

**CUMBERLAND TOWNSHIP
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
TOWNSHIP SUPERVISOR'S WORKSHOP PRESENTATION
October 17, 2019**

Agenda

1. Permit Requirements

- Annual Report & Annual \$ 500 Fee
- Additional Permit Requirements

2. Minimum Control Measures (MCM's)

- KPI / Twp. Staff Meeting & Training
- Implementation of 6-MCM's
- Filing System & Documentation

3. Chesapeake Bay Pollutant Reduction Plan (CBPRP)

- 10% Reduction in Sediment Load over 5-Year Permit Cycle
- Design/Fund/Implement Projects to Meet Sediment Reduction Goals
- Document/Verify Compliance at end of 5-Year Permit Cycle
- Potential Projects & Costs
 - Basin Retrofits
 - Stream Restoration
 - New BMP's
 - Developer Projects
 - Preliminary Recommendation of Projects & Costs
- Funding Alternatives
 - Grants – Small Water / H2O
 - Loans – Bank / PIIA (Pennvest)
 - General Fund
 - User Fees

4. Action Items

- MCM Implementation & Staff Meeting /Training
- Complete PRP Update & Conduct Public Meeting
 - Develop Action Plan
 - Develop Budget (Capital / O&M / Admin / Engineering / Legal)
 - Funding Plan

**CUMBERLAND TOWNSHIP
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

Six – Minimum Control Measures (MCM's)

MCM 1 – Public Education & Outreach

MCM 2 – Public Participation & Involvement

MCM 3 – Illicit Discharge Detection & Elimination

MCM 4 – Construction Sites Stormwater Runoff Control

**MCM 5 – Post Construction Stormwater Management
(New Development & Redevelopment)**

MCM 6 – Pollution Prevention & Good Housekeeping

<p>MCM 4 -Inspect construction runoff</p>	<p>MCM 4 -Inspect construction runoff</p>	<p>MCM 4 -Inspect construction runoff</p>	<p>MCM 4 -Inspect construction run off -Enact, implement, and enforce an E&S control BMPs ordinance according to 2022 Model Stormwater Management ordinance.</p>	<p>MCM 4 -Inspect construction run off</p>
<p>MCM 5 -Ensure adequate O&M of all post-construction Stormwater Management BMPs -Inspect BMP's -Inventory of all PCSM BMPs and update during term coverage</p>	<p>MCM 5 -Ensure adequate O&M of all post-construction Stormwater Management BMPs -Inspect BMP's</p>	<p>MCM 5 -Ensure adequate O&M of all post-construction Stormwater Management BMPs -Inspect BMP's</p>	<p>MCM 5 -Ensure adequate O&M of all post-construction Stormwater Management BMPs -Inspect BMP's -Enact, implement, and enforce an E&S control BMPs ordinance according to 2022 Model Stormwater Management ordinance.</p>	<p>MCM 5 -Ensure adequate O&M of all post-construction Stormwater Management BMPs -Inspect BMP's</p>
<p>MCM 6 -MS4 training should occur for all employees at least once a year. - Develop and implement a training program - Create inventory of all Township owned operations that have a potential to generate stormwater. -Develop, implement, and maintain a written O&M program for operations that could generate stormwater runoff.</p>	<p>MCM 6 -MS4 training should occur for all employees at least once a year.</p>	<p>MCM 6 -MS4 training should occur for all employees at least once a year.</p>	<p>MCM 6 -MS4 training should occur for all employees at least once a year.</p>	<p>MCM 6 -MS4 training should occur for all employees at least once a year.</p>

PRP

Year 1	Year 2	Year 3	Year 4	Year 5
-Determine how many Basins and other BMPs are needed to meet the loading reduction. -Determine where to retrofit and put new basins. -Public participation	-Design BMPs - public participation	-Design other BMPs -Start construction of Basins - public participation	-Construction of Basins - public participation	-Complete all BMPs need to meet the load reduction. - public participation
Annual Report				
Update DEP on all MCM and PRP.	Update DEP on all MCM and PRP.	Update DEP on all MCM and PRP.	Update DEP on all MCM and PRP. Send all revised MS4 maps.	Update DEP on all MCM and PRP.

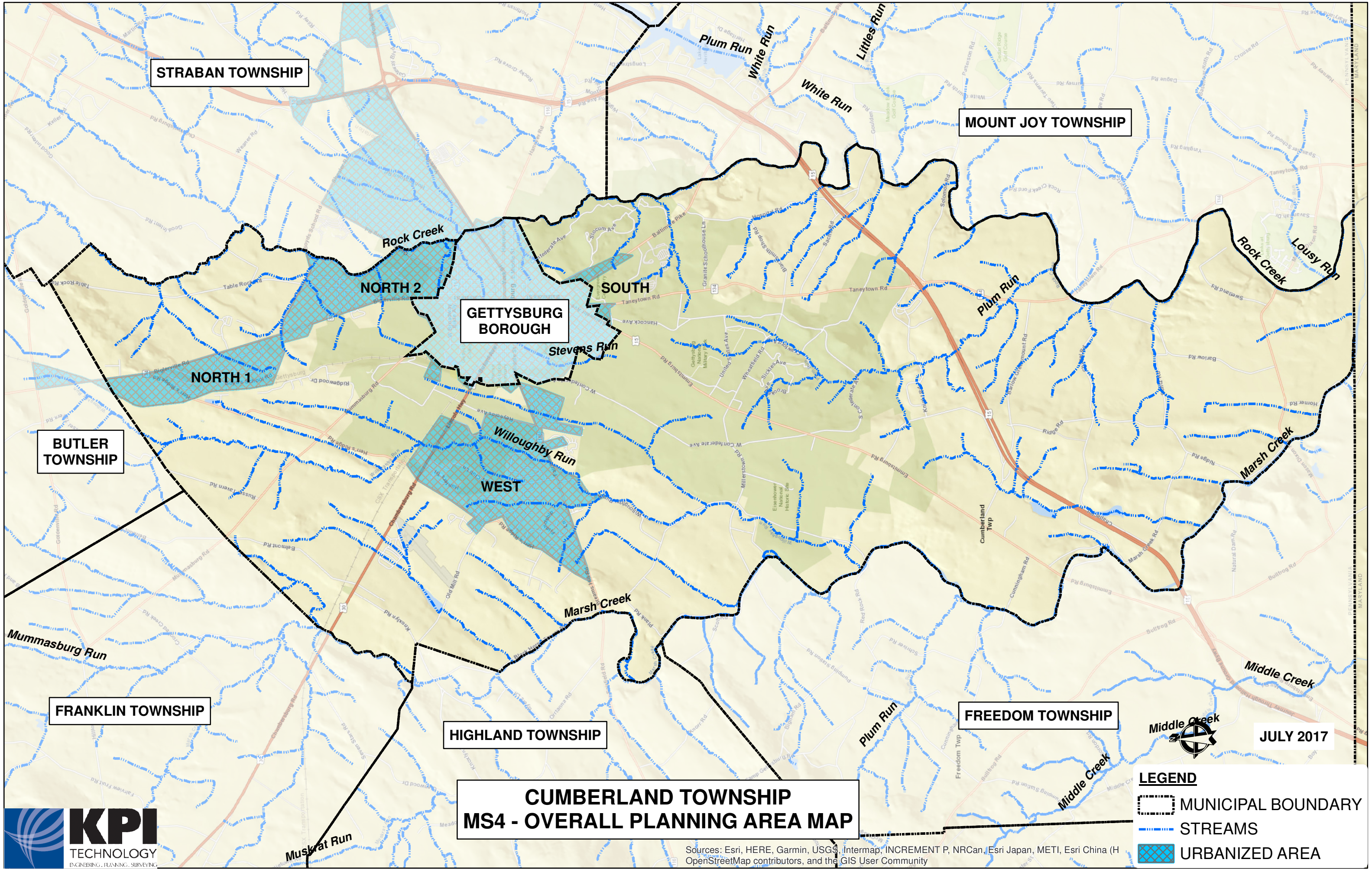
PRELIMINARY

SUMMARY TABLE Potential Future Projects

Rock Creek Watershed			
33,832 lb/yr	required sediment reduction		
Project	Achieved Sediment Reduction (lb/yr)	% Total Required Reduction	Estimated Construction Cost
Basin Retrofit at Patriot's Choice Basin #1	2,382	7.0%	
Basin Retrofit at Patriot's Choice Basin #3	2,308	6.8%	
Stream Restoration at Cumberland Twp North WWTP	11,220	33.2%	
Stream Restoration at Cambridge Crossing	35,904	106.1%	
Stream Restoration at Vida Charter School	20,196	59.7%	
Longview Blvd West Basin	2,631	7.8%	\$15,000
Adams County Conservation District Raingarden	1,910	5.6%	\$11,000
Longview Blvd East Basin	3,010	8.9%	\$13,000
Basin Retrofit at Gary McCray Company Basin #1	299	0.9%	
Stream Restoration at Herff Jones	26,479	78.3%	\$147,500
Stream Restoration at Patriot's Choice	58,344	172.5%	
Construction Total			\$186,500
Grand Total (includes 20% admin/engr)			\$223,800

Marsh Creek Watershed			
45,822 lb/yr	required sediment reduction		
Project	Achieved Sediment Reduction (lb/yr)	% Total Required Reduction	Estimated Construction Cost
Basin Retrofit at Twin Lakes West	5,130	11.2%	\$36,000
Basin Retrofit at Deatrick Village Basin #1	2,990	6.5%	\$32,000
Basin Retrofit at Cumberland Village Basin #1	13,759	30.0%	
Basin Retrofit at Cumberland Village Basin #2A/2B	692	1.5%	
Basin Retrofit at Cumberland Village Basin #3A/3B	247	0.5%	
Basin Retrofit at Cumberland Village Basin #4	714	1.6%	
Bioretention/Raingarden at Cumberland Twp MC	1,277	2.8%	\$11,000
Dry Extended Detention Basin at Cumberland Twp MC	2,319	5.1%	\$13,000
Stream Restoration at Cumberland Village	67,320	146.9%	
Stream Restoration at Cumberland Twp MC	15,259	33.3%	\$85,000
<i>Developer Projects</i>			
Vegetated Open Channel at Cumberland Village P1	3,083	6.7%	\$0
Bioretention/Raingardens at Cumberland Village P2	15,918	34.7%	\$20,000 *
Construction Total			\$197,000
Grand Total (includes 20% admin/engr)			\$236,400

*Township can pay cost to enhance.



STRABAN TOWNSHIP

MOUNT JOY TOWNSHIP

BUTLER TOWNSHIP




FRANKLIN TOWNSHIP

HIGHLAND TOWNSHIP

FREEDOM TOWNSHIP

**CUMBERLAND TOWNSHIP
MS4 - OVERALL PLANNING AREA MAP**

JULY 2017

- LEGEND**
-  MUNICIPAL BOUNDARY
 -  STREAMS
 -  URBANIZED AREA



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (H OpenStreetMap contributors, and the GIS User Community