Phase 3 Watershed Implementation Plan (WIP) Annual Progress Update and Two-Year Milestones Report – COLUMBIA 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+2024) *add new 2023 progress above the existing 2021 and 2022 progress. Date each entry
							Technical	Financial	Technical	Financial	
Priority Initiative 1: Nutrient Management											
1.1	Implement conservation and nutrient management plans	Agriculture	CCCD, Farmers, Consultants	Countywide	Ongoing	Landowners buy-in, funding	CCCD, NRCS	REAP, Growing Greener		CAP Grant	10/2024 -7 ACT 38 operations maintain NMPs, plus 5 volunteer operations have plans written 12/2023 - 7 ACT 38 operations maintain NMPs, plus 5 volunteer operations have plans written 8/2022 – 7 ACT 38 operations maintain NMPs, plus 5 volunteer operations have plans written
1.1a	Review 2 Nutrient Management Plans per year	Agriculture	CCCD, SCC, consultants	Countywide	Ongoing		CCCD	SCC			10/2024 - Reviewed 2 NMP's in 2024 12/2023 - Reviewed 7 NMP's in 2023 8/2022 – Reviewed 3 NMPs in 2022
1.1b	Review 5 Nutrient Balance Sheets per year	Agriculture	CCCD, Consultants	Countywide	Ongoing		CCCD	SCC			10/2024 - Reviewed 9 NBS's in 2024 12/2023 - approx. 33 NBS's in 2023 8/2022 – approximately 20 nutrient balance sheets in 2022
1.1c	Write 10 Ag E&S Plans per year	Agriculture	CCCD	Countywide	Ongoing		CCCD, Interns	CBP			10/2024 - No new Ag E&S plans in2024 12/2023 - Wrote 10 E&S Plans in 2023 8/2022 – Have written 10 Ag E&S plans in 2022

1.2	Expand soil testing	Agriculture	CCCD, Farmers, PASA	Countywide	Ongoing	Funding		Ed grants		CAP Grant	10/2024 - farmers collected samples per their Act 38 requirements. 12/2023 - soil tests were collected as part of nutrient management planning 8/2022 – soil tests were collected as part of nutrient management planning
1.3	Increased adoption of no-till & conservation tillage	Agriculture	CCCD, Farmers	Countywide	2025	Lack of acceptance from farmers	CCCD,NRCS, Pa No-Till Alliance	REAP		CAP Grant	10/2024 - same as 2023 update. 12/2023 - currently 1,000 acres enrolled in the soil health grant are no-tilled, plus many more acres throughout the county practice no-till but are not part of government cost-share programs. We estimate that approximately 85% of all cropland in Columbia County is no-till and/or conservation tillage. 8/2022 – currently 1,000 acres enrolled in the soil health grant are no-tilled, plus many more acres throughout the county practice no-till but are not part of government cost-share programs

1.4	Education for homeowners on residential fertilizer	Residential 200 total residents	CCCD, Residents	Countywide	2025	Lack of funds to develop handouts and technical ability to create documents	CCCD	PACD Ed. Grants	graphic design & marketing specialists	CAP Grant, Environmental education grant	10/2024 - no formal education events were held, but our climate resiliency brochures discuss proper fertilizer usage which were distributed throughout the year. 12/2023 - a well water testing clinic was held which included discussion on proper fertilization to keep drinking water clean which reached approximately 15 people. Sanitary well cap workshops were held which included discussion on proper fertilization to keep drinking water clean which reached approximately 120 people. 8/2022 - no formal education events have been held yet, but we are planning for future outreach
1.5	**Streambank Buffers**										
1.5a	Forested Buffers with fencing	Agriculture 510 total acres	CCCD, Landowners	Countywide	2025	Landowners not willing to sacrifice production area Potential Focus Area-Mud Creek WS	CCCD, NPC, Growing Greener		CAP Grant ACAP	CAP Grant ACAP	10/2024 - The Whyne fencing and buffer project was completed with CAP funds in 2024. 321 linear feet of streambank exclusion fencing was installed and a 35-foot wide multifuncitonal buffer was planted. 12/2023 - Greene's silvopasturing project added approximately 15 acres of trees and shrubs and fencing to keep animals out of creek and create forest for grazing/pasture. 0.5 acre buffer planted at Brad Fritz with fencing. 8/2022 – none completed to-date, but landowners are onboard for future projects

1.5b	Grass Buffers with fencing	Agriculture 170 Acres	CCCD, Landowners	Countywide	2025	Landowners not willing to sacrifice production area Potential Focus Area-Mud Creek WS	CCCD, NPC, Growing Greener		CAP Grant ACAP	CAP Grant ACAP	10/2024 - no change from last update. All buffer projects were forrested buffers. 12/2023 - no change from last update 8/2022 – none completed to-date, but landowners are onboard for future projects
2.1	Cover crops as natural weed suppressant	Agriculture 17,000 acres	CCCD, Farmers, Consultants	Countywide	Ongoing	Funding, Lack of landowner buy-in	CCCD, NRCS	GG $90K		ACAP	10/2024- More than 17,000 acres of cropland in the county plant cover crops. 12/2023 - approximately 17,000 acres of cropland in the county plant cover crops 8/2022 – approximately 17,000 acres of cropland in the county plant cover crops
2.2	Expanded adoption of planting green & rolling covers	Agriculture 1000 acres per year	CCCD, Farmers, PASA	Countywide	Ongoing	Funding , need for new equipment @ 12-75 thousand dollars based on operation size	CCCD, NRCS	GG $10k		ACAP, REAP-currently at $3million/year	10/2024 - approximately 3,000 acres of cropland in the county practice planting green and rolling 12/2023 - approximately 3,000 acres of cropland in the county practice planting green and rolling 8/2022 – approximately 3,000 acres of cropland in the county practice planting green and rolling
2.3	Pesticide education for farmers and residential applicators	Agriculture 100 residents per year	CCCD, Farmers, Residents, PSU Ext.	Countywide	2025	Funding	CCCD,NRCS, PSU Ext.		Technical knowledge and outrach materials from PSU extension, marketing consultant	$2500 PACD Ed Grants	3/2024 - 20 people reached at pesticide education twilight meeting 12/2023 - Pesticide education courses are offered yearly by PSU Extension and local ag retailers 3/2022 – 40 people reached at District Ag Conference

Priority Initiative 2: Stormwater Development											
1.1	Inventory/improvements for point source pollution such as WWTP, industry, septic	Identify Runoff Reduction Areas	CCCD, DEP, CMCSWP, municipalities, BU	Urban and developed areas	2025	Funding, Available staff	Data retrieval	none	data retrieval	$10K/yr intern CAP, DEP, DCED	10/2024 - Municipalities subjected to MS4 permits are working on their PRPs and implementing projects on their own. 12/2023 - municipalities are working on their PRPs and finding potential proejcts 8/2022 – municipalities are working on inventorying potential pollution reduction areas
1.2	Inventory/improvements for non-point source pollution such as buffer plantings, forest connectivity	Identify Runoff Reduction Areas Buffer plantings - 25 acres forest plantings - 2350 acres	CCCD, DEP, municipalities, DCNR, USFWS,BU	Urban and developed areas	2025	Funding, buy in, lack of interest	landscaping, botany	10 million trees	landscaping, botany	$100k CAP, DEP, DCED, DCNR< CBF, PACD	10/2024 - many municipalities have been interested in pollinator meadows to reduce runoff and reduce their mowing on municipal-owned properites. 12/2023 - 17 acres of pollinator meadows were planted in 2023. 8/2022 – municipalities are working on inventorying potential pollution reduction areas

1.3	Inventory/improvements or non-point source pollution via DGLVR	Identify Runoff Reduction Areas DGLVR - 12 miles	CCCD, DEP, municipalities, DCNR, USFWS,TU	Urban and developed areas	2025	Funding, buy in, lack of interest	DGLVR program stream structure construction	$400k/year CAP, DEP, DCED, DCNR	DGLVR program stream structure construction	$200k/year CAP, DEP, DCED, DCNR	10/2024 - Maple Lane - Sugarloaf Twp (0.04mi), Phillips Rd - Greenwood Twp. (0.1mi), Campbell Rd - Jackson Twp. (0.33mi), Parks Rd - Benton Twp. (0.6mi), Woodland Dr. - Greenwood Twp. (0.15mi), Woodland Dr - Millville Boro (0.2mi), Hill Rd - Fishing Creek Twp. (0.3mi) 12/2023 - Mountain Rd - Catawissa Twp (0.03mi), Yost Hollow Rd - Briar Creek Twp (0.02mi), Jackson St - Montour Twp (0.02mi), Campbell Rd - Jackson Twp (0.34mi), Campbell Rd - Franklin Twp (0.19mi), West Maple Dr - Main Twp (0.50mi), Creekside Ln - Beaver Twp (0.30mi), Campbell Rd - Cleveland Twp (0.46mi), Mourey Dr - Hemlock Twp (0.25mi) Maple Rd - Sugarloaf Twp (stream crossing) 8/2022 – 5 road projects completed in 2022. Heights Road -Berwick Borough (~.1 mile), Taylor Road – Madison Township (~.65 miles), Karns Road, Benton Township (.3 miles), Gas Well Road – Cleveland Township (~.5 miles) Belles Road, Orange Township (~.5 miles)
1.4	Consider existing plan recommendations/policies such as MS4 pollution reduction plans, road salt and herbicide use	Identify Runoff Reduction Areas 60 acres	CCCD, DEP, CMCSWP, municipalities, Co. Resiliency office	Urban and developed areas	2025	Funding, MS4 permit requirements	Planning, design, construction	program funds, Co. resiliency, municipalities	planning, design, construction	$100k	10/2024 - Municipalities are working on implementing their PRPs and the District is willing to help wherever possible 12/2023 - continuing to work with MS4 communities to plan projects and offer our assistance, but no physical projects have been completed yet. Berwick Borough is partnering to install downspout planters. 8/2022 – made suggestions to the new MS4 Coalition for their PRPs

1.5	Promote green infrastructure projects such as bioretention, rain gardens, downspout planters, pervious pavement	Identify Runoff Reduction Areas 100 acres	CCCD, DEP, CMCSWP, municipalities, Co. Resiliency office, Chamber	Urban and developed areas	2025	Funding, Buy in from municipalities, businesses	Contacts, Planning, design, construction	grants	contacts, planning, design, construction	$100k	10/2024 - The 7 acres of pollinator meadows were planted in Bloomsburg as part of a Growing Greener grant. 10 downspout planters were installed in Berwick Borough as part of a DEP EE Mini Grant. 12/2023 - CCCD receive a DEP EE mini grant to install downspout planters in Berwick Borough. Hemlock Twp installed a bioswale summer 2023. 7 acres of pollinator meadows are being planted in Town of Bloomsburg. Town of Bloomsburg installed one bioswale and one infiltration basin in summer/fall 2022. 8/22 – Applied for an Env. Ed grant to install downspout planters in Berwick Borough. Bioswale and retention pond installed in Kinney Run watershed. Included a bioswale project with Hemlock Twp in our 2023 CAP Impl. Application. The bioswale will be located in an around where numerous stream projects have been completed, and the township will receive MS4 credits for the bioswale. Folk's Butterfly Farm installed a rain garden.
1.6	Education and Outreach materials/events	Identify Runoff Reduction Areas	CCCD, CMCSWP, Watershed Groups	Urban and developed areas	2025	Volunteers to help run events, funding, develop materials	CCCD webinars, presentations, materials, venue, and equipment i.e. rain barrel workshop, downspout planter demo	grants, program funds	CCCD webinars, materials, venue, and equipment, graphic design	$25k	10/2024 - no updates 12/2023 - one workshop was held in Berwick Borough as part of the downspout planter project. Conducted a rain barrel workshop at Rohrbach's Farm Market. 8/2022 – completed two workshops on protecting groundwater and presented at one public event and one township supervisor/road crew training

2.2	Promote CAP practices and goals	Revise Ordinance Requirements 500 acres	CCCD, Co. Planning, municipalities	County-wide	2025	Funding, Buy in	Co. planning	TBD	planning consultant	consultant fees	10/2024 - same as last update 12/2023 - the CCCD is always promoting BMPs to farmers, landowners, and municipalities, however it is up to the municipalities and county to change their ordinances 8/2022 – the CCCD is always promoting MPs and ways to reach our CAP goals
2.3	Education and Outreach	Revise Ordinance Requirements	CCCD, Co. Planning, municipalities	County-wide	2025	Funding, Buy in	CCCD, Gov agencies, stream table	TBD	staff to hold twp meetings/demo	developing event materials	10/2024 - no update. We promote BMPs and offer our services to the municipalities to help do education and outreach, but no one has taken us up on it. 12/2023 - no update since august 2022 4/2022 – Attended numerous MS4 coalition meetings and made suggestions and encouraged that they revised their ordinances
2.4											

Priority Initiative 3: Stream Restoration											
1.1	Wetland/Floodplain Conservation	60 acres - Wetland restoration and/or preservation	CCCD	1) Above Camp Lavigne/Gary Cook, 2) Foundryville/Glen Brook 3) Summerville, 4) ESPY, 5) Back Branch area, 6) Oville confluence, 7) above FC Cabin area, 8)	2025	More technical support for delineations, funding, design work, landowner agreements	Planning, design, construction	NRCS program	planning, design, construction	$50k USFW, Land tursts, NRCS, GG NRCS program, CAP	10/2024- 2.27 acres of wetland restoration at O'Neil property and 3.77 acres of wetland restoration at Pfirman property. 12/2023 - two to three additional wetland restoration projects are being discussed and designed for future implementation 8/2022 – 1.5 acres of wetlands installed on Bond property.
2.1	Riparian Buffers	1000 acres - Riparian Buffer plantings	CCCD	County-wide – where canopy is not present along waterways	2025	Maintenance, landowner cooperation	Long-term maintenance funding or labor, planning, design construciton	10M trees	long-term maintenance funding or labor planning, design, construction	$50k CBF, DCNR, PACD, GG, CAP	10/2024 - a 0.25-acre multifunciontional buffer was planted at Whyne's property as part of a CAP project. An Approximately 0.5 acre buffer will be planted at the Diana property. About 6500 seedlings were distributed via the K10 tree program, some of which were planted in riparian areas. 12/2023 - approximately 15,000 tree/shrub seedlings were distributed as part of the 10 million tree program in fall 2022, spring 2023, and fall 2023. A grass and shrub buffer was planted at west Side Grove stream project. A buffer was planted after installation of Litwhiler's stream project in July 2023. 8/2022 – buffers planted at Arnold's Golf course, Moore's, Ulanoski's, Hartzel's – about 1.5 acres of forested or grassed/pollinator buffers

2.3	Riparian Buffers	Japanese Knotweed removal and invasive species treatments	CCCD	County-wide	2025	Need aquatic-safe treatment products, continual treatments and monitoring	Planning and labor/equip for proper removal		Planning and labor/equip for proper removal	$100k CBF, DCNR, PACD, GG, County, CAP	10/2024 - The Kinney Run pollinator meadows in Bloomsburg were treated for invasives species before planting, but there is not money for continual maintenance. 12/2023 - Native Creations treated a few acres at Kocher Park for invasive species and knotweed removal. There isn't enough money for continuous maintenance 10/2022 – knotweed cutting at Kocher Park. Small patches of treatment, but county-wide management has not happened
3.1	Streambank Stabilization	13,000 feet - Grading banks back for floodplain access	CCCD	Throughout Fishing Creek WS, Roaring Creek WS, Chilli Creek WS	2025	Permits required	Planning, design, construction	Grants and programs	Planning, design, construction	GG, CAP, County, CBF	10/2024 - 5,000 linear feet of streambanks were graded back for floodplain access (the Links, Glen Brook, Appleman's Run, Diana's) 12/2023 - in 2023, approximately 2000 linear feet of streambanks were graded back for floodplain access (west side grove, shaffer, quodomine, litwhiler) 8/2022 – from Feb. 2022 – Aug. 2022, approximately 5000 linear feet of streambanks have been reconnected to floodplains

3.2	Streambank Stabilization	13,000 feet - In-stream habitat structures	CCCD	Throughout Fishing Creek WS, Roaring Creek WS, Chilli Creek WS	2025	Permits required	Planning, design, construction	Grants and programs	Planning, design, construction	**DEP, GG, CAP,**	10/2024 - 5,000 linear feet of fish habitat structures were installed this year (Appleman's, Glen Brook, The Links, Diana's) 12/2023 - in spring 2023, approximately 2500 linear feet of fish habitat structures were installed in the county 8/2022 – from Feb. 2022 – Aug. 2022, approximately 5800 linear feet of stream structures have been installed in the county (Arnold's, Hartzel, Kinney Run sites, Ulanoski, Rodriguez/Hough, Skeet Club, Shaffner, Bond's). Numerous stream projects are proposed for 2023.
3.3	Streambank Stabilization	5000 ft - Livestock exclusion fencing	CCCD	County-wide – see ag BMPs	2025	Water access	Planning, design, construction	Grants and programs	Planning, design, construction	GG, DEP, CAP	10/2024 - Whyne's 321 linear feet of exclusion fencing was completed in August 2024. 12/2023 - Fritz's exclusion fencing was completed in spring 2023 - approx. 300 ft. 8/2022 – none completed to date, but landowners are lined up for future projects
4.1	Education and Outreach	Increase landowner outreach and develop outreach handouts	CCCD	County-wide	2025	Reaching landowners, changing "traditional" views	Layout, concept	Grants and programs	Advertising assistance, graphic design	DEP EE, PACD NPS	10/2024 - same as last update 12/2023 - Watershed organization meetings, native plant and tree sale, and workshops held to educate landowners 8/2022 – Watershed organization meetings, native plant and tree sale, numerous conferences, and a watershed festival were held to promote public outreach and conservation practices

4.3	Education and Outreach	Stream redesignation studies	CCCD	Fishing Creek WS Briar Creek WS Roaring Creek WS	2025	Funding for more staff to monitor streams and update listings	Training, interns to monitor	Grants and programs	Training, interns to monitor	DEP, CAP	10/2024 - we have not had the time or money to do monitoring and delisting studies. Discussed with BU a potential partnership to conduct stream monitoring. 12/2023 - projects have been implemented but funding for assessment was denied 8/2022 – currently implementing projects to improve stream qualities and will reassess at a later date

Priority Initiative 4: Preservation											
1.1	Preserve farms through the Farmland Preservation Program	Limit Development in Ag/Natural Areas 1 farm/year or 2200 acres total	CCCD, Farm Bureau, FSA, NRCS	County-wide	2025	Funding	Legal Advice, program admin knowledge	State program funding	admin knowledge, legal advise, conservation plan writing	state program funding	10/2024 - Soil Bound #1 closed in the beginning of 2024. Faus and Soil Bound #2 are encumbered but working towards state approval. Levan's will go to state approval in December 2024 and close hopefully in early spring of 2025. 12/2023 - Soil Bound #1 was approved in August 2023. Faus will go to state approval next year. Soil Bound #2 and Breisch will be encumbered by the end of 2023 8/2022 – no farms preserved in 2022, but numerous farms are in process
1.3	Promote open space and recreation through trail development/maintenance, public stream access	Limit Development in Ag/Natural Areas supporting exisiting and add 0.5 acre new each year	CCCD, DCNR, PFBC, CMVB, BU	County-wide	2025	Funding	planning	grants	planning	grants	10/2024 - the Kinney Run meadows with walking trails were installed in summer 2024. Always promoting Kocher Park and outdoor recreation 12/2023 - additional trails created at Kocher Park through pollinator meadow and buffer planted in spring 2023. trails created through pollinator meadows in Kinney run - to be installed spring 2024. KP was 5 acres and Kinney run is 7 8/2022 – supporting and maintaining trails and park facilities at Kocher Park, Nature Park in North Centre Township, and Weiser State Forest

1.4	Limit sprawl through planning and zoning	Limit Development in Ag/Natural Areas 50 acres	CCCD, Co. Planning, municipalities	County-wide	2025	Funding, buy in	Co. Planning	grants	co. planning	grants	10/2024 - no updates. We can't change the zoning ordinances 12/2023 - no updates 8/2022 – Attended numerous MS4 coalition meetings and made suggestions and encouraged that they revised their ordinances
1.5	Education and Outreach	Limit Development in Ag/Natural Areas	CCCD, municipalities, watershed groups	County-wide	2025	Funding	Presentations, webinars, handouts	developing event materials	presentations, w	$2k	10/2024 - no updates 12/2023 - no update 8/2022 – attended MS4 coalition meetings, watershed organizations held numerous meetings regarding these topics
2.1	Promote/assist landowners with habitat implementation such as field borders, pollinator strips, bird boxes, wetland restoration, etc.	Promote Implementation of Woodland and Pollinator Habitat 2 acres of tree plantings	CCCD, NRCS, DCNR,	County-wide	2025	Funding	Botany, forestry, landscape design, ecology	10 million trees	botany, forestry	$25k PACD, DCNR, DeP, CAP	10/2024 - about 4 acres of pollinator meadows were planted by landowners. About 6 acres of wetlands were created this summer via CAP and include bird boxes, duck boxes, etc. 12/2023 - 10 acres of pollinator seed was distributed in 2022 through CAP funds, approximately 9,000 seedlings were distributed through 10M trees in fall 2022 and spring 2023. Bird houses and bee houses were sold at annual plant sale. 17 acres of pollinators were planted in 2023 as well as approximately 6000 seedlings from 10M trees in fall 2023. 8/2022 – distributed 3500 trees through K10 Million trees, installed 1.5 acres of wetlands in Buckhorn, 11 acres of pollinators planted, 12 acres of field borders planted

2.2	Incentivize invasive species management removal and native replacements	Promote Implementation of Woodland and Pollinator Habitat 250 acres	CCCD, NRCS, DCNR	County-wide	2025	Funding	Botany, forestry, landscape design, ecology	10 Million trees	Botany, forestry, landscape design, ecology	$25k	10/2024 - the annual plant sale promotes native plants 12/2023 - annual plant sale promotes native plants 8/2022 – 6 acres of invasive species removal and native plants and trees installed at Kocher Park
2.3	Education and outreach materials/events	Promote Implementation of Woodland and Pollinator Habitat	CCCD, NRCS, Penn State Ext	County-wide	2025	Willing landowners, funding	Botany, forestry, landscape design, ecology	Developing event materials	Botany, forestry, landscape design, ecology	$2k	10/2024 - promote native plants and invasive species management through annual plant sale, women in ag, ag conference, soil health field days, native bee house activity, etc. Joshua Greene did a grazing tour on his farm where he planted 800+ trees to enhance his silvopasture practices. 12/2023 - promote native plants and invasive species management through annual plant sale, women in ag, ag conference, soil health field days, native bee house activity, etc. 8/2022 – promote native plants and invasive species management through annual plant and tree sale, Woodcock Watch, Women in Agriculture and Conservation Conference, Ag Conference, Soil Health Field Day, and other workshops and conferences