streambank plantings 100 acres of forest buffers 10 acres of rain gardens 30 acres of green infrastructure (“filter strip runoff reduction, filter strip stormwater treatment, filtering practices”) 200 acres of tree planting 100 acres of wetland restoration 5 acres of bioswales				line up with when maintenance needs are highest Training interns long term would be laborious and inconsistent Landowners would not feel ownership over plantings if we use interns to maintain the planting Need buy-in and willingness to modify management practices Landowners may be limited in their scope of interest (more specific to business owners) Focus on benefits of managing land holistically/big-picture to increase quality of experience Flood buyout plantings: • FEMA regulations for plantings (Challenges with FEMA buyout lots with needed technical studies) • Chapter 106 studies • Lots of permits would be needed to do plantings • Need revision to the regulation – allowing native tree and shrub plantings on flood buyout lots - would allow us to do more nutrient reduction BMPs • Find out if MS4s are already working with TreeVitalize					Keystone 10 Million Tree Program: 2023 Spring- 20 Landowners, 2200 Seedlings, and 11.3 Acres 2023 Fall- 23 Landowners, 3400 Seedlings, and 17.5 Acres which included the Phase 1 Spring Garden FH Project. <u>2024</u> (11/25/24) Keystone 10 Million Tree Program: -2024 Spring- LCCD did not see any of of the seedlings we had requested. -2024 Fall- 21 Landowners, 1100 Seedlings, and 5.67 Acres which includes the Buffer replanting at Spring Garden Fish Habitat Project of 250. -October 2024- We will be planting 150 live stakes (Silky Dogwood, Willow and Sycamores) at Lycoming Sportsman Fish Habitat Project. The stakes are being funded through the Fish and Boat CHIP program.	

1.12	DGLVR Program	• Municipalities that contain impaired watersheds • Aim to complete 5 miles of road repair per year • Aim to install more new cross-pipes than replacement to create better outlets.	• LCCD • ESM Certified Municipalities	Countywide	2025 and beyond	Lack of landowner ROW access Lack of ESM certified entities Lack of increase in funding Lack of local shale availability Increase in fuel costs associated with hauling equipment	LCCD staff Trout unlimited technical assistance	LCCD Dirt and Gravel and Low Volume Roads funding	Additional funding	Funding for equipment - DEP	<u>2022</u> Contracts for 5mil worth of construction projects signed this year w/LCCD funding <u>2023</u> Several municipalities are working to complete 2022 contracted grants. LCCD is waiting for PA state budget to pass to receive allocation and award 2023 contracts. <u>2024</u> (11/25/24) 2.68 miles of road improvements completed. Two contracts were postponed until 2025. A total of 4.58 miles were contracted for 2024.	
C. Natural												
1.13	Stream/streambank restoration	Trout Unlimited (see also "Trout Unlimited Projects", Action # 1.19): Cemetery Road (Bear Run) • 1,030 feet • Spring Garden Hunting Club (Blockhouse Creek) • 1,000 feet • Tiadagthon State Forest Chop and Drop (Browns Run) • 1 mile of large wood additions. Northcentral Pa Conservancy projects (see also "Northcentral PA Conservancy projects", Action # 1.25): • Plunketts Creek	LCCD Lycoming County NRCS US Fish and Wildlife Extension partners Northcentral PA Conservancy Trout Unlimited Fish and boat commission Watershed Associations Chesapeake Conservancy	Plunketts Creek Little Pine Creek Pine Run Watershed Ag impaired streams focus	2025 and beyond	Depth of streambank stabilization/restoration projects does not get counted in CAST Model Landowners may need technical assistance, equipment, and education for project maintenance Establish a regional work crew to help maintain projects/limit invasive	Trout Unlimited technical assistance/engagement/projects US Fish and Wildlife Fish and Boat Commission Chesapeake Conservancy data/rapid stream de-listing Fish and boat commission has technical assistance	NFWF Growing Greener TreeVitalize Trout Unlimited funding Fish and boat commission has funding for staff	Case studies to showcase success Technical assistance, equipment, and education to landowners for project maintenance (Penn State Extension has some resources) Incentive program Comprehensive Stream Assessment, temp monitoring	DEP PA Fish and Boat Commission	<u>2022</u> Pine Run Stream Restoration Phase I, managed by Pheasants Forever is nearing completion. Phase II applied for CAP Implementation Funding 28 streams under consideration	

		• 2,000 feet Integrate rapid stream de-listing planning strategy				Have regional entity to work with the conservation districts on landowner outreach. They would go on site visits, and would provide continuity when districts have staff changes. Loosen restrictions on buffer and fencing money (fencing 15 feet from the top of a streambank is not ideal) Allow GP6 ag crossing in special protection watersheds					for restoration by LCCD <u>2023</u> 4 Stream Restoration Projects currently occurring in the County of Lycoming Bottle Run w/ Old Lycoming Twp Bennett's Run w/ Fairfield Twp Brown Farm Fish Habitat Spring Garden Hunting Club Stream and Habitat <u>2024</u> (11/25/24) Stream restoration projects compete: -**Spring Garden** 1, 2 and repair to Phase 2 complete (CAP funds). **Spring Garden Fish Habitat Project- Phase 2** was completed in September 2024. Project consisted of 410 feet of streambank stabilization and fish habitat enhancement. Worked with Trout Unlimited and funded through CAP. Also,	

											repaired the Phase 1 project after Hurricane Debby damaged the mudsill also funded by CAP. -**Lycoming Creek Sportsman Fish Habitat Project was completed** in 8/24. Project consisted of 350 ft of streambank stabilization and fish habitat enhancement. Worked with PA Fish and Boat Commission, Habitat Division and funded through CAP. **-Ralston Little League Fish Habitat Project** was completed in Aug. 2024. Project consisted of 1200 feet of streambank stabilization and fish habitat enhancement. Worked with PA Fish and Boat Commission, Habitat Division and funded through LCCD Act 13 and Tioga County Conservation District for the Tioga county section	

1.14	Trout Unlimited projects	Cemetery Road (Bear Run) ・1,030 feet Spring Garden Hunting Club (Blockhouse Creek) ・1,000 feet -Tiadagthon State Forest Chop and Drop (Browns Run) ・1 mile of large wood additions. Flooks Run Road, Dirt and Gravel Road Improvement ・4,235 feet	Trout Unlimited ・Phil Thomas, Stream Resto Specialist, Philip.thomas@tu.org, 814-242-2696 ・Jerry White, Tiadaghton Office, whitesgordonsettlers@gmail.com, 570-662-2167)	Blockhouse Creek Browns Run Flooks Run Road Bear Run		Limited time and capacity for the additional projects they'd like to do in the county Funding for maintenance and implementation is restrictive and limited	TU technical staff	Existing funding from private foundation, NFWF, Growing Greener, and Cold Water Heritage	1 Field staff who would split their time between Lycoming County projects and other regional projects outside of the county - $80,000/year	DEP	2022 Spring Garden applied for CAP Implementation funding 2023 Spring Garden Hunting Club Stream and Habitat Restoration project set for construction in September 2023 2024 (11/25/24) Spring Garden Hunting Club Stream and Habitat Restoration complete - Phase 1, 2, and repairs to Phase 1 (CAP funds)	
1.15	Sylvan Dell improvements	・200 trees planted ・70 acre wetland and meadow ・Implement future improvements (trails, wetlands, plantings)	・Currently owned by Armstrong Twp (will be new South Side Rec Authority ownership) ・Ducks Unlimited	South Williamsport	2025 and beyond	Funding Could be challenges with wetland boardwalk because it is a regulated wetland Public Access issues with railroad (Norfolk Southern)	Brian Auman worked on a preliminary plan Jim Dunn working on planning and stewardship Plantings and wildlife boxes were established Ducks Unlimited	Variety of funding (planning, development, riparian buffers) DCNR NFWF PennVest DEP (Growing Greener) First Community Foundation money Look at DCNR funding list from Northwest region Greenways, Trails, and Recreation grant (submitted for $250,000 for 1.5 mile trail expansion for Nature Trail at the Robert Porter Allen Natural Area)	Needs planning (master planning/stewardship planning) Funding for edu/outreach staff and grant coordinator - $160,000/year	Grant matches - DEP Planning documents - DCNR Soil testing - DEP/Extension Volunteers - Clean Water Institute, TreeVitalize, Penn State Trees - TreeVitalize, Penn State, 10 Million Trees	2022 No progress 2023 Wetland enchantment project planned for the end of July. Construction to begin in August. 2024 (11/25/24) Robert Porter Allen Wetland project was constructed this year.	
1.16	Pine Creek Valley improvements	Implement streamside parks (Waterville park example) Work on rail trail improvements Identify project gaps	・Municipalities ・Lycoming County ・Pine Creek Watershed Council (Jim Weaver)	Pine Creek Valley	2025 and beyond	Funding for projects and maintenance can be restrictive and limited	Trout Unlimited technical resources	Greenways, Trails, and Recreation grant PennVest	Coordination among multiple entities		2022 No progress 2023 Pine Creek Rail Trail Extension to connect	

		Include parks along Pine Creek 20 acres of forest buffer by 2025	・Trout Unlimited ・Pine Creek COG ・DCED ・DCNR			Prioritize projects on government/municipal-owned land					Wellsboro, Pa to Jersey Shore, Pa. The south section is 1.2-mile connection, the first initial section of the trail. Groundbreaking Ceremony was held in May 2023. <u>2024</u> (11/25/24) Pine Creek-most projects around there were in project mode or near the end. Carpenter lane has a few residents that LCCD still needs to talk to about barnyard cleanup projects.	
1.17	Municipal park improvements	South Williamsport park ・Address stormwater (current swales retain water) ・Sensory garden ・Brandon Park nature-based playground ・New baseball field ・6 acres of plantings by 2025 East Lycoming Recreation Authority park ・Wetland restoration and tree plantings at Lime Bluff to address drainage issues ・55 acres of field conversion by 2025 Trout Run park ・10 acres of plantings by 2025 Muncy Improvements ・Green Street park ・Improvements to Glade Run streambank and stream bed ・Muncy Creek Floodplain Restoration Project	・Lycoming County ・Municipalities ・Chamber of Commerce ・DCED ・DCNR	South Williamsport Hughesville Lewis Twp Muncy Borough Montoursville Borough Montgomery Borough Williamsport Loyalsock Twp	Continuous	Funding for maintenance Some improvements are located in floodplain, which can cause permitting and logistics issues Some areas are wet and will need mosquito treatment Ensure projects are equitable distributed	Local interest K10 Partnership (10 million trees) Muncy projects found in Muncy Recreation Sites Report, 2013; see pdf pg 33 and in Muncy Resiliency Plan, 2021 Restoration plans– “Montoursville Borough Parks Master Plan Summary Report” by Brian Auman, 2014 Projects in Muncy Resiliency Plan, 2021	DCNR funding for stormwater management with green infrastructure Variety of funding (planning, development, riparian buffers) NFWF PennVest DEP (Growing Greener) First Community Foundation money Look at DCNR funding list from Northwest region Greenways, Trails, and Recreation grant Borough funds, state grants, community fundraising	Funding for edu/outreach staff and grant coordinator - $160,000/year Parks may need updated/new planning/Site development/strategic plans Volunteers (TreeVitalize)	DEP	<u>2022</u> Considering including watershed protection in future mini grant application scoring after 2022 application review <u>2023</u> County applied for and secured DNCR C2P2 Grant funding to update Outdoor Rec and Open Space Plan. 17.35 Acres and 23 properties with 3400 seedlings were	

		Indian Park ・20 acres of plantings by 2025 Montgomery ・Restoration ・Plantings Heshbon park Williamsport Ball Park (may be MS4 credit) ・Convert former brownfield to ballpark field Loyalsock Twp ・Riverfront Park Canfield Island Heritage Trail Park Old Lycoming Twp ・Buyout lots (community garden and veterans park) ・Increase native plantings and removing invasive species						Great American Outdoors Act LWCF funding			planted in Fall 2023 through the K10 partnership <u>2024</u> (11/25/24) -City of Williamsport secured grant funds for park improvements at multiple city parks -Williamsport Ballpark project started construction	
1.18	Trail/greenway projects	Miller's Run Greenway construction ・Connect the park at North Way Rd to Williamsport RiverWalk ・~1 mile of buffer Susquehanna Greenway completion ・Implement buffered river access points every 5 miles ・Improve and expand River Towns program to advance green infrastructure and buffers ・Reduce runoff by having forested buffer throughout Susquehanna River ・Update SGP master plan to ensure effective and efficient planning ・~36 miles of greenway (forest buffer) in Lycoming County (~430 acres of buffer)	・Loyalsock Twp Rec Department involvement ・Susquehanna Greenway Partnership ・Lycoming County ・DCED ・DCNR	Loyalsock Twp Countywide	Continuous	3rd street crossing for Miller's Run going over bridge is very expensive Funding for maintenance Crossing private property is challenging Railroad and street crossings are very expensive and challenging Coordination and continuity between multiple entities	Discussed in 2017 Lycoming County Comprehensive Plan Feasibility studies for West Branch Greenway routes exist	NFWF PennVest DEP (Growing Greener) First Community Foundation money Look at DCNR funding list from Northwest region Greenways, Trails, and Recreation grant	Funding for edu/outreach staff and grant coordinator -$160,000/year Maps for existing and future trails Legal assistance if easements are needed	Funding for planning and technical assistance – DCNR, DEP Funding for legal assistance – DEP Funding for bridge upgrades – DEP, PennDOT Funding for property acquisition – DEP, PennVest Funding for boat launches – DCNR, DEP Funding for wayfinding – DCNR, DEP	<u>2022</u> No Progress <u>2023</u> Phase 1 has been completed in the Miller's Run Greenway construction. Phase 2 is currently under construction. Project leads are currently working on funding for Phase III at this time. <u>2024</u> (11/25/24) Partial funding secured for River Walk Extension constitution	

1.20	Trail and boat access sites/parking lot improvements	Improvements at all sites to reduce erosion and runoff issues ・5 acres of erosion and sediment control level 2 by 2025	・Fish and Boat ・Lycoming County ・Susquehanna Greenway Partnership ・Chesapeake Conservancy ・Municipal public launches (Jersey Shore and Muncy Heritage Site) ・DCNR	Countywide	2025 and beyond	Work with Fish and Boat maintenance crews so that they know not to mow or do specific standard maintenance	Fish and Boat data Susquehanna Greenway Partnership data/inventory -DCNR data/inventory Chesapeake Conservancy data	DCNR Riparian forest buffer plantings funding Fish and Boat boating facilities grant If in muni land, can use facilities improvements funding Western PA Conservancy mini grants Lumber Heritage mini grants	Engineering, design, and construction	DEP	2022 No Progress 2023 Wayfinding projects under way for River Walk Extension. 2024 (11/25/24) Wayfinding project continues or county trail projects.	
1.21	Northcentral Pa Conservancy projects	Plunketts Creek stream restoration ・2,000 feet of restoration Implement future projects in the county (e.g. buffers)	・Northcentral PA Conservancy	Plunketts Creek Countywide	2021 and beyond	Depth of streambank stabilization/restoration projects does not get counted in CAST Model Landowners may need technical assistance, equipment, and education for project maintenance Establish a regional work crew to help maintain projects/limit invasive Have regional entity to work with the conservation districts on landowner outreach. They would go on site visits, and would provide continuity when districts have staff changes. Loosen restrictions on buffer and fencing money (fencing 15 feet from the top of a streambank is not ideal)	Trout Unlimited technical assistance/engagement/projects US Fish and Wildlife Fish and Boat Commission Chesapeake Conservancy data Fish and boat commission has technical assistance	NFWF (will not fund streambank restoration for this grant round - 2021) Growing Greener TreeVitalize Trout Unlimited funding Fish and boat commission has funding for staff	Case studies to showcase success Technical assistance, equipment, and education to landowners for project maintenance (Penn State Extension has some resources) Incentive program Comprehensive Stream Assessment, temp monitoring	DEP PA Fish and Boat Commission	2022 No Progress 2023 Applying for a Growing Greener Grant to continue to work on northcentral stream partnership. Primarily focused on sediment/ag. Impaired streams in the Chesapeake Bay watershed. 2024 (12/12/24) NPC completed land acquisition projects and conservation easement in 2024; they did not have any BMPs	

1.22	Sylvan Dell improvements	200 trees planted 70 acre wetland and meadow Implement future improvements (trails, wetlands, plantings)	• Currently owned by Armstrong Twp (will be new South Side Rec Authority ownership) • Ducks Unlimited	South Williamsport	2025 and beyond	Funding Could be challenges with wetland boardwalk because it is a regulated wetland Public Access issues with railroad (Norfolk Southern)	Brian Auman worked on a preliminary plan Jim Dunn working on planning and stewardship Plantings and wildlife boxes were established Ducks Unlimited	Variety of funding (planning, development, riparian buffers) DCNR NFWF PennVest DEP (Growing Greener) First Community Foundation money Look at DCNR funding list from Northwest region Greenways, Trails, and Recreation grant (submitted for $250,000 for 1.5 mile trail	Needs planning (master planning/stewardship planning) -Funding for edu/outreach staff and grant coordinator - $160,000/year	Grant matches - DEP Planning documents - DCNR Soil testing - DEP/Extension Volunteers - Clean Water Institute, TreeVitalize, Penn State Trees - TreeVitalize, Penn State, 10 Million Trees	<u>2022</u> No Progress <u>2023</u> Wetland Enhancement planned for end of July 2023. <u>2024</u> (11/25/24) No updates	
Priority Initiative 2: Coordination, Education, Outreach, and Training												
A. Out Reach and Education												
2.1	Use County Farm for education – BMP tours	Hold tours for 4H, Future Farmers of America, Scout Troops, schools, etc. Photo history of a buffer to see how it builds over time (set expectation that they will not look neat and tidy all the time) Calibrating manure spreaders (Bradford County has scales where you can weigh to gage how many tons went onto field) 600 additional acres of no-till by 2025 8,000 additional acres of cover crops by 2025 4,326.4 additional acres of buffers by 2025	• LCCD • NRCS • Lycoming County	County Farm	2025 and beyond	Efforts may not increase program interest or elicit behavior change Can be multiple ideas of what “no-till” means among the farming community, which can lead to misunderstandings	DEP for outreach/media platform/materials Can expand on other agencies or organizations’ efforts		Long-term ag peer group/committee for programmatic work Hire education/outreach staff -$80,000/year Hire county-wide grant coordinator - $80,000/year LCCD forester position - $80,000/year		<u>2022</u> Rotational grazing education event held at LCCD farm <u>2023</u> Field Planning event held in April on Cover Crops with NRCS <u>2024</u> (11/25/24) The county farm committee and NRCS/Penn State Ext. have discussed doing test plots and soil carbon monitoring for education and research.	
2.1a	Use County Farm for education – Annual field days	Message toward “regenerative” agriculture approach	• LCCD • NRCS • Lycoming County		2025 and beyond	Efforts may not increase program interest or elicit behavior change	County staff US and PA No-Till Alliance: farmer mentor program	US and PA No-Till Alliance funding DEP Small Business Advantage grants	Marketing and rebranding position for county farm - $80,000/year		<u>2022</u> 2023 GG grant to be used for no-till education	

		Change farming practices with demonstrations (yield comparisons at County Farm) and messaging ("Park the Plow") ・600 additional acres of no-till by 2025 ・8,000 additional acres of cover crops by 2025 ・4,326.4 additional acres of buffers by 2025				Impact can be difficult to quantify	Game Commission land National Ag Statistics from USDA surveys Transect Survey Capital RC&D	NRCS funding Tiered funding for no-till (see above for potential model)			<u>2023</u> County Farm Open House held to educate public on good farming practices <u>2024</u> (11/25/24) No updates	
2.2	Attend events and increase in-person outreach to increase BMPs	County Fairs 1st Fridays and 1st Saturdays Balloonfest Host meetings/workshops with farmers and forest landowners Field days, demos at County Farm – 2 events at County Farm per year	・LCCD ・NRCS ・Lycoming County	Countywide	2025 and beyond	Ensure outreach materials are available in multiple languages and address potential culturally-specific priorities Impact can be difficult to quantify Efforts may not increase program interest or elicit behavior change	Outreach materials Clean Water Institute		Education/outreach staff -$80,000/year More condensed/digestible public messaging materials		<u>2022</u> LCCD County Fair display <u>2023</u> LCCD and PCD put together County Fair displays to increase public awareness of CAP and BMPS <u>2024</u> (11/25/24) LCCD held an in-person AG brunch that was also an outreach event for BMPS	
2.3	Expand social media presence to increase BMPs	LCCD Facebook and Instagram Message on money saved from water quality improvements	・LCCD ・Lycoming County	Countywide	2025 and beyond	Ensure social media posts are available in multiple languages Be strategic about programmatic co-benefits (Establish or expand incentive programs like cover crop or no-till) Message the work that is being done in the County – we need to be our own ambassadors Impact may be difficult to quantify	Lots of social media strategies available		Outreach and education staff - $80,000/year		<u>2022</u> IT policy only recently allowed LCCD to start a Facebook page; social media accounts underway <u>2023</u> PCD recently started a Facebook page to further promote water quality improvements <u>2024</u> (11/25/24) No updates	

2.4	Reduce fertilizer use – School outreach, landowner outreach, and business/nonprofit outreach	• Begin outreach campaigns • Education of alternative fertilizers • Work with school districts on soil and water testing	• Penn State Extension • LCCD • Lycoming County • Penn State Master Gardeners	Countywide	2025 and beyond	Target farms/areas close to streams Need regular outreach using multiple and diverse platforms Efforts may not increase program interest or elicit behavior change	Existing interest in water testing at Montgomery High School for Black Hole Creek and White Deer Hole Creek (Chris Ulrich)	PACD mini grant for soil testing/sampling Trout Unlimited and Fish and Boat Commission grant for multiple projects https://coldwaterheritage.org/ County enviro funding DCNR Environmental Education grant PennVest	Personnel (1-2 people to do sampling) from LCCD Personnel to create/establish soil baseline Have NRCS and USDA come to county and other entities to re-emphasize their programs and projects and resources Funding for edu/outreach staff and grant coordinator - $160,000/year Funding for professional marketing - $80,000/year	DEP	<u>2022</u> LCCD undergoing water quality outreach with local high schools; interest has been expressed by East Lycoming Education Foundation <u>2023</u> LCCD Environmental Education Mini Grant Program: Looks to find local conservation projects while educating adults and youth in Lycoming County of Lycoming -LCCD provided 18 environmental education programs reaching over 640 participants. -Waterdale Environmental Education Center– hosted five field trips, the BLAST IU 17 Meaningful Watershed Education Experiences Workshop and our District Picnic. -At the Lycoming Sullivan Envirothon we had 90 students participate from 6 School	

											Districts. Montgomery Team A represented Lycoming County at the PA Envirothon at Camp Mount Luther in Snyder County, PA in May. -LCCD continues to partner with the PA Trout in the Classroom Program. Students raise trout from eggs to fingerlings and learn about cold-water conservation. Assisted with programs and trout release fieldtrips for with Jersey Shore Life Skills, Jersey Shore Biology and Montgomery Environmental Science and Agriculture classes. -In 2023, the LCCD Environmental Education Mini Grant Program funded 5 projects for a total of $8242. Jersey Shore Outdoor Club, , Northcentral Pa Conservancy, Camp Susque and Lycoming College Clean Water Institute completed their projects. -Through a Department of Ag grant , we held two	

											Spotted Lanternfly workshops. One for businesses and the other for the public. Lycoming County hosted WNEP16 in October to highlight the SLF presents in the County. Montgomery High School assembled 50 spotted lantern fly circle traps. <u>2024</u> (11/25/24) -LCCD provided 24 envi. education programs reaching over 845 participants. -Waterdale Environmental Education Center– hosted 4 field trips, the BLAST IU 17 Meaningful Watershed Education Experiences- 2 day Summer Workshop. -At the Lycoming Sullivan Envirothon we had 150 students participate from 6 School Districts. Montgomery Team A represented Lycoming County at the PA Envirothon at Camp Mount Luther in	

											Snyder County, PA in May. -LCCD continues to partner with the PA Trout in the Classroom Program. Students raise trout from eggs to fingerlings and learn about cold-water conservation. Assisted with programs and trout release fieldtrips for with Jersey Shore Life Skills, Jersey Shore Biology and Montgomery Environmental Science and Agriculture classes, and new this year- Hughesville Library. -In October, we hosted the Jersey Shore Environmental Science Class and Life Skills class at the County Farm following a trip on the Hiawatha. -LCCD Environmental Education Mini Grant Program has three applications for a total of $7100.00 requested. The Board will take action on these at out November board meeting	

2.5	Reduce fertilizer use – Landowner outreach and Business/Nonprofit Outreach	• Begin outreach campaigns • Education of alternative fertilizers • Testing samples by 1 or 2 people to have consistency • Develop soil sample baseline for small and large farms • Expanded soil testing –Free soil tests to landowners during certain times of the year • Showcase documents for marketing (demonstrating before and after) • Reduce fertilizer use by 10% by 2025	• Penn State Extension • LCCD • Lycoming County • Penn State Master Gardeners	Countywide	2025 and beyond	Target farms/areas close to streams Landowner engagement; managing landowner concerns Need regular outreach using multiple and diverse platforms Efforts may not increase program interest or elicit behavior change	Lycoming County mapping "Hot spots" maps DEP – printing materials (e.g. Guidelines for Maintaining Streams in Your Communities) Penn State Extension landowner webinar series on fertilizer alternatives and application practices; soil testing USGS for groundwater data DEP outreach materials RC&D resources/outreach/materials/technical assistance "Be More Floridian" marketing campaign as a case study SRBC data	PACD mini grant for soil testing/sampling Trout Unlimited and Fish and Boat Commission grant for multiple projects https://coldwaterheritage.org/ County enviro funding DCNR Environmental Education grant PennVest	Personnel (1-2 people to do sampling) from LCCD Personnel to create/establish soil baseline Have NRCS and USDA come to county and other entities to re-emphasize their programs and projects and resources Funding for edu/outreach staff and grant coordinator - $160,000/year Funding for professional marketing - $80,000/year	DEP	<u>2022</u> No progress, Staffing Constraints <u>2023</u> No progress updates <u>2024</u> (11/25/24) No updates	
2.6	Expand inter-agency collaboration	• Align similar efforts with CAP (like watershed organizations) to maximize work being done by leveraging efforts and funding sources -2 collaborating meetings per year, or more if needed • Enhance the capacity of watershed associations by sharing each other's media content, including them in planning efforts, encourage project implementation on the watershed level to emphasize co-benefits/diversifying membership • Reduce duplicative work and leverage existing work • ID ways to streamline permit processes • Ensure funding/technical resources are shared to municipalities/authorities/others when the county learns about them	• State agencies • County departments • Watershed organizations • Municipal • Colleges • Game Commission partnership (Rodney Mee) • Grassroots organizations • Pine Creek Watershed Council • Trout Unlimited • Loyalsock Creek Watershed Association • Lycoming Creek Watershed Association • Muncy Creek Watershed Association • Larry's Creek Watershed Association	Countywide	2025 and beyond	• Collaboration takes time and person power • Staff turnover can impact continuity and momentum • Keeping contact lists accurate • Keeping project lists up-to-date • Collab will be easier with orgs with staff rather than those that are all volunteer	• Social media • Other counties are also working on the same efforts • Current contact lists are available (Lycoming County and LCCD)		Need a way to make long-term collaboration easier without needing more meetings – Explore possibility of using drive sharing platforms like share point, Google docs, or something similar Staff time specifically allocated to collaboration Edu/outreach and collaboration staff - $80,000/year		<u>2022</u> Consistent meetings with watershed organizations achieved following turnover Further turnover LCCD has built collaborations with local watershed groups (Loyalsock, Muncy Creek, Pine Creek) and the Waterdale Education Center to provide community education <u>2023</u> Worked with LCCD directly to bid out stream	

		・Improved outreach and education for zoning officers, muni engineers, planning commission, local muni officials ・Have regularly-scheduled meetings with DEP and others about project permits –one meeting per year	・Lycoming Audubon Society ・Middle Susq Riverkeeper ・SGP ・Other counties								restoration projects in 2023 to offer grade control, bank stabilization and create habitat. <u>2024</u> (11/25/24) Continued work with LCCD directly to bid out stream restoration projects in 2024	
B. Research and Training												
2.8	Improve County storm water training	・Improve onboarding process for minor stormwater plan review ・Define further who is qualified to do minor stormwater reviews/give guidance to landowner ・All entities to come up with coordinated process for simplification ・Pre-designed stormwater controls for landowners ・Education to landowners (implementing building permits example) as integral to stormwater planning - check with municipalities especially during subdivision process	・Lycoming County ・Muni partners	Countywide	2025 and beyond	・Administrative challenges ・Muni coordination ・Cost to landowners for small projects	・LCCD – delegated duties ・DEP – 167 plans, MS4 plans ・Personnel (development services supervisor; subdivision and land development admin) ・Stormwater inspection training is available ・Clean Water Institute		Stormwater policy expert (engineer possibly) –$10 million per year for engineering Stormwater review training Training for BMP inspections (MS4 and non-MS4) Training on BMP construction Training on amended soils		<u>2022</u> Potential MS4 opportunities with municipal adoption in the county <u>2023</u> No progress <u>2024</u> (11/25/24) No updates	
Priority Initiative 3: Reporting and Tracking												
3.1	Increase planning efficiency, reduce duplicative work, and to better target and coordinate projects – Establish project map at county level	・ID shovel-ready projects ・Collect projects and data from multiple entities ・Ensure partner data is updated at least every 6 months and uploaded onto GIS after updated ・Ensure partners and data contributors agree on a database structure format and attribute data classification in order to	・Lycoming County ・LCCD ・USGS ・Schools for internships	Countywide	2021 and Updated Continuously	Privacy concerns Incomplete or unavailable data Collaboration takes a lot of time Limited administrative capacity Communication and coordination among various entities can be challenging	・Lycoming County staff ・Data from LCCD ・Practice Keeper data ・Get interns for this type of work (reach out to Bloom for interns, Lyco, Penn, others) ・Penn State Capstone Projects		Need cross-platform data consistency Need to standardize the data and deliver it to the public and others in an innovative, captivating, and user-friendly fashion (can use interns for this) May need data organization/GIS training		<u>2022</u> Staff turnover resulting in existing project contact and project identification disconnect <u>2023</u> County GIS created a Web application based map created to help	

		better standardize the existing/future data				Continually updating the map/data					track locations of BMPS County currently working on Drone Committee to advance mapping technology. <u>2024</u> (11/25/24) No Updates	
3.1a	Increase planning efficiency, reduce duplicative work, and to better target and coordinate projects – Improve project tracking	・House compiled data in one place ・Map MS4 projects ・Update stormwater maps ・Reduce duplicative data ・Evaluate and integrate equitable distribution of community/environmental assets and “disasters” ・Track previous projects (e.g. streamside restoration) ・Track LCCD and NRCS projects ・Track projects identified in plans ・County and Multi-Municipal Comprehensive Plans ・West Branch Rivers Conservation Plan update ・State Water Plan ・Hazard Mitigation Plan ・Greenways and Open Space Plan ・Chesapeake Bay Pollutant Reduction Plans ・Pine Creek Watershed Rivers Conservation plan	・Lycoming County ・Multiple entities	Countywide	2025 and beyond	Privacy concerns Incomplete or unavailable data Collaboration takes a lot of time Limited administrative capacity Communication and coordination among various entities can be challenging Continually updating the map/data	・Lycoming County GIS and staff ・Chesapeake Conservancy data ・DCNR River Conservation Plan ・Trout Unlimited Coldwater Heritage Grant Program	PPL Foundation	Need cross-platform data consistency Need to standardize the data and deliver it to the public and others in an innovative, captivating, and user-friendly fashion (can use interns for this) May need data organization/GIS training		<u>2022</u> Older projects being added to PracticeKeeper by LCCD for reference; 20 input in 2022 <u>2023</u> Coordinating monthly with LCCD in check-in calls to discuss project status and tracking. <u>2024</u> (11/25/24) Coordinating monthly with LCCD in check-in calls to discuss project status and tracking.	

		・Establish database and maintain 4 years of consistent tracking										
3.1b	Increase planning efficiency, reduce duplicative work, and to better target and coordinate projects – Watershed/wetland tracking	・Have better tracking/ID of where the wetlands are located ・ID watersheds that experience natural erosion ・Establish database of county projects by having a staff member or intern put BMPs into practice keeper from all different plans – need one central person to input all BMPs and report in order to ensure more efficient planning ・Map every farm and put projects into the map ・Establish database and maintain 4 years of consistent tracking	・LCCD ・Lycoming County ・Chesapeake Conservancy ・Trout Unlimited ・FWS ・DEP ・Lycoming College	Countywide	2025 and beyond	Privacy concerns Incomplete or unavailable data Collaboration takes a lot of time Limited administrative capacity Communication and coordination among various entities can be challenging Continually updating the map/data	・Lycoming County GIS and staff ・Chesapeake Conservancy data ・DCNR River Conservation Plan ・Trout Unlimited Coldwater Heritage Grant Program		Need cross-platform data consistency Need to standardize the data and deliver it to the public and others in an innovative, captivating, and user-friendly fashion (can use interns for this) May need data organization/GIS training		<u>2022</u> No progress <u>2023</u> Coordinating with LCCD to implement stream restoration projects on Brown Farm and Spring Garden Hunting Club. <u>2024</u> (11/25/24) Coordinating with LCCD to implement multiple stream restoration projects	
3.2	Maintain an ag operator list	・Maintain existing list to ensure effective and efficient outreach for upcoming incentives and programs	・LCCD	Countywide	2025 and beyond	Contacts could change frequently Maintaining list can be time consuming	・A current list already exists (LCCD)		Edu/outreach and collaboration staff - $80,000/year		<u>2022</u> Contact list of ~260 maintained ongoing No-till contact list planned and currently being cross referenced <u>2023</u> LCCD continues to update ag operator list annually <u>2024</u> (11/25/24) LCCD continues to update ag operator list annually	

3.3	Turf field Nutrient Management – Tracking	• Implement a documentation program for commercial and homeowner nutrient applications in developed lands	• LCCD • Lycoming County	Countywide	2025 and beyond	Contacts could change frequently Maintaining list can be time consuming			Edu/outreach and collaboration staff - $80,000/year		2022 Staff constraints, no progress 2023 No progress updates 2024 (11/25/24) No updates	
Priority Initiative 4: Programmatic, Policy, Regulatory Changes												
4.1	Reassess parking requirements in ordinances to reduce the amount of impervious surface	• Expand pervious surfaces by incentivizing pervious pavement on new development • Rehabilitate oversized/underused parking lots • Ensure municipal ordinances are not conflicting • 5 acre reduction of impervious surfaces by 2028	• Lycoming County • Municipalities	Countywide	Continuous Update ordinances - 2023	Ensure that "heat islands" are mitigated with plantings Resistance from developers Landowner buy-in Ordinances limit Expense Cost (engineering and design) BMP Certification Consider Complete Streets Standards	Many case studies and examples exist Rethinking Parking Requirements Using Drone Imagery: https://docs.google.com/presentation/d/16yqwMGIcIRNvUi5KyATDC-A509uSYI5pM0iGCLoKAbw/edit#slide=id.g47c21f69ac_0_6	CAP Credits (EPA)	Research on pavers (see University of New Hampshire) Need additional case studies	DEP	2022 No progress 2023 County is no longer involved with parking ordinances 2024 (11/25/24) No updates	
4.2	Reassess stormwater ordinances	• Retrofit existing stormwater facilities/retrofit parking lot to add newer stormwater mitigation (plantings, pervious pavement, green roof, etc.) • Mitigating clear cutting impacts from solar farms with buffers • Integrate soil amendment and restoration into stormwater requirements • Ensure municipal ordinances are not conflicting • Integrate non-structural stormwater management, like stormwater easements (grass/forested buffers)	• Lycoming County • LCCD – delegated duties • DEP – 167 plans, MS4 plans • All entities to come up with coordinated process for simplification • Muni partners	Countywide	Continuous	Administrative challenges Muni coordination Can quickly become costly to landowners for small projects and single family homes to comply with stormwater requirements Educate landowners on process	Lycoming County staff Stormwater inspection training is available	Stormwater policy expert (engineer possibly) Stormwater review training Pre-designed stormwater controls for landowners Education to landowners (implementing building permits example) as integral to stormwater planning – check with municipalities especially during subdivision process			2022 Residential build waivers currently being considered 2023 No progress updates 2024 (11/25/24) No updates	

		• Dry well option for residential development • 1 acre treated by 2025 • 10 acres forested buffers by 2025 • 10 acres of grass buffers by 2025 • 10 acres of new amended soils by 2025 ("Stormwater Performance Standard-Runoff Reduction")										
4.3	Stormwater Ordinance update (Act 167)	• Simplification of major/minor stormwater plan process; • Get waiver/special exception/modification process built into the ordinance (e.g. If there are new and innovative ways to address stormwater that the ordinance didn't address; DEP form that says, "is there consistency without waiver") • Review process for possible streamlining	• Lycoming County • LCCD – delegated duties • DEP – 167 plans, MS4 plans • All entities to come up with coordinated process for simplification • Muni Partners	Countywide	Continuous	Administrative challenges Muni coordination Can quickly become costly to landowners for small projects and single family homes to comply with stormwater requirements Educate landowners on process	Lycoming County staff Stormwater inspection training is available	Lycoming County funding	Stormwater policy expert (engineer possibly) Stormwater review training Pre-designed stormwater controls for landowners Education to landowners (implementing building permits example) as integral to stormwater planning – check with municipalities especially during subdivision process		<u>2022</u> Residential build waivers currently being considered <u>2023</u> Considering an Update to Storm Water Plan in near future <u>2024</u> (12/6/24) No updates . The county is not pursuing any updates at this time due to staffing constraints.	
4.4	Integrate Hazard Mitigation Plan Update	• Provide technical assistance to municipalities • Update/adopt and enforce floodplain management ordinances • Streambank stabilization/erosion prevention • Increase community outreach/edu • Work with watershed organizations to develop a communication strategy for citizens/visitors	• Lycoming County • Municipalities	Countywide	2025 and beyond						<u>2022</u> No Progress <u>2023</u> Preparing to update county plan on 5-year cycle later this year. <u>2024</u> (11/25/24) Hazard Mitigation Plan updated started by County Planning Dept,	
4.5	Continue MS4 Programs	• Collaborate/coordinate with MS4 communities to ensure work is not duplicated/competing	• Lycoming County • Municipalities	Countywide	2025 and beyond	Collaboration and coordination to ensure CAP and MS4 projects are not	Data and mapping from Lycoming County staff	Growing Greener NFWF	GPS mapping equipment - $10,000	DEP	<u>2022</u> Staff constraints, no progress	

		• Ensure funding/technical resources are shared to municipalities/authorities/others when the county learns about them • Allow MS4 projects to be located outside of urbanized area • Streamline permitting process • Improve mapping and standardize data collection and management				duplicated and are co-beneficial Provide more training on engineering, inspections, construction, and maintenance to MS4s					2023 No Progress, County is no longer involved with permitting for MS4 2024 (11/25/24) Reed Street Wetlands project completed by Loyalsock Twp. (MS4 project & CAP-funded)	
4.6	Improve planning effectiveness and efficiency	• Coordinate regulations and outcomes • Integrate rapid stream de-listing planning strategy • ID potential to re-establish county-level stormwater coordinator to work with MS4 municipalities • Coordinate with updated State Water Plan (currently being updated) • Integrative water resource planning	Regulatory entities (LCCD, DEP, PCD, etc.)	Countywide	2025 and beyond	Communication (agency and entity coordination), data availability	Clean Water Institute Chesapeake Conservancy (for rapid stream de-listing)	County enviro funding PennVest			2022 Chesapeake Conservancy rapid stream de-listing partnership meetings attended, collaboration with PCD and LCCD on Pine Run project 2023 Coordinating with project partners to implement 4 stream restoration projects in the Lycoming County 2024 (11/25/24) Continued coordination with project partners to implement stream restoration projects in the Lycoming County	