

## Template 1. Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Template

**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(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available				Resources Needed			
							Technical	Source	Financial	Source	Technical	Suggested Source	Financial	Suggested Source
<b>Priority Initiative 1: Turf &amp; Lawn Conversion Program (10K acre goal); 5K acres of “Urban Forest Expansion” (turf to trees) + 5K acres of “Conservation Landscaping” (turf to meadow)</b>														
1.1	Develop a communications program around the new Lawn Conversion initiative, with some separate subsets of materials for turf-to-trees and turf-to-meadows	Establish/maintain a network of committed partners to ensure consistent and coordinated communications.	PRPS, DCNR, agencies and partners, municipal parks, etc.	Bay-wide	Fall 2018-2019	Time – lot of work to coordinate, meet, stay in touch	Staff expertise,	DCNR, ACB			Semi-annual meetings?	DCNR?		
		Train qualified staff on basic installation and maintenance practices, plant ID, etc.	DCNR, ACB	Bay-wide	Spring 2019-	Time, coordination, finances, finding treatment sites for workshops	Staff expertise	ACB, DCNR	\$1000?	USFS			\$2,000-5000 for additional trainings	
		Include turf conversion program outreach in current conservation outreach programs across the PA Bay Watershed, in both urban, suburban, and rural residential areas. Integrate messaging with any existing outreach programs.	DCNR, ACB, Chesapeake Bay Program	Bay-wide	Spring 2019	Coordination	Existing outreach machinery	DCNR, conservation partners						
		As applicable, utilize social data to streamline outreach to new landowners most likely to express interest in conservation programs.	DCNR, others?	Bay-wide	Fall 2019	Requires new analysis?	Social data available through existing DCNR work?	DCNR						
		Connect with existing networks focused on similar goals, such as the PA Pollinator Task Force, etc.		Bay-wide	2019	Coordination	Existing partnerships							
		Develop training programs to help municipal officials understand Conservation Landscaping as MS4 BMP	DCNR, ACB	Bay-wide	2019	Time, coordination, finances	DCNR-BRC, existing partnerships	ACB, DCNR	\$1000?	USFS			\$2,000-5000 for additional trainings	

		Develop outreach and training programs for interested private property owners- highlight current installation sites on private lands as landowners are willing.	DCNR, ACB	Bay-wide	2019	Time, coordination, finances	Expertise, existing outreach channels	DCNR, ACB, other conservation partners	\$1000	USFS				\$2000-5000 for additional trainings	
		Develop temporary and permanent signage for use in public spaces where turf conversion will be taking place to assist with public perception in early establishment periods, etc. and to accompany long-term established areas on public lands.	DCNR	Bay-wide	2019	Time, finances	Existing similar signs as templates	Xerces society, PA Pollinator Task Force, ACB, other conservation partners						\$5000 for broad distribution	
		Develop outreach materials that highlight overall purpose of establishment of meadows and forests instead of turf- manage expectations- "This is not just a coneflower patch..." etc.	DCNR, ACB, conservation partners (Xerces Society, etc)	Bay-wide	2019	Time, coordination, finances	Existing similar materials as templates	Xerces society, PA Pollinator Task Force, ACB, other conservation partners							
		Consider outreach that helps with stigma of "unmowed" areas- manage concerns around tick problems, mosquito problems, etc.	DCNR, ACB, conservation partners (Xerces Society, etc)	Bay-wide	2019	Time, coordination, finances	Existing similar materials as templates	Xerces society, PA Pollinator Task Force, ACB, other conservation partners							
		Include sessions at appropriate conferences, such as PSATS, etc. to educate appropriate audiences.	DCNR, ACB	Bay-wide	Starting winter 2018 through 2019	Time, travel expense	ACB	USFS							
		Target golf courses with outreach- large amounts of turf, and may be interested in converting some areas. Have appropriate maintenance equipment, etc. There are golf course sustainability courses- connect with these as possible/appropriate!	DCNR, ACB, conservation partners (Xerces Society, etc)	Bay-wide	2019	Time, coordination, finances	Staff expertise, existing similar campaigns by partners	ACB, DCNR, Xerces Society, Penn State Extension, other conservation partners							

		Connect with CBLP training (and other similar opportunities)- is there room to fit this into their program more robustly, or highlight somehow?	Chesapeake Conservation Landscaping Council, DCNR, ACB	Bay-wide	2019	Time, coordination, finances	Current vigorous pollinator habitat trainings	Chesapeake Conservation Landscaping Council						
		Ensure that Communities and other partners are aware of how to utilize both Conservation Landscaping and Urban Forest Expansion as BMPs to receive MS4/Bay Model Credits. Create Templates and communication materials for these communities.	DCNR, DEP, Municipalities	Bay Wide	2019									
<b>1.2</b>	Ensure Commitment from Leadership at all levels to advance new Conservation Landscaping BMP in PA	Ensure leaders have all background knowledge necessary to constructively communicate about Conservation Landscaping utility and advocate for implementation.	DCNR-BOF, ACB	Bay-wide	2019-	Reaching appropriate leaders	Staff expertise	DCNR, ACB					1000-2000 for travel and materials	
		Foster private sector champions/leaders to help them share messages with their peers and others on the importance of meadows.	DCNR-BOF+BRC, ACB	Bay-wide	2019-2020	Buy-in for regional contacts to join and support program.	Known collaborators	DCNR, ACB, PSU						
		Foster local-level leadership among technical assistance providers such as conservation district staff, service foresters, PSU Extension, NGO partners, etc.	Service Foresters, County Extension, ACB	Bay-wide	2019	Coordination	Known local collaborators							
		Ensure that DEP MS4 Program credits Urban Forest Expansion as a BMP as defined by the Bay Model.	DCNR, DEP, Chesapeake Bay Program	Bay-wide	2019	Coordination								
<b>1.3</b>	Technical Assistance	Identify existing subject matter experts in native grassland and meadow establishment to evaluate and design a new implementation program, technical guidance/specifications, etc.	DCNR-BOF, ACB, Pheasants Forever, PGC	Bay-wide	2019	Funding, staff time, coordination	Technical expertise	DCNR, ACB, PSU, PF, PGC						

		Establish annual Turf-to-Meadow workshops in strategic locations to provide TA guidance and field training.	DCNR, ACB	Bay-wide (at least 1 per "tier")	2019 (pilot), 2020-	Funding, Staff time	Known sites, trainers	BOF, ACB					2000-3000 for venue, educational materials, meals	
		Increase capacity to support implementation demand, such as availability of commercial seed stock, seed producers, contract planters, meadow maintainers, etc.	DCNR, Commercial business owners and trade groups	Bay-wide	2020	Market factors could limit profitability							?? Seed money for new businesses or new equipment investments?	Bureau of Labor and Industry? Chambers of Commerce?
		Create and deliver TA tools, including planting plan/design templates, outreach strategies and materials, science-based targeting data for greatest load reductions, etc.	DCNR, ACB, Xerces Society, PSU	Bay-wide	2019	Need graphic designers, Funding for printing	Existing printed materials that can be re-worked	BOF, ACB					5000-10000 for Graphic Design Contract	
		Incorporate meadow establishment TA into existing TA programs- PSU Extension, Master Gardeners, Service Foresters, etc.	TreePennsylvania, DCNR, PSU Extension, etc.	Bay-wide	2020	Coordination								
		Create high-quality demonstration sites on public land in each region to facilitate practice acceptance and adoption.	PRPS, municipalities with adequate capacity, DCNR-Parks	Regionally where capacity and access align (strategic locations).	2019-	Locating and establishing sites on public land; access to sites by stakeholders								
		Research a variety of establishment methods and provide all TA providers with results. Include visits to pilot sites as needed, on-site trainings, etc.	DCNR, ACB	Bay-wide	2019	Time, funding	Staff expertise, existing guidelines	DCNR, ACB, Pheasants Forever, Xerces Society						
		Provide private property owners with access to maintenance equipment/maintenance training/contract maintenance TA, as appropriate for each site.	DCNR, ACB	Bay-wide	2019	Funding, equipment storage/ownership, staff time	Staff expertise, existing TA outreach materials, existing partner-owned equipment	DCNR, ACB, Pheasants Forever, Xerces Society						
		Develop a list of verified contract TA available to landowners, both public and	DCNR, ACB, Partners	Bay-wide	2019	Time, funding	Staff expertise	DCNR, ACB, conservation partners						

		private, for those who wish to hire maintenance assistance.												
		Develop a DIY webtool for interested private landowners who wish to install these practices without cost-share (similar to "Control Your Stormwater").	DCNR, ACB	Bay-wide	2020	Funding, staff time	Existing tools as templates, staff expertise	ACB, DCNR, partners						
		Train network of regional advisors for Conservation Landscaping installation and maintenance to assist with projects in their service areas.	DCNR, ACB	Bay-wide	2019	Funding, staff time, coordination	Staff expertise	DCNR, ACB, conservation partners						
1.4	Develop funding opportunities for turf conversion programs.	Include Conservation Landscaping as an eligible BMP in existing conservation grant programs.	DCNR, TreePennsylvania, TreeVitalize, DEP, etc.	Bay-wide	2019	Time								
		Seek new innovative funding sources and mechanisms.	DCNR	Bay-wide	2020	Staff time, coordination,	Expertise of staff and body of partners ("advisory committee"?) who have by this point coalesced	DCNR, ACB, partners						Up to \$17,500,000 (lawn to meadow costs \$500/ac, lawn to forest \$300/ac. If funds are to be provided for all implementation, will need \$17.5 million. This can be winnowed down with a cost-share model or other more innovative techniques
		Require native meadow establishment in other cost-share programs for landowners, businesses, campuses, etc.	Conservation districts, NRCS, DCNR, DEP, NGO partners	Bay-wide	2021	Cultural barriers, must successfully created outreach program and fully-functioning TA program before requiring implementation								

		Work with corporations and institutions (businesses, hospitals, schools, etc.) to implement Conservation Landscaping on their properties.	DCNR, ACB, partners	At least 1 per county?	2020	Buy-in from institutions, permitting	Staff expertise, existing outreach programs	ACB, DCNR						
		Explore options for contracting with large seed suppliers to provide seed to willing self-funded landowners or landowners participating in cost-share programs.	DCNR, ACB, partners	Bay-wide	2020	Seed availability	Staff expertise, expertise and partnership of seed distributors	DCNR, ABC, Ernst Conservation Seed						
		Explore funding opportunities tied to flood mitigation.	PEMA, FEMA, DCNR, DEP, etc.	Bay-wide	2019	Red tape, cultural barriers								
<b>1.5</b>	Report Progress to Ensure Appropriate Nutrient and Sediment Reduction Credits and further develop program based on successes and failures.	Develop a standard mechanism for reporting all newly implement acres of turf converted to meadow or forest.	DCNR, DEP, Chesapeake Bay Program	Bay-wide	2019									
		Monitor 5-10% of newly implemented project sites annually for invasive issues, succession issues, etc. and update program based on documented successes and failures.	BOF, ACB	Baywide	2020-	Staff time, Access by staff to private lands								
<b>1.6</b>	Maintenance	Investigate options for long-term maintenance funding of turf converted to meadows or forest.	DCNR, ACB, partners	Baywide	2019-2020	Staff time, funding	Expertise of staff and body of partners ("advisory committee"?) who have by this point coalesced	DCNR, ACB, partners						
		Develop materials and trainings for both TA providers and landowners to clearly outline maintenance needs.	DCNR-BOF, ACB	Baywide	2019	Staff time, funding	Staff expertise, existing invasive treatment materials	DCNR-BOF, ACB						
		Rebrand existing materials from partners working on pollinator habitat and other similar practices as appropriate.	DCNR-BOF, ACB	Baywide	2019	Staff time, funding	Staff expertise, existing materials	DCNR, ACB, partners						

		Require all grantees implementing Conservation Landscaping to attend maintenance workshops to develop understanding of requirements.	DCNR, ACB	Baywide	2020-	Accountability? Who will ensure attendance?	State Forest sites can be used for these trainings	DCNR-BOF						
		Train community volunteers, where applicable, to assist with public space conservation landscaping maintenance- tap into Master Gardeners, Master Watershed Stewards, Prison Training Programs, etc.	DCNR-BOF, ACB, Conservation Districts, Master Gardeners	Baywide	2020-	Organizing staff support outside of BOF and ACB	State Forest sites can be used for these trainings	DCNR-BOF						
		Ensure that all Conservation Landscaping implementation projects funding with federal, state, or NGO partner funds are designed with maintenance in mind, for future landowner ease and to ensure longevity of BMPs.	DCNR, ACB	Baywide	2019	Staff time, funding	Upfront, intentional training on this will alleviate future headaches	DCNR, ACB						
		Examine options for encouraging additional private small business to provide landowner-paid or cost-shared/contracted site prep and post-planting care services to landowners, complimentary to any newly developed public service options.	DCNR, ACB, partners	Baywide	2019	Staff time, funding, Limited by number of private businesses	Expertise of staff and body of partners ("advisory committee"?) who have by this point coalesced	DCNR, ACB, partners						

**Priority Initiative 2: Urban Tree Canopy Expansion: 50 New Acres of New Urban Trees (300 trees = 1 ac.)**

<b>2.1</b>	Increase Urban Forestry Technical Assistance Available to Communities and Citizens	Fund positions to work on all subsequent actions described in this plan, in an efficient, integrated, collaborative way.	DCNR, TreePennsylvania, PSU Extension, PennDOT	Baywide	Ongoing	-staff capacity re: technical assistance  -streamlining of partnerships and effective use of resources  -discussions with PennDOT	DCNR, PSU Extension, TreePennsylvania	DCNR	\$620,000  Do we count DCNR employee (1/3 section chief, 1 program specialist, 2.5 service	USFS, DCNR	3 RCF Section Positions: 2-program specialists (\$187,000), 1-section chief (\$120,000) 6 Regional Urban Foresters with DCNR	DCNR, PSU Extension	\$750,000/annually	DCNR, Keystone Trees
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									foresters )		per RCF Region (\$500,000) 1 PSU Estension Urban Forester (\$70,000)-			
		Work with PennDOT to encourage tree planting in right-of-ways.	DCNR, TreePennsylvania, PSU Extension, PennDOT	Baywide	Ongoing	-discussions with PennDOT								
<b>2.2</b>	Continue and Increase Grants to Communities and NGO Partners	TreeVitalize annual grant program (\$/year, # of applicants, different pots)	DCNR, TreePennsylvania, PRPS	Statewide	Ongoing	-funding does currently meet demand. Processes, procedures, and administration	DCNR, PSU Extension, TreePennsylvania	DCNR	\$94,000 annually for TV Grants	DCNR			Grants: \$1 million/year for 7 years	DCNR, Keystone Trees
		Require tree planting and/or conservation of existing tree canopy in existing DCNR Grant programs, other agency grant programs as appropriate (grants to community parks, etc.) Connect to Climate Plan?												
<b>2.3</b>	Increase Citizen Education and Volunteer Training Programs about Urban Trees	Tree Tender Volunteer program	PSU Extension, DCNR, PHS	Statewide	Ongoing	engaging new people, volunteers are too busy, working more with corporate volunteer programs, communication and motivation	PSU Extension, DCNR, PHS, WPC, ACB	DCNR	Estimate \$1,200/training not including staff time (Fee for training option)	DCNR, PHS	Build Partnerships	PSU Master Gardeners, Master Naturalists, TNC, PPF	Apply for grants as needed	National Science Foundation
		Work with PSU Master Watershed Stewards program, Master Naturalist Program, and/or Master Gardeners-gear training toward urban tree planting and maintenance for annual requirement.												
		Continue and expand inmate training programs, such as DCNR's "Prison Program" at	PSU Extension, DCNR, PHS, ACB	Statewide	Ongoing	Permissions, budget,	Current DCNR "Prison Program",	DCNR, PSU, DOC	\$10K one-time investme	DCNR	Teachers/trainers, Coordination	PSU Extension, DCNR, PHS,	\$100K for initial five-year	DCED, DOC, DCNR, other?





		incentivizing business to plant forests).												
		Implement No Net Loss Strategies for urban tree canopy in PA Bay Watershed												
		Encourage stormwater taxes and related tax incentives for landowners who do tree planting over turf, meadow conversion, etc.												
2.6	Communications	Develop a PA Communication Strategy related to urban forest canopy/urban trees.	DCNR	Statewide	By 2025	-recognizing all parties -good marketing firm		DCNR						DCNR Grants
2.7	Maintaining and Retention of existing Urban Trees/Forest	Conduct Community Tree Inventories to fully understand existing tree canopy. Consider roving trainings in Metro areas.	DCNR, PSU Extension, TreePennsylvania	Statewide	Ongoing	-locating interested communities -use of information from inventories -people to conduct inventories -Staffing limitations -willingness of communities/citizen	Current Community Tree Inventory Program	DCNR, PSU Extension, TreePennsylvania, Outdoor Corps						
		Conduct training for citizens, communities, municipal workers, and other groups on inventories, pruning, and other areas of technical assistance related to tree canopy maintenance.	DCNR, PSU Extension, TreePennsylvania	Statewide	Ongoing	-awareness of need for training & importance of tree canopy overall								
		Provide training to Supporting Engineering contractors regarding green infrastructure and trees.	DCNR, PSU Extension, TreePennsylvania, DEP	Statewide	Ongoing	-help to use information once obtained (staff) -more staff needed -Engineers on-board								
		Pruning Education for Private Sector and Public	DCNR, PSU Extension	Statewide	Ongoing	-training in proper techniques -supporting resources -awareness of importance -Housing and transport of trailers	Trainers	PSU Extension, DCNR, TreePennsylvania	\$30,000	DCNR	Tool trailer(s)-1 per region(\$7,000/trailer). Support pruning via grant program	?	\$200,000 annually \$42,000 one-time for trailers	?



			Owner Groups, PennDOT, Turnpike Commission, PSU											
		Improve “Clean and Green” program; include special designation for forestland retention.	PDA, DCNR											
		Include Forest Conservation as MS4 BMP for PRP Credits												
		Provide Workshops on Environmental Planning to Municipalities												
		Require current DCNR grant programs to include tree canopy/forest conservation as appropriate.												
		Develop presentations for policy- present to PA Planning Association, etc.												
2.8	Enhance and Enforce Act 167	Include/Prioritize Green Infrastructure and BMPs including trees, such as UTC, or Urban Forest Expansion.		Bay-Wide	Ongoing									

### 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

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

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

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

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

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

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

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

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

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