

Stormwater PRP / TMDL Updated Plan

Doylestown Township

April 2019 Board of Supervisors Meeting

April 2, 2019



Background & **Purpose**

- Doylestown Township submitted the required MS4 Stormwater PRP / TMDL Plan to the Pennsylvania Department of Environmental Protection (DEP) in September 2017.
- DEP provided Doylestown a review letter in September 2018 requesting revisions to the plan.
- The purpose of this presentation is to describe the changes to the PRP / TMDL Plan to the Board of Supervisors and to the public.
- This presentation fulfills the Public Participation requirement that any interested member of the public be given an opportunity to comment on a new or modified PRP / TMDL Plan at a public meeting or hearing.



Background & **Purpose**

- Pollution Reduction Plans (PRPs) and Total Maximum Daily Load (TMDL) plans are required as a component of Doylestown's individual Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit.
- 1972 Clean Water Act is the federal law that governs water pollution.
- In 1990, Pennsylvania developed Phase 1 of the MS4 system for large cities.
- In 1999, the MS4 program was expanded to small MS4 communities located in Urbanized Areas, as defined by the US Census map.
- MS4 communities are required to report on Minimum Control Measures (MCMs) that include: public education, illicit discharge detection and elimination (IDD&E), and construction stormwater control.
- PRP / TMDL plans are new this permit cycle and consist of capital improvement plans to offset non-point sources of pollution.



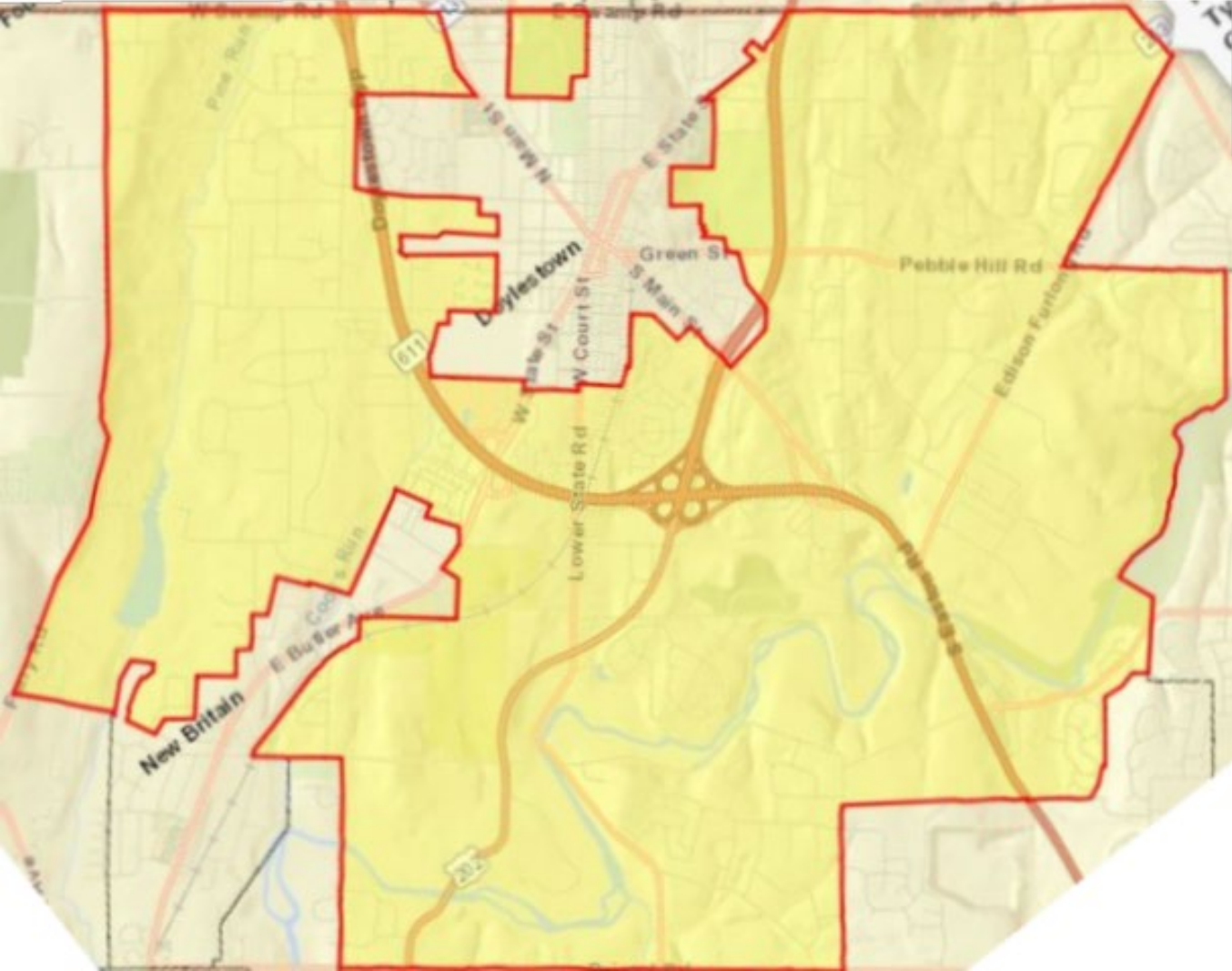
Neighboring Municipalities with required PRP / TMDL Plans

- Doylestown Borough
- Buckingham Township
- New Britain Borough
- New Britain Township
- Plumstead Township
- Warwick Township
- Warrington Township

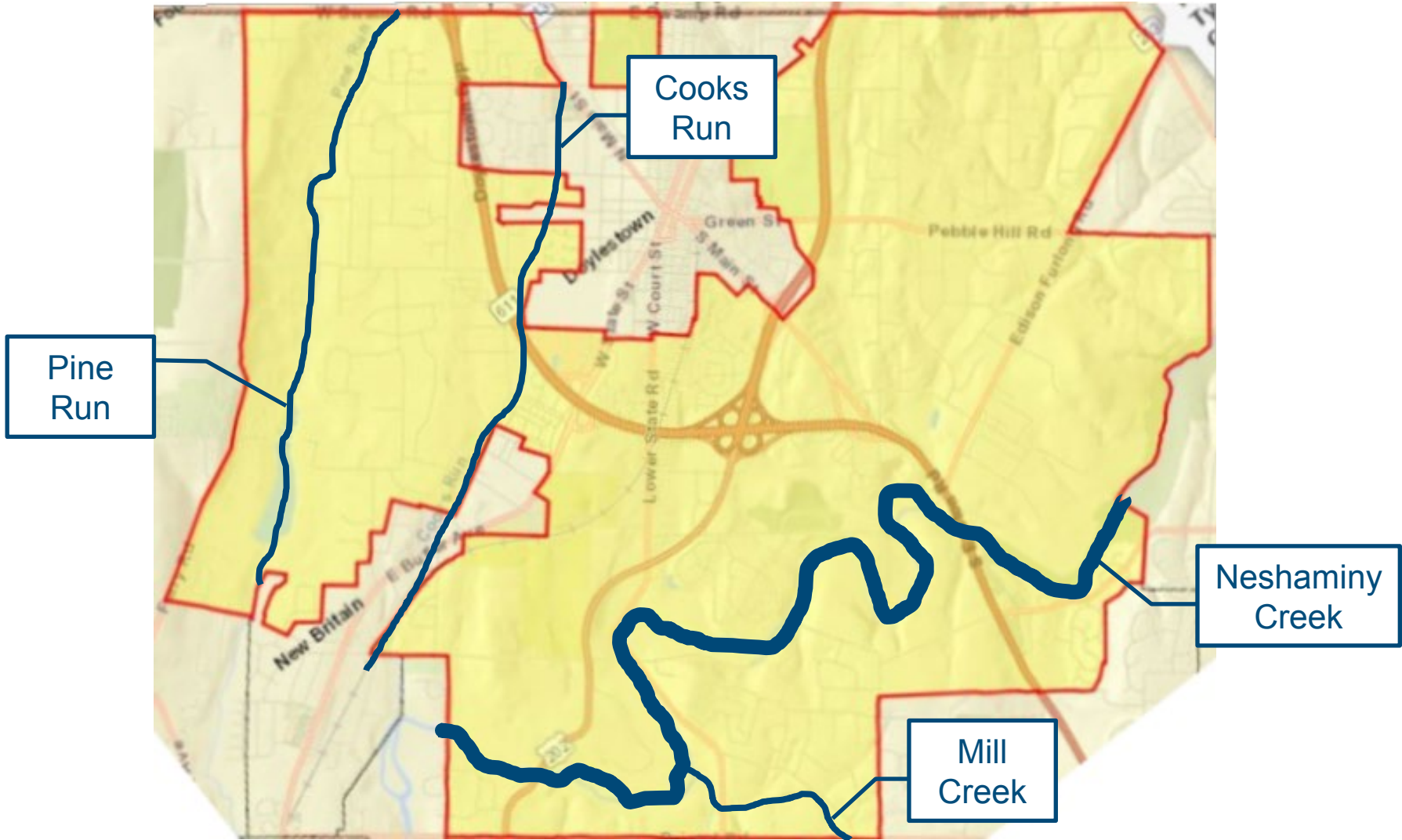


MAPPING

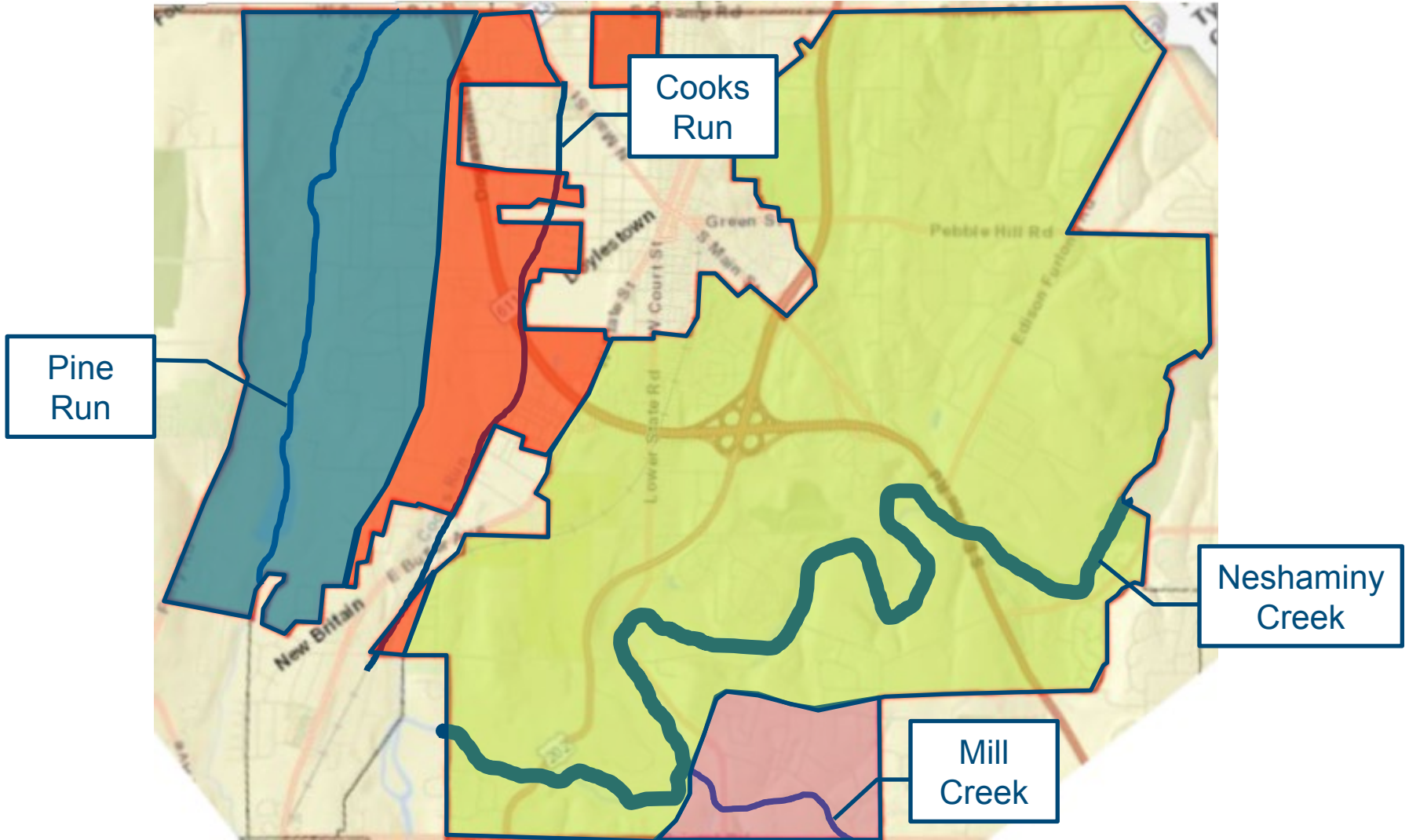
Mapping – Doylestown Township



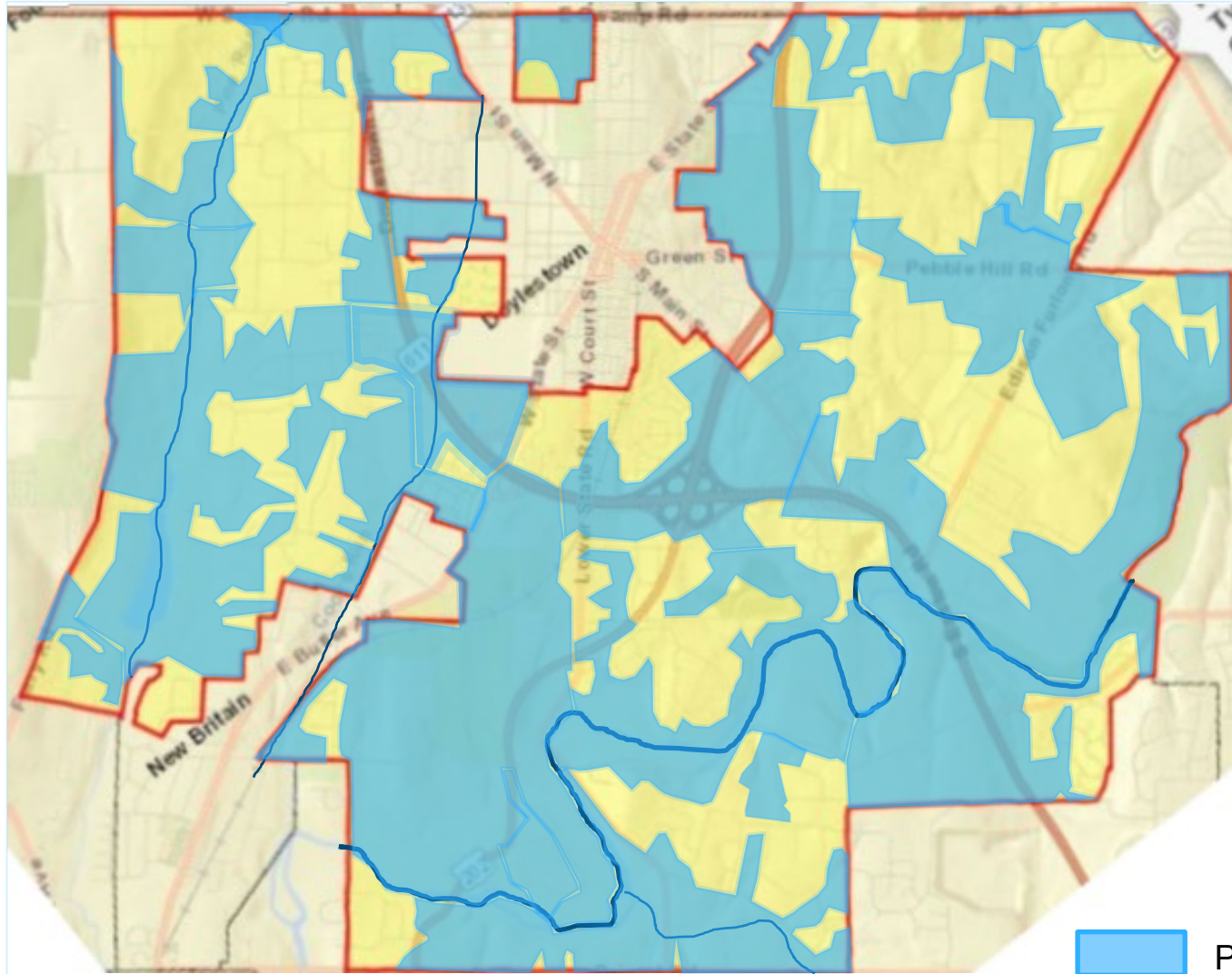
Mapping – **Streams**



Mapping – **Watersheds**



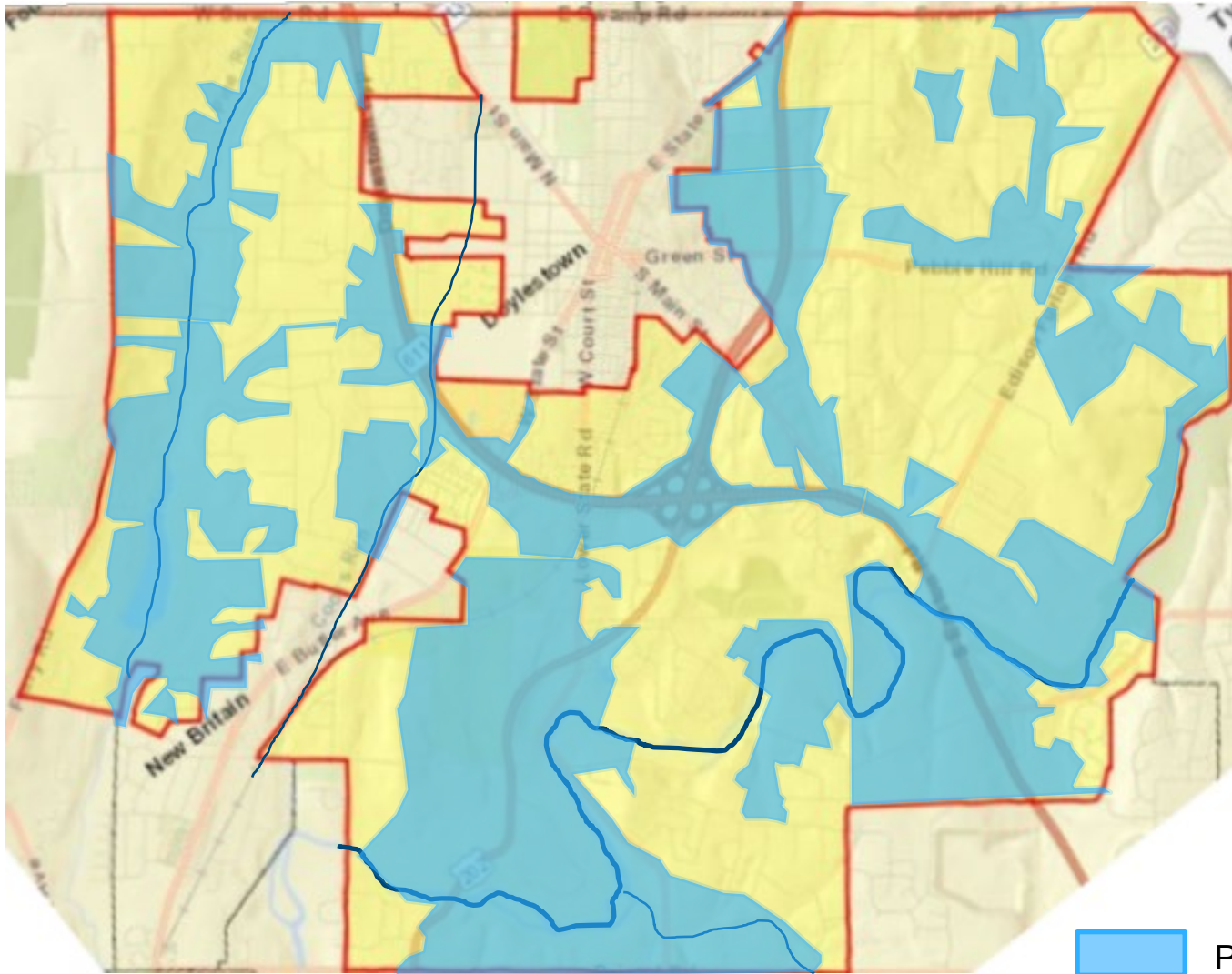
Mapping – 2017 Parced Areas



Parced Areas



Mapping – 2019 Parced Areas



Parced Areas



PRP / TMDL PROJECTS

Projects – **Sediment Reduction Requirements**

Watershed	2017 Minimum Required Sediment Reduction (lbs)	2019 Minimum Required Sediment Reduction (lbs)
Neshaminy Creek	110,370	153,972
Pine Run	40,736	42,427
Cooks Run	14,956	39,664
Mill Creek	4,900	6,627
Entire Planning Area	170,961	242,690

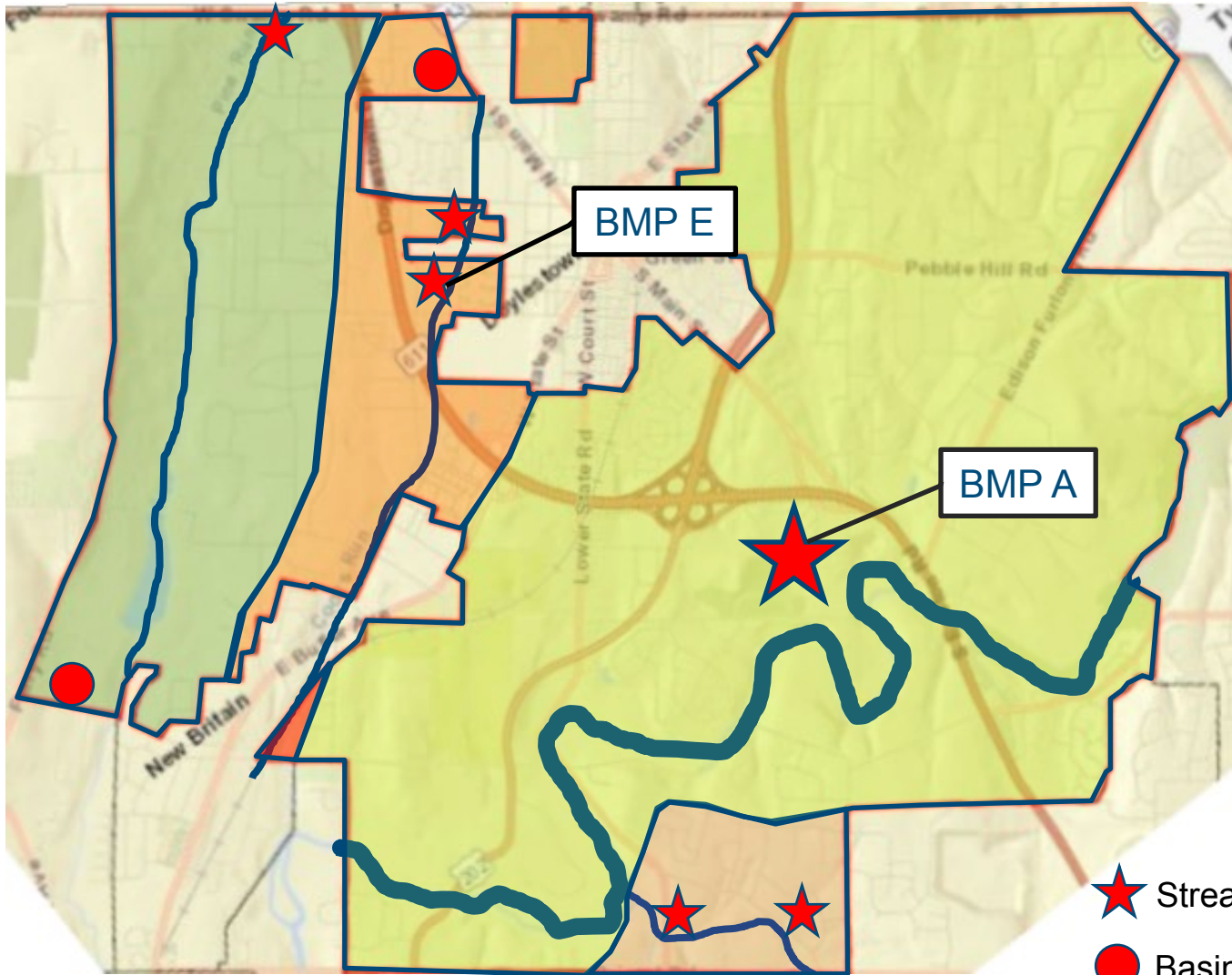


Projects – **Sediment Reduction Requirements**

Watershed	Minimum Required Sediment Reduction (lbs)	Sediment Reduction Provided (lbs)	SPARE TIRE PROJECTS Additional Sediment Reduction Available (lbs)
Neshaminy Creek	153,972	230,000	
Pine Run	42,427	48,081	200,000+
Cooks Run	39,664	75,148	50,000+
Mill Creek	6,627	11,500	10,000+
Entire Planning Area	242,690	364,729	



Projects – **Locations**



- ★ Stream Restoration
- Basin Retrofit



Projects – **BMP A**



Projects – **BMP A**



Projects – **BMP E**



Projects – **Example Stream Restoration Projects**



Before



After

Projects – **Example Stream Restoration Projects**



Before



After

Projects – **Example Stream Restoration Projects**



Before



After

SCHEDULE & BUDGET

Budget – **Cost Estimate**

Proposed BMP Letter	BMP Description	Units	Unit Cost	Number of Units	Total Cost of BMP
A	UNT Neshaminy Creek Stream Restoration	LF	\$1,000	1,500	\$1,500,000
B	Ridings at Covered Bridge BMP Retrofits	Basin	\$80,000	2	\$160,000
C	Swamp Road Stream Restoration	LF	\$1,000	250	\$250,000
D	Cottonwood Court BMP Retrofit	Basin	\$80,000	1	\$80,000
E	Cooks Run at North Broad St. Stream Rest.	LF	\$1,000	200	\$200,000
F	Cooks Run at Limekiln Rd. Stream Rest.	LF	\$1,000	500	Spare tire
G	Old New Road Stream Restoration	LF	\$1,000	100	\$100,000
H	Lower State Road Stream Restoration	LF	\$1,000	100	Spare tire
				SUBTOTAL	\$2,300,000
				15% ENGINEERING	\$350,000
				15% CONTINGENCY	\$350,000
				TOTAL	\$3,000,000



Schedule – **BMP Installation Time Table**

Proposed BMP Letter	Year 1	Year 2	Year 3	Year 4	Year 5
BMP A: UNT Neshaminy Creek Stream Restoration	Determine Borough Involvement & Planning	Procure Easements, Planning, & Permitting	Grant Application & Construction	Construction	Construction
BMP B: Ridings at Covered Bridge BMP Retrofits	Planning & Construction	Construction	•	•	•
BMP C: Swamp Road Stream Restoration	•	•	Determine if Easements are Required	Planning & Permitting	Construction
BMP D: Cottonwood Court BMP Retrofit	Planning & Construction	Construction	•	•	•
BMP E: Cooks Run at North Broad St. Stream Restoration	Figure Borough Involvement & Procure Easements	Planning & Permitting	Construction	•	•
BMP F: Cooks Run at Limekiln Rd. Stream Rest. (spare tire)	•	•	•	•	•
BMP G: Old New Road Stream Restoration	Easements, Planning, & Permitting	Construction	•	•	•
BMP H: Lower State Road Stream Restoration (spare tire)	•	•	•	•	•





www.ghd.com