		<u>Green</u> - a barrier	action has been	completed or is	s moving forv	vard as planned <u>Yello</u>	w - action has end	countered minor	obstacles	Red - ad	ction has not be	en taken or ha	as encountered a	serious	
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resources <u>Ava</u>	ilable			Resourc	es <u>Needed</u>		Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
riori	ty Initiative 1: Ag	griculture											ı		
1.1	Reconcile ag- specific Bay model theoretical BMP implementation and loading numbers with on- the-ground and real conditions		Ag Action Team,Legacy Partners	Countywide	Late 2020 - 2022	Update Catchment Management Database with data ardinformation to help guide future decision points Assists with pinpointing ideal BMP implementation locations	Local and state experts, agencies, and environmentally related entities Catchment Management Database	PADEP, SRBC, LCCD, NRCS, Penn State AEC, watershed groups, non- profits, consultants, municipalities	GG 319 funds	PADEP			Funding for "boots-on-the-ground" assessments for ag-specific considerations @ \$50,000/ watershed, 3 watersheds: \$150,000	NFWF, PADEP, EPA	2021: Continuing to work on Catchment Management Database data and working with partners, like USGS and the Quittapahilla Watershed Association, to get real time data to support modeled data
1.2	Expand implementation of cover crops (specific focus on alternative approaches that may count as reductions)		Ag Action Team	Countywide	Late 2020 – mid 2021	Limited definition of cover crops and what would count as a reduction	BMP Quick Reference Guide Local experts andagencies	LCCD, NRCS, consultants, Penn State, DEP			Alternative approaches validation	Penn State, NRCS, Capital RC&D			2021: Working on creating a cover crop program through Conservation Excellence funding. This funding will be useful in funding cover crop projects and is successfully used as funding for cover cr programs through other county conservation district as well. We plan to use the examples from the other counties to form our own county-specific program.
1.3	Coordinate and develop game plan with NRCS for ag plan and implementedBMP capture for long-term verification processes		LCCD, NRCS	Countywide	Plan developed by end of 2020; initial imp. In 2021	Ensures capture of implemented BMPs for long-term verification processes Potential time and resource limitations for plan entry Initial focus in Swatara	Local agencies	LCCD, NRCS							2021: Working with NRCS or plans and continuing to wor on long term verification of BMPs. Our staff continues to stay in contact with landowners to ensure their BMPs are being captured. Walso have a good relationshi with our county's NRCS offic who keeps us up to date on their work.

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resources	<u>Available</u>			sources <u>eeded</u>		Annual Progress to Date 2021
							Technical	Source	Financial So	rce Technical	Suggested Source	Financial	Suggested Source	
1.4	Engage industrial and large ag operation farmers		CAP Team members	Countywide	Commence in 2021	Focus on CAFOs and AFOs								2021: We have started discussions, but no real action has been taken yet
1.5	Develop and implementgame plan for development and/or capture developed conservation plans into PracticeKeeper		LCCD, consultants	Countywide	Plan developed by early 2021 followed by initial imp.	Ensures capture of implemented BMPs for long-term verification processes Outreach and coordination with private consultants to capture plans into PK	PracticeKeeper	LCCD, consultants		Additional person(s) for PK data entry/ inspections at LCCD		Engagement/ outreach/ coordination/ inspections and plan entry funding – 1 person: \$75,000 Private consultant fees for capturing plans @ \$200/plan (~400 plans): \$80,000		2021: We have created a gameplan for this and are beginning to implement this gameplan to enhance our current practices and future ones
1.6	Promote and assist implementation of Agricultural Compliance practices in priority areas	Soil Conservation and Water Quality Plans (57,000 total acres) Core Nitrogen Nutrient Management (50,000 total acres) Core Phosphorus Nutrient Management (15,000 total acres) Barnyard Runoff Controls (112 new acres)	Ag Action Team, LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas (or where current initiatives are underway)	Game plan by early 2021; imp. 2021 – 2025 (and beyond)	Farmer resistance or buy-in Resources to write plans	Local experts and agencies	LCCD, NRCS, consultants	EQIP NRC	Additional personnel, consultants for magnitude of needed new or revised plans		Total-Soil Conser./WQ Plans (94 acres/ avg farm @ \$1,200/plan; 606 farms): \$727,200 Barnyard Runoff Controls: 224 farms, \$224,000 NM Plans: 532 farms @ \$1,000/ farm = \$532,000		2021: We continue to promote these through our CAP team and Ag team, we have had positive feedback so far. Our staff checks on plans through Chesapeake Bay inspections and farm pres. inspections. If people call or walk in, we will write the plans, unless a technical service provider is needed, then we will set them up with someone to write their plans.

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resour	ces <u>Availab</u>	ole			ources <u>eded</u>		Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
1.7	Promote and assist implementation of SoilHealth practices in priority areas	High Residue Tillage Management (24,000 acres/year) Conservation Tillage Management (13,000 acres/year) Traditional Cover Crops (13,700 acres/year) Traditional Cover Crops with Fall Nutrients (18,000 acres/year) Commodity Cover Crops (3,000 acres/year) Prescribed Grazing (6,000 totalacres)	Ag Action Team, LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas (or where current initiatives are underway)	2021 – 2025 (and beyond)	Farmer resistance or buy-in Modification of official definitions would be helpful Incentive program(s) and/or support for 3-4 years until returns exceed costs	Local experts and agencies	LCCD, NRCS, consultants	EQIP	NRCS	Additional personnel, consultants for magnitude of needed new or revised plans		Total-Revised SC/WQ Plans or captured by newplans in Ag 1.6 @ \$500/farm, 763 farms: \$381,500 Long-term funding for inspections, etc.(TBD) Seed money forincentive program (TBD)		2021: Our CAP AG Action Team is working on focusing on our priority areas first and have developed a cost share program to fund soil health and other bmp projects. We also are working with NRCS and EQIP to get additional projects funded

Acres) Nutrient Management- NitrogenTiming	1.8	Promote and assist implementation of expanded nutrient management practices inpriority areas	Nutrient Management- NitrogenTiming (13,000 acres) Nutrient	Ag Action Team, LCCD, NRCS, Penn State, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	2021 – 2025 (and beyond)	Farmer resistance or buy-in	Local experts and agencies	LCCD, NRCS, consultants	EQIP	NRCS	Additional personnel, consultants for magnitude of needed new or revised plans	Total-Revised NM Plans or included with new plans in Ag1.6 @ \$500/ farm, 436 farms: \$218,000		money to implement through cost-share, we have been coming up with incentives and other promoting factors to address any other challenges that may arise. Working on financial
Nutrient Management-			Phosphorus Timing (10,000 acres)												
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Nutrient															
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Phosphorus Phosphorus															
Nutrient Management- Phosphorus															
(12,000 acres) Nutrient Management- Phosphorus															
NitrogenPlacement (12,000 acres) Nutrient Management- Phosphorus															
Management- NitrogenPlacement (12,000 acres) Nutrient Management- Phosphorus			Management- Phosphorus Rate (10,000 acres)												
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management NitrogenRate practices inpriority areas Nutrient Management- Phosphorus Rate (10,000 acres) Nutrient Management- NitrogenPlacement (12,000 acres) Nutrient Management- NitrogenPlacement (12,000 acres) Nutrient Management- NitrogenPlacement (12,000 acres)	1.0	implementation of	Nutrient												
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Promote and assist implementation of expanded nutrient management practices inpriority areas Nutrient Management-Phosphorus Rate (12,000 acres) Nutrient Management-NitrogenPlacement (12,000 acres)													\$218,000		
Management (2,000 acres) implementation of expanded nutrient management practices inpriority areas Nutrient Management-Phosphorus Rate (10,000 acres) Nutrient Management-Phosphorus Nutrient Management-NitrogenRate (10,000 acres) Nutrient Management-Phosphorus Nutrient Management-NitrogenRate (10,000 acres)															
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1.8 Promote and assist implementation of expanded nutrient management practices inpriority areas Nutrient Management Man			(6,000 acres)	farmers								_			
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Record of the property of th			Nutrient	LCCD, NRCS,	agriculture land	2025 (and	buy-in	andagencies				personnel,	NM Plans or		
Core Phosphorus Nutrient Manageme (2,000 acres (2,000 acres (2,000 acres (2,000 acres (2,000 acres (1,000 acr			Nutrient		LCCD, NRCS,	LCCD, NRCS, agriculture land	LCCD, NRCS, agriculture land 2025 (and	LCCD, NRCS, agriculture land 2025 (and buy-in	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS,	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS,	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS,	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS, personnel,	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS, personnel, NM Plans or	LCCD, NRCS, agriculture land 2025 (and buy-in andagencies NRCS, personnel, NM Plans or

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resources <u>Avail</u>	<u>able</u>			Resources <u>Ne</u>	eded		Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Sugges ted	
1.9	Promote and assist implementation of improved animal unit practices in priority areas	Manure Storage Facilities (118,000 New Animal Units(AUs)) Dairy Cow Precision Feed Management (20,000 Dairy Cow Animal Units (AUs)) Manure Transport out of Lebanon County (25,000 dry tons/year)	Ag Action Team, LCCD, NRCS, Penn State, farmers, manure haulers/ brokers, ag retailentities	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	Game plan by early 2021; imp. 2021 – 2025 (and beyond)	Farmer resistance or buy-in	Local experts and agencies	LCCD, NRCS, consultants, haulers, contractors	EQIP	NRCS			Full BMP implementation dollars (~\$14.84 million, overall estimate until game plan fully in place)		2021: The CAP Team is addressing resistance from farmers and coming up with incentives and other promoting factors to address any other challenges that may arise. Continuously assisting farmers with implementing projects and identifying funding options. Our most common project interest this year was manure storage facilities. We did not see much interest in the other two options. Two projects we implemented this year were roofed poultry manure and composting structures.
1.10	Promote and assist implementation of buffers in agricultural riparian zones in priority areas	Forest Buffer (3,100 new acres) Forest Buffer with Streamside Exclusion Fencing (962 new acres) Grass Buffer (1,900 new acres) Grass Buffer exclusion Fencing (550 new acres)	Ag Action Team, LCCD, NRCS, Penn State AEC, farmers	Contiguous agriculture land use areas, with initial focus on red-coded catchment areas	2021 – 2025 (and beyond)	Farmer resistance or buy-in Engagement with Penn State AEC for program developmentfor other watersheds	Local experts and agencies, non-profit partners (ACB, etc.)	LCCD, NRCS, consultants, non-profits (ACB, CBF, etc.)	EQIP	NRCS			Total-Forest Buffers (w/ or w/o fencing) @ \$4,000/acre = \$16.25 million Total-Grass Buffers (w/ or w/o fencing) @ \$2,000/acre = \$4.9 million		2021: The CAP Team is addressing resistance from farmers and coming up with incentives and other promoting factors to address any other challenges that may arise. Continuously assisting farmers with implementing projects and identifying funding options. There was not much interest in doing buffer projects specifically on Ag land this year. We have plans to work with our partners to implement more projects next year.

1.11	Engage the Conewago Initiative to align over-arching CAP goals withefforts	Penn State AEC, LCCD, CI partners	Conewago watershed	Continuous	Achievement of significant BMP implementation through existing comprehensive effort								2021: In communication with the initiative, but working on taking actions and partnering on projects
1.12	Identify and foster ag- specific funding streamsand opportunities to assist farmers and BMP implementation	Ag Action Team, CAP Team members	Countywide	Continuous	BMP packaging for funding multiple projects through single source assistance programs Incentive program(s)			Various	Various		Various/TBD	BD	2021: We have identified funding for specifically Ag projects, such as CEG funding program and plan to use some of that funding for a Cover Crops Program
1.13	Develop and implement game plan outlining identification of farms missing plans, plan development assistance,long-term inspection processes, and BMP verification processes	Ag Action Team, LCCD, NRCS	Countywide	Plan develop by late 2020 followed by initial imp. (depends o funding)	watershed-to- watershed game plan	Local experts and agencies	LCCD, NRCS, consultants	APRP		Additional personnel	engagement funding	INSRG for all	2021: The team is working on creating a list of farms without plans and reaching out to offer assistance on creating plans and connecting them with NRCS. The team is very active in the community and frequently go out to farms who don't have plans or need updated ones to work with them on getting plans. We have engaged with Capital RC&D for assistance as well.

	Phase 3 Watersh	ned Implement	ation Plan (WIP)	Planning ar	nd Progress	Template								
		<u>Green</u> - action	has been completed	or is moving fo	orward as plan	ned <u>Yellow</u> - action ha	s encountered m	inor obstacl	es <u>Red</u> -	action has	not been taken or has	encountered a seriou	s barrier	
Action	Description	Performance Target(s)	Responsible	Geographic	Expected	Potential								Annual Progress to Date 2021
#			Party(ies) and Partnerships	Location	Timeline	Implementation Challenges or		Resource	s <u>Available</u>			Resources		300 2022
			·			Recommendations						<u>Needed</u>		
							Technical	Source	Financial	Source	Technical Suggested	Financial	Suggested Source	
Prior	ity Initiative 2: Storm	nwater (Deve	loped Areas)											
2.1	Engage legacy partners (Stormwater Consortium,etc.) to ensure capture and support of initiatives as it relates to local WQ improvements		Stormwater Action Team, watershed groups, MS4 municipalities, non-profits	Countywide	Comm Plan developed by early 2021 followed by initial imp.	Ensure efforts are not duplicated and focus on filling in gaps or providing collaboration arenas Project capture and reporting processes	FieldDoc		CAP Coord funds	PADEP		Resources for long-term verification processes (TBD)		2021: We have engage with the legacy partners and have had members join our action team
2.2	Integrate other water resources initiatives (e.g.source water protection)into overall approaches		Stormwater Action Team, LCCWA, local agencies (LCPD,etc.)	Countywide	Game plan by late 2020 with initial imp.	Conflicting regulatory requirements	Local consultants/ engineers, local and state agencies SWP entities							2021: Working on the conflicting regulatory requirements and creating a plan to take action in the next few months.
2.3	Pursue regional stream and wetland restoration projects that provide additional benefits to multiple communities and MS4s	Non-urban Stream Restoration (55,068 new linear feet) Wetland	Watershed groups, non- profits, MS4 municipalities, LCCD	focus on priority watersheds/ catchments	Late 2020 - 2025 (and beyond)	Tight timeframe for significant BMP implementation Local landowner willingness to participate	Local consultants/ engineers Non-profits (TU,etc.)		NFWF, GG, EPA, DCNR			Anticipated: Full BMP implementation dollars (~\$16.25 million)		2021: Working with the Consortium to collaborate on holistic projects that include a sectors. We have applied to a couple grants as partners to implement Ag & Urban projects.
		Restoration (125 acres)				Incorporate floodplain restoration approaches into stream restorations						shovel-ready projects: \$7.4 million		

action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resource	es <u>Available</u>			Resou <u>Nee</u>			Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
2.4	Engage and collaborate with PSU Extension to coordinate efforts for protection of private wells		Stormwater Action Team, PSU Extension	Countywide (non-public utility service areas)	2021	Collaborate with Source Water Protection (SWP) entities an efforts	PSU Extension SWP entities CAP Coord								2021: Have begun discussions but no action has been taken yet
			Stormwater Action Team, Stormwater Consortium, LCCWA, MS4 municipalities	MS4 communities	Late 2020 - 2025 (and beyond)	Ensure efforts are not duplicated and focus on filling in gaps or providing collaboration arenas	Local engineers and consultants Municipalities							NFWF, GG, EPA, DCNR, other	2021: We have engaged and plan to continue to work with them on projects in the future. The Stormwater Consortium has been very active with the CAP team and we are working on getting more engagement from other MS4 communities outside of the Consortium.
	Engage Lebanon County MS4 permittees for identification and support					Municipal buy-in or resistance									
2.5	for known BMPs for implementation, funding streams, maintenance,					Long-term verification processes									

Identify and foster potential alternative stormwater BMP implementation approaches (e.g. developer implementedregional stormwater facilities)	Stormwater Action Tear developers, private consultants engineers	n,	ywide Game plan by early 2021 with initial imp.	Buy-in may be a large hurdle Buy-in or resistance from developers	CAP Coord			2021: We have begun working on this, and have identified that buy-in will be a challenge and are working on overcoming that. There have been discussions in the previous months about how we could implement alternative approaches, however those conversations did hit a lull and will be picked back up in the coming weeks.

tion Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resour	ces <u>Availabl</u>	<u>e</u>					Annual Progress to Date 2021
					Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
one, and tree and tion inpriority Forest Canopy (12 new acres) Farmland Conservation (2,000total acres) Forest Conservation (2,300 totalacres) Wetland	LCCD, non-profits, MS4/non-MS4 communities	Countywide with initial focus on MS4 communities and priority catchments	Late 2020 - 2025 (and beyond)	Tight timeframe for significant BMP implementation Long-term verification processes	Local consultants/ engineers Municipalities LCPD Non-profits (ACB, etc.)		NFWF, GG(DEP), EPA, DCNR Municipal.			Jource	Potential: Full BMP implementation dollars (~\$825,000) 2021 shovel-ready or nearly shovel-ready projects: \$86,000 2022-2023 anticipated shovel-ready projects: \$303,000	NFWF, GG, EPA, DCNR, other	2021: We are continuously promoting and offering assistance with projects. We have helped groups apply to grant programs like Growing Greener and several NFWF grants to implement projects. We have also promoted the Keystone 10 million Trees program.
	MS4 Riparian Forest Buffers (69 new acres) Non-MS4 Forest Buffers (50 new acres) Conservation Landscaping (125 new acres) Urban Forest Planting (125 new acres) and assist Intation of Canopy (12 new acres) cone, and tree and (2,000total acres) inpriority Forest Conservation (2,300 totalacres)	Target(s) Party(ies) and Partnerships MS4 Riparian Forest Buffers (69 new acres) Non-MS4 Forest Buffers (50 new acres) Conservation Landscaping (125 new acres) Urban Forest Planting (125 new acres) and assist MS4 Urban Tree Canopy (12 new acres) one, Ind tree Canopy (12 new acres) inpriority Forest Conservation (2,000total acres) inpriority Forest Conservation (2,300 totalacres) Wetland Conservation (125	Target(s) Party(ies) and Partnerships MS4 Riparian Forest Buffers (69 new acres) Non-MS4 Forest Buffers (50 new acres) Conservation Landscaping (125 new acres) Urban Forest Planting (125 new acres) MS4 Urban Tree Canopy (12 new acres) MS4 Urban Tree Canopy (12 new acres) One, Ind tree Ind tree Ind Conservation (2,000total acres) Forest Conservation (2,300 totalacres) Wetland Conservation (125 Wetland Conservation (125	Target(s) Party(ies) and Partnerships Location Timeline	Target(s) Party(ies) and Partnerships Countywide Late 2020 Tight timeframe for significant BMP	Target(s) Party(ies) and Partnerships	Target(s) Party(ies) and Partnerships Party(ies) and Partnerships Coantywide Forest Buffers (50 new acres) Communities and priority to acres	Target(s) Party(ies) and Partnerships	Target(s) Party(ies) and Partnerships Coation Partnerships Coation Partnerships Implementation Challenges or Recommendations Resources Available	Target(s) Party(ies) and Partnerships Countywide Forest Buffers (69 new acres) Conservation (125)	Target(s) Party(ies) and Partnerships	Target(s) Party(ies) and Partnerships	Target(s) Party(ies) and Partnerships MSA Riporion Forest Buffers (99 nores) Conservation Locals cores) Conservation of Conse

		Advanced Grey	MS4	Countywide	Late 2020	Urban nutrient	Local	NFWF,	Anticipated: Full	NFWF, GG,	2021: We are continuously
		Infrastructure for	municipalities	with initial	- 2025	management is	consultants/	GG,EPA,	BMP	EPA, DCNR,	promoting and offering
		IDD&E Control		focus on MS4	(and	dependent on	engineers	MS4	implementation	local munis.,	assistance with projects. The
		(4,000 acres treated)						munic.			Stormwater Consortium has
				communities	beyond)	fertilizer legislation	Municipalities		dollars	other	spearheaded this in the 6
		Impervious Surface		and priority	beyonay	Tertinzer registation	widincipanties		(~\$398,500)	Other	municipalities that it covers.
	December	Reduction (15acres)		catchments		Tight timeframe for			(\$330,300)		As for the other
	Promote and assist			catcilinents		right timename for					municipalities in the county
	implementation of	Urban Nutrient				significant BMP					we have reached out to offer
2.0	· ·	Management				implementation					our assistance in any way
2.8	urban/suburban	(2,000 acres)				•					needed. Street Sweeping is
	sector controls for										very popular in Lebanon City
		Street				Long-term verification					specifically.
	nutrient and	Sweeping (122 acres				processes					
	sediment	treated)									
	reductions	,									

	MS4/non-MS4											
	MS4/non-MS4				Technical	Source	Financial	Source	Technical Sugg	ested Financial rce	Suggested Source	
primwater Performance and ards-Runoff Reduction (Sacres treated) pretention/Raingardens (Pacres treated) preswale (9 acres treated) getated Open Channels (Pacres treated) getated Freated) gering Practices (8 prestreated)	communities	Countywide with initial focus on MS4 communities and priority catchments	Late 2020 - 2025 (and beyond)	Tight timeframe for significant BMP implementation Long-term verification processes	Local consultants/ engineers Municipalities		·			Anticipated: Full BMP implementation dollars (~\$1.8 million) 2021 shovel-ready or nearly shovel-ready projects: \$1.0 million 2022 anticipated shovel-ready projects:	NFWF, GG, EPA, DCNR, MS4 munis., other	2021: We are continuously promoting and offering assistance with projects. The Stormwater Consortium has spearheaded this in the 6 municipalities that it covers. As for the other municipalities in the county we have reached out to offer our assistance in any way needed.
inde Sac Pret Paci Paci Paci Paci Paci Paci Paci Paci	lards-Runoff Reduction acres treated) tention/Raingardens tres treated) vale (9 acres treated) tated Open Channels tres treated)	lards-Runoff Reduction acres treated) tention/Raingardens ares treated) vale (9 acres treated) tated Open Channels ares treated)	communities and priority catchments tention/Raingardens tres treated) trated Open Channels tres treated) ting Practices (8	nwater Performance (lards-Runoff Reduction (acres treated) tention/Raingardens (res treated) traile (9 acres treated)	communities and priority catchments tention/Raingardens res treated) trated Open Channels res treated) ting Practices (8	communities and priority catchments beyond) Long-term verification processes Municipalities Municipalities Municipalities Municipalities Addition processes Municipalities Municipalities Addition processes Municipalities Municipalities Addition processes Municipalities Municipalities Addition processes	communities and priority catchments beyond) Long-term verification processes tention/Raingardens res treated) vale (9 acres treated) tated Open Channels res treated) ing Practices (8	communities and priority catchments beyond) Long-term verification processes Municipalities DCNR, developers Long-term verification processes	communities and priority catchments beyond) Long-term verification processes Municipalities DCNR, developers beyond) Long-term verification processes tention/Raingardens rest treated) vale (9 acres treated) tated Open Channels rest treated) ing Practices (8	communities and priority catchments beyond) Long-term verification processes Municipalities developers DCNR, developers	producte Performance lands-Runoff Reduction (cress treated) communities and priority catchments beyond) Long-term verification processes Municipalities DCNR, developers developers 2021 shovel-ready or nearly shovel-ready projects: \$1.0 million and (9 acres treated) and priority catchments beyond) Long-term verification processes Municipalities DCNR, developers and priority catchments 2021 shovel-ready projects: \$1.0 million 2022 anticipated shovel-ready	and priority catchments communities and priority catchments communities and priority catchments cest treated) communities and priority catchments cest treated) communities and priority catchments cest treated) communities and priority catchments communities and

		<u>Green</u> - a barrier	ection has been o	completed or is	moving forwa	ard as planned Yell	w - action has en	countered	minor obst	acles <u>F</u>	Red - action	has not been t	aken or has	encour	ntered a serious	
Action	Description	Performance	Responsible	Geographic	Expected	Potential										
#		Target(s)	Party(ies) and Partnerships	Location	Timeline	Implementation Challenges or	Resources <u>Available</u>				Re		Annual Progress to Date 2021			
						Recommendations	Tachnical	Sauraa	Financial	Course	Tookuisa	l Cuggostod	Financi	- I	Cuggested	
							Technical	Source	Financial	Source	recnnica	I Suggested Source	Financi	aı	Suggested Source	
Prior	ity Initiative 3: Ed	ucation and	Outreach													
3.1	Identify alternative and creative messaging and outreach methods		Education Action Team	Countywide	On-going (over- arching game plan early 2021)	Intent is to overcome stagnant approaches and improve public buy-in					TBD	TBD	TBD	TBD		2021: The team has created mission statement and logo for the Lebanon CAP team. The team held a logo context open to the community and had 9 submissions. We narrowed it down to a top three who all received prize The first-place logo also was implemented as our new CAT Team logo. This created grecommunity involvement.
	Collaborate with the state to improve statewide branding and messaging		Education Action Team, PADEP	Countywide (and state)	On-going	Ensure messaging isuniform region to region	DEP/Water Words That Work tools and materials									2021: We used the Clean Waters, Healthy Communities materials and resources to help create ou own Lebanon tailored message and branding
3.3	Unify messaging and outreach methods across sectors		Education Action Team, PADEP, LCCWA,	Countywide	On-going	Amplify the common goals Statewide PSAs andoutreach efforts	DEP (WWTW)									2021: We used the CAP action teams to unify the message across the sectors
3.4	Support Agriculture Action Team outreachefforts		Education Action Team, Ag Action Team, LCCD	Countywide	On-going (Ag AT follow- ups for direction		LCCD, NRCS									2021: The team has played an important ro in outreach efforts to get landowner buy in for Ag projects. They have assisted with creating outreach materials for farmers/landowners.

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	•		Res	ources <u>Avai</u>	<u>lable</u>			ources eded	Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
3.5	Support and build on existing education and outreach efforts while preserving the messagingthe central focus is Lebanon County		Education Action Team, LCCWA, municipalities, LCCD, non- profits, Stormwater Action Team	Countywide	On-going	Reduce loss of interest by the general public or stakeholders	Existing outreach materials							2021: Continuously updating the outreach methods to keep public interest up. We created online materials for people to review for more information. We held an online stakeholder event to explain the CAP document and our work that we are doing to better the county's water.
3.6	Provide oversight and guidance for CAP-specific media outreach approaches and methods(website, radio, etc.)		Education Action Team, CAP Management Team	Countywide	On-going	Ensure appropriate information is available DEP EE Grant for start-ups of outreach platforms	Website secured	CAP Mgmnt Team	EE Grant CAP Coord funds	DEP				2021: Created website and social media and continue to update with more information and events that the team comes up with. www.lebanoncleanwateractionteam.com

	Phase 3 Waters	shed Impleme	entation Plan (W	VIP) Planning	g and Prog	ress Template									
		<u>Green</u> - act	ion has been compl	eted or is movin	ng forward as	planned <u>Yellow</u> - acti	on has encountered	minor obsta	acles <u>Red</u>	- action h	nas not been ta	ken or has en	countered a serio	us barrier	
Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources <u>Available</u>						ources eded	Annual Progress to Date 2021	
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
Priori	ty Initiative 4: Data	a Manageme	ent and Monit	oring											
4.1	Identify and expand water quality monitoringefforts to assist with prioritization of BMP implementation and measure long-term success		PADEP, SRBC, watershed groups, LCPD, municipalities, local agencies	Countywide	On-going	Incompatible data/information Adequate amountof relevant water quality and macro data for decision points	GIS tools WQ Portal Dickinson College								2021: Working with USGS and NRCS to put in more real time WQ stations in Lebanon County to compare to modelled data
4.2	Build a Lebanon County-specific monitoring network		DM/M Action Team	Countywide (organized by watersheds)	Game plan by early 2021, imp. early 2021 - 2023	Potentially duplicate QWA monitoring efforts across other watersheds Alignment of various platforms for data collection and reporting	Catchment Management Database Local experts, consultants, etc. SRBC, PADEP				Parameter and plan guidance	SRBC, DEP, academia	Potential: Equipment and resources for data capture and analysis (TBD)		2021: Working on creating this network using the CMD data and GIS. We will include a web map feature that will have the monitoring and project points on it specific for Lebanon County. We plan to ask organizations to continue to report their projects and progress back to us, as well as using volunteers to help with monitoring.
4.3	Maintain an inventory of acceptable BMP verification processes forlongterm monitoring efforts		Municipalities, LCCD, state/ local agencies,Capital RC&D, Penn State AEC, local consultants/ engineers	Countywide	Late 2020 - 2021	Resources for inspections, etc. Identify gaps for BMPs	Verification Processes Inventory BMP Quick Reference Guide						Potential: Funding for inspectors (TBD)		2021: Have an inventory from DEP for CAP specific BMPs, will continue to find ways for long-term verification

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	•	ı	<u>Available</u>				Annual Progress to Date 2021			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
4.4	Identify potential additional monitoring activities that may accompany existing monitoring activities to capture missing or needed information		Capital RC&D, LCCD, watershed groups, Penn State, municipalities, local consultants/ engineers	Countywide (initial focus on priority watersheds)	Full inventory by late 2020; imp. 2021- 2023	Expansion of transect survey processes and data SRBC data and information	Transect survey	Capital RC&D			TBD	TBD	TBD	TBD	2021: We have started working with USGS to provide more monitoring stations for WQ data and also are working with local GIS department team to create a web map for project tracking
4.5	Establish FieldDoc use and access protocols (SOPs)		DM/M Team	Countywide	Early 2021	Ensure quality of information displayed and entered	FieldDoc/PADEP LCCD/NRCS Local consultants, agencies, etc.								2021: Plan to input data collected in excel spreadsheet into FieldDoc once access is granted

		<u>Green</u> - action serious barrier	has been comple	eted or is mov	ing forward	l as planned <u>Yellow</u> - a	ction has encounte	red minor	obstacles	<u>Red</u> - a	action has not	been taken o	r has encoun	tered a	
Action	Description	Performance Target(s)	Responsible	Geographic	Expected	Potential									Annual Progress to Date 2021
#		ranges(s)	Party(ies) and Partnerships	Location	Timeline	Implementation Challenges or Recommendations		<u>lle</u>		Resou <u>Need</u>					
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggestee Source	d
riori	ty Initiative 5: Coord	ination										Jource		Jource	
5.1	Establish and maintain a coordination sub-committee focused on implementation of the QWA 319 plan and local municipal PRPs/efforts		QWA, MS4 municipalities in the Quittapahilla watershed	Quittapahilla watershed		Helps provide final approvals for QWA generated 319 Plan	QWA, Local consultants/ engineers								2021: Sub-committee was not created; however, we did create Watershed Action Team that will address this initiative
5.2	Engage and support The Conewago Initiative		Penn State AEC, CAP Management Team, farmers, non-profits	Conewago watershed	On-going	Ag focused effort for BMP and riparian buffer implementation	Penn State AEC								2021: This has been addressed an will continue to support the initiative as needed
5.3	Continually engage and update local legislators for CAP implementation support		Coord Action Team	Countywide	On-going	Position for fundingor programmatic change needs									2021: Our team is in contact with the legislators regularly and continue to seek support
5.4	Collaborate with Lancaster County for shared watersheds (Upper Hammer, Chiques, etc.)		Non-profits, local agencies, municipalities	Lancaster/ Lebanon boundary region	On-going	Project collaboration may help both counties achieve goals and objectives									2021: There are multiple projects being completed in the Hammer both Lebanon and Lancaster Couland we have continued to keep e other informed to make sure the are in collaboration with each other informed to make sure the are in collaboration with each other informed to make sure the are in collaboration with each other informed to make sure the are in collaboration with each other informed to make sure the are in collaboration with each other informed to make sure the area.

Action #		formance get(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations		Resources <u>Avail</u>	lable				esources Needed		Annual Progress to Date 2021
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source	
5.5	Engage local/regional programs (e.g. Master Watershed Stewards) to coordinate efforts for long-term CAP implementation success		Coord Action Team	Countywide	Game plan by late 2020 followed by initial imp.	CAP-related goals and objectives may be achieved through existing programs and efforts					TBD	TBD	TBD	TBD	2021: Have engaged with Master Watershed Stewards for assistance and collaboration with the CAP projects and progress. They plan to offer their time to help with monitoring efforts.
5.6	Assist with progressing efforts in the Swatara (with the Lower Little Swatara as a priority watershed)		Coord Action Team, CAP Management Team, Swatara Watershed Association, NRCS, LCCD	Swatara (and Lower Little Swatara)	2021-2023	Use NRCS plan as basis of approach and funding requests	NWQI Watershed Assessment Plan Catchment Management Database	NRCS Local engineers and consultants					Boots-on-the-ground/ detailed assessment and opportunities effort: \$50,000	NFWF INSRG	identified Lower Little Swatara as a priority watershed and are working with the SWA on projects. We have one project currently being implemented in the Swatara and a few more planned to be implemented in the coming months.

Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template

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

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

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

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