

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

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

Action #  Green Yellow Red	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 + 2022 + 2023) *add new 2023 progress above the existing 2021 and 2022 progress. Date each entry	Reason for Change to Action Item (2024-2025 milestone period)
							Technical	Financial	Technical	Financial		
							<b>Priority Initiative 1:</b>					
1.0*	Implement County Farmland Preservation Program with farmland preservation program incentives enhancement	Increase the financial and technical capabilities of the County Farmland Preservation Program  Other Preservation Grants applied for 50-100 acre/year goal	Conservation District, Clearfield County Commissioners, County Planning, Farmland Preservation Board	Bay Portion of Clearfield County	2021 -2025+	County budget restrictions inhibit additional funding for Farmland Preservation Program Continue to pursue budget funding/ other grants	Tech assistance and administration- Farmland Preservation Board, County Planning, Conservation District	\$3000- Clean and Green Penalties	Additional Staff Person in County Planning to handle workload	\$100,000/year for additional staff  \$10,000+ for Easement purchase and closure costs	2023- Have our 1 <sup>st</sup> applicant, appraisal completed and accepted, need to do property survey next 2022 – Clearfield County Commissioners signed and approved the allocation of \$5,000 toward the purchase of an easement, Clearfield CCD verbally agreed to match county contributed funds – no applications have been received yet.	
1.1*	Chesapeake Bay Technical Inspection/ Plan Data Gathering	Continue implementing Chesapeake Bay Technician contract to provide 38 farm compliance inspections per year, and report additional BMPs	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Challenge: Time constraints to complete additional BMP reporting under current contract. Recommendation: Increased funding for additional workload and mileage to report and reverify BMPs. Staff turnover	Tech assistance and planning – 1 Chesapeake Bay Technician with ¾ funding	\$72,150 County/ State	Additional Staff Person to handle BMP reporting/tracking/reverification. Staff (see 3.0)	\$72,150	2023- Due to staff turnover a large portion of the year was spent training new Ag Tech while continuing to do inspections, identifying existing BMPs, finding opportunity for new BMP installation, and reporting in PK 2022 – Clearfield CCD Technicians have increased the amount of BMP identified during CBP and Act 38 inspections and reported into PracticeKeeper	

1.2*	Nutrient Management/ Manure Management Delegation Agreement	Continue implementing Nutrient Management/Manure Management program to provide Act 38 and MMP planning, review, inspections, and technical assistance (2000 acres/year average)	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	VAO plan enrolment into Act 38 program is declining. Staff turnover	Technical assistance and planning 1 Technician with ¼ funding	\$24,050 County/ State	N/A	Implementation Funding \$100,000+ per plan for BMPs	2023- Due to staff turnover a large portion of the year spent training new Ag Tech while continuing to verify 5,058 MMP and NMP acres in PK.  2022 –Clearfield CCD Techs have continued to verify MMP and NMP acres in PK. These numbers are not being reflected accurately in CAST.  2022- 6,606 acres written and reviewed  22,414 acres verified/written total to date	
1.3*	Continue Development of Agricultural Plans	Continue planning assistance for CB inspection farms and Act 38 planning for project farms (Act 38 and MMP plans (3200 acres annually) Ag E&S Plans (3800 acres annually)  NOTE: Over 25,000 acres already verified in PK	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Challenge: Time constraints for current technician Staff turnover	Technical assistance and planning Technician funded through CBP and NM/MMP agreements	None	Seasonal Technician based on need Staff (see 3.0)	\$6,000 for seasonal technician Staff (see 3.0)	2023- CD Techs continued planning assistance for farms in the county: 446.65 in NM 160.28 in Ag E&S  2022 – Clearfield CCD techs have continued planning assistance for farms in the county 2022- 6,606 acres NM 2022- 5,912 acres CP  NM – 22,414 acres total CP – Approx 15,478 acres total	
1.4	Develop and implement no-till verification from CD district rental program	Develop a verification component of acres planted with rental equipment (Report 1000 High residue tillage acres and 300 acres of cover crop	Conservation District	Bay Portion of Clearfield County	2021	Challenge EPA/DEP acceptance of approach and verified data and time to field verify reported acres	Technical assistance and administration  Technician funded	N/A	PK reporting procedure for no-till and cover crop implementation	\$6,000 for seasonal technician Staff (see 3.0)	2023- Same as 2022 2022 – Clearfield CCD successfully established a certification program as part of our no-till program, but PA DEP and EPA do not have a	

		annually, as well as Core NM Practices				Survey will be added to no-till equipment invoices to collect annual NM and Tillage data. 10% discount on bill	through CBP and NM/MMP agreements		Seasonal Technician based on need Staff (see 3.0)		reporting mechanism for verified no-till, cover crop, or low disturbance tillage acres	
1.5	Continue to implement and Increase capacity of no-till program	Sustain and increase annual no-till acreages planted with rental equipment and provide additional rental equipment to meet demand (1000+ High residue tillage acres and 300+ acres of cover crop annually)	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Maintenance and repair costs inhibit purchase of new equipment. Weather and time constraints of staff and farmer time. Storage of more equipment.	2 – 1006NT NT Drills 1 – 706NT NT Drill 1 – 1755 NT Corn Planter	Rental Fees	More/update equipment  Approximately \$30,000/5-10 years)  On site storage needed	\$5,000/ year for maintenance  \$30,000 every 5 years	2023 to date – Cover Crop 333.74 2022 – Cover Crop 579.1 2021 - No-till acres No-till – 1,296.9 acres Cover Crop – 380 acres	
1.6	Increase amount of Chlorophyll testing and PSNT testing on corn acres	Increase adoption for supplemental NM BMPs on farms by increasing Chlorophyll and PSNT testing on corn acres (2,800 acres of N Rate, N Placement, N Timing annually)	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Time constraints of current technician and farmer participation.	Technical assistance and administration	\$25 / Farm Tested	Seasonal Technician based on need Staff (see 3.0)	\$6,000	2023- Due to staff turnover no new action 2022 – Clearfield CCD provided outreach through newspaper articles and in person efforts reminders about our local program, but participation remained low. Possibly because of commodity prices.	
1.7	Develop new Watershed Restoration Plans	Develop new plans for watersheds not already covered by a plan which leads to increased BMP installations  -Over 20 more plans needed -1 plan / 2 year goal	Conservation District, Watershed organizations, WPC, TU	Countywide (where new plans are needed)	2021 – 2025+	Time and financial resources are limited	Technical assistance and project oversight	None	Engineering/ Planning	\$100,000/plan	2023 – Morgan Run WIP still underway, to be completed by end of 2023 with EPA approval expected in 2024 2022 – Developing 1 new 319 WIP for Morgan Run WS; QAPP being developed and sampling to commence in early 2023	
1.8	Update existing watershed restoration plans as needed	Update plans to re-evaluate restoration targets, document pollution reduction progress, and plan new BMP installations	Conservation District, Watershed organizations, WPC, TU	Countywide	2021 – 2025+	Time and financial resources are limited	Technical assistance and project oversight	None	Engineering/ Planning	\$100,000/plan  Over 20 more plans needed	2023 – CD Working with TU to update Moshannon Creek Coldwater Conservation Plan to include AOP	

		-20 plans needed -1 plan / 2 year goal									surveys and additional fishery data 2022 – In June of 2022 EPA approved the update of 2 WIPs for Little Anderson Creek and Montgomery Creek developed by our District with assistance from Trout Unlimited and Hedin Environmental	
1.9	Update and Implement County Hazard Mitigation Plan	An updated plan will address flooding and identify flooding threats. Ideally the plan will identify project areas for hazard mitigation grants -Advocate for update based on CAP goals. (Stream Restoration, Culvert Replacements, Obstruction removals, and floodplain restoration.)	Clearfield County, EMA	Countywide	2021	Plans need to identify more specific projects to reduce hazards, including removal of dams, culverts, and other obstructions	Planning office technical assistance	None	Additional planning staff in County planning office	\$100,000 annually for staff	2023- No new action but the update is done so this isn't really a problem 2022 - The Clearfield County 2022 Hazard Mitigation Plan is in the process of being adopted by the local municipalities. Approval Letters and Adoption Resolutions for the following communities in Clearfield County, Pennsylvania have been received. <ul style="list-style-type: none"> <li>• Decatur Township</li> <li>• Girard Township</li> <li>• Goshen Township</li> <li>• Lawrence Township</li> <li>• Morris Township</li> <li>• Sandy Township</li> <li>• Boggs Township</li> <li>• Curwensville Township</li> </ul> Clearfield County Conservation was initially involved in the development of the plan but the plan was adopted without relevant information being included that would help CAP efforts	

1.10	Update County Comprehensive Plan	An updated plan will provide policy support for stormwater reduction efforts and achieve CAP initiatives. Advocate for update based on CAP needs	Clearfield County	Countywide	2025+	Lack of financial and political support	Planning office technical assistance	None	Additional planning staff in County planning office and engineering/consulting	\$100,000 annually for staff	2023- Stakeholder meetings continued throughout 2023 and counties working through the update process, final report expected late 2023/early 2024 2022 – Clearfield County and Elk County were recently awarded \$50,000 to jointly work together in updating both counties’ comprehensive plans. Next steps will be to release an RFP to determine project costs and required match. It is anticipated the update would start in 2022 with final plan adoption in 2023.
1.12*	Develop Countywide Act 167 Plan	A developed countywide 167 plan will result in municipal ordinances that reduce stormwater runoff Advocate for update based on CAP needs	DEP, Clearfield County, Municipalities	Countywide Urban Townships, Clearfield Borough, Lawrence, Curwensville	2025+	Municipalities lack financial and staff resources to enforce plan.  Customizable ordinances that are easier to enforce and use.	DEP Tech guidance  Planning office tech assistance	None	Engineering assistance, Consulting	\$500,000 for plan development	2023- No action taken due to time constraints; there is concern that municipalities wouldn’t support a true Act 167 plan but the local Planning Department is working on a potential alternative 2022 – No Action Taken
1.13	Support PA AML campaign	Support will lead to financial resources to implement AMD BMPs such as: - Passive Treatment System construction and maintenance - AML reclamation that may	Conservation District, County Commissioners, and watershed associations	Countywide/Statewide	2021 – 2025+	N/A	Technical Assistance	None	None	None	2023- CDWS continued participation and support of campaign 2022 – CD Watershed Specialist joined the PA AML Campaign and participates in their weekly call

		include forest or riparian buffer restoration Wetland creation/restoration as part of treatment layout										
1.14*	Conservation Priority Plan for County	Create a Conservation Priority Plan for County that identifies critical conservation areas for restoration and protection. Development of this plan will guide the implementation of the CAP  Performance target: Development of GIS database overlays that can easily be accessed and analyzed for priority project area locations and which agencies could partner together.	Conservation District, PFBC, TU, DCNR, WPC	Bay Portion of Clearfield County	2021 – 2025+	Work with partners to identify critical conservation areas based on biologic, recreational, and pollution potential factors  Develop priority list of streams for Clearfield County in which wild trout population could improve through habitat work  Consider high angler use streams during the process  Include existing and future watershed restoration plans (see 3.36 – 3.63)	Data from all organizations to be consolidated and technical assistance	None	Access to other organization data	Staff time	2023- Due to staff turnover, no action taken 2022 – Action not taken	

**Priority Initiative 2:**

2.0*	Initiate additional water quality monitoring sites that promote long-term trend evaluation at key locations in Clearfield County	Creation of multiple new monitoring sites that will provide long term improvements from BMP implementation  Monitor 1 watershed per year	USGS, SRBC, Watershed Organizations, DEP, Conservation District	Bay Portion of Clearfield County	2025+	Coordination with multiple organizations, long term funding, acceptance of volunteer collected data. Wishlist of data points is needed for partner involvement.	Tech Assistance	DEP	Coordination between all partners and agencies	\$12,225 Annually	2023-monitored Morgan Run watershed for development of WIP, data to show improvements from AMD BMP installation, also established/reconfirmed long term monitoring sites that can be revisited in the future; gathered	
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						Water quality data has limits and it time intensive to collect					WQ data for biannual Dashed Treatment System Snapshot 2022 – Action not taken	
2.1*	Establish baseline of current practices for comparison with future implementation	Develop an approach to find and report previously unreported BMPs - Increase reported BMPs	Conservation District, DEP	Bay Portion of Clearfield County	2025+	Time consuming, Privacy restrictions, difficult to identify previously implemented projects	District Knowledge	None	GIS Models or analysis to ID BMPS	Unknown	2023- Received verification funding again and despite staff turnover, CD used that to continue verifying BMPs and reporting in PK 2022 – CAP BMP Verification Funds provided Clearfield CCD with funds necessary to complete remote sensing and field verification of existing BMPs within Clearfield County.	
2.2*	Identify future ag/urban project opportunities using GIS Technologies	Utilize GIS to identify opportunity areas for BMPs using erosion prediction models, wetland restoration models, and SPARROW Restoration areas - Increased BMP placement efficiency ID opportunity areas annually	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Current GIS software limitations, up to date elevation and arial imagery  Partner with other partners and Universities	Tech GIS Support assistance	None	New GIS Software. Updated Elevation and Arial Imagery New computer with faster processing speeds.	\$15,000	2023- Due to staff turnover not much progress made in this area 2022 – CAP BMP Verification Funds provided Clearfield CCD with funds necessary to complete GIS analysis of BMP opportunity areas within the county to focus efforts on coming years. More work is still needed but 83 new potential project sites were identified.	
2.3	Increase reporting of Nutrient management BMPs through Chlorophyll testing and PSNT testing on corn acres	Report supplemental NM BMPs based on data collected from testing visits. (2,800 acres of N Rate, N Placement, N Timing annually)	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Time constraints of current technician and farmer buy in. Acceptance of approach by EPA and DEP.	Tech assistance and administration	\$10 / Farm Tested	Seasonal Technician based on need Staff (see 3.0)	\$6,000	2023- Due to staff turnover reporting was minimal 2022 – Clearfield CCD increased reporting of NM BMPs through program surveys and phone interviews	
2.4*	Document water quality improvements and biological	Documentation of water quality improvements that lead to delisting of	Conservation District, TU, Watershed groups, SRBC,	Bay Portion of Clearfield County	2021 – 2025+	Time and funding constraints, access to water quality	Tech Assistance	NFWF	Water quality sample analysis and	Funding for sample analysis, and interpretation	2023- TU documented trout biomass improvement downstream of projects	

	improvements downstream of BMP project sites	waterways on Impaired Waters list. Utilization of citizen science to collect relevant data that will be accepted.  Based on number of projects per year. Approximately 1-2	DEP, WPC, PFBC			equipment to perform surveys. Recommendation: Ensure DEP methodology for data collection is standard. Acceptance and including of volunteer collected data. Intensity of sampling and QA/QC will be challenging			macroinvertebrate ID		in Medix Run, Gifford Run, and Lick Run due to large wood additions; continued to monitor WQ and biological improvements downstream of AMD treatment in Deer Creek and Potts Run 2022 – No action was taken	
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**Priority Initiative 3:**

3.0*	Project Management Staff	Hire 1-2 additional staff in order to oversee and perform project and grant management tasks including reporting and tracking BMP information. (includes recommendations from section above)	Conservation District	Countywide	2021-2025+	Stabile future funding to support position is necessary  Staff turnover would be extremely problematic	Clean Water Academy	None	1 on 1 trainings	1 @ \$50,000/year	2023- Despite no additional funding provided for additional support, existing staff working toward taking on more of a grant/project management role 2022 – No action was taken	
3.1*	Develop and Implement Nutrient Management BMPs	Continue to write and review MMP and NMPs and enter associated data into PK. Provide cost share support  - NM Core N Manure and Fertilizer 26,100 acres - NM Core P Manure and Fertilizer 8,375 acres -NM Rate N 2800 acres -NM Rate P 2800 acres - NM Placement N 3600 acres NM Placement P 2800 acres - NM Timing N 4000 acres - NM Timing P	Conservation District, 4R Alliance, Private Consultants	Bay Portion of Clearfield County	2021-2025+	Time constraints of current technician and farmer participation.  More farm 4R stewardship education is needed.  Need more efficient way to collect farm data annually  Inflexibility of Act 38 program makes it difficult for volunteers to transition MMPs to	Data gathering through Bay Tech visits  CD Technical Assistance  NRCS Technical Assistance  WPC Technical and Planning Assistance  Headwaters-Financial Administratio	PA Ag Planning Reimbursement Program \$900,000  REAP  EQIP	4R Education Support	NM Core N&P Manure and Fertilizer Plans \$305,448 annually  NM Supplemental BMPs: Rate N&P, Placement N&P Timing N&P \$165,440 annually	2023- Clearfield CD Techs verified/wrote 446.65 acres of NM 2022 – Clearfield CCD techs verified/wrote 6,606 acres of NM from Jan 2021 – 22	



		2800 acres				NMPs and maintain the plan  Terrain of fields in county inhibit effect field application of nutrients – More crops are run down by equipment during multiple passes. Farmer time is limited  Cost share is needed to transition MMPs to Act 38	n and Project Management					
3.2*	Implement BMPs in current Act 38 Plans	Utilize funding to implement and install BMPs identified in Act 38 Plans  Fund BMP installations of 1-2 Approved NMPs per year	Conservation District, NRCS, WPC	Bay Portion of Clearfield County	2021-2025+	Need direct funding to support BMP installations and assist landowners in BMP implementation	CD Technical Assistance  NRCS Technical Assistance  TU TAG  WPC Tech assistance  Headwaters-Financial Administration and Project Management	REAP and EQIP	Staff (see 3.0)	Staff (see 3.0)	2023- BMPs were implemented that were identified in 4 Act 38 plans and reported into PK.  2022 – BMPs were implemented that were identified in 2 Act 38 plans and reported into PK.	
3.3	Develop and Implement Soil Conservation Plans	Continue to write, update and review Ag E&S Plans and enter associated data into PK. Provide cost share support. Continue NRCS Conservation Planning Support  - Soil Conservation Plans 26,800 acres	Conservation District, NRCS, Private Consultants	Bay Portion of Clearfield County	2021-2025+	Time constraints of current technician and farmer participation.	CD Technical Assistance  NRCS Technical Assistance  TU TAG  WPC Tech assistance	PA Ag Planning Reimbursement Program \$900,000  REAP  EQIP	N/A	Soil Conservation Plan Development \$701,088	2023- Clearfield CD Techs reviewed 160.28 acres of soil conservation plans 2022 – Clearfield CCD techs wrote and reviewed 5,912 acres of soil conservation plans in 2022 totaling 15,478 acres to date	

							Headwaters- Financial Administratio n and Project Management					
3.4*	Low and no-till tillage BMPs	Continue technical support and education to increase adoption of practices.  Report current conservation tillage (2700 acres)  Increase adoption and reporting of high residue tillage by (10,000 acres)  Increase adoption and reporting of low residue tillage by (800 acres)  Increase adoption and reporting of low disturbance manure incorporation (1700 acres)	Conservation District, NRCS, Private Consultants	Bay Portion of Clearfield County	2021-2025+	Farmer participation and implementation of practices is challenging due to the soils and climate of Clearfield County.	Data gathering through Bay Tech visits  CD Technical Assistance  NRCS Technical Assistance  TU TAG  Headwaters- Financial Administratio n and Project Management	REAP and EQIP	Annual Transect survey or Remote Sensing Survey for Clearfield County	Low disturbance manure incorporation \$34,391 annually	2023- Even through staff turnover, CD still continued to provide assistance to reduce conventional tillage practices 2022 – Clearfield CCD provided technical assistance to reduced tillage producers and supported farms to increase acres. Reporting mechanisms for no-till, conservation tillage, and low disturbance manure injection remain poor and do not give an accurate representation of what is on the landscape.	
3.5*	Cover Crops	Continue technical support and education to increase adoption of practices. Provide cost share support for beginner cover crop users  Increase adoption and reporting of traditional cover crop (2000 acres)	Conservation District, NRCS	Bay Portion of Clearfield County	2021-2025+	Farmer participation and implementation of practices is challenging due to the climate of Clearfield County, and lack of time during harvest. Interseeding is also difficult due to the lack of specialized equipment and operating equipment on hilly	Data gathering through Bay Tech visits  CD Technical Assistance  NRCS Technical Assistance  TU TAG	REAP and EQIP	Annual Transect survey or Remote Sensing Survey for Clearfield County	Planting Cover Crop \$604,080 annually  Cover Crop Financial Assistance	2023- Continued established cover crop program to fund and increase the adoption of cover crops; continued to provide no-till rental program 2022 – Clearfield CCD successfully established a cover crop program to fund the increased adoption of cover crops within Clearfield County utilizing CAP funds – Reporting mechanisms	

		<p>Increase adoption and reporting of cover crop with fall nutrients. (5000 acres)</p> <p>Increase adoption of early season interseeded cover crop (1000 acres)</p>				terrain. In field verification and reporting is possible but requires funding for milage.	Headwaters-Financial Administration and Project Management				<p>remain poor for acres that were planted and increased.</p> <p>Funding plans have been discussed with NFWF about a central pa interseeder program - possible 2023 application</p>	
3.6	Plan and Install pasture management BMPs	<p>Continue work identifying pastures through CBP Inspections in need of BMP installations and obtain funding to install practices.</p> <p>Increase adoption and reporting of Prescribed Grazing/Rotational Grazing Systems (4000 acres)</p> <p>Increase adoption of horse pasture management and rotational grazing (1000 acres)</p> <p>Install alternative water systems, spring developments, water wells, watering facilities, troughs, etc (2200 acres)</p>	Conservation District, NRCS	Bay Portion of Clearfield County	2021-2025+	<p>Farmer participation and implementation of prescribed grazing is challenging due to the infrastructure and increase management needed to maintain BMP</p> <p>NRCS 528 plan writing is slow and isn't keeping up with demand</p> <p>Horse owner participation is challenging due to the lack of knowledge about pasture BMPs Implementation of grazing practices of often difficult due to limited pasture acreage</p>	<p>Data gathering through Bay Tech visits</p> <p>CD Technical Assistance</p> <p>NRCS Technical Assistance</p> <p>TU TAG</p> <p>Project Grass Tech assistance</p> <p>Headwaters-Financial Administration and Project Management</p>	REAP, EQIP, and state grants	Need to create prescribed grazing planning offered through conservation districts with associated trainings and tools to write plans to meet standards	<p>Installation of prescribed grazing systems \$325,080</p> <p>Installation of horse pasture management BMPs \$359,830</p>	<p>2023- No pasture mgmt BMPs installed in 2023 but background planning in the works for 5 projects that include pasture management BMPs and horse pasture management</p> <p>2022 – Clearfield CCD utilized CAP funds to install pasture management BMPs</p> <p>Rotational Grazing – 1,490 acres</p> <p>Horse Pasture Management – unknown</p>	
3.7*	Plan and Install Ag Riparian Buffer BMPs	Identify agricultural land use and other areas in need of riparian buffers and install BMPs. Increase reporting of existing buffers	Conservation District, NRCS, WPC, NC Conservancy, DCNR, Alliance for Chesapeake Bay	Bay Portion of Clearfield County	2021-2025+	<p>Farmer and landowner participation is challenging. Need for education</p> <p>Long term maintenance is not</p>	<p>Data gathering through Bay Tech visits</p> <p>CD Technical Assistance</p>	REAP, EQIP, DCNR Buffer Grants, CREP, Growing Greener, NFWF	Design and BMP outreach	<p>Forested Riparian Buffers (\$1,157,000)</p> <p>Forested Riparian Buffers with</p>	2023- Clearfield CD worked with partners to establish an additional 1.57 acres of buffer; AMCTU planted over 100 trees along Mountain Branch in the Mountain Run watershed	

		<p>Forested riparian buffers (285 acre goal)</p> <p>Forested riparian buffer with exclusion fencing (250 acre goal)</p> <p>Grass riparian buffer (285 acre goal)</p> <p>Grass riparian buffer with exclusion fencing (250 acre goal)</p> <p>Off stream water system development/pasture alternative watering - 2200 acres</p> <p>GIS Analysis shows 110.39 acres of agricultural land use within 35ft of stream. and 385 acres within 100ft of stream. Total non-forested acres 1070 within 35ft of stream.</p>				<p>achievable without funding</p> <p>Need more flexibility in qualifying criteria for installing buffers. Buffer size should be proportional of runoff potential and stream size/watershed area.</p> <p>NC Conservancy and WPC NFWF funding allows for flexible buffer sizing</p> <p>Utilize prime prospect list for buffer sites - DCNR</p>	<p>NRCS Technical Assistance</p> <p>TU TAG</p> <p>WPC Tech assistance</p> <p>Headwaters-Financial Administration and Project Management</p>			<p>exclusion fence (\$1,804,000)</p> <p>Grass Riparian Buffers (\$256,257)</p> <p>Grass Riparian buffers with exclusion fencing (\$1,013,30030)</p> <p>Off stream water system development (\$15,573) / farm</p> <p>Long Term Maintenance Funding</p>	<p>2022 – Clearfield CCD worked with partners to establish 38.85 acres of riparian forest buffer</p> <p>Riparian Buffers 38.85 acres planted and reported</p> <p>Off Stream Water System – 47 systems</p> <p>Grassed Waterways – 48.12 acres</p>	
3.8	<p>Implement more barnyard runoff control/loafing lot management/ag stormwater management</p>	<p>Continue to identify, report, and implement barnyard runoff controls and loafing lot management</p> <p>Report/construct barnyard runoff control BMPs (3 acres)</p> <p>Construct an additional loafing lot management BMPs (3 acres)</p>	<p>Conservation District, NRCS</p>	<p>Bay Portion of Clearfield County</p>	<p>2021-2025+</p>	<p>Farmer participation, long term agreements are needed to enforce use of BMP</p>	<p>Data gathering through Bay Tech visits</p> <p>CD Technical Assistance</p> <p>NRCS Technical and Engineering Assistance</p>	<p>REAP, EQIP, and state grants</p>	<p>Additional Engineering Assistance</p>	<p>Barnyard Runoff Control (\$248,070)</p> <p>Loafing lot management (\$3,659,040)</p>	<p>2023- Planning for roof runoff controls and loafing lot management on 7 farms; acreages will be reported in PK when projects are completed</p> <p>2022 – Clearfield CCD utilized CAP funds to install barnyard runoff BMPs</p> <p>Roof Runoff Structure - 1997 feet</p>	

							PACD Engineering Assistance  TU TAG WPC Tech assistance  Headwaters-Financial Administration and Project Management					
3.9	Animal waste management BMP implementation for livestock	Continue to identify, report, and implement manure storage BMPs  Construct additional Manure Storage Facility for dairy and beef operations (1900 AEU)  Construct Manure Storage structures for imported poultry manure (450 Poultry AEU)  Construct manure storage/composting facilities for small horse operations (3000 Horse AEU)	Conservation District, NRCS	Bay Portion of Clearfield County	2021-2025+	Farmer participation, long term agreements are needed to enforce use of BMP	Data gathering through Bay Tech visits  CD Technical Assistance  NRCS Technical and Engineering Assistance  PACD Engineering Assistance  TU TAG  WPC Tech assistance  Headwaters-Financial Administration and Project Management	REAP, EQIP, and state grants	Additional Engineering assistance	Dairy and Beef Manure storage (\$1,707,530)  Imported Poultry Manure Storage (\$404,415)  Horse Composting facility/manure storage (\$295,470)	2023- Clearfield CD is using grant funding to install 1 manure storage in 2023 and plan an additional 5 manure storage/composting facilities for 2024/2025 2022 – Clearfield CCD utilized grant funds to install 1 waste management system and have worked to plan 4 more for future grant applications	
3.10	Accelerated implementation of grassed waterways on critical runoff areas in priority watersheds.	Implement 600 acres of grassed waterways on modeled erosive channels in agricultural lands reduced accelerated erosion.	Conservation District, NRCS	Bay Portion of Clearfield County	2021-2025+	Farmer participation and long term maintenance	Data gathering through Bay Tech visits	REAP, EQIP, and state grants	Additional GIS Capabilities with updated LiDAR information	\$3,000,000	2023- No action taken due to lack of funds and staff time 2022 – No action was taken due to lack of funds and staff time.	

							CD Technical Assistance  NRCS Technical and Engineering Assistance  PACD Engineering Assistance  Headwaters-Financial Administration and Project Management					
3.11	Agricultural Land Retirement	Utilize the CREP and EQIP program to convert non-productive agricultural land use to meadow, forest, or pollinator habitats and utilizing conservation easements (800 acres currently enrolled, 25-50 acres new enrolment annually)	Conservation District, FSA, NRCS	Bay Portion of Clearfield County	2021-2025+	Farmer participation is limited, long term noxious weed management is a problem.	CD Technical Assistance  NRCS Technical Assistance  WPC Land Conservation	CREP, EQIP. PACD Education Grants	None	None	2023- Unknown if NRCS funded or implemented this due to privacy policies 2022 – Pollinator habitats were installed on agricultural land in Clearfield County by NRCS but it is unclear of the details due to privacy policies.	
3.12	Installation of “infiltration practices” (infiltration basins, infiltration trenches)	Identify problematic urban watersheds runoff drainages. Install BMPs on private and public lots, government lands through new construction and potential retrofits  -225 acres treated	Conservation District, Municipalities, Watershed Organizations, Wildlife Conservation Organizations Homeowners/Landowners, Engineering Firms	Bay Portion of Clearfield County	2021 -2025+	Infiltration trenches are non-invasive, versatile, and effective. Infiltration basins can be made into wetlands/aquatic habitat. long term maintenance  CDBG eligibility might not apply in project areas	Permitting guidance and tech assistance	CDBG Community Development Block Grants	Engineering/design	\$560,000 (BMP Installation)	2023- runoff from an additional 56 acres of permitted land was treated with BMPs identified in this goal 2022- GIS analysis of installed BMPs associated with completed E&S permits estimates that runoff from approximately 1,304 acres of permitted land was treated with detention basins, infiltration basins, infiltration berms, infiltration trench,	

											retention basin, and underground detention BMPs	
3.13	Install permeable pavement	Municipal code adoption of permeable pavements. Cost effective, longer life span, solves urban SW issues. Implement through new construction and potential retrofits -150 acres	CD, Municipalities, Landscapers, Watershed Organizations Homeowners/Landowners/Landscapers, Engineering Firms	Bay Portion of Clearfield County	2021 -2025+	Cost-effective for homeowners. Different types of PP allow for urban uses on driveways, roads, sidewalks, parking lots, etc. long-term maintenance  Possibility of installations in local parks and walkways  CDBG eligibility might not apply in project areas	Permitting guidance and tech assistance	CDBG Community Development Block Grants	Engineering/design	\$6,000,000 (BMP Installation)	2023- No action taken due to lack of funds and staff time 2022 – No permeable pavement was installed	
3.14	Treat impervious developed land use with bio retention and rain gardens	Include in municipal code and/or promote landscaping aesthetic in problem areas, specifically those with nutrient loading problems. Promote installation on public lands/parks. Implement through new construction and potential retrofits 375 acres	CD, municipalities, watershed organizations, Homeowners/Landowners/Landscapers, Engineering Firms	Bay Portion of Clearfield County	2021 -2025+	Homeowner participation, BMP sizing can be issue, long term maintenance  CDBG eligibility might not apply in project areas	Permitting guidance and tech assistance	CDBG Community Development Block Grants	Engineering/design	\$2,100,000 (BMP Installation)	2023 – No new acreage being treated with bioretention or rain gardens 2022- GIS analysis of installed BMPs associated with completed E&S permits estimates that runoff from approximately 64 acres of permitted land was treated with bio-retention rain gardens	
3.15	Treat developed land use with wet ponds and wetlands	Identify areas on floodplains capable of wetland processes. Wetlands intercept urban runoff before reaching waterways. Implement through new construction and potential retrofits 150 acres treated	CD, municipalities, watershed organizations, USFWS, Homeowners/Landowners, Engineering Firms	Bay Portion of Clearfield County	2021 -2025+	Include in municipal code and/or promote landscaping aesthetic. BMP size and landowner participation limiting factors, long term maintenance	Permitting guidance and tech assistance	CDBG Community Development Block Grants	Engineering/design	\$420,000 (BMP Installation)	2023- No action taken due to lack of funds and staff time 2022 – No wet ponds or wetlands were installed.	

						CDBG eligibility might not apply in project areas						
3.16	Convert urban turf grass to Conservation Landscape/Turf to Meadow Conversion	Identify unused turf, turf unnecessarily cut/treated lawns, pre-regulation turf, and implement CLP on them.  225 acres	CD, municipalities, watershed organizations, Homeowners/Landowners/Landscapers DCNR, WPC, PennDOT	Bay Portion of Clearfield County	Begin outreach in 2021 with potential future implementation 2025+	Landowner participation, and available land for BMP, long term maintenance Weed ordinances will prohibit adoption  Work with schools, churches, and universities to convert turf areas  Work with PennDOT to preserve conservation areas/landscaping in rights-of-way  Work with Clearfield Borough to install native plantings in public parks and walkways  CDBG eligibility might not apply in project areas	Tech assistance, and education	CDBG Community Development Block Grants  DCNR Lawn Conversion Program	Design	\$1,125,000 (BMP Installation)	2023- No action taken due to lack of funds and staff time 2022 – No conversions were completed	
3.17	Install urban riparian buffers on private and public lands	Install riparian buffers in urban opportunity areas identified through GIS analysis (100 acre goal)  GIS Analysis shows approximately 104 acres within 35ft of stream that are not forested.	Conservation District, County Planning, DCNR, Municipalities, WPC, Watershed Organizations	Bay Portion of Clearfield County	Begin outreach in 2021 with potential future implementation 2025+	Landowner and Homeowner participation/buy in.  Long term maintenance  Problems with neighbor cooperation	Tech assistance, education, design	Keystone 10 Million Trees Partnership, DCNR TreeVitalize, Tree Pennsylvania	None	\$560,000	2023- No action taken due to lack of funds and staff time 2022 – No action taken	



						<p>Work with Clearfield Borough to install native plantings and tree plantings in public parks and walkways</p> <p>Concern with buffer “look”</p> <p>CDBG eligibility might not apply in project areas</p>						
3.18	Increase Tree Canopy	<p>Implement free tree giveaway for urban residents approximately 900 trees (3 acres Urban Tree Canopy, 127 general tree/shrub establishment)</p> <p>Utilize District tree sale to collect planting locations and data about land use, and report locations.</p> <p>Work with future American Water programs to plant trees when customers switch to paperless billing</p>	Conservation District, County Planning, American Water	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	2022 – 2025+	<p>Small lot size restrictions in urban land uses, municipal ordinances, homeowner participation, EPA/DEP acceptance of approach and data long term maintenance</p> <p>Recommendations: Create school educational project/activity where each participant plants a tree at their home with a GPS coordinate on turf land use. Could coincide with Earth Day/Arbor Day events</p> <p>Work with Clearfield Borough to install tree plantings in public parks and</p>	Tech assistance, education	District Education Funding to help initiate program  DCNR TreeVitalize  Future American Water Funding	GIS technology to map tree locations and cross reference land use under canopy	\$3,600  District Admin Costs	2023- No action taken 2022 – Curwensville Lake Authority planted 107 trees on turf grass totaling 3.79 acres of urban tree canopy. Program development for the rest of the county is needed.	

						walkways and over impervious surfaces  CDBG eligibility might not apply in project areas						
3.19	Curwensville Lake Tree Planting	Planting shade trees over turf land use (1 acre)  Conversion of turf land use to conservation landscaping (1+acres)  Permeable pavement installations (1.5 acres)  Shoreline Erosion Control Projects (500 ft+)	Curwensville Lake Authority, Friends of Curwensville Lake, Boy Scouts, Army Corps,	Curwensville Lake Recreation Area	2021-2025+	Limited Financial Resources, Army Corp permission	CLRA Long term maintenance  Boy Scouts troop will be used to install shade trees	CLRA Funds, DCNR funding	Engineering/design	Permeable Pavement (\$400,000)  Conservation landscaping (\$5,000)  Shoreline Protection (\$ ?)  Tree canopy installation (\$2,000)	2023 – no new action taken 2022 – Curwensville Lake Authority planted 107 trees on turf grass totaling 3.79 acres of urban tree canopy.	
3.20	Increase Urban Forest Planting	Identify large contiguous landowners to accommodate sizing requirements for BMP and establish new urban forest plantings (170 acre goal)	Conservation District, County Planning, Municipalities, DCNR, WPC	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	Begin outreach in 2021 with potential future implementation 2025+	Landowner participation, minimum size requirements for BMP, and available land for BMP, long term maintenance  No funding source available	Technical assistance	None	Design	\$850,000	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.21	Runoff Reduction Performance Standard and Storm Water Treatment Performance Standard Implementation	Rian Barrels capture/reuse  50 acres of roof runoff treated	Municipalities. Conservation District	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	2025+	Landowner / Municipal buy in and long term maintenance  CDBG eligibility might not apply in project areas	Tech assistance	CDBG Community Development Block Grants	Engineering/Design	\$5000/20 rain barrel kits	2023- No action taken due to lack of funds and staff time 2022 – No action taken 2021 – 29 rain barrels provided to homeowners	

3.22	Impervious surface reduction projects	Identify unused/flood prone impervious area and convert back to natural land use or park.  (10 acre goal)	County, Municipalities, DCNR	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	Begin outreach in 2021 with potential future implementation 2025+	Landowner participation  Maintenance  CDBG eligibility might not apply in project areas	Technical assistance	CDBG Community Development Block Grants	Engineering/Design	\$600,000 (BMP Implementation)	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.23*	Implement Urban Nutrient Management	Provide education to landowners and industries about nutrient management requirements for turf grass  (3000 acres of turf education) Reported through event signup	Conservation District, Penn State Extension Municipalities	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	2022 – 2025+	Landowner participation, State fertilizer legislation needed	Education	None	Tech assistance	N/A	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.24	Impervious Disconnection	Disconnect roof water from sewer and/or stormwater systems and direct to amended soils or vegetated flow paths. Increase reporting of current efforts. (100 acres)	Municipalities Landowners/ Homeowners Municipal Authorities	Bay Portion of Clearfield County in SPARROW Urban Restoration Watershed	2021 – 2025+	Disconnections are sometimes directed into storm sewers or nearby streams. More disconnections increase likelihood of damage to adjacent properties	Technical Assistance	None	Design technical assistance for retention and infiltration	\$21,780,000  2,722 – 1,600 sqft roofs  \$25/sqft	2023- new homeowners in some municipalities required to have smoke test to prove roof runoff does not go into sewer but we aren't privy to that information 2022 - Impervious disconnection programs are being implemented within Clearfield Borough and Houtzdale Borough but there is poor record keeping and no detailed data about the size of area disconnected is collected, making it difficult to impossible to estimate the amount of area that has been disconnected or will be disconnected.	
3.25	Septic and Wastewater Improvement and Developments	Areas of County without developed sewer systems are contributing nutrients to local waterways.	Municipalities, Landowners, DEP	Bay Portion of Clearfield County	2021 – 2025+	Public opposition Financial Requirements	Education	None	Consulting – Engineering  Analysis needs to be	\$20,000- \$100,000 for plan development +	2023- No action taken due to lack of funds and staff time 2022 – No action taken	

		Identifying and addressing malfunctioning on lot septic systems in small communities will lead to nutrient reduction and water quality improvement.  Needs quantified by county planning, engineers, and DEP		Start in Rockton, West Decatur, Chestnut Grove, Allport, Frenchville		Limited State Funds for Act 537 Reimbursement Program for municipal costs 50%  Outdated 537 plans don't represent current conditions  Education is needed about private septic maintenance			completed by partners and agencies to quantify the scale and need of county.	\$2,000,000/system		
3.26*	Wetland Installation and restoration	Identify interested landowners/municipal areas/schools/businesses within areas of the restorable wetlands layer and install/restore wetlands	Conservation District, County, USFWS Partners Program	Bay Portion of Clearfield County in areas with restorable wetlands	2025+	Landowner participation, permitting, site access and feasibility, funding	Permitting and Technical Assistance  NRCS Technical and Engineering Assistance  CD GIS mapping and planning	NRCS Funding  USFWS Funding  CREP	Engineering  Wetland mitigation opportunity mapping and planning is needed.	\$3,247/acre	2023 –1/4 acre of old pasture land fenced out allowing wetland recovery 2022 – No action taken	
3.27*	Stream Restorations	Identify critical areas of streambank erosion and install BMPs to reduce and control erosion.  Urban Stream Restoration – 26,700ft Non-Urban Stream Restoration- 15,594 ft	Conservation District, County, PAFBC, WPC, TU, Watershed organizations, NC Conservancy, USFWS Partners Program	Bay Portion of Clearfield County	2021 - 2025+	Landowner participation, permitting, site access and feasibility, funding  Need for visual assessments	Permitting and Technical Assistance NRCS/ PACD Engineering assistance  Permitting Assistance and Site Design, Construction Oversight  Visual habitat assessments	State and Non-profit grant funding NFWF Growing Greener	Engineering  Visual habitat assessments to determine needs	\$30-100/ft Estimated	2023- TU installed 15,048 ft of non-urban stream restoration on Lick Run and 7,920 ft of non-urban stream restoration on Gifford Run. Missed in 2022, TU installed 7,339 ft of non-urban stream restoration on Medix Run. Clearfield CD installed 140 ft of urban stream restoration on Bennett Branch in Penfield  2022 –	

							Headwaters- Financial Administratio n and Project Management				- 1 project constructed by the CD and TU this fall (Little Trout Run) 145 feet non-urban - TU installed streambank restoration project on Little Laurel Run 500 feet non-urban - CD, Boggs Twp, and PFBC installed stream restoration on Simeling Run 150 feet of urban stream restoration - additional sites investigated for stabilization next year	
3.28	Floodplain Restoration	Increase stream connectivity to floodplains to reduce flooding impacts and improve riparian habitat (Implement Wetland Restoration, Riparian Buffers, Stream Restoration. Woody Debris Additions)  Feet or acres of floodplain restored) unknown at this point	Conservation District, WPC, TU, American Rivers, Municipalities, NC Conservancy, PFBC	Bay Portion of Clearfield County	2025+	Ideological issues, landscape/infrastru cture limitations, landowner participation, Land use limitations, available tree canopy for wood additions, not good in urban environments Zoning issues	Permitting and Technical Assistance  Headwaters- Financial Administratio n and Project Management	State and Non-profit grant funding	Engineering/p lanning/desig n GIS work  Priority mapping and listing needs to be completed and quantified to assess scale and feasibility of implementati on	Unknown – Site specific	2023- TU conducted large wood additions in Gifford Run (an additional 7,920 ft) and Lick Run (an additional 15,048 ft) 2022 – Trout Unlimited conducted large woody debris additions in Medix (500 feet), Gifford (4500 feet), Jack Dent (1138 feet), and Lick Runs (4000 feet)	
3.29	Continue dirt and gravel road program	Continue to implement DRLVR Program to reduce and control erosion on dirt and low volume roads  DGLVR Erosion Control -Outlets 56,000ft of road treated  DGLVR Erosion Control	Conservation District, DCNR, PGC, PFBC	Bay Portion of Clearfield County	2021 – 2025+	Lack of township involvement, implementing BMPs in urban environments is difficult. Low Volume funds are limiting implementation of practices	Technical assistance and grant administratio n	Conservati on District (\$500,000 annually)  DCNR (\$180,000)	Designated Engineering assistance, improved GIS resources	Additional money to accelerate practice implementatio n	2023 – Contracted 22 new Dirt and Gravel project covering 4.64 miles of road Contracted 13 new Low Volume Road projects spanning 4.54 miles of road  2022 – 21 projects completed this year, lowering erosion	

		-DSA + Raising Road Bed 1,000ft of road treated  DGLVR Erosion Control -DSA + Outlets 10,000ft of road treated									potential to waterways on approximately 8.32 miles of road - Replaced the Pifer Road crossing on Fork Run in the Lick Run watershed with Dirt and Gravel funding opening up 2.8 miles of aquatic organism passage	
3.30	Increase capacity of Dirt and Gravel Road Projects with additional funding	Using external funding to support increased installation of BMPs on DGLVR projects (Increase implementation of stream restoration, riparian buffers, stormwater control, etc..)	Conservation District, Municipalities, WPC, TU, PFBC	Bay Portion of Clearfield County	2021 – 2025+	Ability of municipalities to manage larger project sizes, landowner participation	Technical assistance and grant administration	DGLVR Funds	Engineering	Additional grant funds needed for off road BMP installations	2023- DGLVR program funding was increased this year 2022 – No action was taken.	
3.31*	Waterway Obstruction Removal	The removal of dams and impoundments, and replacement failing/ undersize culverts to restore streams channels, reconnect floodplains, improve flood retention, improve aquatic organism passage, and improve recreation (Implementation of stream restoration, riparian buffers, wetland restoration)	American Rivers, Conservation District, TU, WPC, SRBC American Water, PAFBC, DEP, PennDOT, FEMA, PEMA, USFWS Partners Program	Bay Portion of Clearfield County	2025+	Ideological barriers of dam removal, Financial requirements.	Permitting and Technical Assistance  Project identification – WPC  Headwaters RC&D  Headwaters-Financial Administration and Project Management	CHP - NAACC	Identification, planning, design, Engineering, permitting	Planning funds for identifying projects  Design and permitting funds  Construction funds  Monitoring funds  \$50,000/culvert	2023- American Rivers is still working on Shawville Dam removal, the feasibility study is complete they're just working with the owners of the Shawville Dam to get it approved and move forward with removal; Clearly Ahead (Clearfield Economic Development Org) will have a completed feasibility study to repurpose/restructure dams in Curwensville and Clearfield boroughs that should include AOP and improved safety and recreation 2022 – American Rivers is working on a feasibility study to remove the Shawville Dam on the West Branch Susquehanna River	

											- Replaced the Pifer Road crossing on Fork Run in the Lick Run watershed with Dirt and Gravel funding opening up 2.8 miles of aquatic organism passage	
3.32*	Farmland Conservation	Conserve Farmland in Clearfield County through implementation of Conservation Easements (900 acres)	Conservation District, Farmland Preservation, County Planning, WPC	Bay Portion of Clearfield County	2021 – 2025+	Current Clearfield Farmland Preservation Program is not funded in a way that makes easement purchases possible. Farmer cost requirement is too high. Lack of established Ag Security Areas in county also limits participation. Need to develop preservation priority areas in County	Soil Conservation, GIS work, application processing	\$80,000/year in Farmland Preservation allocation. (160 acres by 2025)  \$3,000/year technical assistance	Additional Staff to administer preservation program in County Planning	\$1,480,000 additional funds needed to purchase (740 additional acres)	2023- First application received this year, working through the process 2022 - The local Farmland Preservation Program has funding and support but farmers are reluctant to participate due to low development pressure	
3.33*	Forest Conservation	Conserve Forest Land in Clearfield County through implementation of Conservation Easements (6800 acres)	Conservation District, Farmland Preservation, County Planning, WPC	Bay Portion of Clearfield County	2021 – 2025+	Landowner participation and lack of dedicated stable funding for conservation easement. Ideological problems also a barrier to adoption. Need to develop preservation priority areas in County	Soil Conservation, GIS work, application processing	Same as above	Same as above	\$6,800,000 (\$1000/Acre)	2023 – local Farmland Preservation Program is working through the first application ever received 2022 - The local Farmland Preservation Program has funding and support but farmers are reluctant to participate due to low development pressure. This program also conserves forest land from development protection.	
3.34*	Wetland Conservation	Conserve Wetlands in Clearfield County through implementation of Conservation Easements (340 acres)	NRCS (WRP) WPC Farmland Preservation (if wetlands are	Bay Portion of Clearfield County	2021 – 2025+	Landowner participation and lack of dedicated stable funding for conservation easement.	Soil Conservation, GIS work, application processing	Same as above assuming wetlands are on property	Same as above assuming wetlands are on property	\$340,000 (assuming \$1000/acre)	2023 – no wetlands conserved through easements, just through fence installation 2022 – No action taken	

			present on farm			Ideological area also a barrier to adoption. Need to develop preservation priority areas in County						
3.35*	Recreational Access Developments	Installation of new and maintenance of existing stabilized access points to waterways that improve recreational access and stabilize bank erosion.  1 every 2 to 3 years	WPC, Conservation District, NC Conservancy	Bay Portion of Clearfield County	2021 – 2025+	Landowner participation.  Need for long term easement to ensure public access  Long term maintenance  Headwaters RC&D	WPC Tech assistance  Headwaters RC&D	Boating Facilities Grant Program  Canoe Access Development Fund	None	Continued grant support (\$8,000/site) minimum additional funds	2023 – no new access points developed 2022 – Access point by Lumber City bridge on West Branch Susquehanna River constructed August 2022	Changed the performance target from 1 event/year to 1 event every 2-3 years; workload and time constraints make it difficult to plan and implement an access point every year  Added maintenance to the performance target to allow for upkeep of existing access points
3.36*	AML Reclamation	Reclamation of abandoned mine land through regrading, forestry, and revegetation	DEP/BAMR, SRBC, WPC, Conservation District, DCNR, PGC	Bay Portion of Clearfield County	2021 – 2025+	Financial limitations because of project size. Landowner participation is mixed. Native species establishment is a priority for water quality and wildlife habitats. Long term maintenance is an issue	Design, permitting, oversight	DEP/BAMR are actively working on AML reclamation throughout the county	Design, engineering, permitting (if we are doing a project on our own)	24,000 acres of AML lands in need of reclamation/re forestation (\$240,000,000)	2023 – CD applied to the AML/AMD Grant Program for the Planning and Development phase of the reclamation of 77 acres of AML on the Anderson South and Little Anderson Creek W sites -CD received AML/AMD Grant Program funds that includes reclamation of approx. 5 acres of subsidence in the Morgan Run watershed -WPC completed Sutterlin Reclamation at the end of 2022  2022 – - BAMR is designing reclamation of the Anderson South AML site 55 acres - SRBC and CD are working toward	





											reclamation of the Russell/Whitaker AML site 22 acres - Western PA Conservancy working on Sutterlin Reclamation acres 5 acres	
3.37*	Implement Upper West Branch Susquehanna Rivers Conservation Plan  Implement Upper West Branch Susquehanna QHUP	Restoration of the Upper West Branch Susquehanna River watershed	Clearfield CD, Cambria CD, Watershed Associations, TU, SRBC, DEP/BAMR, WPC	Upper West Branch Susquehanna River watershed	2025+	Older plan so cost estimates and priorities may need updated, landowner participation, funding availability, ongoing maintenance	Grant writing, project oversight	DEP has money to maintain Lancashire Treatment Plant  Otherwise: no other money in hand	Engineering, design, permitting, ongoing maintenance	\$10,300,000+ capital	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.38*	Implement PFBC Susquehanna River Management Plan	Restore, enhance, and protect the aquatic resources of the Upper West Branch Susquehanna River watershed	PFBC, Clearfield CD, Cambria CD, Watershed Associations, TU, SRBC, DEP, WPC	Upper West Branch Susquehanna River watershed	2025+	Funding, manpower, need accurate cost estimates  Recommendations: follow PFBC lead	PFBC biologists	None	Partner cooperation to pursue grants	Unknown	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.39*	Implement Chest Creek Assessment and Restoration Plan	Restoration of Chest Creek watershed	Clearfield CD, Cambria CD, Chest Creek Watershed Alliance, TU, SRBC, DEP, WPC, NC Conservancy	Chest Creek watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$784,368+	2023 – working toward implementing streambank restoration along Chest Creek in LaJose, to be completed 2024 if Growing Greener funding awarded 2022 – No action taken	
3.40*	Implement Spring Run and Snyder Run Coldwater Conservation Plan	Restoration of Spring and Snyder Run watersheds	Clearfield CD, Chest Creek Watershed Alliance, NC Conservancy, WPC	Spring and Snyder Run watersheds	2025+	Funding, landowner participation	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$400,000+	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.41*	Implement Rogues Harbor Run Coldwater Conservation Plan	Enhancement and protection of Rogues Harbor Run watershed	Clearfield CD, Cambria CD, Chest Creek Watershed Alliance, NC	Rogues Harbor Run watershed	2025+	Funding, landowner participation	Grant writing, project oversight	None	Engineering assistance  Education/out reach	\$200,000+	2023- No action taken due to lack of funds and staff time 2022 – No action taken	

			Conservancy, WPC									
3.42*	Implement Kratzer Run Assessment and Coldwater Conservation Plan	Restoration of Kratzer Run watershed	Clearfield CD, SRBC, WPC, DEP/BAMR, Anderson Creek Watershed Association, NC Conservancy	Kratzer Run watershed	2025+	Funding, landowner participation, ongoing maintenance  Clarify nutrient impairment from On-Site Treatment Systems (Septic Systems and similar decentralized systems) – is this listing still valid?	Grant writing, project oversight	<ul style="list-style-type: none"> <li>• Bilger 4.0 Construction Grant - \$300,000</li> <li>• Wildwood Design Grant - \$47,312</li> <li>• Russell Whitaker Land Rec -</li> </ul>	Engineering, design, permitting, ongoing maintenance, insight into impairment listing	\$2,000,000+	2023 – no new action taken, maintained existing AMD systems 2022 – -Bilger 4.0 treatment constructed in 2021 - Wildwood AMD treatment design completed in 2022 - SRBC and CD are working on securing funding for Russell/Whitaker AML site	
3.43*	Implement Anderson Creek WIP (including Little Anderson Creek WIP Update of 2020/2021)	Restoration of the Anderson Creek watershed (primarily the Little Anderson Creek subwatershed)	Clearfield CD, SRBC, WPC, DEP/BAMR, Anderson Creek Watershed Association, NC Conservancy	Anderson Creek watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance, BAMR AML reclamation design	\$11,000,000+	2023 – Applied for AMD/AML Grant Program funding to reclaim Anderson South and Little Anderson Creek W AML areas -Still working on construction of KORB4 PTS 2022 – - Anderson Creek WIP update completed in 2022 listing 4 top priority AML reclamation and AMD restoration projects - #1 priority (Anderson South AML reclamation) design underway by BAMR - funding to construct #3 priority (KORB4 treatment construction) secured, project to start in 2023 - SRBC and CD investigating reclamation of Russell/Whitaker AML site	

											- Bilger 4.0 treatment completed in 2021 - Wildwood treatment design completed in 2022	
3.44*	Implement Hartshorn Run WIP	Restoration of the Hartshorn Run watershed	Clearfield CD, DEP	Hartshorn Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$600,000+	2023- No action taken due to lack of funds and staff time 2022 – No action taken; proximity of discharges to residential neighborhoods is a problem; landowner issues	
3.45*	Implement Montgomery Creek WIP (including 2021 update)	Restoration of the Montgomery Creek watershed	Clearfield CD, DEP, Montgomery Creek Watershed Association, Clearfield Municipal Authority	Montgomery Creek watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	MON71 enhancement funding - \$25,000	Engineering, design, permitting, ongoing maintenance	\$1,000,000+	2023 – Continued working on MON 404142 collection installation 2022 – - Montgomery Creek WIP update completed in 2022 listing 4 top priority AMD restoration projects - Phase 1 of MON 40 41 42 funded by 319; AMD collection to start in 2023	
3.46*	Implement Lick Run Coldwater Conservation Plan	Restoration of Lick Run watershed	Clearfield CD, AMCTU, DCNR, PFBC	Lick Run watershed	2025+	Funding, annual cost for alkaline addition, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$1,100,000+	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.47*	Implement Trout Run Watershed Acid Deposition Assessment and Restoration Plan	Restoration of the Trout Run watershed	Clearfield CD, AMCTU, Goshen Township Sportsmen, DCNR	Trout Run watershed (trib to West Branch)	2025+	Funding, annual cost for alkaline addition, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$1,100,000+	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.48*	Implement Potts Run Coldwater Conservation Plan  Implement Potts Run AMD Restoration Plan	Restoration of the Potts Run watershed	TU, Clearfield CD, DEP/BAMR, NC Conservancy	Potts Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight  Ongoing operation of Potts Run Treatment System	None	Engineering, design, permitting, ongoing maintenance	\$2,444,387+	2023- TU continued to operate and maintain Potts Run PTS 2022 – - Potts Run passive treatment system constructed several years ago and is improving over 2 miles of stream;	

	Implement Qualified Hydrologic Unit Plan for the Potts Run Watershed										naturally reproducing brook trout documented all the way to the mouth of Potts Run - stabilization project installed near the mouth of the stream several years ago	
3.49*	Implement the Morgan Run Watershed Mine Drainage Assessment and Restoration Plan  Implement Morgan Run 319 WIP (under development 2021)  Implement Qualified Hydrologic Unit Plan for Morgan Run watershed	Restoration of the Morgan Run watershed	Clearfield CD, DEP, PGC, TU	Morgan Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	<ul style="list-style-type: none"> <li>MR7 Construction funding - \$1,067,493</li> <li>MRSGL Collection funding - \$151,142</li> <li>WIP Development Funding - \$29,579</li> <li>Flushing Unit Replacement funding - \$21,417</li> </ul>	Engineering, design, permitting, ongoing maintenance	\$1,729,941	2023- Continued working on WIP Development; MRSGL98 design nearly complete; Secured \$1.3 million to continue treatment construction at the MR7 discharge 2022 – - New 319 WIP under development for Morgan Run - MRSGL98 AMD Collection installed; sampling and design to be started later this year - MR7 treatment system currently under construction	
3.50*	Implement the Muddy Run Watershed AMD Restoration Plan	Restoration of the Muddy Run watershed	Clearfield CD, Clearfield Creek Watershed Association, SRBC, DEP/BAMR	Muddy Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$17,530,000	2023- No action taken due to lack of funds and staff time 2022 – No action taken	
3.51*	Implement projects identified as priorities in the Clearfield Creek Assessment	Restoration of Clearfield Creek watershed	Clearfield Creek Watershed Association, Clearfield and Cambria CDs, SRBC, DEP/BAMR	Clearfield Creek watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None in Clfd Co - Current grants for Clearfield Creek are in Cambria Co	Engineering, design, permitting, ongoing maintenance	Extremely high cost – exact figure unknown at this point.	Morgan, Potts, and Muddy Run restoration is a priority of the Clearfield Creek plan	
3.52*	Implement recommendations of Acid Mine Drainage	Restoration of Valley Forks Run watershed	Clearfield CD, Clearfield Creek	Valley Forks Run watershed	2025+	Funding, landowner participation,	Grant writing, project oversight	None	Engineering, design, permitting,	\$958,584	2023- No action taken due to lack of funds and	

	Assessment of Valley Forks Run study		Watershed Association, SRBC, DEP/BAMR			ongoing maintenance			ongoing maintenance		staff time 2022 – No action taken 	
<b>3.53*</b>	Implement Hubler Run WIP	Restoration of Hubler Run watershed	Clearfield CD, DEP, Emigh Run Lakeside Watershed Association	Hubler Run watershed	2025	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Ongoing O&M oversight, Engineering assistance	\$200,000+ capital for Hubler 4	2023 – no new action taken, just monitoring 2022 – - 3 passive treatment systems constructed in watershed and are improving water quality - watershed organization folded and systems are not being maintained regularly	
<b>3.54*</b>	Implement Moravian Run Restoration Plan	Restoration of Moravian Run watershed	Clearfield CD, DEP, PGC	Moravian Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$1,320,000+	2023- discussed implementation of plan with PGC 2022 – No action taken	
<b>3.55*</b>	Implement Deer Creek Watershed Implementation Plan	Restoration of Deer Creek watershed	Clearfield CD, Deer Creek Watershed Association	Deer Creek watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	Deer Creek Construction - \$883,174	Engineering, design, permitting, ongoing maintenance	\$4,025,000	2023 – continued to maintain Deer Creek system and monitor watershed improvement 2022 – - Deer Creek Passive Treatment System constructed several years ago; watershed now supports wild trout and improved water quality parameters all the way to the mouth	
<b>3.56*</b>	Implement recommendations from Potter Run AMD Watershed Assessment	Restoration of Potter Run watershed	Clearfield CD, Watershed Associations, DEP/BAMR, SRBC	Potter Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	Exact cost unknown at this point.	2023 – worked with PGC and BAMR to identify and assess existing and new AML sites and started work toward reclamation 2022 – No action taken	
<b>3.57*</b>	Implement recommendations from Rupley Run AMD Watershed Assessment	Restoration of Rupley Run watershed	Clearfield CD, Watershed Associations, DEP/BAMR, SRBC	Rupley Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	Exact cost unknown at this point.	2023- No action taken due to lack of funds and staff time 2022 – No action taken	

3.58*	Implement Emigh Run Watershed Mine Drainage Assessment and Restoration Plan	Restoration of Emigh Run watershed	Clearfield CD, Emigh Run Lakeside Watershed Association,	Emigh Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$2,660,650	<p>2023- Moshannon Creek Watershed Association still considering taking over maintenance of the Emigh Run systems</p> <p>2022- - several systems installed over a decade ago (ER Headwaters, ER13/14, ER 8) but the watershed assoc is no longer functional so work in the watershed has halted and systems aren't being maintained; Moshannon Creek Watershed Association working on taking over OM&amp;R of these sites</p>	
3.59*	Implement Shimel Run Mine Drainage Assessment and Restoration Plan	Restoration of the Shimel Run watershed	Moshannon Creek Watershed Association, Clearfield and Centre CDs, SRBC, DEP/BAMR	Shimel Run watershed	2025+	Funding, landowner participation, ongoing maintenance	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	\$340,000	<p>2023- No action taken due to lack of funds and staff time 2022 – No action taken</p> 	
3.60*	<p>Implement Moshannon Creek Headwaters Mine Drainage Assessment and Restoration Plan</p> <p>Implement Moshannon Creek Phase II Mine Drainage Assessment and Restoration Plan</p> <p>Implement Moshannon Creek Headwaters Coldwater Conservation Plan</p>	Restoration of Moshannon Creek watershed	Moshannon Creek Watershed Association, Clearfield CD, Centre CD, SRBC, DEP/BAMR, PGC, NC Conservancy, WPC	Moshannon Creek watershed	2025+	<p>Funding, landowner participation, ongoing maintenance</p> <p>Few landowners willing to install AMD treatment systems</p>	Grant writing, project oversight	<p>CHP Reassessment - \$6800</p> <p>CHP Reassessment Match - \$36,264</p> <p>RLB2 Construction - \$249,500</p>	Engineering, design, permitting, ongoing maintenance	\$25,000,000+	<p>2023 – RLB2 construction completed.</p> <p>-SRBC received AMD/AML Grant funding to investigate the installation of an active treatment plant near Osceola Mills</p> <p>-Moshannon Creek WS Assoc working on assessing and designing a PTS for the MCFORE discharge;</p> <p>- Moshannon Creek WS Assoc applied for AMD/AML funding to investigate the Hawk Run discharge</p>	

	Implement recommendations from Moshannon Creek Reassessment Coldwater Conservation Plan (under development 2021)										<p>-A new steering committee was created with BAMR's assistance to help guide reclamation in the watershed</p> <p>2022-</p> <ul style="list-style-type: none"> <li>- Moshannon Creek Watershed Conservation Plan approved in 2021</li> <li>- RLB2 passive treatment system under construction, to be completed in 2023</li> <li>- further investigations into several headwaters discharges recommended in CHP plan underway</li> <li>- Moshannon Creek Watershed Assoc., CD, and Native Fish Coalition applied for funding to design treatment of the MCFORE discharge</li> <li>- Additional study funding secured by CD and TU in 2022 to find additional streams supporting wild trout in the watershed and survey crossing for AOP</li> <li>- Simeling Run habitat project completed in 2022</li> </ul>	
3.61*	<p>Implement Sinnemahoning Creek Watershed Conservation Plan</p> <p>Implement Bennett Branch Sinnemahoning Creek QHUP</p>	Restoration of the Sinnemahoning Creek watershed	Clearfield CD, Elk CD, Cameron CD, Potter CD, McKean CD, DEP, BAMR, SRBC, WPC, Watershed Associations, TU, NC	Sinnemahoning Creek watershed	2025+	Funding, landowner participation, ongoing maintenance,	Grant writing, project oversight	None	Engineering, design, permitting, ongoing maintenance	Unknown, not specified in plan but sounds extensive	<p>2023 – Installed 140 ft of bank stabilization along Bennett Branch with CAP Funds</p> <p>2022 – Bennett Branch Stabilization completed in 2020</p> <ul style="list-style-type: none"> <li>- additional sites in need of stabilization</li> </ul>	


			Conservancy. Headwaters RC&D								investigated for future projects	
3.62	Implement outstanding TU Technical Assistance Recommendations	Follow through with implementation of recommendations contained in outstanding TU Technical Assistance Reports generated through the TAG programs	Clearfield CD, Watershed Associations, TU, SRBC, DEP/BAMR, WPC	Countywide	2025+	TAG reports can cover AMD, habitat, biological and water quality monitoring, etc recommendations. The technical work has typically already been completed; they just need follow up implementation of recommendations provided.	Technical assistance Grant writing and project oversight	None	Engineering, design, permitting, ongoing maintenance	Exact cost unknown at this point.	2023 – TU implemented several projects that were recommended in TAG reports 2022 – No action taken	
3.63	Acid Deposition Remediation	Restore watersheds impaired by acid deposition	Clearfield CCD, DCNR, St. Francis, PFBC, TU	Countywide	2025+	Funding, landowner participation, ongoing maintenance. Site access can be difficult	Technical assistance Grant writing and project oversight	None	Engineering, design, permitting, ongoing maintenance	Exact cost unknown at this point.	2023 – GG funding not awarded, there doesn't seem to be a desire to fund acid deposition remediation 2022 – CD working with PFBC and DCNR applied for Growing Greener funding to install limestone channels in the Laurel Run watershed	
<b>Priority Initiative 4:</b>												
4.1	Local studies of agricultural BMPs to assess impacts to profitability	Complete more local research to define economic variables for the implementation of BMPs on Conservation District farm and partnering farms  Utilize CIG Funding to demonstrate and investigate the feasibility of new BMP technologies	Conservation District, County Farms, Penn State.	Bay Portion of Clearfield County	2022 – 2025+	Time constraints and Funding availability	Tech assistance Research	None	University assistance with study trials and data analysis to assign economic values	Unknown	2023- No new action taken. 2022 – Clearfield CCD assessed the before and after conditions on farms with Act 38 plans, animal heavy use areas and manure storage BMPs. The analysis revealed the cost effectiveness of BMP implementation on farms in Clearfield County. More work is needed on other BMPs	



4.2	4R Practice Education	Hold on farm 4R Education Events to build local knowledge of 4R practices and benefits 1 event per year)	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Farmer led trainings and field demonstrations	Tech, education, and admin support	None	4R Knowledge and Expertise	\$5,000/ Event	2023 – Due to staff turnover no events held this year 2022 – Clearfield CCD held a field day targeted at 4R practice implementation and education. 70 farmers were reached.
4.3	On Farm BMP showcase field days	Hold on farm BMP Field days to build local knowledge of BMP practices and benefits 1 event per year	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Farmer led trainings and field demonstrations	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000/ Event	2023 – Clearfield Farm Bureau meeting and farm tour of the Knob Farm 2022 – No action taken
4.4	On Farm Soil Health field days	Hold on farm Soil Health Field days to build local knowledge of BMP practices and benefits - 1 event per year	Conservation District, Penn State Extension	Bay Portion of Clearfield County	2021 – 2025+	Farmer led trainings and field demonstrations	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000/ Event	2023 – due to staff turnover no event held this year 2022 – Clearfield CCD held a field day targeted at soil health implementation and education. 70 farmers were reached.
4.5	Farmer to farmer training and outreach events that increase success of no-till and cover crops	Hold on farmer-to-farmer training days to build local knowledge of success and failures of no-till and cover crop adoption - 1 event per year	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	The approach will lead to increased adoption in the late adopter farms	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000/ Event	2023 – new Ag Tech participated in an event at Calhoun Farm promoting no till and cover crop use 2022 – Clearfield CCD held a field day targeted at soil health implementation and education. Local producers presented success of practice adoption. 70 farmers were reached.
4.6	Grazing Education	Hold education events to increase the knowledge of rotational grazing benefits that will increase the adoption of grazing management	Conservation District Headwaters RC&D	Bay Portion of Clearfield County	2021 – 2025+	Farmer led trainings and field demonstrations	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000/ Event	2023 – Ag Tech participated on the NW Grazing Conference planning calls and attended the 2023 event; draws farmers from Bay region 2022 – No action was taken

		- 1 event per year										
4.7	Increase the usage of nutrient monitoring technologies on farms	Increase the adoption of monitoring technologies to monitor crop nitrogen needs through the education events and technical assistance  Provide example service to farms and record adoption of practice - 1 event per year	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Targeted education about nutrient monitoring technologies will increase the adoption and help farmers make economical and environmental decisions about in-season nitrogen management	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000/ Event	2023- Due to staff turnover no event held in 2023 2022 – Clearfield CCD held a field day where local equipment dealers presented precision ag technologies and nutrient monitoring technologies for farms . 70 farmers were reached.	
4.8	Legislative field days and education	Education of Legislators about conservation will increase support of programs and funding to enhance water quality improvements - 1 event per year	Conservation District, PACD, DEP	Countywide	2021 – 2025+	Project visit to demonstrate the effectiveness and need of installed BMPs	District Knowledge	None	None	\$5,000 / Event	2023 – Participated in Farm Bureau Meeting at Knob Farm 2022 – Clearfield CCD attended the Clearfield County legislative day and provided education to local legislators about conservation funding issues.	
4.9	Riparian Buffer Education	Hold education events to increase the knowledge of riparian buffer benefits that will increase the adoption of buffers on private land\s - 1 event per year	Conservation District, PACD, DEP, Penn State, WPC, Municipalities	Countywide	2021 – 2025+	Project visit to demonstrate the effectiveness and need of installed BMPs.  There is a critical need for education in Clearfield Borough about riparian areas and their impact on flood events	District Education  Municipal Education	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature
4.10	Land Conservation and Preservation Education	Hold educational events for municipalities and property owners to improve understanding and acceptance of	Conservation District and WPC, Penn State Extension NC Conservancy	Bay Portion of Clearfield County	2022 – 2025+	The improved education about how conservation easements affect local recreation, land value, and taxes will lead to	Education	None	None	\$5,000 / Event	2023 – no events this year due to working through first Farmland Preservation applicant 2022 – Clearfield CCD coordinated and held a local education event	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature

		conservation easements - 1 event every other year				the increased adoption and acceptance of easements in the County					about the benefits of farmland preservation and its impacts on the future of ag in Clearfield County.	
4.11	Climate Change Education	Hold or assist with education events about how climate change is impacting natural resources and economies. - 1 event every other year	Conservation District, Headwaters RC&D	Bay Portion of Clearfield County	2022 – 2025+	Education of climate issues and local impacts will spur adoption of climate resilient BMPs that improve water quality	Education	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023 – Climate Change workgroup continued to meet and offer educational opportunities in adjacent counties 2022 – No action was taken by our District however the PA Wilds Natural Resource Committee developed a Climate Change workgroup that is hosting a nearby educational event	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature  Added assisting with other educational events to the performance target
4.12	Update economic benefits of AMD treatment	Knowing the economic benefit of AMD and AML reclamation is beneficial in showing the need for reclamation and the economic return realized in the local economy.  Develop education resource with information on economic return of AMD investment	Conservation District, TU, WCPAMR, EPCAMR,	Countywide and beyond	2022 – 2025+	Knowing the economic return from AMD/AML reclamation is needed to demonstrate the benefits of reclamation. We understand the environmental benefits but funders, companies, private citizens, and legislators are more responsive to economic return from a project.	Project oversight	None	Study and data analysis to assign economic values	Unknown	2023 – CD worked with Downstream Strategies to provide data on grant funded projects in Clearfield Co, no report publicized yet 2022 – No action was taken	
4.13	Public education events about urban stormwater practices	Hold education events for public on the importance of home stormwater practices to encourage adoption on private properties - 1 event every other year	Conservation District, Commissioners municipalities, municipal authorities, Penn State Extension	Bay Portion of Clearfield County	2022 – 2025+	Holding regular meetings to build relationships with community and increase adoption and implementation of key urban BMPs.	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken 2021 – CD hosted a Rain Barrel stormwater management workshop	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature

4.14	Urban Nutrient Management Education	Conduct education of commercial landscape industry/golf course owners/homeowners regarding nutrient management - 1 event every other year	Conservation District, Penn State Extension	Bay Portion of Clearfield County	2022 – 2025+	Education events about urban nutrient management will reduce the amount of nutrients applied to turf in urban environments	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature
4.15	Education about stormwater issues and benefits of stormwater remediation	Hold education events to increase awareness and accelerate future implementation - 1 event every other year	Conservation District, Penn State Extension	Bay Portion of Clearfield County	2021 – 2025+	Providing education to landowners, local governments and municipal officials will increase the awareness and adoption of stormwater remediating BMPs	Penn State resources, PACD resources	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken 2021 – CD hosted a Rain Barrel stormwater management workshop	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature
4.16	Developer and Engineer Education Events	Hold education events for engineers and developers on the CAP goals and key stormwater BMPs to encourage incorporation into their projects - 1 event every other year	Conservation District, Engineers, Developers, Landscapers, Architects, Commissioners municipalities, municipal authorities	Bay Portion of Clearfield County	2021 – 2025+	Holding regular meetings to build relationships with private development entities will increase adoption and implementation of key urban BMPs. Annual meeting will also provide updates for CAP reporting and progress	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken	Changed the performance target from 1 event/year to 1 event every other year; workload and time constraints make it difficult to host annual trainings of this nature
4.17	Promote Carbon Credit Program participation to increase no-till and cover crops	Increase the adoption and sustained implementation of no-till and cover crops by increasing farm participation in carbon credit programs  - 1 event per year	Conservation District	Bay Portion of Clearfield County	2021 – 2025+	Education and technical outreach about current Carbon Markets and Companies participating in Carbon Crediting will lead to the adoption and long term sustainability of no-till and cover crops within the County.	Tech, education, and admin support	None	Technical Knowledge – Experts in Topic	\$5,000 / Event	2023- No action taken due to lack of funds and staff time 2022 – No action was taken	

### Phase 3 Watershed Implementation Plan (WIP) Progress and Milestones Template

**Each county-based local area will use this template to identify:**

1. Inputs – These are both existing and needed resources, public and private, to implement the identified priority initiative. These include both technical and financial resources, such as personnel, supplies, equipment and funding.
2. Process – what is each partner able to do where and by when. These are the action items listed under each priority initiative.
3. Outputs and outcomes – both short and long-term. These are the priority initiatives identified by each county. The performance targets are the intermediate indicators that will measure progress.
4. Implementation challenges – any potential issues or roadblocks to implementation that could impede outputs and outcomes.

**Asterisk:** Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

**For each Priority Initiative or Program Element:** Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the “who, what, where, when and how” of the plan:

**Description** = What. This may include programs that address prevention, education, or as specific as planned BMP installations that will address the Priority Initiative. A programmatic or policy effort will require some ability to quantify the anticipated benefits which will allow calculation of the associated nutrient reductions.

**Performance Target** = How. This is an extension of the Description above. The Performance Target details the unique BMPs that will result from implementation of the Priority Initiative and serves as a benchmark to track progress in addressing the Priority Initiative. Performance Targets may be spread across multiple Responsible Parties, Geographies, and Timelines based on the specifics of the Initiative.

**Responsible Party(ies)** = Who. This is/are the key partner(s) who will implement the action items through outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

**Geographic Location** = Where. This field identifies the geographic range of the planned implementation. This could extend to the entire county or down to a small watershed, based on the scale of the Priority Initiative, range of the Responsible Party, or planned funding/resources. *NOTE: Resource limitations alone should not limit potential implementation as additional funding may become available in the future.*

**Expected Timeline** = When. Provide the expected completion date for the planned activity. This should be a reasonable expectation, based on knowledge and experience, that will aid in tracking progress toward addressing the Priority Initiative.

**Resources Available: Technical & Funding** = This field will note technical and financial resources secured/available to implement the program (Description). This is the total of the resources identified in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if available, to each action.

**Resources Needed: Technical & Funding** = This field will note technical and financial resources needed/outstanding to implement the program (Description). This is the total of the additional resources projected and identified as needed in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if possible, to each action.

**Potential Implementation Challenges/Issues** = This field will note challenges and issues that may delay program implementation (Description).

**Progress to Date** = This field will be used for annual reporting on priority initiatives. This is a description of the action(s) your county took toward achieving the priority initiative. Examples include education and outreach, programmatic changes, etc. For numeric priority initiatives your county can retrieve those numbers directly from *FieldDoc* or put in the column “See *FieldDoc*.”

**Reason for Change to Action Item** = This field will be used for two-year milestone updates. This field allows for your county to adjust your original targets and goals based on progress to date. Your county may adjust goals and targets up or down based on your progress to date. This field requires a reason as to the reason of change, whether up or down.