



DAUPHIN COUNTY

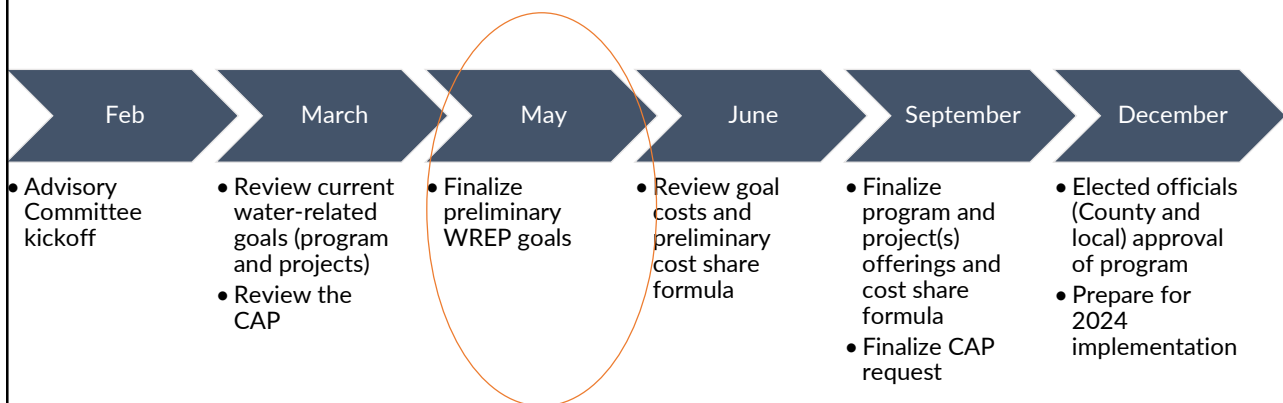
WREP ADVISORY COMMITTEE

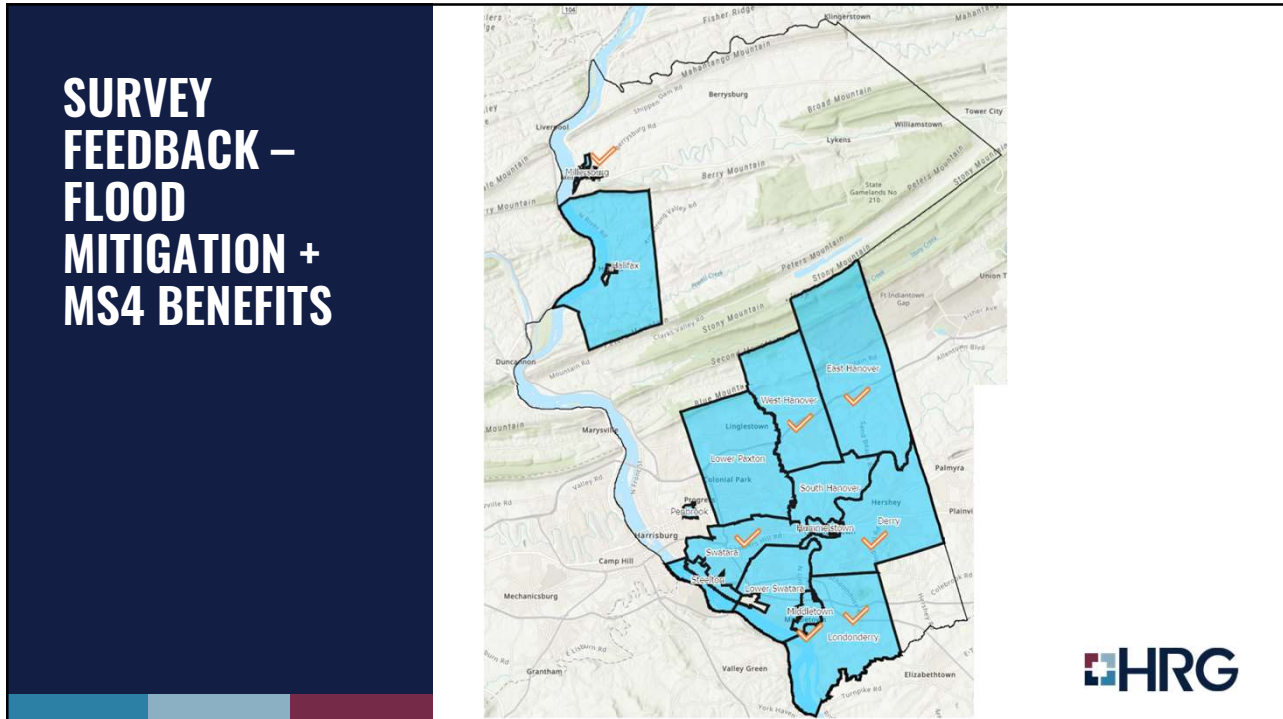
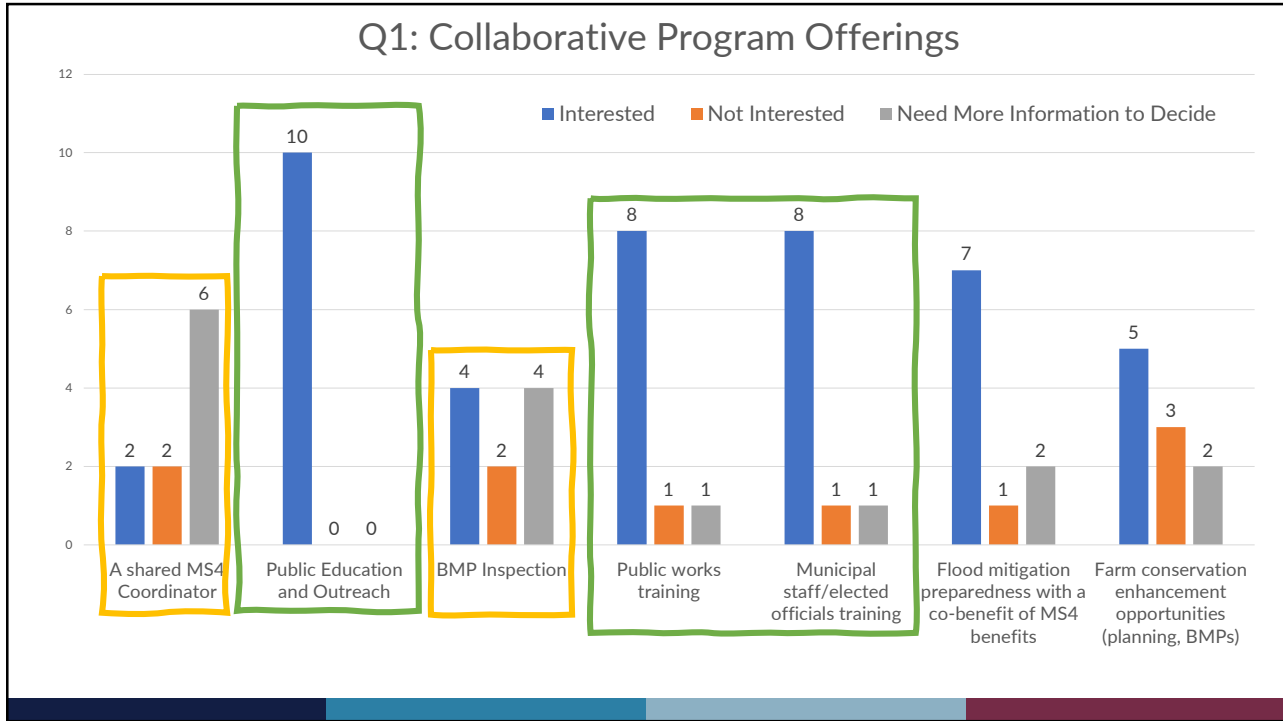
MEETING #3
MAY 4, 2023



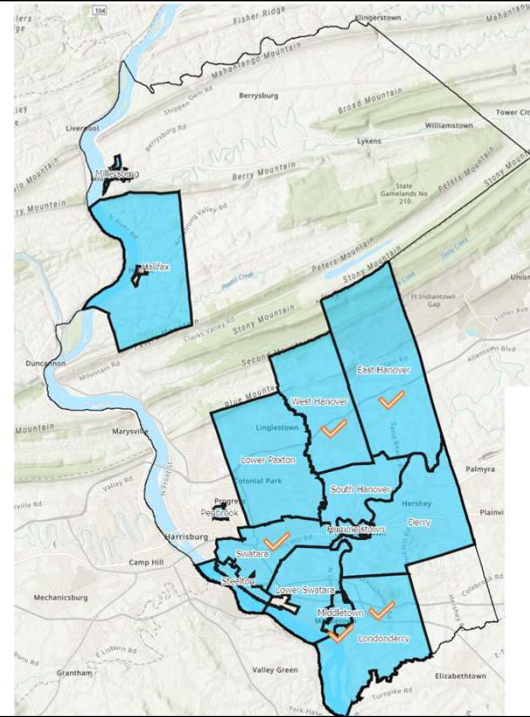
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Engineering | Planning | Infrastructure Solutions

2023 OVERVIEW

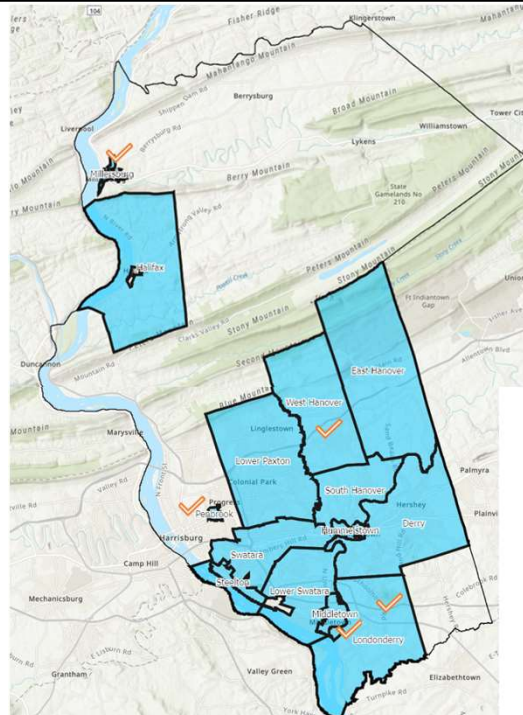




SURVEY FEEDBACK – FARM CONSERVATION BMPS



SURVEY FEEDBACK – INLET CLEANING



WREP PROGRAM CONCEPTS

STORMWATER EDUCATION

- General public, public works, municipal staff, elected officials

MS4 – MORE DISCUSSION

- Shared coordinator
- BMP inspection
- Inlet cleaning services

COOPERATIVE PROJECT TYPES FROM SURVEY

- Flood mitigation w/ WQ benefit
- Farm conservation BMPs



PROJECT 2 CONCEPTS



RAPID DELISTING CONCEPT

DEFINITION

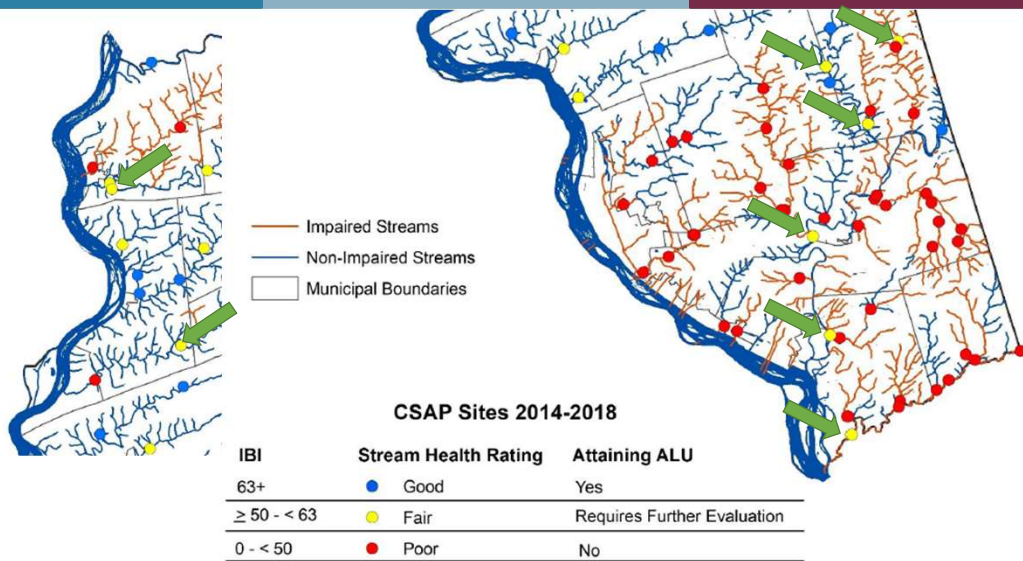
- Stream is “healthy” within 10-years from a concerted effort to make improvements in the small watershed
- Small watershed/catchment – comprised of about 25 parcels
- Starting IBI score is between 50-63
- IBI = Index of Biotic Integrity

Good (63-100): Optimal site with a balanced community of pollution sensitive and tolerant organisms.

Fair (50-62): Significant decrease in pollution-sensitive species, unbalanced site with sub-optimal habitat.

Poor (0-49): Degraded site dominated by tolerant organisms. Site is not attaining aquatic life use.

RAPID DELISTING CONCEPT



RAPID DELISTING CONCEPT

IMPAIRMENT CAUSES

[ASSESSMENT BOOK 2021.pdf \(state.pa.us\)](#)

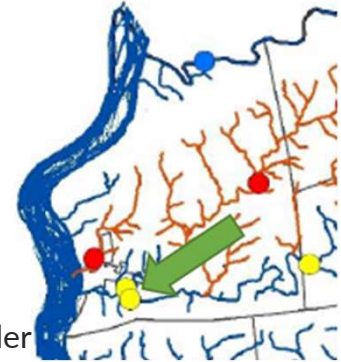
[Stream Health Report \(dauphincd.org\)](#)

Millersburg – Shippens Run– IBI 34

- Aquatic life - ag nutrients, ag siltation
- Recreation - unknown pathogens
- Likely challenging to resolve within municipal border

Millersburg – Little Wiconisco– IBI 56

- Not impaired, IBI below “good” rating – at risk of becoming impaired



IBI Goal: greater/equal to 63

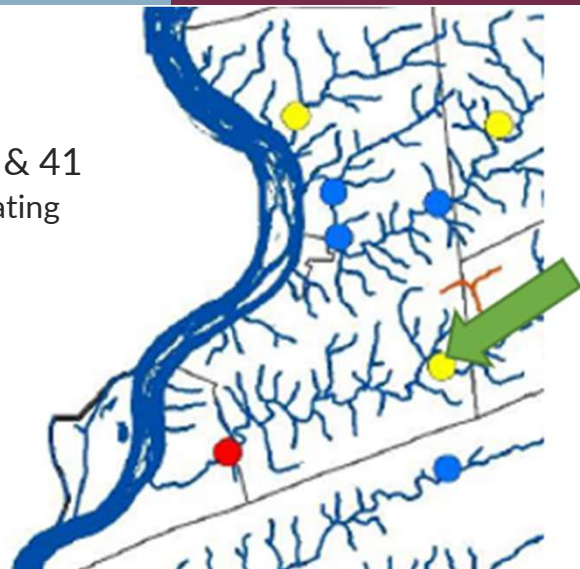


RAPID DELISTING CONCEPT

DCCD MONITORING DATA – NORTHERN DAUPHIN

Halifax – Powells Creek– IBIs of 62 & 41

- Not impaired, IBI below “good” rating
– at risk of becoming impaired



IBI Goal: greater/equal to 63

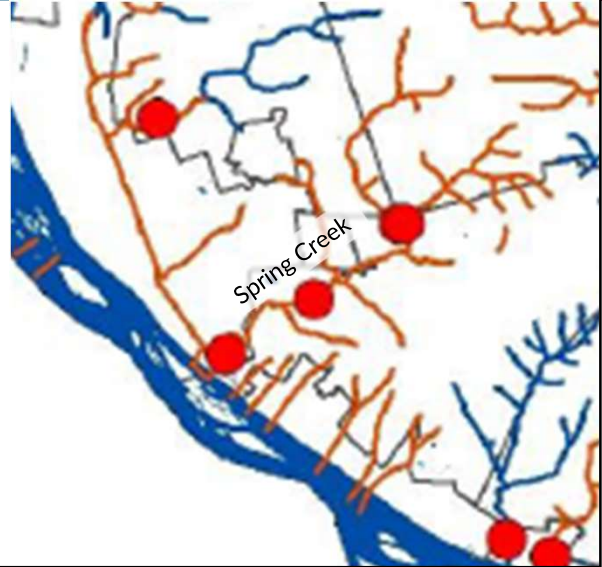
RAPID DELISTING CONCEPT

DCCD MONITORING DATA – SPRING CREEK (WEST)

Swatara, Lower Paxton, Penbrook,
Steelton – Spring Creek- IBIs
of 29, 27, 36, 23

- Aquatic life – urban runoff flow modification, habitat alteration, silt
- Trout are present (?)

IBI Goal: greater/equal to 63



RAPID DELISTING CONCEPT

DCCD MONITORING DATA – SWATARA CREEK

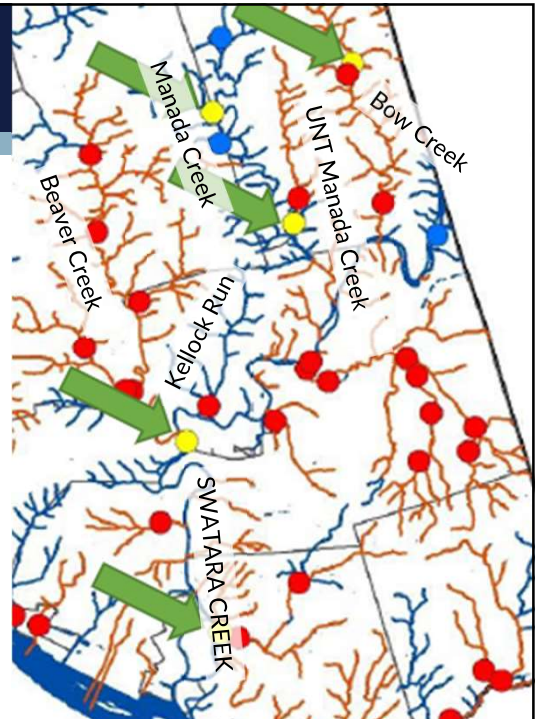
East Hanover – Unnamed Tributary to
Bow Creek- IBI 53

- Aquatic life – roadway silt, habitat modification
- Recreation – pathogens

Lower Paxton, East Hanover, South
Hanover – Manada Creek- IBIs of
57, 67, 75, 81

- Not impaired – at risk of becoming impaired
- Tributaries are impaired

IBI Goal: greater/equal to 63



RAPID DELISTING CONCEPT

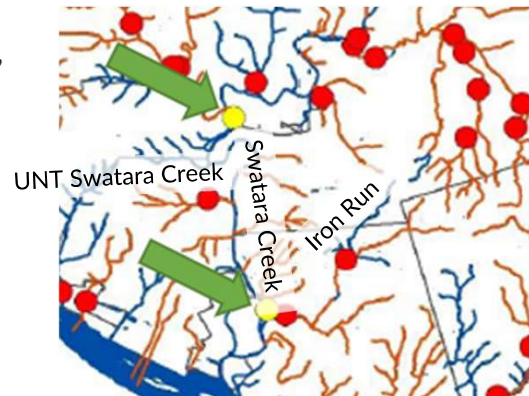
DCCD MONITORING DATA – SWATARA CREEK

Lower Swatara – Unnamed Tributary to Swatara Creek– IBI 24

- Aquatic life – habitat modification, ag silt

Derry, Londonderry – Iron Run– IBIs of 41 & 60

- Aquatic life – ag silt
- Recreation - pathogens



IBI Goal: greater/equal to 63

RAPID DELISTING CONCEPT

DCCD MONITORING DATA – CONEWAGO CREEK

Brills Run – IBI 48

- Not impaired – at risk of becoming impaired

Lynch Run – IBI 22

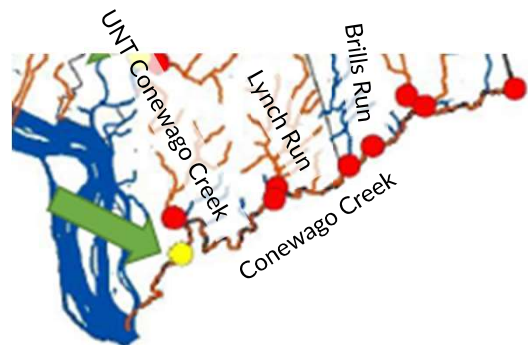
- Aquatic life – ag silt, ag turbidity,

UNT Conewago Creek – IBI 35

- Aquatic life – ag nutrients, ag silt, habitat modification

Conewago Creek – IBIs of 58, 48, 42, 49

- Impaired – TMDL for ag sediment and phosphorus



IBI Goal: greater/equal to 63

CONEWAGO TMDL

THERE IS NOTHING RAPID ABOUT THIS

- 10-year alternative restoration plan
- \$45-53M estimate

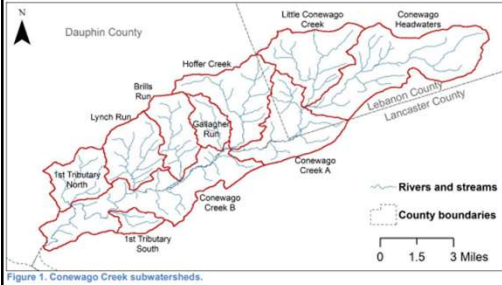


Table 16. Implementation scenario in the Conewago Creek A and B TMDL subbasins

TMDL Subbasin	Sub-watershed	Sediment Reduction (lbs/yr)		Phosphorus Reduction (lbs/yr)	
		Previously Implemented Practices	Recommended and Ongoing Practices	Previously Implemented Practices	Recommended and Ongoing Practices
A	Conewago Headwaters	1,351,477	295,405	2,882	285
	Conewago Creek A		702,381		655
	Little Conewago Creek		816,325		713
	Hoffer Creek		1,264,246		952
	All sub-watersheds		3,078,357		2,605
TOTAL Implementation Scenario Reduction			4,429,834	5,487	
Required TMDL Reduction			2,811,165	4,071	
B	Gallagher Run	3,124,491	415,528	3,347	358
	Brills Run		715,301		1,359
	Lynch Run		1,204,153		995
	Conewago Creek B		1,977,979		2,914
	1st Tributary North		310,945		321
	1st Tributary South		239,600		285
	All sub-watersheds		4,863,506		6,232
TOTAL Implementation Scenario Reduction			7,987,997	9,543	
Required TMDL Reduction			5,791,202	7,308	

LEO

RAPID DELISTING CONCEPT

OPPORTUNITY

- PADEP values the rapid delisting approach (Growing Greener Watershed Renaissance Initiative)
- Way to prioritize focus areas for projects
- Project goals can capitalize upon co-benefits
 1. BMPs – ag and urban
 2. Fish habitat structures
 3. Infrastructure repair – sanitary crossings, storm outfalls



RAPID DELISTING CONCEPT

Delisting Strategy



GROWING GREENER 2023

RAPID DELISTING FEASIBILITY STUDY – SWATARA CREEK WATERSHED (DAUPHIN COUNTY)

Scope:

- GIS analysis – latest IBI scores, watersheds, impaired streams → ## catchments
- Local partner workshops – consider small watershed stakeholders, landowners, prioritize → # catchments
- BMP implementation scenario and budget for each delisting catchment

Benefiting Advisory Committee members:

- East Hanover, West Hanover, South Hanover, Derry, Hummelstown, Lower Paxton, Swatara, Lower Swatara, Middletown, Royalton, Londonderry



GROWING GREENER 2023

SPRING CREEK COLD WATER FISHERY RESTORATION FEASIBILITY STUDY

Scope 1:

- Partner with Pennsylvania Fish and Boat Commission and local Trout Unlimited Chapter
- Gather additional monitoring data – more sites, IBI scores and physical habitat
- GIS analysis – latest IBI scores, watersheds, impaired streams, habitat absence/presence
→ ## catchments

Scope 2:

- Partner with Pennsylvania Fish and Boat Commission and local Trout Unlimited Chapter
- GIS analysis – latest IBI scores, watersheds, impaired streams, habitat absence/presence
→ ## catchments
- Local partner workshops – consider small watershed stakeholders, landowners, prioritize
→ # catchments
- BMP implementation scenario and budget for each delisting catchment

Benefiting Advisory Committee members:

- Penbrook, Swatara, Steelton, Lower Paxton



PROJECT 2 IDEAS

- Submitted project ideas:
 1. Steelton/Swatara
 2. DTMA/North Londonderry (Lebanon Co)
 3. Middletown/PA Turnpike
 4. Royalton/Londonderry
 5. Millersburg/Upper Paxton
- HRG will be in contact with you about these projects and next steps



PROJECT 2 GOALS

- Scope projects that funders are interested in – water quality, flood resilience, agricultural improvements, bird/fish/shellfish species improvement, recreation public access, stakeholder cooperation,
- Match up local infrastructure needs with water resource enhancement needs
- Use data from PADEP *Integrated Water Report* and DCCD *Dauphin County Streams: a health report* to identify key project locations
- Funding urgency – CAP Block Grant, Agricultural Conservation Assistance Program (ACAP), Federal/State Infrastructure funding



ANNUAL CAP BLOCK GRANT FUNDING REQUEST


- Shovel-ready water quality projects – built in next construction season
- Funding can be sub-awarded to partners to spend
- Application is due October 2023
- Funding available in early February 2024

- ANY PUBLIC OR PRIVATE LANDOWNERS WE CAN TALK TO?

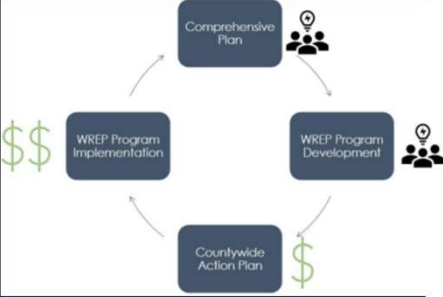


2023 OVERVIEW

Feb	March	May	June	September	December
<ul style="list-style-type: none"> • Advisory Committee kickoff 	<ul style="list-style-type: none"> • Review current water-related goals (program and projects) • Review the CAP 	<ul style="list-style-type: none"> • Finalize preliminary WREP goals 	<ul style="list-style-type: none"> • Review goal costs and preliminary cost share formula <p style="color: red;">• JUNE 28, 1PM - VENUE?</p>	<ul style="list-style-type: none"> • Finalize program and project(s) offerings and cost share formula • Finalize CAP request 	<ul style="list-style-type: none"> • Elected officials (County and local) approval of program • Prepare for 2024 implementation



NEXT STEPS



1. HRG to develop programmatic goal costs and cost share formula (tiered structure)
2. TCRPC to assist with mapping project needs, impaired streams, monitoring locations
3. Respond to email if interested in a Growing Greener joint application for a feasibility study (Swatara Creek and/or Spring Creek West)
 - a) Extra meeting (or two)
 - b) Sharing infrastructure mapping
 - c) Cash match contribution from WREP
4. Form work groups for flood mitigation + WQ and agricultural BMP collaborative project opportunities

