

2024 Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template – SNYDER 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												
Action #	Description	Performance Target(s)	Responsible Party(is) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available		Resources Needed		Annual Progress to Date (2021 to 2024)	
							Technical	Financial	Technical	Financial		
Priority Initiative 1: County Programmatic Initiatives												
1.1A	Implement County Comprehensive Plan policies and actions (Adopted 2001)	Ensure that growth activities address existing water quality impairments through stormwater BMP implementation already required by local ordinance Preserve environmentally sensitive, culturally, and economically important areas from new development through zoning and ordinances Conserve 1,600 acres of forest. Conserve 60 acres of wetlands.	SCPC, growth boundary municipalities, CKCOG, SEDA-COG	Multi-township	Ongoing	Educating municipalities, Updating local plans and ordinances, Growth areas not consistent with Census Urbanized Areas Local governments willing to propose to ordinances to protect economically and environmentally friendly landscapes Work with solar farms for zoning purposes and BMP implementation. Comprehensive Plan is underdevelopment and will be updated in the coming years.	Education, outreach		1 – FTE Clean Water Coordinator for Planning Commission	\$130,000 per year \$2,000 per acre of forest conserved through easement: Total \$3.2M \$2,000 per acre of wetland conserved through easement: Total \$120K	2024: The County will complete a grant application to finalize the Greenway and Open Space Plan as it has not been finished at this point. As it is being finished we will also be asking the County Commissioners to set aside money to begin a new County Comprehensive Plan and also seek grant funding to help with the cost of the plan. 2023: In 2024 Snyder County Planning Commission will be exploring options to update the County Comprehensive Plan and to ensure the numeric associated with this initiative are included. The Greenway and Open Space Plan is currently in development through 2023. A few municipalities are continuing to update their comprehensive plans. Once they are adopted they will be incorporated into the overall County Comprehensive Plan. 2022: A few municipalities are updating comprehensive plans currently. Snyder County is drafting a Greenway and Open Space Plan currently.	
1.1B	Advance local comprehensive planning efforts Implement the Source Water Protection Plan Preparation and implementation of an effective stormwater management plan	Protecting Snyder County’s surface water and groundwater as a viable resource is critical to preserving water quality and healthy communities Snyder County will work with DEP to help develop Source Water Protection Plans for systems that service <100K users.	Multi-township DEP Freeburg Borough Middleburg Borough McClure Borough Selinsgrove Borough Aqua PA	Multi-township DEP Freeburg Borough Middleburg Borough McClure Borough McClure Borough Selinsgrove Borough Aqua PA	1-2 years	Reinforcing the municipal role in coordinating with the water authorities to perform education and outreach.			1 – FTE Clean Water Coordinator for Planning Commission Source Water Protection Plan development	\$130,000 per year \$100,000 for Plan	2024: The Freeburg Water Authority decided not to pursue 319 funding this year but plans to apply in 2025. 2023: HRG has reached out to the local entities with public water supplies. Several have Source Water Protection Plans and HRG is partnering with the Freeburg Borough on their plan. 2022: HRG obtained the list of municipalities without SWPPs and verified it with DEP. DEP provided the names of four public water supplies that do not have SWPPs. HRG will be performing outreach in 2023 to discuss the importance of the SWPPs and urge water suppliers to contact DEP to request assistance with the development of SWPPs. HRG will review existing plans with the water suppliers and help them determine if they need additional funding to implement the plans.	
1.1C	Advance local comprehensive planning efforts Facilitate efforts to minimize flood impacts	Improve flood prone areas with BMPs that also enhance water quality Work with Selinsgrove Borough Flood Prevention Plan	Multi- Township, Selinsgrove Borough	Within responsible party municipalities	5-10 years	Flood controls can capture pollution, if considered in design and maintained.	CRS program guides		1 – FTE Clean Water Coordinator for Planning Commission Project Implementation	\$130,000 per year \$500,000 project implementation	2024: The County Hazard Mitigation plan is in the process of being updated. Final approval is currently planned for the first half of 2025 possibly within the first quarter of the year. 2023: Snyder County will be starting the update to the Hazard Mitigation in the Fourth Quarter of 2023. It is current through 2025. 2022: Snyder County is preparing to update the Hazard Mitigation Plan in the near future. The County was awarded a grant from HMGP to help pay for the update which will be done by MCM. The County will be updating the County Comprehensive Plan most likely beginning in 2024 when they complete their Greenway and Open Space Plan which we will begin in the next month or so.	

1.1D*	Evaluate areas to establish riparian buffers to stabilize stream banks and limit encroachment	Identify landowners willing to participate and work with the following partners to implement new buffers Work with Chesapeake Conservancy through rapid delisting approach to identify new landowners.	Municipalities, Conservation District, CBF, Pheasants Forever, National Trout Unlimited, Chesapeake Conservancy, Watershed Associations, Susquehanna University	Countywide	5-10 years	Adopting ordinances may require a pilot project in a willing municipality to demonstrate success. Look to revise and promote ordinances where feasible. Some ordinances promote destruction of buffers due to “mowing” ordinances. Buffer funding programs must include 5-10-year minimum maintenance plan, incentive money for landowners, along with volunteers to establish the buffer.	landowner outreach; on the ground riparian project execution		1 – FTE Clean Water Coordinator for Planning Commission 1 – Clean Water Coordinator for Conservation District	\$130,000 per year \$130,000 per year Expand Buffer Bonus Program to provide \$10,000 per acre of buffer installed to include 5-year maintenance contract: \$2.2M total	2024: One site in Beaver Township has been identified through LFT farm outreach visits and scheduled for implementation in fall 2024 through SCCD's 2024 GG Buffer Grant. A total of 2.0 acres are planned for implementation. A second site in West Beaver Township has been identified and proposed for installation in 2025. Exact acreage is yet to be determined. 2023: Two projects of 2 acres of buffers will be installed in 2023. Landowners are being identified through previous willing participants. Stream restoration is driving buffers as additional work for projects. DEP complaints in County are also identifying potential willing participants. 2022: SCCD planted buffers for five projects. One buffer was contracted, four buffers were planted by SCCD. A total of 5.2 acres of riparian buffers were planted (approximately 750 trees and shrubs). SCCD is exploring a potential project for buffer planting using CAP funding. Exploring options for new buffer plantings in 2023. 2019 Growing Greener Grant is still being used to fund buffer projects.
1.1E	Adopt and update an on-lot sewage management program (Act 537)	Look to review and update all Act 537 plans by municipality. Explore plan creation for municipalities for those who do not have a plan, look to incorporate new pumping guidelines.	Municipalities, Sewage Enforcement Officer	Municipalities where public sewer is not available.	5 years	Landowner education will be needed to promote proper on-lot septic system maintenance.	Utilize existing DEP model ordinances as guidance	Sewage Enforcement Officer	1 – FTE Clean Water Coordinator for Planning Commission	\$130,000 per year \$1,000,000 funding to update willing municipalities	2024: The 5 County Solid Waste Plan is still in the process of being updated as we have been working through comments from the PaDEP and amending as necessary. Approval should be sometime in 2025 with both county and then municipal approvals. 2023: The Five County Solid Waste Plan is currently being updated. It will be completed by the end of 2024. 2022: Snyder County is part of a solid waste plan with five neighboring counties. The plan is currently being updated and should be done sometime in mid to late 2023. The CAP team is not involved with this update.
1.2*	Act 167 Stormwater Management	Revise existing model stormwater ordinance where needed. Look to incentivize additional protections for streams. Support implementation of existing ordinances where feasible. Look to revise Act 167 to encompass a countywide plan.	SCPC, municipal engineers, CKCOG, SEDA-COG, Municipalities	Countywide	2021 – discuss interest to pursue and funding opportunities	Political will and involvement from local municipalities. Funding to develop and implement an Act 167 plan is limited.			Act 167 Plan Development 1 – FTE Clean Water Coordinator for Planning Commission	\$500,000 plan development \$130,000 per year	2024: Funding to complete the remainder of the Act 167 Stormwater Management Plan has not been set aside to date and grant opportunities have not currently been explored. From the county point of view this will not happen until we complete the Greenway and Open Space plan and the County Comprehensive Plan as we are not staffed to complete all of these plans at one time. We continue to support existing ordinances and the Stormwater Section of the County Subdivision and Land Development Ordinance has been developed with the same intent as the Act 167 Plans intentions. 2023: Phase 1 has been completed. Awaiting funding for Phase 2. 2022: The 2022/2023 state budget includes new funding to support the development of Act 167 plans. Snyder county currently has no Act 167 plan, but with new funding plans to explore opportunities to develop an Act 167 Plan. Snyder County Planning Commission Just finalized the SALDO update. Incorporated some aspects of ACT 167 plans. The Planning Commission is going to explore potential funding opportunities to develop a 167 plan.

1.3*	Continue to Implement County Farmland Preservation Program.	Total preservation farm goal (28 farms in program currently – 2,993 acres) Look to fund 4-5 additional farms per year in preservation program. – 1,500 acres of farmland conservation Preservation of Agriculture and Open Space Land Use through the encouragement of local governments to implement effective land use ordinances Utilize conservation easements to protect land	Lancaster Farmland Trust and Agricultural Preservation Coordinator, NRCS, SCCD, Farm Bureau, Snyder County Comprehensive Plan	Ag land use area that fits farmland preservation criteria	2022-2023 – explore incentive opportunities	Operator acceptance, additional resources for plan development incentivize BMP installation as a farmland preservation goal. Preserved farms are required to have an NRCS Conservation Plan, work with farmers to ensure Conservation Plan is reported in PracticeKeeper. Recommend making this a program requirement statewide. Lack of funds to preserve land. Landowner willingness decreases due to the reality of the limited funds, if they don't rank at the “top” of the list, over years they quit applying.	Priority recommendations, easement revision recommendations, supplemental BMP funding research			Assume \$250,000 per farm: \$5,000,000 \$130,000 per year \$75,000 per year \$780,000 per year	2024: Three farms totaling more than 200 acres will be completed in 2024 in Franklin, Middle creek, and Penn Townships. 2023: Three farms have been identified and are in progress for preservation in early 2024. SCCD is also identifying two additional farms for potential preservation in 2024. 2022: One farm is being preserved in 2022. In 2023 an additional farm will be preserved through state funding and two additional farms through volunteer preservation. A total of 3 farms will be preserved in 2023.
1.4*	Establish funding/staff support to assist the Agricultural community (day to day support) 864 farms exist in Snyder County	Approximately 200 have their plans in Snyder County, goal is to complete 400 by 2025. Support local farms with financial assistance from institutions Work with private ag consultants to document plan reporting. In order to communicate effectively with the farming community one on one farmer outreach must be conducted. Work to document Act 38 and preserved farms conservation and nutrient management plans.	SCPD, SCCD, Contracted planners, Snyder County Farm Bureau, Act 38 operators, organic farmers, preserved farms, integrators, Ag Credit Unions	Countywide Ag Land	2022-2025	Limited compliance activities by DEP. Lack of Technical assistance to support the farming community. Private sector Ag plans are not required to be shared with District staff. Work with Act 38, preserved farms and organic farms to report Ag E&S and NRCS Conservation Plans. These operations are required to have them, but no requirement to report the plans. It is recommended state agencies make changes to Act 38 and preserved farm programs to require PracticeKeeper reporting.	Field verification, troubleshooting 50 farm visits per year	Conservation Plan Inventory 1 FTE Chesapeake Bay Technician	6 – additional Ag Planners to provide TA and ag planning 3 – FTE Design, Permit construction Services 3 – FTE Design, Permit construction Services 1 – FTE Clean Water Coordinator for Conservation District 1 – administrative assistant	\$780,000 per year \$420,000 per year \$315,000 per year \$130,000 per year \$75,000 per year	2024: SCCD has hired a new Watershed Specialist to assist District operations and assist in this initiative. 2023: SCCD has added a Program Administrator position that assists in implementation projects and running funding programs (such as ACAP). SCCD has also hired a new Watershed Specialist to assist in this initiative. 2022: The Foundation for Pennsylvania Watersheds applied for a Growing Greener grant totaling \$1.6 million to support additional ag engineering needs along with increased farm visits. In 2022 the Lancaster Farmland Trust (LFT) completed 30 farm visits across the county. LFT also completed 20 farm visits in 2021. Agriculture Conservation Assistance Program (ACAP) was announced in the Pennsylvania State Budget in July of 2022. This program will provide all counties in Pennsylvania with funding totaling \$154 million over the next 3-years to support Ag project implementation and technical assistance needs. The Chesapeake Conservancy was awarded \$10 million in RCPP funding to support technical assistance and BMP implementation to Snyder County. Additionally, the Conservancy submitted a Growing Greener application to increase technical assistance in the Rapid Delisting Watersheds in Snyder County. 2023: In 2023 the Lancaster Farmland Trust (LFT) will complete 25 farm visits across the county. LFT also completed 20 farm visits in 2021 and 30 farm visits in 2022. The first year of the ACAP program in Snyder County identified three projects that have been contracted for implementation through the County's program. The first year of the Chesapeake Conservancy's RCPP partnership in Snyder County identified two projects that have been contracted for implementation in 2023.

1.5A	Susquehanna University Partnership - Implementation	Develop undergraduate and graduate students to support staff with implementation. Work with University students and staff to support 319 WIP implementation.	Susquehanna University – Professors: Matt Wilson	319 Priority Watershed Riparian properties Preserved farms Priority Corridor Watersheds - Susquehanna, North Selinsgrove Creek, West Branch Mahantango, Northwest Branch Mahantango	2022-2025	Continued undergraduate/graduate engagement as students graduate through program, implementation funding Lack of technical assistance professionals to mentor students Lack of competitive paying job opportunities that ensure long term sustainable for recently graduated students	Outreach boots on the ground	N/A	5 – Student Internships to Support CAP Implementation	\$50,000	2024: SCCD continues to participate in the Chesapeake Conservancy's RCPP grant program (housed at Susquehanna University). Beyond participating in Steering Committee and partner meetings, the grant program has funded projects on 2 farms including two HUA projects and one Manure Storage project. One additional project is planned for 2025. 2023: SCCD continues to work with interns through the Chesapeake Conservancy who are housed at Susquehanna University. 2022: The Foundation for PA Watersheds applied to National Fish and Wildlife Foundation Most Effective Basins for Phase 2 of BMP Verification. Phase 2 would include funding to support internships for Susquehanna University students working with the Snyder County Conservation District to document and verify BMPs into PracticeKeeper. Interns would be provided for 2023 and 2024. Susquehanna University has been involved in writing the Middle Creek 319 WIP. The grant was not awarded.
1.5B	Quantify Land/BMPs Managed by Susquehanna University	Work with Susquehanna University to ensure that water quality improvements that they manage are captured in PK/FieldDoc	Susquehanna University (SU)	SU Owned Lands in Snyder County	2022	Getting maximum credits for experimental BMPs	Institutional knowledge	N/A	5 – Student Internships to Support CAP Implementation	\$50,000	2024: HRG obtained details on projects implemented at Susquehanna University and reported each in FieldDoc. These projects included 4 acres of conservation landscaping and 1.5 acres of multifunctional buffers. 2023: Susquehanna asked for a letter of support of a GG for some stream side work. There may be BMPs being implemented based on grant funding awards. 2022: No progress to date.

1.6A	Develop a Snyder County Water quality communication plan, leveraging existing documents and covering topics including Comprehensive Plan, Greenways Plan, Act 167, Middle Creek 319 etc.	Develop messages and audience; execute plan and distribute messaging through staff and partners. Utilize the Snyder County website as a source of consistent communication, website development is underway.	Board of Commissioners staff, PA DEP Northcentral Office, Penn State Extension (Master Gardeners), PA Rural Water Association, Trout Unlimited, Penns Creek Watershed Association, Watershed Association, USDA-NRCS, DCNR, Susquehanna University, SCCD	Countywide	2022 – develop local content, timing, identify responsible staff	Simplifying the resources that are available			Website development and continued maintenance 1 – FTE Marketing and Outreach Coordinator 1 – FTE Clean Water Coordinator for Planning Commission	\$30,000 per year \$130,000 per year \$130,000 per year	2024: SCCD is hosting a Manure Injection Field Day at Faylor Lake in September of 2024. SCCD continues to utilize social media, its website, and outreach at local fairs to communicate to the public. SCCD Staff also participates in Envirothon and other educational opportunities in County to discuss the importance of water quality. LFT plans to visit 12 farms by the end of 2024. 2023: SCCD utilizes social media, its website, and outreach at local fairs to communicate to the public. SCCD Staff also participates in Envirothon and other educational opportunities in County to discuss the importance of water quality. 2022: The Union County GIS team is developing a joint website for both Snyder and Union Counties to utilize for outreach efforts. Included in the website will be a tool to enter project opportunities, along with more information about the CAPs. HRG is developing a messaging schedule for timely outreach newsletter articles and social media post. HRG will support in drafting public outreach pieces.
1.6B*	Agricultural Communication Strategy	One on one farm outreach is the best way to communicate with farmers. Work to develop a plan to complete one on one farm visits. Work to develop a communication plan to engage integrators to work with their producers. Partner with pesticide meetings, young farmers and other ag meetings to provide information. Utilize Farm Bureau Newsletter for announcements	SCCD, County Farm Bureau, Integrators, Ag Land Preservation, PSU Extension, NRCS, 4R Alliance, Young Farmers, Pesticide Meetings	Countywide	2022-2025	Funding to support the technical assistance required to complete one on one farm outreach. Outreach to integrators is a challenge due to the number of integrators and multiple country boundaries they serve. It is recommended DEP/PDA/SCC communicate with integrators on a frequent basis to reduce mixed messages.			6 – additional Ag Planners to provide technical assistance and ag planning 1 – FTE Marketing and Outreach Coordinator 1 – FTE Clean Water Coordinator for Conservation District	\$780,000 per year \$130,000 per year \$130,000 per year See 1.6A for website costs. Costs for meeting attendance and administration would be covered through other funding requests.	2024: SCCD will host an AG BMP bus tour in Fall of 2024. LFT is conducting 12 farm site visits in the Fall of 2024 to propose BMPs on farms and gather preliminary information on operations to setup engineer's Inventory and Evaluations (I&Es). The District continues to incorporate farm visits into its communication strategy. It also continues to send out a District Newsletter, Facebook postings, and posts in the Snyder County Times to conduct ag outreach to promote winter ag Meeting, BMP surveys, buffer funding, ag compliance, soil health field day event, BMP implementation, and manure management workshops. Education and outreach continues to be a focus of the Conservation District. 2023: The District continues to incorporate farm visits into its communication strategy. It also continues to send out a District Newsletter, Facebook postings, and posts in the Snyder County Times to conduct ag outreach to promote winter ag Meeting, BMP surveys, buffer funding, ag compliance, soil health field day event, BMP implementation, and manure management workshops. Education and outreach continues to be a focus of the Conservation District. 2022: Farm visits have been utilized to conduct outreach to farmers about the Countywide Action Plan. In 2021 15 farm visits were conducted and in 2022 an additional 25 visits were completed. The Foundation for Pennsylvania Watersheds submitted a Growing Greener grant titled 12-County Investment to Catalyze Agricultural Project Readiness that would support rapid scaling up of farm visits within Snyder County. Scaling up of farm visits would allow for additional outreach to occur. Conservation District sent out a District Newsletter, Facebook postings, and posted in Snyder County Times to conduct ag outreach to promote winter ag Meeting, BMP surveys, buffer funding, ag compliance, soil health field day event, BMP implementation, and manure management workshops. Education and outreach continues to be a focus of the Conservation District.

Priority Initiative 2: Reporting and Tracking											
2.1*	Existing BMP cataloguing (quantity and location) for select BMPs, expanding on general recommendations provided in QAPP BMPs = forest buffers, urban forest buffers, grass buffers, urban grass buffers, manure storages, grassed waterways, wet ponds and wetlands, fencing	Expand use of existing buffer layer with urban hydrology layer R&D into distinguishing ag, pasture, and turf covers from grassed buffers Manual digitizing where leaf-off <1 ft resolution imagery is available Back check with staff field views where required Add data to Practice Keeper or another batch upload option (FieldDoc)	Lead - Chesapeake Conservancy Stakeholder peer review – Susquehanna University, USGS, Farm Bureau, PDA, EPA	Countywide	2022 – cataloguing 2023 – Practice Keeper batch upload processing and field views	EPA acceptance of the approach, further refine guidance in QAPP so that counties can accomplish this or so that the state can take the burden off of counties, utilize the approach to catalogue existing BMPs and do on the ground verification where required for reporting purposes, this is an accelerated BMP catch up approach while we continue to provide support to farmers on planning and BMP installs, reduce the amount of interruption of government entities to compliant farm operations	Precision Conservation Tools General methodology outline BMP field backcheck	N/A	Further GIS and data processing/method refinement 5 – Student Internships to Support CAP Implementation 6 – additional Ag Planners to provide technical assistance and verification support	\$46,000 (2022 only) \$50,000 \$780,000 per year	2024: BMP verification is happening in conjunction with the Chesapeake Bay outreach program. 50 individual inspections were completed in 2024. 2023: District Technicians have verification integrated into PK reporting. Techs are also reviewing older projects and entering them into PK. 2022: In April of 2022, the Foundation for PA Watersheds applied to the National Fish and Wildlife Foundation Most Effective Basins grant application to support Phase 2 of a remote sensing analysis. Phase 2 of the analysis would support analysis focusing on six priority BMPs including: Barnyard Runoff Controls, Animal Waste Management Systems, Forest Buffers, Grassed Waterways, Streambank Exclusion Fencing, and Wet Ponds/Detention Basins. Remote sensing efforts would take place in the Middle Creek Watershed. A BMP Verification Quick Guide is being developed by HRG to assist with field verification efforts. The grant was not awarded. In conjunction with site visits conducted by the Lancaster Farmland Trust, 30 possible sites were identified to verify BMPs in Snyder County. Those sites were visited in November of 2022 and the results were entered into PracticeKeeper.
2.2*	Identify future ag/urban project opportunities using remote sensing	BMP opportunity analysis – ag conservation, land retirement, alternative crop, forest conservation, stream restoration Back check with staff field views Batch upload to FieldDoc to calculate credit opportunity	Lead - Chesapeake Conservancy Stakeholder peer review – Susquehanna University, USGS, Farm Bureau, PDA,	Countywide	2022 – cataloguing 2023 – batch upload processing and field views 2024 – 2025 – implementation focus	Different data set scales/precision	Precision Conservation Tools Batch upload processing BMP field verify	N/A	5 – Student Internships to Support CAP Implementation	\$50,000	2024: No progress to date. 2023: As a part of the Chesapeake Conservancy's Cooperative Agreement with the Chesapeake Bay Program, the CIC has been working to adapt the USDA Agricultural Conservation Planning Framework (ACPF) toolbox and produce its related GIS conservation practice opportunity outputs for the entire watershed. The toolbox outputs a suite of NRCS agricultural practice opportunities at the field scale -- some have direct equivalents to Bay Program BMPs, while others do not. Since there are many assumptions made to produce these opportunity footprints across the entire watershed, they are not intended to be ground truth and should only serve as a high level reference for helping to plan efforts in combination with expert on-the-ground input. The outputs are expected to be publicly available after June 2024. 2022: No progress to date.
2.3*	Develop a local system to capture data collection on urban structural and non-structural practices	Add development related BMPs to PK/FieldDoc so that as land use data sets are updated, there are accompanying BMPs	Municipal engineers, Chesapeake Conservancy, Central Keystone Council of Governments	Urban/suburban landscape	2022	Currently municipalities are not collecting BMP data because it is not required in non-MS4 communities. Must incentivize communities to report, there is no existing system in place.	Reporting platform	N/A	Training 5 – Student Internships to Support CAP Implementation 1 – municipal planner	N/A \$50,000 per year \$130,000 per year	2024: No progress to date. 2023: No progress to date. 2022: The Foundation for Pennsylvania Watersheds applied for a NFWF Most Effective Basins grant in April of 2022 to support Phase 2 of BMP verification remote sensing analysis. Phase 2 would include analyzing wet ponds and detention basins in urban areas across Snyder County. PA DEP has updated FieldDoc to allow for additional reporting of urban practices. The grant was not awarded.

2.4*	Implement a documentation program for commercial and homeowner nutrient applications in developed lands Support current legislation for a fertilizer bill.	Support fertilizer legislation — where legislation requires reporting, be the data clearinghouse Legislation will support the implementation of Urban Nutrient Management — 2,000 acres.	PSU Extension	Countywide	TBD	Education of responsible parties, receiving timely information, training on reporting system, will need direction from State on what's expected and any reporting system that's developed.	TBD based on fertilizer legislation if passed	TBD based on fertilizer legislation if passed	1 — FTE Clean Water Coordinator for Planning Commission	\$130,000 per year Urban Nutrient Management \$10 per acre: \$20,000	2022: On July 11, Governor Wolf signed SB 251, a bipartisan bill sponsored by Senator Gene Yaw (R) and Senator Carolyn Comitta (D), into law. Pennsylvania now has a law governing turfgrass fertilizer application dates, practices, rates, and type of fertilizer used. We are uncertain on how documentation and crediting will occur with the new bill.
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2.5*	Improve Agricultural BMP reporting utilizing PracticeKeeper, Capital RC&D Transect Survey, PSU Survey, Manure Transport Reporting and Remote Sensing	Increase reporting of agriculture plans into PracticeKeeper Work with Capital RC&D to improve current transect survey routes to be more inclusive Work with PSU to produce better response rate to the PSU survey for Snyder County Work with PDA/DEP to improve manure transport reporting	DEP, SCCD, NRCS, PDA, NRCS, Snyder County Farm Bureau, Capital RC&D, Chesapeake Conservancy, PSU Survey, Manure Brokers	Countywide	2022-2025	Private sector ag planners do not have access to PracticeKeeper. Ag planners do not have time to report into PK. Current Capital RC&D routes are not all inclusive. Current response rates are low and miss a large demographic of Juniata County farmers. Manure brokers are not required to report data annually. Data is not inclusive.			5 – Summer interns for reporting and verification	\$50,000 – paid internships See 3.5 for funding needs to improve cover crop reporting for Capital RC&D	2024: HRG continues to assist CDs in better PracticeKeeper practices and kept them up to speed on best guidance from DEP. 2023: HRG assisted CDs in better PracticeKeeper practices and kept them up to speed on best guidance from DEP. 2022: In the Spring of 2022 HRG participated in a beta testing group for the PracticeKeeper 3rd Party Module. PADEP initially released the module in June of 2022 before recalling the system for additional bug fixes. Phase 2 of the BMP verification grant submitted by the Foundation for PA Watersheds includes budget for interns from Susquehanna University to enter BMPs into PracticeKeeper. Snyder County has been utilizing in-house staff as part of the \$30,000 for BMP verification to report "Old Bay Special Projects" into PracticeKeeper along with old and current Conservation and Nutrient Management Plans. LFT was subcontracted to complete 30 additional BMP verification and data entry into PracticeKeeper which was completed in Fall of 2022.
2.6*	Standardized Reporting for Dairy Precision Feeding	Counties would like to utilize the dairy precision feeding BMP. However, current reporting guidelines do not allow for clear reporting standards on feed reduction amounts, how to report, and who is qualified to report.	Chesapeake Bay Program, Penn State Extension, Dairy co-ops	Countywide	2022	It is recommended that milk urea nitrogen (MUN) be an acceptable standard for reporting dairy precision feeding. Guidelines need to be posted on acceptable MUN rates and work with dairy integrators to receive MUN data to report to DEP.	N/A	N/A	Reporting protocol	N/A	2022: No progress to date, reporting standards still remain an issue to utilize the BMP.
Priority Initiative 3: Achieve New Pollutant Reductions											
3.1	Implement Snyder County Riparian Buffer Program from recently awarded Growing Greener Grant	Implement 10 acres of Riparian Forest Buffers Implement other Agriculture BMPs as needed such as Stream Fencing, Animal Crossings and Watering Facilities	SCCD	Snyder County ag land	2021-2022	Having enough in-house technical assistance capacity to see projects from concept through construction	Design, construction oversight	Received \$120,000 to be implemented by December of 2021	1 – FTE Clean Water Coordinator for Conservation District	\$130,000 per year	2024: SCCD will complete 10 acres of riparian buffer for the 2021 Growing Greener Buffer grant by Dec. 31, 2024. Furthermore, SCCD received a second GG riparian buffer grant that mimicked the 2021 grant to install 10 acres and supplemental ag BMPs. Currently, two projects have been identified for the 2024 GG buffer grant with a projected timeframe of fall 2024-summer 2025. 2023: Extension of the Growing Greener grant was granted through December, 2023. SCCD has applied for a new grant that mirrors the previous one. Buffer-centric projects continue to be difficult for landowners. 2022: Changing the scope to less buffer acreage, and more ag BMPs. Approximately six acres will be planted by December of 2023. The total acreage was dropped from 10 acres due to inflation affecting installation costs. Where buffers were included as part of a larger project, buffers were removed from project scope to allow for the installation of other BMPs.

3.2	Finalize Middle Creek 319 Watershed Implementation Plan	Develop and start implementing the local WIP	Susquehanna University, SCCD, other partners to be identified in plan development	Lower Middle Creek and Susquehanna Watershed	WIP Development and submitted Fall 2021 Implementation Grant Application – 2022 –see plan when completed and approved Partial Implementation – 2023-2025	Funding, landowner interest in BMPs, implementation partner coordination.			Design, permit, construction oversight	Estimated, final numbers will be submitted once plan is approved: \$500K per farm at \$1.5M per year → \$7.5M over 5 years	2024: SCCD is awaiting final announcement on the 319 grant submitted for a project located along the Susquehecka Creek, Middle Creek Watershed. Announcement timeframe is anticipated to be fall 2024. 2023: SCCD submitted a 319 implementation grant for a stream restoration project in Middle Creek. 2022: Middle Creek 319 grant finalized. \$435,000 Growing Greener Grant applied for Middle Creek AG E&S Plan writing and Cover Crop Program \$20,000 NFWF MEB grant awarded for MMP and Ag E&S plan writing and New Cover Crop Acreage. \$32,000 Grant awarded to write Susquehecka 319 plan. Plan was approved in Summer of 2022. Initial scope was reduced in size to a smaller watershed area. Explore options in 2023 to apply to 319 program for project funding.
3.3	Accelerated Implementation of Rapid Delisting Catchment Strategy through the Precision Conservation Partnership	Have identified four priority catchments. Have identified 3-10 parcels per priority catchment Susquehecka Creek is priority number 1 with 3 parcels already identified for outreach and willing to implement	Chesapeake Conservancy, SCCD and Precision Conservation Partnership Stakeholders	Headwaters of Susquehecka Creek, North Selinsgrove Creek, West -West branch Mahantango Creek, North – west branch Mahantango Creek Watersheds	2022-2025	Gaining landowner interest, design/permit/construction schedules, dedicated funding to support BMP implementation, Lack of technical assistance and engineering staff to support implementation.	Program management and GIS Landowner outreach		3 – additional FTE municipal/environmental planners	\$390,000 per year \$100,000 dollars to complete rapid delisting program management per year: total cost \$500,000 Other funding identified in below initiatives	2024: See Action item 1.5A above. 2023: SCCD continues to work with the Chesapeake Conservancy to implement the Rapid Delistment Catchment Strategy. By working efficiently with the Conservancy's RCPP funds, SCCD has targeted three Ag BMP projects within the catchment area. SCCD also attends regular leadership meetings with RCPP and strategy meetings with the Conservancy for the Rapid Delisting efforts. 2022: Chesapeake Conservancy continues to advance Rapid Delisting efforts. In April, the Conservancy applied for an RCPP application to support additional technical assistance and AG outreach. They received the award in August for \$10 million across six central Pa counties. In the spring the Conservancy applied to DCNR for West Branch Mahantango to fund rapid delisting efforts. The Conservancy contracted with Huntingdon County Watershed Specialist to perform Macro, habitat and water chemistry monitoring in North Branch Mahantango. In the fall of 2022, due to the RCPP grant award, Snyder County was able to shift focus from the West Branch Mahantango to Potato Run for its rapid delisting catchment as it is believed there will be greater outreach and implementation success.

3.4*	Help farmers and operators to be in compliance with state and federal Conservation and Nutrient Management Plans	Soil and Water Quality Conservation Plans (AG E&S) 20,000 new acres Nutrient Management (Manure Management) 13,000 40,000 new acres of Core N and 14,500- 30,000 new acres of Core P Work with Act 38 operators (79), Preserved Farms (28), and certified organics to document plans already required Implementation Challenges (continued): State agencies must work with integrators to ensure they are requiring compliance by farmers. Some integrators require compliance, but not all, great way to communicate with farmers as well.	4R Alliance, SCCD, Snyder County Farm Bureau, NRCS, Private Sector Agriculture Farm Visits, integrators (Bell and Evans, Country View, Pilgrims Pride, Empire Kosher, BJE Land O’Lakes, Dairy Farmers of America, Maryland and Virginia Milk Producers Cooperative, BJE Poultry, Chick to Chicken, Tyson, Purdue, Eggs for Vaccines, Smithfield Hatfield, Swift), Act 38 farmers	Countywide Ag Land	2022-2023	Lack of DEP inspections. Reporting and verification of AG Plans, NRCS plans expire and do not get reverified, private plans are never entered. Lack of Technical assistance to support agriculture planning and implementation, one on one farm outreach is best way to capture existing plans. Act 38 and Preserved Farms not required to enter plans in PK, Recommendations to require programs to enter plans into PK.	Education al support	CBF grant	6 – additional Ag Planners to work with farmers	\$780,000 per year \$15 per acre for a total cost of \$300,000 \$15 per acre for a total cost of \$217,500	2024: SCCD Plans 2024 Reviewed totaling 420 acres. 11- Nutrient Balance Sheets Reviewed totaling 1426 acres. 4- MMPs Reviewed and verified totaling 1394 acres. 0- 590 NMP Reviewed totaling 0 acres. 2- MMPs written totaling 10 acres. 3- Ag E&S plans written totaling 30 acres. 9- Ag E&S plans reviewed/verified totaling 1279 acres. 1- Conservation Plan verified/reviewed totaling 93 acres. 2023: SCCD's Plans in 2023: 21 -NMP Reviewed totaling 3,555 acres. 2- Nutrient Balance Sheets Reviewed totaling 71 acres. 6- MMPs Reviewed and verified totaling 1,169 acres. 1- 590 NMP totaling 1,274 acres. 13- Ag E&S plans written totaling 870 acres. 25- Ag E&S plans reviewed/verified totaling 780 acres. 17- Conservation Plan verified/reviewed totaling 1,450 acres. 2022: PACD recently announced their Growing Greener grant for Ag Plan Reimbursement. Farmers in Snyder County will be able to take advantage of this opportunity to produce Ag E&S and Manure Management Plans. HRG will be attending the rollout of this program to maximize opportunities to get farmers additional plans. From 2020 to 2021 progress scenario in CAST Snyder County has increased Soil and Water Quality Conservation Plan reporting by over 3,500 acres. Additionally, Nutrient Management Core N increased by 15,000 acres and Core P increased by over 20,900 acres. 2021 NFWF MEB was awarded for plan writing in the Middle Creek Watershed. Will support Manure Management and AG E&S Plans. Submitted a Growing Greener grant in 2022 for an additional 40 plans to be developed. Completed 50 visits last year for Bay Inspections, will complete an additional 50 visits by June of 2023. Since January 2022 SCCD, reviewed 804 acres of ACT 38 plans, wrote 926 acres of Manure Management Plans, verified 617 acres for manure management plans. wrote 653 acres of AG E&S plans and verified an additional 617 acres.	8 -Act 38 NMP
3.5	Advanced Nutrient Management (4R) Practice Education and Implementation	Increase reporting of supplemental nutrient management BMPs through existing programs and initiatives. Transition manure management plans to nutrient management plans and incentivize implementation Increase existing 4R practice (N/P Rate, Placement, Timing by 2,530 3,000 acres and N Timing by 15,000-3,000 acres) Increase pre-side dress nitrogen test (PSNT) or Chlorophyl testing additional participants	4R Alliance, SCCD, Snyder County Farm Bureau, NRCS, Private Sector Agriculture Farm Visits, PA Game Commission	Countywide AG Land	2022-2023	Landowner interest, BMP verification (annual). Lack of Technical assistance to support agriculture planning and implementation. Additional funding to support soil testing. Soil testing is key to meeting the recommendations of supplemental BMPs. Machine dependent for most farming operations. Cost of fertilizer is self-regulating farmers to use less fertilizer; therefore, lower rates are applied.	Education al support	CBF grant	6 – additional Ag Planners to work with farmers to meet 4R standards	\$780,000 per year \$10 per acre of advanced nutrient management planning per type: total cost for all is \$175,300 \$25,000 per year to increase PNST education and testing: \$125,000 total	2024: As in previous years, SCCD held it's annual Farmer's Winter Meeting in February 2024. Additionally, SCCD is co-hosting a manure injection field day with Rosetree Consulting and Chesapeake Conservancy in September 2024 for local farmers and manure haulers/brokers. 2023: It was discussed at the Winter Meeting held in February, 2023. SCCD continues to offer chlorophyl testing. HRG has worked with the counties on methods to integrate supplement NM reporting into current workflows in the Chesapeake bay Contract, Nutrient Management Contract, current PSNT programs, and equipment rental programs. HRG also provided outreach at several events to increase adoption of 4R practices within the region. 2022: Nutrient Management Program changed standards in the fall to include additional information on supplemental nutrient management. SCCD has been entering supplemental BMPs into PK.	

3.6*	Implement Practice to improve soil health and sustainability (Tillage Management and Cover Crops)	Determine feasibility of having a county/state cost share program to enhance adoption of the annual practice Implement tillage management and cover crops on an annual rate of 40,000 20,000 acres High Residue, 4,000 18,000 acres Conservation Tillage, 2,000 acres Low Residue, 4,000 36,600 acres of cover crops and 32,600 acres of cover crops with fall nutrients	SCCD, Snyder County Farm Bureau, NRCS, Private Sector Agriculture Farm Visits, PA Game Commission	Countywide Ag Land	2022 – investigation 2023 – next steps	Capacity to manage the program, landowner interest Lack of technical assistance and farm planners to work with farmers to transition to High Residue Tillage Current verification methods do not accurately capture implemented amounts – work with Capital RC&D to improve Transect Survey Routes Farmers are harvesting cover crops for forage, need accurate efficiency crediting for commodity cover crops Existing Cover Crop Programs have strict plant by date that does not work with changing weather patterns and wetter years	Transect survey Landowner education 50 farm visits per year		6 – additional Ag Planners to transition farmers to high residue County Conservation District – staff to administer the program Capital RC&D staff to complete Transect Survey	\$780,000 per year \$90 per acre traditional per year: \$360K for a 5-year total of \$1.8M (incentive payment, administration, capital RC&D reporting) \$50 per acre fall nutrients per year ☐ \$1.63M for 5-year total of \$8.15M \$50,000 for improvements to Capital RC&D Transect Survey	2024: SCCD has an ongoing cover crop program through a NFWF MEB grant for the Middle Creek Watershed. 219.42 acres of cover crop were enrolled in 2024. SCCD also participates in an annual cover crop survey throughout the county. During that survey, 5,664 acres of cover crop were verified. 2023: SCCD is implementing a cover crop program through NFWF MEB grant in the Middle Creek watershed. 116 acres have been incentive. 2022: From 2020 to 2021 progress scenario in CAST Snyder County has increased Cover Crop implementation by over 6,900 acres. 2021 NFWF MEB was awarded for 360 acres of Cover Crops in the Middle Creek Watershed. Submitted a Growing Greener application for 1,250 acres of cover crops countywide. If awarded, additional acreage will be implemented in 2023.
3.7*	Implement more pasture management BMPs	Prescribed grazing – 700 2,000 acres Forest buffers on fenced pasture corridor – 15 25 acres streamside, 10 acres narrow Grass buffers on fenced pasture corridor – 15 acres streamside, 40 acres narrow Pasture Alternative Watering - 2,000 acres	SCCD, NRCS, Private Ag Consultants, Chesapeake Bay Foundation, Chesapeake Conservancy	Countywide ag lands – landowners who raise horses, dairy, beef and other pasture grazing animals	2025	Landowner education, BMP funding for non-buffer work, plan updates, data gathering. Lack of Technical assistance to support agriculture planning and implementation. Old NRCS plans need to be updated to comply with prescribed grazing definition – difficult to get landowner buy-in – fund alternative watering and fencing; most pastures are streamside. Increasing construction costs are cancelling NRCS contracts.	50 farm visits per year		6 – additional Ag Planners to provide TA and ag planning 3 – additional FTE environmental technician	\$780,000 per year \$390,000 per year Prescribed grazing \$540 per acre: \$378,000 total FB Buffer W/ Exclusion \$10,500 per acre: \$157,500 total GB Buffer W/ Exclusion \$2,750 per acre: \$41,250 total	2024: One riparian buffer project is proposed for installation in fall 2024. It consists of 2,400 LF of fencing, 3 stream crossings, and 2.0 acres of riparian buffer and located in Beaver Township. A second site located in West Beaver Township has been identified for implementation in 2025. 2023: In 2023, 17,703 LF of fencing installed, 2.25 acres of forest buffer installed, 14 watering facilities, 7 cattle crossings installed, 50 acres of Prescribed Grazing. 2022: The Foundation for Pennsylvania Watersheds applied to NFWF MEB for Phase 2 of BMP Verification. If awarded Streambank Exclusion Fencing would be remotely sensed to identify existing BMP implementation. Field verification would occur on remotely sensed BMPs. The grant was not awarded. It has been a record year for implementing streamside best management practices (BMP’s) for the Snyder County Conservation District. Through various partnerships and grant funding, eight participating farmers and landowners voluntarily agreed to install a total of: • 10,613 feet of streambank fencing • 7 livestock stream crossings • 2 livestock watering facilities • 5.2 acres of riparian buffers (approx. 750 trees & shrubs) • Fish habitat enhancement structures spanning 1,340 feet of stream.

3.8*	Riparian buffer and re-forestation BMPs	510 200 riparian forest buffer acres – new buffer; Need to recredit additional acres lost since 2010 130 riparian grass buffer acres – new buffer; Need to recredit additional acres lost since 2010 15 50 acres – Agriculture Tree Planting 60 5 acres – urban forest buffer 2 acres – urban tree canopy 100 0 acres – urban forest planting Forest buffers (narrow) in agriculture areas - 10 acres Grass buffers (narrow) in agriculture areas - 10 acres	CBF, Penns Creek Watershed Association, Chesapeake Conservancy, NRCS, SCCD, PA Game Commission, Susquehanna University	Countywide	2022 – line up landowners 2023-2025 – implementation	Landowner partnerships, landowner education, volunteer acceptance of buffer plantings, buffer maintenance guide for farmers, routine site visits to confirm buffers are thriving, invasive species removal during establishment. Flash grazing must be allowed with buffer installation. Funding program must include a 5-10-year maintenance program to establish buffers along with incentive program \$4K minimum per acre payment. Must revise ordinances to not cut down buffers because of “messy”	Materials Mapping	Budget available to be determined	6 – additional Ag Planners to provide technical assistance and ag planning 3 – additional FTE environmental technician	\$780,000 per year \$390,000 per year Forest Buffer \$10,000 per acre: 2.2M Grass Buffer \$2,500 per acre: \$250,000 Tree/Forest Planting \$10,000 per acre: \$1.16M	2024: 2.0 acres of buffer is planned for installation in fall 2024, weather and site permitting. 2023: 2.25 acres of buffers were installed in 2023. 2022: The Foundation for Pennsylvania Watersheds applied to NFWF MEB for Phase 2 of BMP Verification. If awarded Forest Buffers and Grassed Waterways would be remotely sensed to identify existing BMP implementation. Field verification would occur on remotely sensed BMPs. The grant was not awarded. Community Probation Service Program assists with buffers plantings and maintenance in the county. This fall SCCD will be planting buffers for five projects. One buffer is contracted, four buffers will be planted by SCCD. Exploring a potential project for buffer planting using CAP funding. Exploring options for new buffer plantings in 2023. 2019 Growing Greener Grant is still being used to fund buffer projects.
3.9	Wetland restoration implementation on marginal production ag land	22 acres of Wetland Restoration 20 Acres of Wetland Enhancement and Rehabilitation Identify 1 large property owner from University of Vermont restorable wetland layer to help identify where wetland restoration is feasible	Chesapeake Conservancy, SCCD, NRCS, MLC, PA Game Commission	Countywide	2022 –2025	Willing landowner; appropriate siting, design, and construction for successful restoration result Lack of technical assistance for landowner outreach and agriculture planning to identify potential site locations	Landowner outreach		3 – additional FTE environmental technician 2 – stream biologist	\$390,000 per year \$280,000 Wetland Restoration \$30,000 per acre: \$1.26M	2024: HRG has been utilizing existing maps and outreach to determine potential locations for wetland restoration projects. From there HRG plans to develop a regional grant application for the SRBC Consumptive Use Grant. 2023: No progress to date. 2022: No progress to date.
3.1	Stream Restoration (Urban and Agriculture)	10,400 5,000 Linear feet (2 miles) Urban Stream Restoration 4,600 Linear feet (<1 mile) Agriculture Stream Restoration	CBF, Chesapeake Conservancy, TU National, NFWS, Penns Creek Watershed Association, PFBC Stream Restoration Team, MLC, NRCS, SCCD	Rapid delisting areas	2022 – 2025	Design/permit/construction cycle seems to work in two-year increments, there is an assumption that eroded/degraded streams exist based upon 403(d) listing – should that not be the case in the field, adjust quantitative goal down and ensure buffers are in place Lack of funding to cover engineering design	GIS Design/GP-1 permit		Design, permit, construction services 2 – Municipal Engineers 3 – FTE Design, Permit construction Services 2 – stream biologist	Assume \$900/LF - \$9.36M – Urban Assume \$400/LF - \$1.84M Agriculture \$280,000 per year \$420,000 \$280,000	2024: 1,700 LF of stream restoration was installed in June 2024 with an additional 700 LF proposed for September 2024, weather/site permitting. Both projects are located along a portion of the Susquehecka Creek. 2023: 1,850 LF of stream restoration implemented in 2023. 2022: A few farmers are implementing stream restoration utilizing public funding. SCCD is assisting farmers implementing projects. Northern PA Conservancy is implementing stream restoration. ANL Wood is performing a match funded project for stream restoration with Northern PA Conservancy. PA Fish and Boat is doing Susquehanna river stabilization project.

3.11	Implement more barnyard runoff control/loafing lot management	22 120 acres of barnyard runoff controls (18 acres need reverification) 3 acres of loafing lot management	SCCD, Chesapeake Conservancy, NRCS, Snyder County Farm Bureau, Private Ag Consultants	Countywide Farms	2022-2025	Lack of Technical assistance to support agriculture planning and implementation. Lack of funding to cover engineering design. Increasing construction costs are resulting in cancelled NRCS contracts.			6 – additional Ag Planners to provide technical assistance and ag planning 3 – FTE Design, Permit construction Services 3 – FTE Design, Permit construction Services	\$780,000 per year \$420,000 per year \$315,000 per year Barnyard Runoff Control \$175K per project, assume 1 acre per project \$2.45M in total	2024: A 64'x 63' roofed HUA with a 24'x 36' waste storage was constructed in West Perry Township. A proposed 48'x 152' HUA with 48'x 32' waste storage is currently being designed for 2025 construction in Franklin Township. A third HUA (52'x176') in West Beaver Township was recently contracted through ACAP with construction anticipated for 2025. 2023: A .5 acre Roof Structure For HUAP implemented in 2023. 2022: GG Gray ACA improvements \$200,000: Monroe township Snyder County. An NMP was developed for the operation's 185.1 acres of permanent pastures and crop fields. While no Growing Greener funding was utilized, the operator installed 69 ft. of fence to exclude the goats from entering the earthen barnyard. This barnyard was also reseeded by the operator without GG funding. A new beef ACA (13,000 sq. ft.), roofed (16,640 sq. ft.) with the capacity to store manure (3 months' worth) was also installed to collect, contain, store, and manage manure for better agronomic and environmental use of manure N and P nutrients. Cattle will be fed when pasture conditions are not suitable for grazing. Other ACA associated practices include 1 watering system, 762 ft. of fencing connecting to pastures, and 536 ft. of access road NFWF MEB Snook Project \$250,000: NFWF MEB Snook Project 250,000 (Just awarded, to install dairy farm BMP's, West Beaver Township, project in conjunction with NRCS funding and design) The Foundation for Pennsylvania Watersheds applied to NFWF MEB for Phase 2 of BMP Verification. If awarded Barnyard Runoff Controls will be remotely sensed to identify existing BMP implementation. Field verification will occur on remotely sensed BMPs. A few projects are identified for HUAP and need funding to complete construction.
3.12	Animal Waste Storage Systems	15,000 107,500 Animal Units of Animal Waste Management Systems (3,000 new AUs of livestock & 12,000 new AUs of poultry) 8,000 Animal Units of Mortality Composters	SCCD, SCC, CEG Program County Farm Bureau, NRCS, Ag Land Preservation, Chesapeake Conservancy, Private Ag Consultants	Livestock & Poultry farms	2022-2025	Time to get through planning, design, and construction; outreach to smaller farms that likely need the assistance; match cash value for small farms; readiness to plan/implement projects when outreach efforts yield willing landowners. Lack of funding to cover engineering design.	Project implementation – 5 farms a year		6 – additional Ag Planners to provide technical assistance and ag planning 3 – FTE Design, Permit construction Services 3 – FTE Design, Permit construction Services	\$780,000 per year \$420,000 per year \$315,000 per year Animal waste management system \$175,000 per project, assume 100 AUs per project \$26.25M in total	2024: Waste Storage for 31.9 AUs was implemented one Beef Cow/Calf operation located in West Perry Township. Waste Storage for 125.2 AUs was implemented in summer 2024 for one poultry operation located in Middle creek Township. Additionally, Waste Storage for 347.66 AUs are slated for fall 2024 construction for three separate poultry operations. 2023: 170 Animal Units of Waste Storage was implemented for Beef Cow Calf operations 2022: NFWF MEB Snook Project \$250,000: NFWF MEB Snook Project 250,000 (Just awarded, to install dairy farm BMP's, West Beaver Township, project in conjunction with NRCS funding and design) The Foundation for Pennsylvania Watersheds applied to NFWF MEB for Phase 2 of BMP Verification. If awarded Barnyard Runoff Controls would be remotely sensed to identify existing BMP implementation. Field verification would occur on remotely sensed BMPs. The grant was not awarded. From 2020 to 2021 progress scenario in CAST Snyder County has increased poultry waste management systems by over 2,000 animal units. A few projects are being built this fall. More projects are in the que for needing funding to complete construction.

3.13*	Export of Excess Manure out of Snyder County	Manure Transport of excess manure out of Snyder County – 14,500 Dry Tons Per Year	SCCD, PDA, SCC, Snyder County Farm Bureau, NRCS, Local manure brokers, Private Sector nutrient management planners	Countywide Ag Lands	2022 - 2025	Current reporting methods do not accurately capture the amount of manure leaving Snyder County. Manure brokers are not required to report data. Lack of Technical assistance to support agriculture planning and implementation.			6 – additional Ag Planners to provide technical assistance and ag planning Expansion of PracticeKeeper to require manure brokers’ reporting	\$780,000 per year \$100,000 per year	2024: Approximately 28,680 tons of manure exported from the county. 2023: Approximately 23,000 tons of manure exported from the county. 2022: From 2020 to 2021 progress scenario in CAST Snyder County has increased Manure Transport by over 11,100 dry tons. SCCD has increased PK reporting of nutrient management plans to document export.
3.14	Urban Stormwater Management Non-Regulated Communities	Implement existing ordinances at local municipal level Catalogue existing BMPs that fit into this category and newly built ones Wet Ponds and Wetlands - 80 10 new acres treated	SCPC, SCCD, developing municipalities, Central Keystone Council of Governments, SEDACOG	County-wide	Ongoing 2022-2025	Coordination/ training for municipal staff, FieldDoc batch opportunity, non-MS4 engagement (what’s in it for them?), difficulty obtaining past information (MS4s typically have databases from 2003-present).	Reporting platform		5 – Summer interns for reporting and verification 2 – Municipal Engineers 1 – municipal planner	\$50,000 – paid internships \$280,000 per year \$130,000 per year Wet Ponds and Wetlands \$1,129: \$90,320 \$25,000 to work with Mech Tech on previous reporting	2024: No progress to date. 2023: No progress to date. 2022: No progress to date.
3.15	Conservation Landscaping/Turf to Meadow Conversion	Promote new program and enable one large tract landowners’ participation 80 5 new acres of Conservation Landscaping	SCPC, DCNR, Clear Water Conservancy, Chesapeake Conservancy, Penns Creek Watershed Association, MLC	Developed areas in County municipalities	2022 - 2025	Landowner education and acceptance Existing mowing ordinances and weed ordinances can be a challenge to implementation	Planting plan assistance		1 – FTE Municipal Planner 3 – additional FTE environmental technician	\$130,000 per year \$130,000 per year \$2,500 per acre meadow: \$200,000 budget for all	2024: A turf to meadow conversion project is in the process of being developed for the Susquehanna Valley Country Club. 2023: No progress to date. 2022: No progress to date.
3.16*	Continue dirt and gravel road program	22 miles overall restored through past projects Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate with Outlets - 55,000 LF (10 miles) Continue to implement the program annually	SCCD, Trout Unlimited	Countywide	2025	Continue D&G Road program funding. Expand Dirt and Gravel Road Program to include farm lanes.	Education, technical assistance, project oversight 1 – technical staff administering the program	\$1.8 Million since 1998	1 – FTE Clean Water Coordinator for Conservation District	\$130,000 per year Dirt and Gravel Roads \$40 per foot TBD	2024: Low Volume Project in McClure Boro – additional bottomless box culvert Low Volume Project in Beaver Township – 5 cross pipes and 4000’ of underdrain Dirt and Gravel Project in Chapman Township – 13 cross pipes, 400’ of underdrain, and 3000’ of DSA 2023: Low volume road project in McClure borough for a bottomless box culvert installation and future streambank rehabilitation. Dirt and Gravel Road Projects for 4000 ft of DSA and 6 cross pipes installed in Beaver Township. 2022: Two projects will be funded with Emergency Watershed Protection (EWP) money mixed with dirt and gravel road money to replace 2 stream crossings, 1,000 feet of channel restoration and 2,000 feet of bank stabilization. The second EWP project will include 1,200 feet of stream bank stabilization. SCCD is working on a low volume project that will take course over 3-years. Currently, 2 additional projects underway. Will begin accepting applications for 2023 in September. Approximately 1.5 miles of roadway restoration and 2 miles of underdrain estimated to be completed in next two years.

3.17*	Work with PennDOT and local municipalities to reduce frequency of mowing and grading road ditches and along roadways	Educate local municipal leaders and work with PennDOT to address state owned roads on the importance of keeping higher vegetation along roadways to prevent erosion and increase nutrient uptake.	Local Municipalities, SCPC, DEP and PennDOT	Countywide	2023	PennDOT's and Municipal willingness to cut back on mowing programs. DEP Chesapeake Bay Program will need to assist in the education of PennDOT.			1 – FTE Clean Water Coordinator for Planning Commission 1 – Clean Water Coordinator for Conservation District	\$130,000 per year \$130,000 per year	2023: No progress to date. 2022: No progress to date.
3.18*	Work with PA Game Commission to establish BMPs and conservation easements within Game Lands. Require farmland lessees to implement CNMPs and Ag E&S plans	Approximately 2,900 acres of state Game Lands are managed in Snyder County.	PA Game Commission, SCCD, MLC	PA Game Lands 188, 194, 212	2025	Coordination with Game Commission often challenging, requiring leases to implement plans when not currently required by lease contract.			1 – FTE Clean Water Coordinator for Conservation District	\$130,000 per year	2024: No progress to date. 2023: No progress to date. 2022: HRG had several discussion with the regional office. Most farming operations have ceased on state game lands. PA DEP was looking into crediting or land retirement statewide.
3.19*	Private Funding & Grant Administration	Identify some private funding sources that may be able to supplement public funding sources/existing sources utilized for stakeholders, continue to work with partners to facilitate additional funding.	Existing project implementer networks	Countywide	2022-2025	Need to expand network, educational aspect of less common funders, logistics of utilizing unproven funding sources (or lesser known). Grant administration is a challenge due to limited staff and time-consuming nature of grant reporting and administration.	Financial services		1 – FTE Conservation District Grant Manager 1 – FTE Planning Commission Grant Manager 2 – staff accountants	\$130,000 per year \$130,000 per year \$140,000 per year	2024: No progress to date. 2023: FFAR and Walton Family Foundation opportunities did not proceed. No progress to report from County-led activities. Chesapeake Conservancy continues to demonstrate project value to private foundations and those dollars eventually are invested on farms in the Rapid Delisting watersheds. 2022: HRG and LFT explored potential opportunities to apply to the Foundation for Food & Agriculture Research (FFAR) and the Walton Family Foundation's new program, Achieving Conservation through Targeting Information, Outreach and Networking (ACTION) to support innovative research that increases adoption of conservation practices. LFT applied for the FFAR grant but was not awarded.

Priority Initiative 4: Research, Education, and Training											
4.1*	Incorporate existing water quality monitoring data into Chesapeake Data Explorer/ Chesapeake Monitoring Cooperative database & Initiate additional water quality monitoring sites that promote long-term trend evaluation at key locations in Snyder County	Location identification, financial and volunteer budget analysis, and initial landowner communication by end of 2021 CAST-21 acknowledgement of our data Map existing monitoring locations Expand monitoring based on Corridors of Opportunity/rapid delisting area monitoring gaps	ALLARM, Susquehanna University, watershed associations, TU, USGS, SCCD, NRCS	Countywide	2022	Land access, expanded volunteer need, equipment/materials budget, Consistent data collection, QAQC continuation Data precision, QAQC, opportunity to educate landowners about local stream health and what they can do about it Ensure USGS/DEP/SU continue monitoring in Turtle Creek.	QAQC		Volunteers for Water quality monitoring New monitoring equipment 3 – additional FTE environmental technician 2 – stream biologist	N/A \$10,000 \$130,000 per year \$280,000 per year	2024: Water Quality Monitoring was conducted on both branches of the Mahantango creek in the upper reaches of each. The highlight of the data was that the N Branch was now attaining in IBI scores and was very close in habitat scores to be considered for delisting. 2023: Capacity changes with the Coordinator and Conservation Districts has pushed the convening of the Watershed Specialists. We will reevaluate in 2024 if this should be a priority at the County level or if it should be scaled to the State or Federal level. 2022: In the spring of 2023, HRG will convene the Watershed Specialist to identify the largest ""gaps"" of water quality monitoring data, develop strategies to comprehensively incorporate new data to support CAP efforts. ALLARM is in the process of developing citizen scientist monitoring data collection protocols to assist with stream health data collection. Should the protocol be approved, it will be shared with all Counties. Huntingdon County Watershed Specialist conducted several macroinvertebrate studies in the rapid delisting watersheds in Snyder County. Samples are used to demonstrate a baseline before restoration occurs.
4.2A	Supporting watershed associations for short-term success and long-term sustainability aligning with their goals	Develop new or reestablish existing watershed associations to support with CAP implementation. Watershed organizations can support with outreach, engagement, new project identification and implementation. Enhance the capacity of local watershed associations for short-term success and long-term sustainability.	Penns Creek Watershed Association, MLC, Trout Unlimited, National Trout Unlimited	Countywide	Ongoing	Continued coordination among a lot of active groups, keep project leads list active so that watershed approach to grant applications can be developed well in advance of submittal deadlines.	Social media shares Project development support		1 – FTE Clean Water Coordinator for Planning Commission 1 – FTE Clean Water Coordinator for Conservation District	\$130,000 per year \$130,000 per year \$5000 per organization to produce promotional materials (hats, shirts, stickers) for members: \$15,000 total per year	2024: Hiring of a new Watershed Specialist is complete, and plans to task with developing the Watershed group continue. Discussions were held about restructuring the Lower Penn's Creek Watershed Association. 2023: Currently Bylaws are being reviewed by County Solicitor to reorganize as a countywide organization, expectation of reorganization meeting to be held in Fall 2023. 2022: The 4-H program is working with established youth programs in Snyder County to share the Water Lion project. And we partnered with the SCCD to present the statewide 4-H Rain to Drain Project. A project on how much water is in different foods and your body is being presented as well to the youth participants. Exploring options of applying to the Environmental Education grant for a rain barrel workshop to gain more support for the watershed association.
4.2B	Explore options to establish a Snyder County Watershed and Conservation Association	Look to establish a new countywide watershed association with 501(c)3 status to support implementation of projects. Potential to merge Penns Creek Watershed Association into the new organization.	SCCD, Penns Creek Watershed Association, TU, other watershed or conservation organizations	Countywide	2023	Lack of participation in watershed organizations is challenging. Establishing a 501(c)3 takes time. Political will to develop the group. Funding to support the group			1 – FTE Clean Water Coordinator for Planning Commission 1 – Clean Water Coordinator for Conservation District	\$130,000 per year \$130,000 per year \$10,000 to establish Snyder County Watershed and Conservation Association	2024: See 4.2A 2023: Currently By Laws are being reviewed by the County Solicitor, expectation of a meeting of current board to reorganize as a County Wide organization in Fall 2023. 2022: Spoke with county solicitor about changing 501(c)3 to new organization. Also spoke with Linn Conservancy about utilizing their 501C3. Will revisit the issue over Winter of 2022/2023. Taking the approach of changing the name/geography.