APPENDIX A – PUBLIC PARTICIPATION EXHIBITS

2017

- Public Notice
- Public Meeting Presentation
- Public Meeting Minutes
- Record of Consideration (Public Comment Responses)
- Public Comments

2019

- Public Notice
- Public Meeting Presentation
- Public Meeting Minutes
- Record of Consideration (Public Comment Responses)
- Public Comments

5066677

Order Confirmation

Ad Order Number 0008286106

Customer

CAPITAL REGION WATER

*Account:*816
CAPITAL REGION WATER
212 LOCUST ST STE 500,
HARRISBURG PA 17101 USA

(717)525-7677

FAX:7175257688
eletavic@hrg-inc.com; ltaylor@hrg-inc.com

Payor Customer

CAPITAL REGION WATER

Account: 816
CAPITAL REGION WATER
212 LOCUST ST STE 500,
HARRISBURG PA 17101 USA

(717)525-7677

PO Number	
Sales Rep.	Marianna Aldridge
Order Taker	Marianna Aldridge
Order Source	Phone
Special Pricing	

Tear Sheets	0	*Net Amount*	$176.02
Proofs	0	*Tax Amount*	$0.00
Affidavits	1	*Total Amount*	$176.02
Blind Box		*Payment Method*	Invoice
Promo Type		*Payment Amount*	$0.00
Materials		*Amount Due*	$176.02
Invoice Text			

Ad Schedule

Product	PennLive.com	*Placement/Class*	Main Legals
# Inserts	1	*POS/Sub-Class*	Meeting Notices
Cost	$2.50	*AdNumber*	0008286106-01
Ad Type	PA CLS Legal Liner	*Ad Size*	1 X 36 li
Pick Up #	0008269413	*Ad Attributes*	
External Ad #		*Color*	<NONE>
Production Method	AdBooker	*Production Notes*	

Run Dates *Sort Text* NOTIC00OFPUBLICPARTICIPATIONANDPUBLICMEETINGFORREGIONALTMDLANDCHESAPEAKEBAYPOLLUTANTR
08/01/2017

Product	The Patriot News	*Placement/Class*	Main Legals
# Inserts	1	*POS/Sub-Class*	Meeting Notices
Cost	$168.52	*AdNumber*	0008286106-01
Ad Type	PA CLS Legal Liner	*Ad Size*	1 X 36 li
Pick Up #	0008269413	*Ad Attributes*	
External Ad #		*Color*	<NONE>
Production Method	AdBooker	*Production Notes*	

Run Dates *Sort Text* NOTIC00OFPUBLICPARTICIPATIONANDPUBLICMEETINGFORREGIONALTMDLANDCHESAPEAKEBAYPOLLUTANTR
08/01/2017

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NOTICE OF PUBLIC PARTICIPATION AND PUBLIC MEETING FOR REGIONAL TMDL AND CHESAPEAKE BAY POLLUTANT REDUCTION PLAN

Capital Region Water (CRW), Susquehanna Township, and Lower Paxton Township hereby give notice of the 30-day public comment period for its National Pollutant Discharge Elimination (NPDES) Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) Pollutant Reduction Plan (PRP). Best management practices (BMPs) are proposed in the regional Plan to satisfy Paxton Creek Total Maximum Daily Load (TMDL) sediment reduction requirements and PRP requirements for the Chesapeake Bay and local stream impairments. The 30-day public comment period begins August 2, 2017 and ends September 1. At that time, the plan will be available on the CRW website (https://capitalregionwater.com) and a hard copy will be available at each municipal office. The public is invited to review this document and provide written comments. The regional Plan will be discussed at a public meeting on August 15, 2017 starting at 6PM at the Lower Paxton Township Municipal Building, 425 Prince Street, Harrisburg, PA.

Paxton Herald Proof

1 col x 5.5" @ $42.23 including $4.00 notary fee.
Runs 08-02-17
Changes by 12 noon Monday please.

The Paxton Herald
101 Lincoln St.
Harrisburg, PA 17112
717-545-9868

From:

Erin G. Letavic, P.E.
Project Manager
Herbert, Rowland & Grubic, Inc.
369 East Park Drive
Harrisburg, PA 17111
717.564.1121 [phone]
717.368.3289 [cell]
717.564.1158 [fax]
eletavic@hrg-inc.com

Original Text:

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0008286106-01

Ad Content Proof

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Joint Pollutant Reduction Plan

Paxton Creek Watershed TMDL, Chesapeake Bay PRP, Wildwood Lake PRP, and UNT to Spring Creek PRP

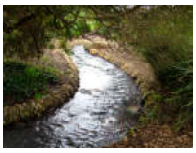
Public Meeting:

- *August 15, 2017 6PM*

2018 PAG-13 - Regulation

NPDES (National Pollutant Discharge Elimination System) Individual Permit (PAG-13) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

- Water Quality Permit
- Improved quality of local streams
- Quality ←→ Developed Land and Stormwater Controls



2018 PAG-13

NPDES (National Pollutant Discharge Elimination System) Individual Permit (PAG-13) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

Updated permit requires:

- ✓ Pollution Control Measures (PCMs)
- ✓ Updated list of authorized non-stormwater discharges
- ✓ Increased public involvement
- ✓ Clearer requirements for public access
- ✓ Pollutant Reduction Plans – Chesapeake Bay and locally impaired waters

Pollutant Reduction Plans – 2018 PAG-13

TMDL Plan

- Address goals outlined in EPA TMDL Report

Appendix D

- Estimate existing sediment (TSS), Total Phosphorus (TP), and Total Nitrogen (TN) loads to the Chesapeake Bay
- Identify BMPs to reduce pollutant loads by 10%, 5% and 3% respectively within 5 years*

Appendix E

- Estimate existing TSS, TP, TN loads to locally impaired waters
- Identify BMPs to reduce pollutant loads by 10%, 5% and 3% respectively within 5 years*

**Presumptive approach in which a 10% sediment reduction is assumed to also result in a 5% TP reduction and a 3% TN reduction.*

Existing Pollutant Loading

- Why sediment focus?
  - EPA model
- Why lb/yr?
  - Model correlates water quality level to sediment
  - Not a literal pounds removal

The Watershed Cooperative: Why Collaborate?

- Continuation of partnership initiated in 2015
- Progressive approach to achieving water quality improvements.
- Long-term partnership to define, implement integrated solutions.
- Seek affordable schedule considering regional financial capabilities.
- Collaboration to seek outside financial support.

Paxton Creek Watershed Facts

- Paxton Creek drains over 27 square miles of metropolitan Harrisburg.
- Pennsylvania DEP considers 30 miles of Paxton Creek and its tributaries impaired by sediment and habitat degradation (303(d) list).
- Over 85 percent of the sediment is contributed by stream erosion (TMDL report).

Pollutant Reduction Plan Requirements

- New for 2018-2023 permit term

Short-Term (5-yr) Pollutant Load Reduction Requirements by PRP Planning Area

Planning Area	Impairment	Existing Sediment Load (lbs/yr)	Required Sediment Load Reduction	Sediment Reduction Required (lbs/yr)
Paxton Creek TMDL	Sediment / Siltation	3,335,625	10%	333,563
Wildwood Lake	Sediment / Siltation	2,334,938	10%	233,494
UNT to Spring Creek	Sediment / Siltation	85,000	10%	8,500
Joint Planning Area	Sediment / Nutrients	16,250,525	10%	1,625,053

Long-Term Pollutant Load Reduction Requirements (Paxton Creek TMDL only)
1,167,469 lb/yr

Pollutant Reduction Plan Requirements

- Joint Planning Area

Paxton Creek Watershed Facts

- In 2008, USEPA defined a *Total Maximum Daily Load (TMDL)* for Paxton Creek – the allowable sediment load to resolve impairment. (Note: Phosphorus was removed from the TMDL at a later date)

Source	Land Use / Source	Existing Load (ton/year)	Allocated Load (ton/year)	Percent Reduction
Nonpoint Sources	Agriculture	2.2	1.9	14%
	Forest	8.8	8.8	0%
	Open Space	20.1	17.0	15%
	Low Intensity Development	13.1	11.1	15%
	High Intensity Development	14.4	12.2	15%
	Instream Erosion	396.7	242.9	39%
	Nonpoint Source Subtotal	455.3	293.9	35%
Municipal Separate Storm Sewer Systems (MS4)	Agriculture	11	9.4	15%
	Forest	43.2	43.2	0%
	Open Space	98.6	83.5	15%
	Low Intensity Development	64.3	54.4	15%
	High Intensity Development	70.7	59.8	15%
	Instream Erosion	1950.5	1194.4	39%
	MS4 Subtotal	2,238.3	1,444.8	35%
CSO		14.5	12.3	15%
Permitted Facilities		7.0	7.0	0%
	Total	2,715.1	1,757.9	35%

Additional Watershed Facts

- The City of Harrisburg, Lower Paxton Township, and Susquehanna Township comprise over 94 percent of the Paxton Creek Watershed
- Middle Paxton Township, Penbrook Borough, and Swatara Township also contribute.
- Capital Region Water (CRW) owns and operates combined and separate storm sewer systems within the City of Harrisburg.

MS4 Permittee	Percentage of Watershed	Baseline Sediment Load (ton/year)
CRW (City of Harrisburg)	21.2 %	1,954.8
Township of Lower Paxton	46.0 %	4,241.6
Township of Susquehanna	26.8 %	2,471.2
Load contributing land outside Joint Planning Area	6%	N/A
Paxton Creek TMDL Planning Area Total:	100%	8,667.6

Wildwood Lake

- Impaired
- Exists within the Paxton Creek watershed
- Upstream improvements are anticipated to reduce the sediment loading to Wildwood Lake
- 233,494 lb/yr goal (accomplished through upstream projects)

UNT to Spring Creek Watershed

- CRW drainage area: 124 acres
- Susquehanna Twp. drainage area: 260 acres
- Sediment reduction required: 8,500 lbs
- Proposed BMPs:
  - Street Sweeping
  - Detention Facility
  - GSI
  - Capital Area Greenbelt Stream Restoration

Responding to the TMDL – CSS v. MS4

- CRW Combined Sewer System (CSS)
  - Significant portion of the City of Harrisburg is <u>not</u> an MS4
  - Stormwater is conveyed via <u>combined sewer</u>
  - CRW is developing a Long Term Control Plan
    - Increase stormwater capture in the CSS
  - EXISTING CSS Sediment Reductions
    - Paxton Creek: 105 tons (17% *of Exist Mapsheds Load*)
    - Susquehanna River: 191 tons (7% *of Mapsheds Load*)
  - FUTURE CSS Sediment Reductions
    - Paxton Creek: 106 tons (17% *of Exist Mapsheds Load*)
    - Susquehanna River: 190 tons (7% *of Exist Mapsheds Load*)

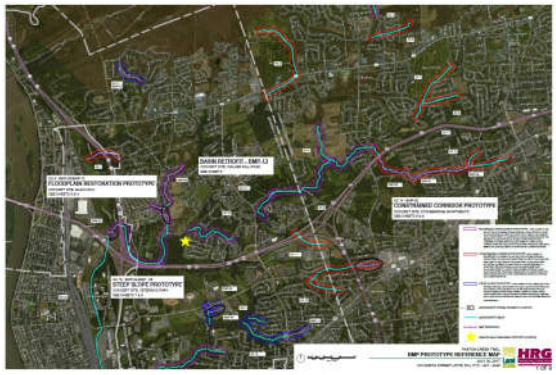
Responding to the TMDL and PRP Requirements

- A MapShed model of Paxton Creek matching the 2008 TMDL existing loading was created.
- Existing projects were included in model to reduce baseline.
  - Stream restoration
  - CSS projects
- <u>1,625,053 lb/yr joint planning area reduction goal</u>

Watershed Assessment

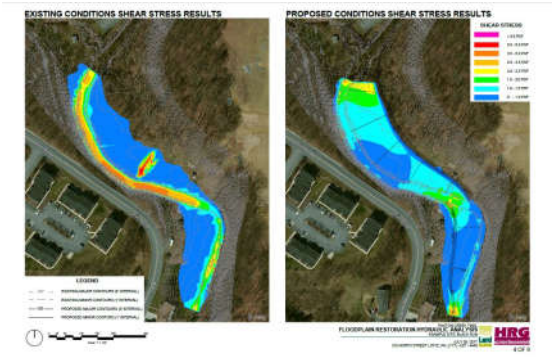
- Utilized stream assessment data from Strategy
- Continued same assessment protocol for areas not previously viewed
- Candidate project selection
- Prototypes for use during implementation
  - Guide project selection process
  - Provide alternates

Watershed Assessment

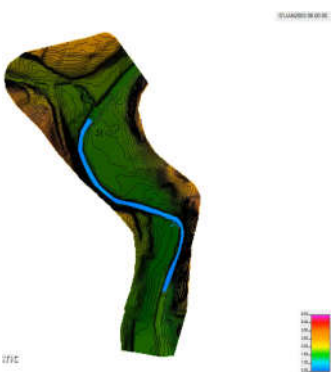


Floodplain Restoration Prototype

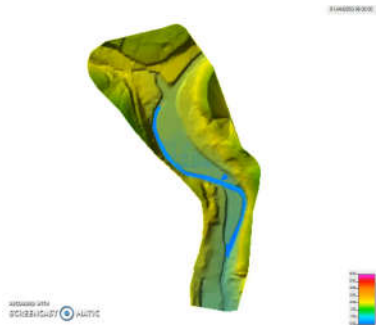
Floodplain Restoration Prototype



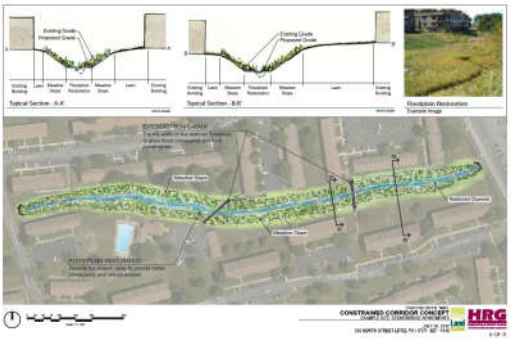
Floodplain Restoration Prototype - existing



Floodplain Restoration Prototype - proposed

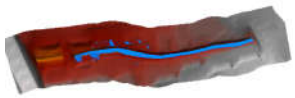


Constrained Corridor Prototype

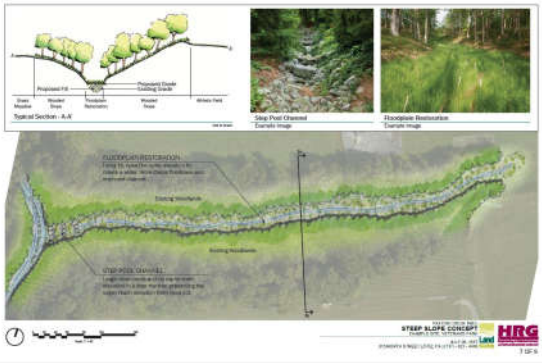


Constrained Corridor Prototype

Constrained Corridor – existing and proposed

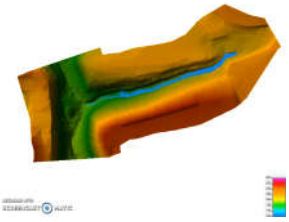


Steep Slope Prototype



Steep Slope Prototype

Steep Slope – existing and proposed



Proposed Projects – Stream Based

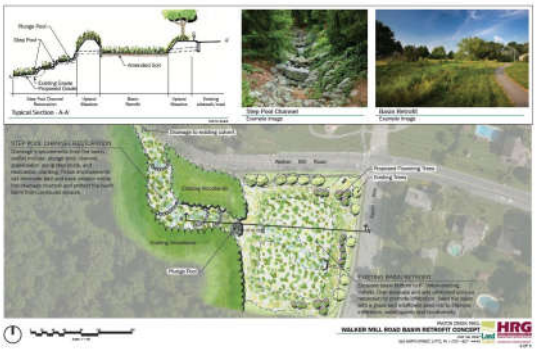
Map Reference	Floodplain Restoration BMP Name	Assessment Stream Segment	Early Action Project	Planning Area	Stream Length (LF)	Reduction (lbs)
BMP-01	Fox Hunt - Stream Restoration	SS-21	EAP-1	Paxton Creek / Joint Plan	750	86,250
BMP-02	Stonebridge Apartments	SS-14	EAP-2	Paxton Creek / Joint Plan	1,800	207,000
BMP-03	Wildwood Lake, Black Run	SS-01	N/A	Paxton Creek / Joint Plan	1,075	123,625
BMP-04	Veteran's Park South	SS-18	N/A	Paxton Creek / Joint Plan	1,000	115,000
BMP-05	Veteran's Park North	SS-18	N/A	Paxton Creek / Joint Plan	1,150	132,250
BMP-06	Earl Drive Ph. 01	SS-13	EAP-3	Paxton Creek / Joint Plan	1,560	179,400
BMP-07	Earl Drive Ph. 02	SS-13	EAP-16	Paxton Creek / Joint Plan	900	103,500
BMP-08	Earl Drive Ph. 03	SS-13	EAP-14	Paxton Creek / Joint Plan	2,435	280,025
BMP-09	Black Run - North	SS-03	N/A	Paxton Creek / Joint Plan	3,368	387,320
BMP-10	Black Run - South	SS-03	N/A	Paxton Creek / Joint Plan	2,000	230,000
BMP-11	Pines Apartment Complex	SS-16	EAP-10	Paxton Creek / Joint Plan	1,450	166,750
BMP-12	Capital Area Greenbelt	SS-23	N/A	UNT Spring Creek / Joint Plan	1,800	207,000
BMP-13	Walker Mill Road Stream Only	N/A	N/A	Paxton Creek / Joint Plan	600	69,000
				Totals:	19,888	2,287,120

Floodplain Restoration Components

Proposed Projects – Land Based

Map Reference	BMP Name	Planning Area	Managed Area (ac)	Reduction (lbs)
BMP-13	Walker Mill Road Basin Retrofit	Paxton Creek / Joint Plan	23.4	10,400
BMP-14	CRW UNT to Spring Creek GSI Projects	UNT Spring Creek / Joint Plan	--	10,886
BMP-15	CRW Streetsweeping	Paxton Creek / Joint Plan	166	36,500
N/A	CSO reductions	Paxton Creek / Joint Plan	--	210,000
N/A	CSO reductions	Joint Plan	--	380,000
			Total:	647,786

Land Based BMP – Basin Retrofit



TMDL and PRP Goals

- Goal: 1,625,053 lb/yr
- Project allocation: 2,934,906 lb/yr

- Intentionally overshooting the goal
  - Flexibility during implementation
  - Challenging logistics
  - Credit policy will likely change (based on monitored effectiveness of the BMPs)
  - Identified projects with secondary benefits

Next Steps

- **Public comment period** — **Aug 2-Sept 1, 2017**
- **Revise report** — **Sept 2-14, 2017**
- **Submit report** — **Sept 15, 2017**
- **Implementation**
  - Start in 2018
  - Complete in 2023 (5 years)

We want your feedback

- Review the strategy, submit your comments at:
  - https://capitalregionwater.com/jointprp
  - Capital Region Water, 212 Locust Street, Suite 500, Harrisburg, PA
  - Lower Paxton Township, 425 Prince Street, Harrisburg, PA
  - Susquehanna Township, 1900 Linglestown Road, Harrisburg, PA.
- Ask questions / provide comments tonight.
- Future Board considerations:
  - Budget/funding
  - Long-term support
  - Water quality awareness

Questions?

PAXTON CREEK WATERSHED JOINT POLLUTANT REDUCTION PLAN PUBLIC MEETING

AUGUST 15, 2017 AT 6:00 PM

LOWER PAXTON TOWNSHIP

IN ATTENDENCE

Joint Plan Entity Staff:
Claire Maulhardt, Capital Region Water
David Stewart, Capital Region Water
Elizabeth Logan, Susquehanna Township
George Wolfe, Lower Paxton Township
Randy Allen, Lower Paxton Township

Consultants:
Ben Ehrhart, Land Studies
Erin Letavic, HRG Inc.
Matt Bonanno, HRG, Inc.
Rachel Kirkham, CDM Smith

Other:
Allison Doughery, Burg Magazine
Bill Hawk
Bryan Genesse
Dave Sheppard
Thomas Au
Gary Rothrock
Sean Sanderson

The meeting began at 6:00 p.m.

Claire Maulhardt, the City Beautiful H2O Program Manager for Capital Region Water (CRW), began the presentation by welcoming everyone and explained that the Paxton Creek Watershed Joint Pollutant Reduction Plan (PRP) is an expansion of the 2015 Paxton Creek Total Maximum Daily Load (TMDL) Strategy. The plan is a joint collaboration between Capital Region Water (City of Harrisburg), Lower Paxton Township, and Susquehanna Township and will be used to fulfill obligations for the Paxton Creek TMDL as well as the PRP requirements for the Chesapeake Bay, Wildwood Lake, and the unnamed tributary to Spring Creek. It also covers Beaver Creek which does not have any pollution reduction requirements.

She explained that the three entities are required by federal law to submit a Notice of Intent (NOI) to apply for a National Pollutant Discharge Elimination System (NPDES) Individual Permit (PAG-13) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) by September 15, 2017. This permit cycle requires the creation of a PRP for the Chesapeake Bay and locally impaired waters. The PRP has to provide an implementation plan to reduce pollution by 10% in these watersheds over the next five years. Paxton Creek also has a TMDL requiring a 35% sediment reduction of the pollutant load.

Ms. Maulhardt outlined the Watershed Cooperative and the importance of collaborating together. This long-term partnership is more affordable for all entities involved, provides integrated solutions across the board, and helps leverage outside financial support. 94% of the watershed is within the municipal boundaries of Lower Paxton Township, Susquehanna Township and Capital Region Water – who operates the storm sewer system for the City of Harrisburg.

She then reviewed some facts about the Paxton Creek Watershed. 30 miles of Paxton Creek and its tributaries is impaired due to stream erosion. The 2018-2023 TMDL plan requires a 9,000 ton reduction in sediment per year. This equals a reduction of 3,335,625 lbs./year in sediment. In addition the PRPs require a reduction of 16,250,525 lbs./year within the joint planning area. Upstream improvements to Black Run are anticipated to reduce the sediment loading to Wildwood Lake. There is also a long-term goal of removing existing sediment from Wildwood Lake; however this is not part of the current plan. CRW and Susquehanna Township are also required to reduce sediment loads for an unnamed tributary to Spring Creek.

Ms. Maulhardt explained that a portion of the City of Harrisburg is a combined sewer. Stormwater combines with sewer and is taken into an interceptor and then into the waste water treatment facility. When there are large rainfall events, the system cannot handle the amount of water and there are overflows that occur into the Susquehanna River and Paxton Creek. CRW is developing a long-term control plan to reduce these overflow occurrences. Currently they hold 35% of the rainfall that goes to waste water treatment facility. They hope to capture 58% of the rainfall to reduce the load reduction.

This Joint PRP is focusing on stream restoration. A more detailed stream assessment was performed and used to identify projects over the five year term to meet the total reduction goal. The impaired stream corridors were mapped and used to identify potential projects to meet the required pollutant load reduction. Thirteen projects were chosen, and the majority fall under three different prototypes.

Ben Ehrhart from Land Studies discussed the three different prototypes and how the stream reaches were accessed and typical conditions identified to create these three prototypes. To develop these concepts, they used a 2D Hydrologic model which allowed Land Studies to test concepts to see what the stream is doing now, and how the proposed projects will improve the stream corridor. The three prototypes include floodplain restoration, constrained streams, and steep slopes. These are just conceptual, not a detailed design. These concepts provide flexibility to allow implementation at alternative locations in case one of the 13 sites would become unfavorable.

Erin Letavic with Herbert, Rowland, & Grubic, Inc. provided reasoning behind the selection of the 13 sites. The sites were selected based on severity of erosion, property ownership, and potential to impact infrastructure. The objective is to address the Paxton Creek regulatory issues and also tie it into possible public improvements that need to be addressed as well, not just get credits for a plan. Early action projects were previously identified in the strategy, and have been vetted with some work already starting. She also reviewed the different components of floodplain restoration which could include floodplain connections, bioengineered bank stabilization, natural drainage channels, grade control, and outlet protection/velocity dissipation.

Ms. Maulhardt provided a summary of the land based projects that are proposed. This includes a basin retrofit, street sweeping in the City of Harrisburg, and reductions in the combined sewer overflows from CRW's system. After a brief summary and review of the next steps in the process Ms. Maulhardt opened the meeting for questions from the audience.

Audience Questions

1. **Question:** Mr. Au asked if there were any changes to municipal ordinances as a result of this PRP.

   Response: The PRP will not require any ordinance changes. There may be some changes required by the Individual NPDES Permit, but it depends on what each municipality already has in place.

2. **Question:** Mr. Au asked if the PRP recommends any plans to address Wildwood Lake as it fills up with sediment and reduces the capacity to store stormwater.

   Response: The PRP does not address sediment at Wildwood Lake, as this is a longer term project than the 5-year time frame the entities have to correct the pollution problems.

3. **Question**: Mr. Rothrock asked if the majority of the projects were located in Susquehanna Township.

   Response: The majority of the proposed projects are located in Susquehanna Township. The City of Harrisburg has the least amount of projects due to the lack of space to make improvements. Another reason the majority of projects are in Susquehanna Township is that the majority of the Township is within the Paxton Creek Watershed, where only half of Lower Paxton Township is within the Paxton Creek Watershed.

4. **Question:** Mr. Rothrock asked if work has already begun at Stonebridge Apartments.

   Response: No one present was aware of any work beginning on the streambank in that location in relationship to streambank restoration.

With no more questions, the meeting concluded at 6:33 p.m.

Prepared by: Elizabeth Logan, AICP

Public Comment Record of Consideration

Comment #1

Received from: Thomas Y. Au, Sierra Club

Date: 9/1/2017

Comment: Thank you for developing a plan to reduce sediment load from stormwater in our townships and city.

Urban stormwater is a major cause of pollution that is costly for municipalities to treat, for industrial and commercial businesses to control, and for facilities that deliver our drinking water. Polluted runoff also impacts habitat for fish and wildlife as well as our ability to enjoy healthy waterways for recreation. All of us can do more to reduce polluted stormwater flow.

The 13 designated BMP projects are a good start at reducing sediment and pollution loads. These projects would use engineered and landscaped features to capture and mitigate stormwater flows. As outlined in the plan, these will reduce sediment load by 10% if implemented fully. There appears to be some uncertainty about the funding of these projects however. The plan should clarify the municipalities' commitment to fund the projects.

In addition to the 13 BMP projects, there are additional opportunities to reduce sediment load from "green infrastructure" measures, which are not discussed in the plan. These would include measures such as planting vegetated riparian buffers where not none currently exist, installing rain gardens, installing pervious paving, and planting bio-swales. We have seen such projects work in new construction in the municipalities. We would like the plan to discuss measures to implement these green infrastructure measures more broadly.

Thank you for the opportunity to comment.

Thomas Y. Au, Conservation Chair

Sierra Club, Governor Pinchot Chapter

1528 Dogwood Drive

Harrisburg, PA 17110

Response to comment: Comment acknowledged. Thank you for supporting the efforts of CRW, Lower Paxton Township, and Susquehanna Township in improving water quality in local waterways and beyond. The Municipal Entities (Participants) involved in the development of the Joint Plan have entered into an Intergovernmental Agreement in part to ensure cost sharing is fair and consistent between the parties involved in the future implementation of the Plan. Additional language regarding the Agreement has been added to Section H of the Joint Plan. Additionally, CRW is currently in the process of developing a Long-term Control Plan for the Combined Sewer System service area in which they intend to implement green infrastructure measures throughout the service area to provide volume controls and reduce flow through the combined system. Exact details of the nature and extent of the proposed green infrastructure activities are still in development and is expected to be submitted to PADEP in April of 2018.

Comment #2

Received from: Sloan Auchincloss, Harrisburg property owner

Date: 8/3/2017

Comment: Bravo to Capital Region Water for taking the lead on improving Paxton Creek watershed by attenuating sediment!

To complement that effort, I recommend that the plan include convict labor* on work-release to collect detritus contributors along riparian areas. Wind storms are primary delivery means of harmful plastic bags and packaging that accumulate. Thoughtless individuals are culprits too because they use the stream bed as a convenient dumping site.

Such action, efficient and economical, will protect biota for better quality of life for our community.

Sloan Auchincloss
Harrisburg, PA property owner

*Convicts often have community service as part of their sentences, so clean-up would count toward time sentenced by court.

Response to comment: Comment acknowledged. Thank you for supporting the efforts of CRW, Lower Paxton Township, and Susquehanna Township in improving water quality in local waterways and beyond.

Comment # 3

Received from: Jim Caufield, Friends of Wildwood Lake Nature Center, Inc.

Date: 9/1/2017

Comment: To the Municipal Entities:

The Friends of Wildwood Lake Nature Center, Inc. ("FOWW") is a 501(c) (3) organization that supports Wildwood Park and the Benjamin Olewine III Nature Center at 100 Wildwood Way, Harrisburg, PA 17110. As you are aware, Wildwood Park includes Wildwood Lake, which features diverse aquatic ecosystems for thousands of plant and animal species and provides important flood protection for the City of Harrisburg. In recent years, FOWW has become increasingly concerned regarding the sediment problem in Wildwood Lake, which has significantly reduced the depth of the lake, causing increased flooding in the area and risk to plant and animal habitats.

FOWW supports the Joint Pollutant Reduction Plan ("Plan") of the Municipal Entities dated August 2, 2017, which includes a proposed sediment load reduction of 10% for Wildwood Lake within five years of approval of the Municipal Entities' MS4 permits. A I 0% sediment load reduction will produce benefits within the lake itself, as well as downstream water bodies, including the Susquehanna River and the Chesapeake Bay. As stated within the Plan, streambank erosion is the main cause of the sediment problem in the region, and a focus on lake and stream restoration projects is the best way to advance long-term improvement to water quality.

FOWW also would like to specifically highlight one of the best management practices ("BMPs") identified by the Municipal Entities, BMP-03. BMP-03 is a stream restoration project proposed for Black Run, a stream that discharges to the eastern portion of Wildwood Lake. The Plan proposes a number of improvements to Black Run, including addressing severe erosion and sediment deposits, evaluating and reconstructing existing crossings, and removing debris. Each of these steps will result in reduced runoff and sediment deposits in Wildwood Lake. FOWW strongly supports BMP-03, as well as the other BMPs that will indirectly result in less future runoff to the tributaries of Wildwood Lake.

FOWW supports the Municipal Entities' adoption of the Joint Pollutant Reduction Plan. Although Wildwood Lake will require significant additional sediment reduction and restoration work to provide the same ecosystem and flood prevention benefits offered a century ago, the Joint Pollutant Reduction Plan will result in many water quality benefits to Wildwood Lake, the Susquehanna River, and the Chesapeake Bay. FOWW appreciates the inclusion of Wildwood Lake within the Plan, and hopes the Municipal Entities will continue to consider future projects related to the restoration and improvement of Wildwood Lake.

FOWW appreciates the opportunity to provide comments regarding the draft Joint Pollutant

Reduction Plan of Capital Region Water, Lower Paxton Township, and Susquehanna Township. Thank you.

Regards,

Jim Caufield, President

Friends of Wildwood Lake Nature Center, Inc.

Response to comment: Comment acknowledged. Thank you for supporting the efforts of CRW, Lower Paxton Township, and Susquehanna Township in improving water quality in local waterways and beyond. The Municipal Entities recognize the importance of Wildwood Lake to the City of Harrisburg and surrounding communities in terms of flood control, recreation, and supporting wildlife.

Comment #4

Received from: Justina Wasicek, Susquehanna Township resident

Date: 9/1/2017

Comment:

To Capital Region Water & Partners Susquehanna Twp and Lower Paxton,

I definitely support the plan to reduce pollution and sedimentation from stormwater runoff. In fact, I think that these are very modest goals and I would like to see more done in this regard.

I would like to see more stream buffers along the creeks and streams. I would like to see Susquehanna Township encourage developers and commercial, church, and government entities to use permeable surfaces in the parking lots. We have several large parking surfaces – associated with the Farm Show, Capital Blue Cross, HACC, churches, etc, that could help reduce runoff with permeable surfaces, rain gardens and more trees. It would also be good to encourage builders to create some bio-swales or vegetated areas like rain gardens that would help filter and store water and also provide some habitat for small animals.

This will be true of the former State Hospital grounds are developed too-- care should be taken not to increase runoff and preserve the nature of the beautiful arboretum.

I live near Paxton Creek and it floods near Paxton Church Road sometimes. Wildwood Lake is also showing the effects of too much sedimentation.

Thank you for devising this plan, and I appreciate your efforts in reducing pollution and stormwater runoff.

Sincerely,

Justina Wasicek

Susquehanna Township

Response to comment: Comment acknowledged. Thank you for supporting the efforts of CRW, Lower Paxton Township, and Susquehanna Township in improving water quality in local waterways and beyond. The stream restoration projects presented in the Plan will incorporate riparian buffers where practical and warranted. The exact locations and extent will be decided during the implementation phase. All three of the Municipal Entities have land development and stormwater management ordinances that encourage developers to incorporate the use of Low Impact Design (LID) techniques such as permeable paving, bioretention, etc… into their designs. The municipalities will continue to encourage the use of LID techniques and will continue to enforce their local stormwater management ordinances to ensure proper stormwater management techniques are being implemented during the development process.

Greenly, Alex

From: Claire Maulhardt <claire.maulhardt@capitalregionwater.com>
Sent: Wednesday, September 06, 2017 8:52 AM
To: Letavic, Erin
Cc: Logan, Elizabeth (Betsy); rallen@lowerpaxton-pa.gov
Subject: FW: MS4 Chesapeake Bay Pollution Reduction Plan

Claire Maulhardt | City Beautiful H_2O Program Manager
888-510-0606 | Direct: 717-216-5269
Capital Region Water
212 Locust Street, Suite 500 | Harrisburg, PA 17101
Investing in Our Community from Raindrop to River
capitalregionwater.com | Facebook | Twitter | YouTube

From: Capital Region Water Info
Sent: Friday, September 01, 2017 4:40 PM
To: Claire Maulhardt <claire.maulhardt@capitalregionwater.com>
Subject: FW: MS4 Chesapeake Bay Pollution Reduction Plan

From: Thomas Y. Au [mailto:thomxau@gmail.com]
Sent: Friday, September 1, 2017 9:24 AM
To: Capital Region Water Info <info@capitalregionwater.com>
Subject: MS4 Chesapeake Bay Pollution Reduction Plan

September 1, 2017

Capital Region Water

212 Locust Street, Suite 500

Harrisburg, PA 17101-7107

Thank you for developing a plan to reduce sediment load from stormwater in our townships and city.

Urban stormwater is a major cause of pollution that is costly for municipalities to treat, for industrial and commercial businesses to control, and for facilities that deliver our drinking water. Polluted runoff also impacts habitat for fish and wildlife as well as our ability to enjoy healthy waterways for recreation. All of us can do more to reduce polluted stormwater flow.

The 13 designated BMP projects are a good start at reducing sediment and pollution loads. These projects would use engineered and landscaped features to capture and mitigate stormwater flows. As outlined in the plan, these will reduce sediment load by 10% if implemented fully. There appears to be some uncertainty about the funding of these projects however. The plan should clarify the municipalities' commitment to fund the projects.

In addition to the 13 BMP projects, there are additional opportunities to reduce sediment load from "green infrastructure" measures, which are not discussed in the plan. These would include measures such as planting vegetated riparian buffers where not none currently exist, installing rain gardens, installing pervious paving, and planting bio-swales. We have seen such projects work in new construction in the municipalities. We would like the plan to discuss measures to implement these green infrastructure measures more broadly.

Thank you for the opportunity to comment.

Thomas Y. Au, Conservation Chair

Sierra Club, Governor Pinchot Chapter

1528 Dogwood Drive

Harrisburg, PA 17110

--
Thomas Au
717-234-7445
thomxau@gmail.com

Greenly, Alex

From: Letavic, Erin
Sent: Thursday, August 31, 2017 8:46 AM
To: Greenly, Alex; Bonanno, Matthew
Subject: FW: Web Site Inquiry/Paxton Creek Sediment Control

Paxton Creek comment

Erin G. Letavic
Herbert, Rowland & Grubic, Inc.

From: Claire Maulhardt [mailto:claire.maulhardt@capitalregionwater.com]
Sent: Wednesday, August 30, 2017 1:35 PM
To: Letavic, Erin <eletavic@hrg-inc.com>; rallen@lowerpaxton-pa.gov; Logan, Elizabeth (Betsy) <blogan@susquehannatwp.com>; David Stewart <david.stewart@capitalregionwater.com>; Kratzer, David <dkratzer@susquehannatwp.com>; George Wolfe <gwolfe@lowerpaxton-pa.gov>
Subject: FW: Web Site Inquiry/Paxton Creek Sediment Control

I received only this comment so far. See below.

Claire Maulhardt | City Beautiful H2O Program Manager
888-510-0606 | Direct: 717-216-5269
Capital Region Water
212 Locust Street, Suite 500 | Harrisburg, PA 17101
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capitalregionwater.com | Facebook | Twitter | YouTube

-----Original Message-----
From: Capital Region Water Info
Sent: Wednesday, August 30, 2017 10:58 AM
To: Claire Maulhardt <claire.maulhardt@capitalregionwater.com>
Subject: FW: Web Site Inquiry/Paxton Creek Sediment Control

-----Original Message-----
From: Sloan Auchincloss [mailto:sloanauchincloss@gmail.com]
Sent: Thursday, August 3, 2017 12:28 PM
To: Capital Region Water Info <info@capitalregionwater.com>
Subject: Web Site Inquiry/Paxton Creek Sediment Control

Bravo to Capital Region Water for taking the lead on improving Paxton Creek watershed by attenuating sediment!

To complement that effort, I recommend that the plan include convict labor* on work-release to collect detritus contributors along riparian areas. Wind storms are primary delivery means of harmful plastic bags and

packaging that accumulate. Thoughtless individuals are culprits too because they use the stream bed as a convenient dumping site.

Such action, efficient and economical, will protect biota for better quality of life for our community.

Sloan Auchincloss
Harrisburg, PA property owner

*Convicts often have community service as part of their sentences, so clean-up would count toward time sentenced by court.

The Friends of Wildwood Lake Nature Center, Inc.

Supporting Wildwood Park & Benjamin Olewine, III Nature Center

100 Wildwood Way • Harrisburg, PA 17110 • Phone (717) 221-0292 • www.wildwoodlake.org

September 1, 2017

Capital Region Water
100 Pine Drive
Harrisburg, PA 17103
info@capitalregionwater.com

RE: Comments of the Friends of Wildwood Lake Nature Center, Inc. to the Joint Pollutant Reduction Plan of Capital Region Water, Lower Paxton Township, and Susquehanna Township (collectively, the "Municipal Entities")

To the Municipal Entities:

The Friends of Wildwood Lake Nature Center, Inc. ("FOWW") is a 501(c)(3) organization that supports Wildwood Park and the Benjamin Olewine III Nature Center at 100 Wildwood Way, Harrisburg, PA 17110. As you are aware, Wildwood Park includes Wildwood Lake, which features diverse aquatic ecosystems for thousands of plant and animal species and provides important flood protection for the City of Harrisburg. In recent years, FOWW has become increasingly concerned regarding the sediment problem in Wildwood Lake, which has significantly reduced the depth of the lake, causing increased flooding in the area and risk to plant and animal habitats.

FOWW supports the Joint Pollutant Reduction Plan ("Plan") of the Municipal Entities dated August 2, 2017, which includes a proposed sediment load reduction of 10% for Wildwood Lake within five years of approval of the Municipal Entities' MS4 permits. A 10% sediment load reduction will produce benefits within the lake itself, as well as downstream water bodies, including the Susquehanna River and the Chesapeake Bay. As stated within the Plan, streambank erosion is the main cause of the sediment problem in the region, and a focus on lake and stream restoration projects is the best way to advance long-term improvement to water quality.

FOWW also would like to specifically highlight one of the best management practices ("BMPs") identified by the Municipal Entities, BMP-03. BMP-03 is a stream restoration project proposed for Black Run, a stream that discharges to the eastern portion of Wildwood Lake. The Plan proposes a number of improvements to Black Run, including addressing severe erosion and sediment deposits, evaluating and reconstructing existing crossings, and removing debris. Each of these steps will result in reduced runoff and sediment deposits in Wildwood Lake. FOWW

The Friends of Wildwood Lake Nature Center, Inc.

Supporting Wildwood Park & Benjamin Olewine, III Nature Center

100 Wildwood Way • Harrisburg, PA 17110 • Phone (717) 221-0292 • www.wildwoodlake.org

strongly supports BMP-03, as well as the other BMPs that will indirectly result in less future runoff to the tributaries of Wildwood Lake.

FOWW supports the Municipal Entities' adoption of the Joint Pollutant Reduction Plan. Although Wildwood Lake will require significant additional sediment reduction and restoration work to provide the same ecosystem and flood prevention benefits offered a century ago, the Joint Pollutant Reduction Plan will result in many water quality benefits to Wildwood Lake, the Susquehanna River, and the Chesapeake Bay. FOWW appreciates the inclusion of Wildwood Lake within the Plan, and hopes the Municipal Entities will continue to consider future projects related to the restoration and improvement of Wildwood Lake.

FOWW appreciates the opportunity to provide comments regarding the draft Joint Pollutant Reduction Plan of Capital Region Water, Lower Paxton Township, and Susquehanna Township.

Thank you.

Regards,

Jim Caufield /TKH

Jim Caufield, President
Friends of Wildwood Lake Nature Center, Inc.

Greenly, Alex

From: Claire Maulhardt <claire.maulhardt@capitalregionwater.com>
Sent: Wednesday, September 06, 2017 8:18 AM
To: Letavic, Erin
Cc: Logan, Elizabeth (Betsy); rallen@lowerpaxton-pa.gov
Subject: FW: Joint Pollutant Reduction Plan

Please compile this with other public comments. I have a few more I will be forwarding.

Claire Maulhardt | City Beautiful H_2O Program Manager
888-510-0606 | Direct: 717-216-5269
Capital Region Water
212 Locust Street, Suite 500 | Harrisburg, PA 17101
Investing in Our Community from Raindrop to River
capitalregionwater.com | Facebook | Twitter | YouTube

From: Andrew Bliss
Sent: Tuesday, September 05, 2017 4:00 PM
To: Claire Maulhardt <claire.maulhardt@capitalregionwater.com>
Subject: FW: Joint Pollutant Reduction Plan

Public comment for PRP:

Andrew Bliss | Community Outreach Manager
888-510-0606 | Direct: 717-216-5254 | Mobile: 717-421-5861
Capital Region Water
212 Locust Street, Suite 500 | Harrisburg, PA 17101
Investing in Our Community from Raindrop to River
capitalregionwater.com | Facebook | Twitter | YouTube

From: Capital Region Water Info
Sent: Sunday, September 03, 2017 7:57 PM
To: Andrew Bliss <andrew.bliss@capitalregionwater.com>; Tanya Dierolf <tanya.dierolf@capitalregionwater.com>
Subject: FW: Joint Pollutant Reduction Plan

From: J Wasicek [mailto:jawasicek@gmail.com]
Sent: Friday, September 1, 2017 10:41 PM
To: Capital Region Water Info <info@capitalregionwater.com>
Subject: Joint Pollutant Reduction Plan

Sept. 1, 2017

To Capital Region Water & Partners Susquehanna Twp and Lower Paxton,

I definitely support the plan to reduce pollution and sedimentation from stormwater run off. In fact, I think that these are very modest goals and I would like to see more done in this regard.

I would like to see more stream buffers along the creeks and streams. I would like to see Susquehanna Township encourage developers and commercial, church, and government entities to use permeable surfaces in the parking lots. We have several large parking surfaces – associated with the Farm Show, Capital Blue Cross,HACC, churches, etc, that could help reduce runoff with permeable surfaces, rain gardens and more trees. It would also be good to encourage builders to create some bio-swales or vegetated areas like rain gardens that would help filter and store water and also provide some habitat for small animals.

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Thank you for devising this plan, and I appreciate your efforts in reducing pollution and stormwater runoff.

Sincerely,

Justina Wasicek

Susquehanna Township