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

Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstacles Red - action has not been taken or has encountered a serious barrier Highlight changes for 2024-2025 milestone period

Action # Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		**Annual Progress to Date** (2021 + 2022+2023) *add new 2023 progress above the existing 2021 and 2022 progress. Date each entry
							Technical	Financial	Technical	Financial	
Priority Initiative 1: Agriculture											
1.1	Nutrient Management Planning	Develop Recommendations and nutrient management planning including soil samples, manure analysis, and agronomy assistance. BMPS's include Nutrient Management Core N, Core P, Placement, Timing, and Rate 25 total sites per year	PSU Extension, TCCD, Consultant	Agricultural lands and Hunting Clubs	2022-Creation of program with evaluation in 2025.	Funding for initial 3 years of program, landowner participation, and understanding of data importance.	Local agency educational materials and sampling kits Consultant assistance	Sampling Kits ($12)	Contracted Source for NMP analysis/recommendations List of recommended contacts for analysis completion	Dedicated funding to assist in management and development of this program. $60,000 for 1.1 – 1.1 a	2024 - Approximately 10 Nutrient Management Plans have been developed for the County with funding assistance from a PACD mini grant and UGWF funds. There were 21 Manure Management Plans developed, along with 8 Agriculture Erosion and Sediment Plans developed within the 2024 year. NRCS has also completed a few this year for the County. 2023 - Nutrient Management Plans are being developed but a specific program to complete these has not yet been created. 2022- This program has not yet been completed but is still of high interest.

1.1a	Soil Sampling Program	Develop Soil Sample Collection Program and Analysis – 25 sites per year	PSU Extension, TCCD, Consultant	Agricultural and Hunting properties Targeting Cowanesque watershed	2022-2025		Education Materials Soil Sampling			$30,000 per year	2024 - Soil Sampling Kits are being provided to the landowners within the Cowanesque Watershed with funding through NFWF, ACT 13, and EE Grants. 2023 - Soil Sampling kits have been provided to a handful of landowners to complete soil testing on their operations. 2022- An EE Grant was received to implement soil sampling including organic matter testing that will be utilized in 2023. This program has also been included in the Grant Funding application for NFWF Small Watershed Grant for the Cowanesque Watershed which has been awarded. It is planned to expand the program after grant rollout.
	Manure Testing Program	Develop Manure Testing Program and Analysis – 25 sites per year	PSU Extension, TCCD, Consultant	Agricultural and Hunting properties Targeting Cowanesque watershed	2022-2025		Education Materials Manure testing Labs			$10,000 per year	2024 - No samples were taken, but data was received to update plans that are being reviewed. There were 21 Manure Management Plans developed within the 2024 year. 2023 - Manure Testing kits will be provided to landowners during the roll out of the EE grant at the end of August. 2022- Manure testing was included within the NFWF Small Watershed Grant for the Cowanesque and this program will be started at that location. It is planned to expand this program following grant completion.

	Agronomy Assistance/Analysis Program	Develop Agronomic Analysis Program – 25 sites per year	PSU Extension, TCCD, Consultant	Agricultural and Hunting properties. Targeting Cowanesque watershed.	2022-2025		Education Materials, Analysis		Analysis	$20,000 per year	2024 - Agronomy assistance is being provided to landowners via NRCS and PSU Extension. Additional opportunity for grazing management plans will increase potential for agronomy assistance through the TCCD in 2024-2025. 2023 - Goal to be able to expand this offering to individuals that complete soil and manure testing through the already developed programs for roll out. 2022- An agronomy assistance program has not been started although there is hope to include this program during the expansion of the soil sampling and manure testing program.
1.2*	Reporting and Verification of Existing BMP's	Collect data and verify existing BMP's on operations. Create and deploy Farmer Survey to collect private landowner data on existing BMP's. Report and verify 50 operations per year	DEP, TCCD, NRCS	County	2021-2025	Time Capacity, Data Entry, Voluntarily Release of Records from Farmer (DEP issues, public knowledge), Confidentiality agreements, producer participation and resistance	BMP's and plans that were funding through agencies and grants are already known	N/A	Dedicated staff (1-2) or contracted staff to complete entry and inspections	Dedicated funding to this position $80,000 for position funding per year.	2024 - BMP Verification efforts have been concluded in 2023 with the identification of existing practices. Additional information is gathered as it becomes available, with only new structures in need of reporting and verification. 2023 - Third party has completed BMP verification across the county and have been entered into Practice Keeper. 2022- Reporting and verification have been started by a third party and is underway. A non-intrusive method is being utilized for landowner privacy.
1.3	Existing BMP Maintenance Program	Assist producers with maintenance of existing BMPs to keep them functioning, through cost-share labor or funding. 5-10 farms a year	TCCD, NRCS, PSU Extension	Agricultural Producers	2023-ongoing	Funding and Producer participation, Identifying BMPS that need maintenance	Technical assistance	Farmer maintenance	BMP maintenance and labor	Funding source to complete maintenance on existing BMP's $150,000 per year	2024 - BMP maintenance has not occurred this year for landowners as there is no funding designated for this effort. 2023 - Small projects are being aligned with proper funding for maintenance activities although this program is not established yet. 2022- Existing BMPs that require maintenance or upgrades are being recorded will be contacted when funding becomes available.

1.4	Riparian Buffer and Stream Fencing	Implement Stream fencing and riparian buffer on crop and pasture lands. Implement or verify 750 acres per year	TCCD, NRCS, PSU Extension	Streams on Agricultural Properties	2021-ongoing	Funding and Producer participation, implementation of maintenance	Technical documents, design, and layout	Plantings and materials	Labor to plant/install	Funding Source, Stream fencing costs Stream bank fencing $4 per linear foot $ 120 Tree cost, per tree, $500,000 per year	2024 - Riparian areas and stream exclusion fencing is being installed with coordinating stream projects as well as agricultural projects. In 2024, approximately 279ft of fencing was implemented the Olson property. Also, 1,484ft of Riparian Buffer was added to the Schmidt property. Fencing for grazing systems, to exclude livestock from stream banks, was also implemented on 3 properties, Schmidt, Doan, and Butler. This resulted in 17,601ft of fencing. 2023 - Riparian buffer plantings and stream fencing projects have been completed or multiple sites. 2022- Stream fencing and riparian buffers have been planned on agricultural properties and are still underway.

1.5	Operation Transition Planning Assistance	Assist farmers that are transitioning operation types with the necessary BMP and management practices Number of operations are dependent on current farming practices. 5-10 farms per year	TCCD, NRCS, PSU Extension, PFB	Agricultural operations	2023-2025	Funding and Producer Participation, Identifying who is transitioning	Technical farming assistance	N/A	Education, Planning, operational management assistance, plan updates	Cost associated with operation transition and planning $10,000 per operation	2024 - Operation transition assistance is being provided through NRCS and PSU Extension. 2023 - This action has still not been started although has been provided to landowners that have expressed a need for assistance. 2022- This action has not been started but is still of high interest. Assistance is being offered to farmers that contact the district, but a program has not been implemented.
1.6	Cost Share Liming Program	Provide a cost sharing program and education to increase liming practices and increase overall pH on 5000 acres of farmland per year. Soil testing analysis to determine eligibility.	TCCD, NRCS, PSU Extension	Agricultural Community and Hunting Clubs	2022-ongoing	Funding, Adoptees, implementation of education programs	Soil Sampling Kit ($15 per sample kit)	Soil Sampling Kits	Liming education and application assistance	Cost for lime and application $55,000 per year	2024 - Cost share liming program was completed in the Cowanesque Watershed, through Cowanesque Stream and Soil Health Grant, ACAP, and UGW funds, and was a highly utilized program. Liming occurred on 10 properties throughout 2024, resulting in 1,244.61 acres limed. 2023 - This program is underway to provide landowners cost share incentive for appropriate lime application. 2022- This program will be included in the NFWF Cowanesque Small Watershed Grant award and there is hope to expand this program to the rest of the county after initial roll out.
1.7	Agricultural Lands Flooding Protection	Protect Agricultural lands from extensive erosion from flooding by protecting streams banks and floodplain connection Complete projects on 100 acres of agricultural floodplain lands per year	TCCD, NRCS, PSU Extension, SCC, TU	Agricultural lands with historical flooding issues	2022-2025	Funding, Landowner resistance	Guidance and Planning	Floodway protection	Identification of flood protection areas, protecting areas	Funding for BMP implementation and floodway protection $150,000 per year	2024 - Agricultural flood protection education is ongoing within the Cowanesque Watershed through Cowanesque funds, to protect the lands from erosion although specific projects have not been completed. 2023 - Flooding protection has been discussed for potential project locations although has not been completed due to dedicated funding and landowner willingness to complete projects. 2022- Discussion and promotion of the importance of stream bank and floodplain protection have occurred with landowners who expressed concerns and a few projects have been implemented.

1.7a	Floodplain Restoration and Stream Protection	Implement Floodplain restoration and stream bank stabilization and protection projects for agricultural areas. 1500 linear feet of stream per year	TCCD, NRCS, PSU Extension, TU	Agricultural lands	2022-2025	Funding and Producer participation	Technical guidance documents, Existing Restoration projects	Cost of funding to complete projects	Planning assistance, identification of project areas, restoration and protection labor	Cost associated with restoration and protection activities. $500,000 per year	2024 - Stream restoration projects were completed on three sites in 2024, with 1,800 ft being restored and protected. 2023 - Multiple stream and floodplain protection and restoration projects are underway and currently in construction. 2022- Floodplain restoration and stream protection projects are being planned and constructed within agricultural areas to promote stabilization.
1.8	Farm Operational Improvements	Overall Farm operational BMP implementation program to improve runoff, erosion, functionality, and land preservation. 5-10 operations per year	TCCD, NRCS, PSU Extension, SCC	County	2022-2025	Funding, Permitting	Education, Technical assistance, and documents	Cost of operational improvements	Planning, permitting	Cost of operational improvements and BMP implementation. $300,000 per year	2024 - Operational improvements are occurring at agricultural properties around the County. In 2024 CAP funds were utilized to assist the Wade Taylor project with operation upgrades and BMP installation. A total of 14 farm operations were improved within 2024, BMPs included gutter systems on structures, roofing, spring development, fencing for grazing systems, dripline drains, cover cropping, new watering systems, no till systems, and the creation of trails and walkways. 2023 - Farm operation improvements are ongoing and being constructed as usually. 2022- Farm operational improvements have been planned and completed at four farm locations. Additional projects have been applied for funding through CAP Implementation funds

1.8a	Field Road Access Improvement	Upgrade and Maintain access to fields for better access to encourage opportunities to maintain fields and spread manure. 10 miles of field roads per year	TCCD, NRCS, PSU Extension, SCC	County	2022-2025	Cost of access improvement and landowner participation	Education and Technical assistance	Field road improvements	Field Road upgrade plans and permits	Cost of field road upgrades and permits $150,000 per year	2024 - Access road improvements occurred on Watterson, Taylor, and Wood properties, resulting in 1,025 ft of access road improved. There is one project planned for late 2024, early 2025. 2023 - Additional project sites exist although were not completed this year due to funding allocation. 2022- Field road access improvements have been planned and are currently underway for completion.
1.8b	Heavy use area BMP implementation.	Implement heavy use area BMP's to protect erosion and runoff. Increase current workload by 5 projects per year	TCCD, NRCS, PSU Extension, SCC	County	2022-2025	Cost of BMP implementation and landowner participation	Education and technical assistance	BMP implementation	Heavy Use area plans and permits	Cost of heavy use BMP implementation $800,000	2024 - Four HUA projects have been implemented in 2024 at Wade Taylors Property, Waterson Farm, and the Wood Property. Approximately 18,494 square feet of heavy use areas have been protected within 2024. There are three additional projects planned for completion in 2025. 2023 - Additional project sites exist although were not completed this year due to funding allocation and utilization of ACAP funds. 2022- Heavy use area and manure storage projects have been implemented this summer and are planned to receive fencing this fall.

1.9	Partnership- Potter/Tioga County Cowanesque Watershed Agricultural BMP Upgrades	Implement Agricultural BMP's across Tioga and Potter County to assist the Cowanesque Watershed as a whole. 10 agricultural projects within the watershed a year	TCCD, PCCD	Tioga and Potter County, Cowanesque Watershed	2023-2025	Funding and farmer participation within the watershed	Engineering assistance, Existing BMP programs	Cost sharing programs	Planning, outreach, and Implementation	Cost associated with design permitting, and construction of BMP's and programs $250,000 total per year ($125,000 per county)	2024 - Partnership is ongoing and projects are being implemented in the Cowanesque Watershed. The Cowanesque Watershed NFWF grant was completed in 2024. PCCD and TCCD plan to continue this partnership, with the potential to submit an additional grant for funding in the future. 2023 - The first educational event is taking place this August to announce funding and provide education on resources and methodology. 2022- Grant funding has been applied to by Tioga and Potter County through the NFWF Small Watershed Grant to secure funding to complete this action. The grant award was received, and the project is now moving forward.

Priority Initiative 2: Urban and Developed Stormwater											
2.1	Create Act 167 Plan	Make all SWM Ordinances consistent with County Stormwater Management Plan and implement	County Planning, Municipal Government	County	2023	Funding, Resistance, Local Enforcement, Education	Local engineers to provide insight and guidance	Funding for creation and implementation	Review of plan and approval of documents, technical guidance and	Review fees, and cost of plan creation and development	2024 - Act 167 Phase 1 is underway with plan feasibility study and municipal meetings. Act 167 Plan Phase 2 was applied for funding through DEP and is anticipated. 2023 - Development of the Act 167 Plan is ongoing. 2022- Act 167 Plan funding was applied for through the Growing Greener Grant in partnership with Potter County.
2.2*	Flood Mitigation	Mitigate flooding by completing proper stormwater management and managing headwaters of streams. **Increasing Culvert sizes where need be to mitigate flooding and washout. Assess and upgrade 10 projects per year. Projects include culvert installation, storm drain cleaning, floodplain reconnection, etc.	Landowners, TCCD, County Planning	Developed areas within the county	2022-2025	Funding and Participation from municipalities	Technical guidance	Funds to complete replacements	Permitting, design, implementation	Funding for upgrades and management $500,000 per year	2024 - Education occurring to municipalities to encourage proper stormwater management practices. Evaluation of culvert sizing will occur during the implementation of Phase 2 of the Act 167 Plan if funding is awarded. A meeting has been planned with Cowanesque to decide what is needed, post hurricane Debby, this discussion is within towns that were affected. 2023- A flood mitigation project will be completed during the implementation of the NFWF Cowanesque Watershed grant this year with a culvert upgrade in Potter County. This project will aid the Cowanesque Watershed which is shared watershed between Tioga and Potter County with hopes of continuing this effort in Tioga County. 2022- This program will be included with the development of the Cowanesque Watershed Agricultural BMPs to improve overall flood mitigation within a headwater watershed. Grant award was received to move forward with this project.

2.2a	Parking Area Stormwater Management	Utilize Green basins, rain gardens, curbing and permeable pavement management stormwater on parking lots. Evaluate and upgrade 5 parking lots a year	COG; County Planning, TCCD,	Developed areas and parking lots	2022-2025	Cost; owner involvement	BMP Manuals, technical guidance documents	Funds to complete BMP implementation or transition	Permitting, design, implementation	Costs associated with upgrades or BMP implementation. $150,000 per year	2024 - Areas for improvements have been identified through Act 167 funds in 2024. 2023 - Specific project sites have not been identified to implement these practices although has been under discussion. 2022- This program has not been started but is being implemented when possible.

2.2b	Residential Stormwater Management	Develop residential and small commercial property stormwater maintenance and management BMP's for implementation Implement 50 residential projects a year BMP's include rain gardens, rain barrels, etc.	TCCD	County developed communities	2022-2025	Funding for materials; resistance to participation; maintaining use	Existing example programs	Private BMP implementation	Permitting, planning, construction, and maintenance	Funding for materials and maintenance activities $50,000 per year	2024 - Stormwater management project for Mansfield Borough is occurring through a Growing Greener grant for flood protection. Within 2024, 27 rain barrels were implemented, with the addition of 13 more from Women in Agriculture workshops. Also, through the Tioga Shade Tree Council, twenty street trees were planted within the 2024 year. 2023 - The Mansfield Borough grant was awarded, and construction activities are starting this fall for implementation. 2022- Project planning/implementation is awaiting grant award. Tioga County was involved with the Mansfield Borough Growing Greener Application to implement a large residential stormwater management system that captures over 200
2.2c	Existing Stormwater BMP retrofit Program	Upgrade existing basins, drainage systems to improve function Evaluate and upgrade 5 projects per year	Municipalities, landowners, rec properties	Existing sites	2022-2025	Funding; identifying suitable facilities and complete maintenance and upgrades	Example projects, Guidance documents	Implementation costs	Site data collection; Design development, and implementation	Design funds, construction funds $250,000 per year	2024 - Some project locations have been discussed although have not moved forward. Tioga County plans to identify retrofitting during the Act 167 planning process. 2023 - This program has not been started due to the lack of identified project locations. 2022- This program has not been started but is still of high importance.
2.2d	Stormwater Management Education	Educational and outreach Program for Residential Stormwater management and How-to presentations. 2 programs per year	TCCD	County	2023+	Funding for Educational events/outreach	Existing Educational Materials	N/A	Educational materials and event organization	Cost for program development and outreach and education events $15,000 per year	2024 - Municipal meeting has occurred to discuss stormwater maintenance and management projects. Women in Agriculture held a rain barrel workshop that served approximately 40 people. 2023 - This event has not been planned due to the lack of a dedicated funding source. 2022- This event has not been completed but is still of high interest.

2.3	Nutrient and Fertilizer Planning for Turf Grass	Develop and implements plans and guidance for Turf Grass 25 acres per year	TCCD, PSU Extension, NRCS,	County	2024+	Reporting and Lack of participation due to no enforced planning.	Guidance documents,	Funds for plan development	Example plans, outreach, Enforcement, education of importance, and plan writing	Dedicate funds to launch the program and start planning $50,000 per year	2024 - The District is in the planning phase of utilizing existing DEP urban NMP. 2023 - This project has not been started and needs dedicated funds to get this implemented. 2022- This program has not been started but is still of interest.
2.3a	Turf Grass Reduction	Transition Turf grass to no mow planting areas with trees or habitat plantings 3 acres per year	Municipalities, landowners, rec properties	County turf grass areas	2022-2025	Funding and Participation	Plantings and technical guidance documents	Planting materials and trees	Planting area identification, planning, and implementation	Costs associated with installation and management $30,000 per year	2024 - Planning has not occurred to develop this guidance, DCNR provides a lawn conversion program. The District can help landowners access the DCNR program if landowners are seeking assistance. 2023 - This project has not been started and needs a dedicated funding source to get this implemented. 2022- This program has not been started but is still of interest.

2.4	Roadway Management	Reduce roadway runoff and the use of salt to better improve roadways and reduce sediment and nutrient runoff into streams 10 miles of road per year	TCCD, DCNR, Municipalities, PennDOT	County	2022-2025	Funding and Participation, Validation of alternative applications	Beet Juice Application	Existing roadway treatment materials	Identifying alternative applications, feasibility studies	Cost for management transition application and feasibility $250,000 per year	2024- Project has had brainstorming sessions and a feasibility has been discussed but no alterative management has been trialed. 2023- Program still under discussion but not yet deployed. 2022- Program has been under discussion but has not yet been completed.
Priority Initiative 3: Wastewater											
3.1	Upgrades and Maintenance on Public Sewer	Complete necessary upgrades and Implement proper Maintenance on remaining sewer systems. Assess 1 project per year	County Planning, Local Authority	Public Sewer Systems	2025	Cost associated with system upgrades and maintenance	Engineers, Authority, Operators Septic design and maintenance	Costs associated with maintenance and upgrades	Inspections, permitting, maintenance, and design	Funding dedicated to system upgrades and maintenance $200,000 per year	2024 - Upgrades and Maintenance are occurring on Public Sewer Systems as needed. Wellsboro Municipal Authority received a $1,024,000 grant through DCED, to replace their current Chlorine Gas Disinfection System with a new Ultraviolet Disinfection System in January 2024. Planning process for funding for Lawrenceville, for water and sewer upgrades are underway. 2023 - This project is not eligible for CAP funding. Alternative funding must be found. 2022- Discussions and feasibility has occurred for this program development. Ongoing upgrades and maintenance is still occurring as needed.
Priority Initiative 4: Natural											

4.1	Forest Land Conservation and Management	Preserve Quality Forest Land Surrounding Quality Resources through conservation easements, deed restrictions, land conservancies. 15 properties per year	TCCD, 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	2024 - The Forestry Education Symposium was completed in 2024 to continue to provide educational resources to landowners and professionals through presentations and guided field tours. A headwater invasive species collaborative event through PCCD, TCCD, and DNCR is targeting up and coming invasives in 2024. 2023 - The Forestry Education Symposium was awarded and Tioga County will be a participating County for increased education and outreach about forestland conservation and management. 2022- Discussion and encouragement for the need of preserved forestland have occurred. A forestry Education event is hoped to be held and funding needs to be secured for completion. Tioga CCD was invited to be involved in the 2023 Forestry Education Symposium Grant application through DEP EE Grants that is currently held by Bradford, Susquehanna, and Wyoming County. It is hoped continuation of this program will provide this educational need within the county. Looking into the possibility of additional NRCS funding for forestry management and planning.

4.1a	Forest Management Plans	Create Forest Management Plans for private landowners 10 plans per year	TCCD, NRCS, Foresters, DCNR	Private Forest Owners	2022-ongoing	Funding, capturing existing plans, plan writers	Writing/assistance	Funding for plan writing	Plan writers	Funding for plan writing and development $50,000 per year	2024 - NRCS is completing forestry management plans as requested by landowners. 2023 - Forest Management plans have not been developed as the district doesn't have a designated funding source secured. 2022- This action has not been started but is still of high interest. Looking into the possibility of additional NRCS funding for forestry management and planning.
4.1b	Forestry Harvest ED and Outreach	Educating private forest landowners on the importance of proper harvesting and selecting good timber harvester. 2 programs per year	DCNR, NRCS, TCCD	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 $15,000 per year	2024 - The Forestry Education Symposium was completed again in 2024 to provide education regarding forestry harvest, management, and maintenance to private landowners and industry professionals. SFI training, offered through the Northen District Grouping for 2024. 2023 - The Forestry Education Symposium was awarded and Tioga County will be a participating County for increased education and outreach about forestland conservation and management. 2022- Brainstorming has occurred for how to complete this action. Tioga CCD was invited to be involved in the 2023 Forestry Education Symposium Grant application through DEP EE Grants that is currently held by Bradford, Susquehanna, and Wyoming County. It is hoped continuation of this program will provide this educational need within the county.

4.1c	Forestry Upland Plantings	Converting fallow agricultural fields to forested plantings. 50 acres per year	NRCS, TCCD	Retired Farmlands	2021-ongoing	Retiring less productive Ag lands	Tree planting guidance	Plantings and materials	Labor/planting	Cost of labor and implementation $250,000 per year	2024 - Forest upland plantings are under discussion for the installation of 169 acres in 2025. This project involves multiple organizations partnering together to reforest private and State Game Lands. 2023 - Forestry upland plantings are still occurring. 2022- Forestry upland plantings have been completed and are still underway.
4.2	Stream Restoration and Streambank stabilization	Restoring streambank and stabilizing for overall water health. 5,000 linear feet per year	TCCD, TU, NRCS	County impaired streams	2022-ongoing	Cost associated with design, construction, and Landowner interest	Technical guidance, permitting and plan writing	Existing grant programs, private funds	Prioritization and watershed approach, planning and design	Dedicated funding source to continue establishing new projects $750,000 per year	2024 - Multiple stream restoration and streambank stabilization projects have been completed in 2024 through the use of CAP funds to limit erosion and restore habitat. A total of 3,850 ft was restored/stabilized in 2024. 2023 - Additional projects have been designed and are in construction phase this year. 2022- Stream restoration and stream bank stabilization projects have been planned and implemented.
4.3	AML Reclamation Planning and AMD Restoration	Restoring AML impacted areas and treating AMD discharges to restore water quality Evaluate 3 projects a year	DCNR, NRCS,	Tioga River, Coal Creek, Morris Run, State Forest, Fallbrook	2024	High costs associated with planning and restoration	Technical documents and case study's	AMD restoration funds	Planning and restoration labor, permitting	Costs associated with restoration and reclamation planning $350,000 per year	2024 - AML reclamation is planned on 169 acres of private and State Forest Land through the replanting of historic mining areas that spoil pile remains from the mining operation. This project is a large partnership between multiple organizations to complete the entire proposed area. Morris Run and Coal Creek are anticipated to be installed in 2025. 2023 - Projects are still in discussion for the correct funding source. 2022- This project has been discussed although is awaiting additional funding availability from BAMR, OSM, and the infrastructure bill within the next few years for this program type will help secure funding to start this initiative.

4.3a	Existing AMD Facility Maintenance and Upgrades	Necessary maintenance and upgrades to existing AMD treatment areas. Upgrade 1 facility a year	DCNR, NRCS, BAMR	Babb Creek Priority	2023	High costs associated with maintenance and upgrades	Technical guidance and case study's	AMD restoration funds	Planning, engineering, and construction	Costs associated with maintenance and upgrades $150,000 per year	2024 - Maintenance occurring to the Fall Brook and Babb Creek treatment systems as needed throughout their lifetimes and are proposed to be updated. 2023 - The previous facility is being implemented and additional sites are being evaluated for the BAMR Subgrant funding. 2022- An AMD facility upgrade is being completed within the County and feasibility and planning for additional upgrades is underway.