

RUTGERS

New Jersey Agricultural
Experiment Station



Hamilton Township (Mercer County) Stormwater Outfall Assessment Summary 2019 Addendum

Developed by the Rutgers Cooperative Extension Water Resources Program
Funded by Hamilton Township, Mercer County, New Jersey
November 27, 2019

Acknowledgements

The Hamilton Township (Mercer County) Stormwater Outfall Assessment has been produced by the **Rutgers Cooperative Extension (RCE) Water Resources Program**.

Funding for this project was generously provided by the **Township of Hamilton, Mercer County, New Jersey** and in part by the **New Jersey Agricultural Experiment Station** through the United States Department of Agriculture.

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Introduction

Hamilton Township, located in Mercer County, New Jersey, maintains over 400 stormwater outfalls that drain directly into waterways. This document is a summary of the outfall pipe inspection program conducted in 2019. The purpose of the program is to provide a baseline assessment of existing conditions related to stream scouring at stormwater outfall discharge locations in streams and waterways. This assessment evaluates the physical condition of outfall structures, erosion caused by the outfalls, structural integrity, and other factors.

The outfalls assessed are in addition to the previous assessments conducted in 2015 and 2017. It was not the intent of this program to be a complete and comprehensive inventory of all stormwater outfalls in the municipal separate storm sewer system (MS4). All efforts for this project were for the purpose of mapping and inventorying outfall pipes that discharge directly to mapped streams. The assessments were performed in August 2019 by the Rutgers Cooperative Extension (RCE) Water Resources Program.

Methods and Procedures

A multi-part approach was taken to assess stormwater outfalls that discharge directly to waterways in Hamilton Township. A geographic information system (GIS) was created to visualize the location of mapped outfall locations. A data layer was created using the GIS application EpiCollect. The application software was used to develop a mobile assessment tool that could record information collected in the field using hand-held tablet computers. Field staff then used the tablet computers and EpiCollect software to photograph, record data, and geotag the location of each stormwater outfall assessed. RCE Water Resources Program staff visited and assessed accessible stormwater outfalls using EpiCollect and then processed the data using ESRI's ArcMap desktop program. A total of 40 outfalls were located and assessed in 2019. This is in addition to the 318 outfalls assessed in 2015 and 2017. Information about the condition, material, diameter, and other factors was recorded for each assessed outfall.

A maintenance prioritization was developed using the field data collected for the 40 stormwater outfalls. Priority was given to outfalls that showed significant signs of deterioration, were causing downstream erosion, were unstable due to erosion, or showed signs of illicit connections. Consideration was also given to the amount of vegetation growth in and around the outfall, quantity of sediment deposits, areas of known commercial or industrial uses, and other factors.

Summary of Key Findings

The following conclusions were formed after reviewing data for the 40 outfalls assessed. Out of the 40, a total of seven (7) were deemed inaccessible due to private property boundaries or an excess of vegetation. Of the accessible 33 outfalls, a total of 27% of assessed outfalls were designated as high priority locations in need of maintenance, 12% were designated as medium priority, and 61% were designated as low maintenance priority sites. Approximately 27% of outfalls were found to be showing signs of significant deterioration. An estimated 18% of the outfalls were found to be causing downstream erosion, and 21% of outfalls were noted to be unstable due to erosion. Information about each outfall assessed can be found in the Tabular Data section of this document. Summary maps of this information can be found in the Summary Maps section.

Description of Summary Maps

A series of five summary maps were created illustrating the key findings noted above. These maps include, “Outfall Maintenance Prioritization,” which displays the nine (9) high maintenance priority outfalls. This map represents a prioritization for maintenance of stormwater outfalls. Higher priority was given to damaged outfalls, outfalls that are causing erosion, outfalls that are unstable due to erosion, areas with floatables, and unknown sources of odors. The “Outfall Accessibility” map displays the seven (7) outfalls which were not able to be assessed due to private property constraints or excessive vegetation blocking the path. The “Outfall Pipe Condition” map identifies outfall structures with visible cracking, spalling, corrosion, and peeling. There were nine (9) stormwater outfalls identified as having a degraded physical condition. The “Outfall Erosion” map represents outfall locations where downstream erosion was noted due to the outfall discharge. There are a total of six (6) outfalls identified to be causing downstream erosion. The final summary map, “Outfall Stability,” identifies those outfalls that are unstable due to erosion in and around the outfall structure. There are seven (7) outfalls that have been identified as having questionable overall outfall structural stability.

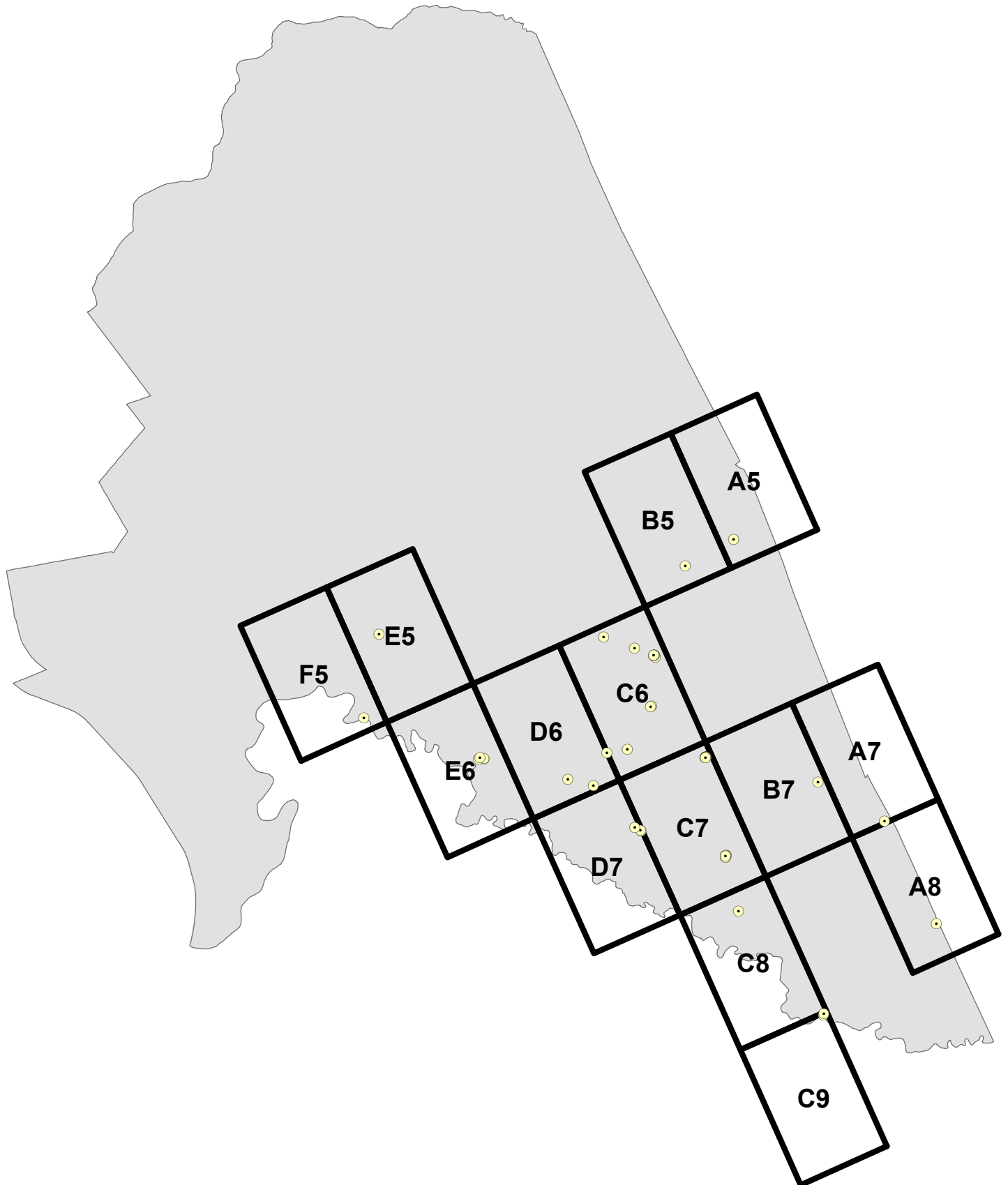
Recommendations

Based on the assessment and summary findings, preliminary recommendations for remediation and maintenance include the following:

1. The nine (9) outfalls identified as high priority for maintenance should be visited by Hamilton Township personnel, and a plan and schedule should be developed to take the necessary corrective actions as soon as possible.
2. A complete maintenance plan and schedule should be developed for all stormwater outfalls to address the deficiencies noted in this assessment in a timely manner.





This assessment was not intended to be a complete and comprehensive inventory of all stormwater outfalls in the MS4 system. Efforts for this project focused solely on mapping and inventorying known outfall pipes discharging directly to mapped streams. Other outfalls in the MS4 system exist and may need to be investigated at a later time.

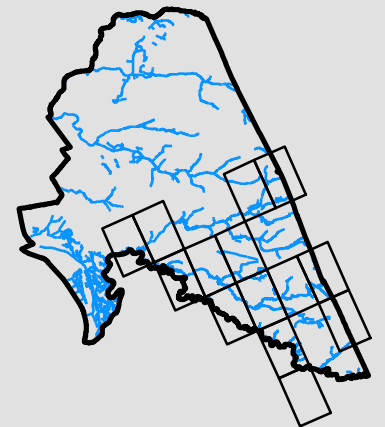
Hamilton Outfall Assessment Grid Index



Hamilton

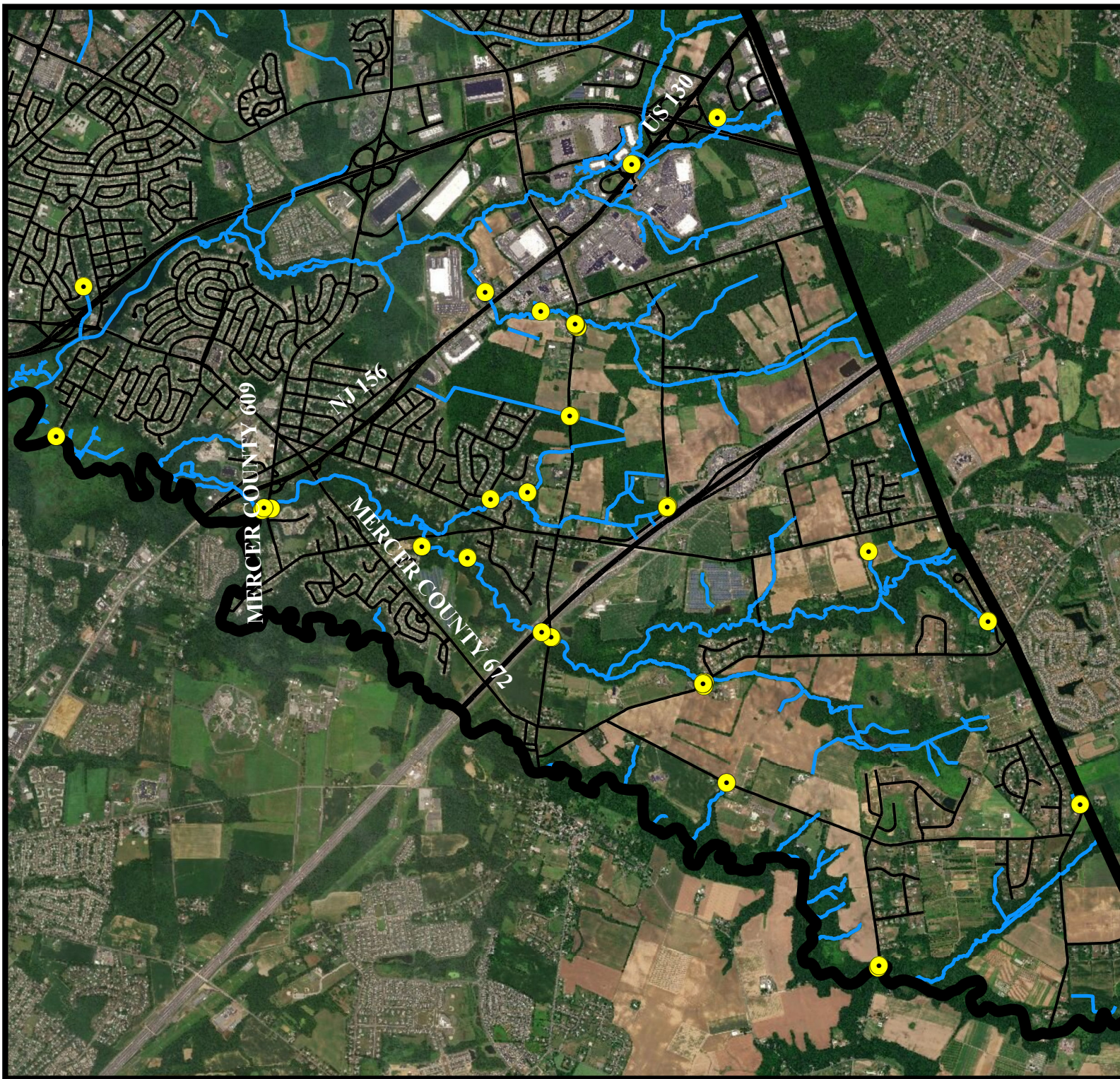
Assessed Stormwater Outfalls

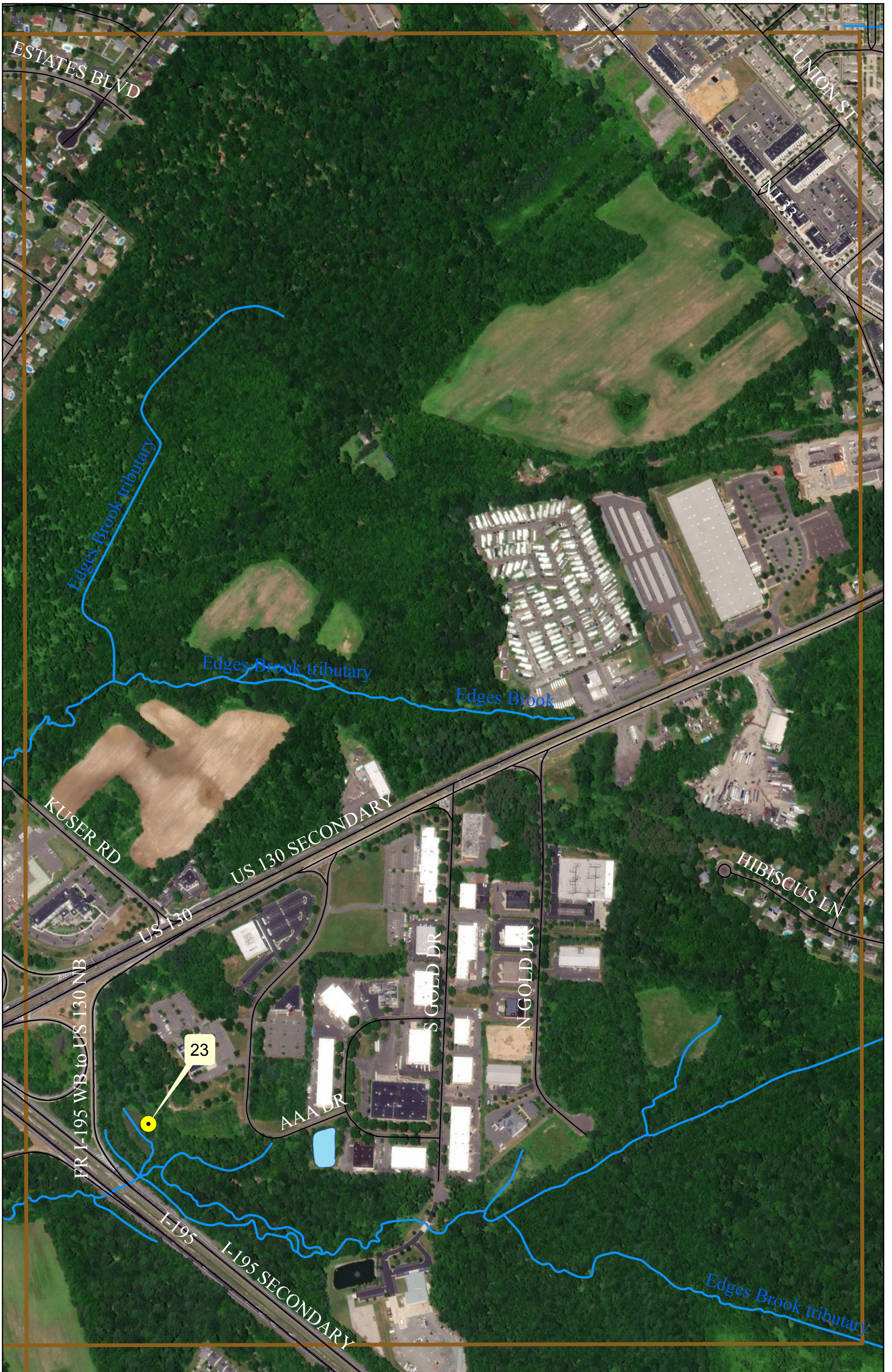
-  Hamilton
-  Stream
-  Road
-  Assessed Outfall: 40



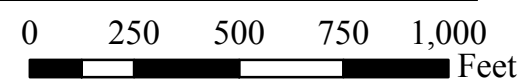
Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.





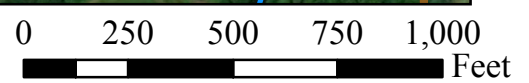
Grid ID: A5
 Number of Outfalls: 1



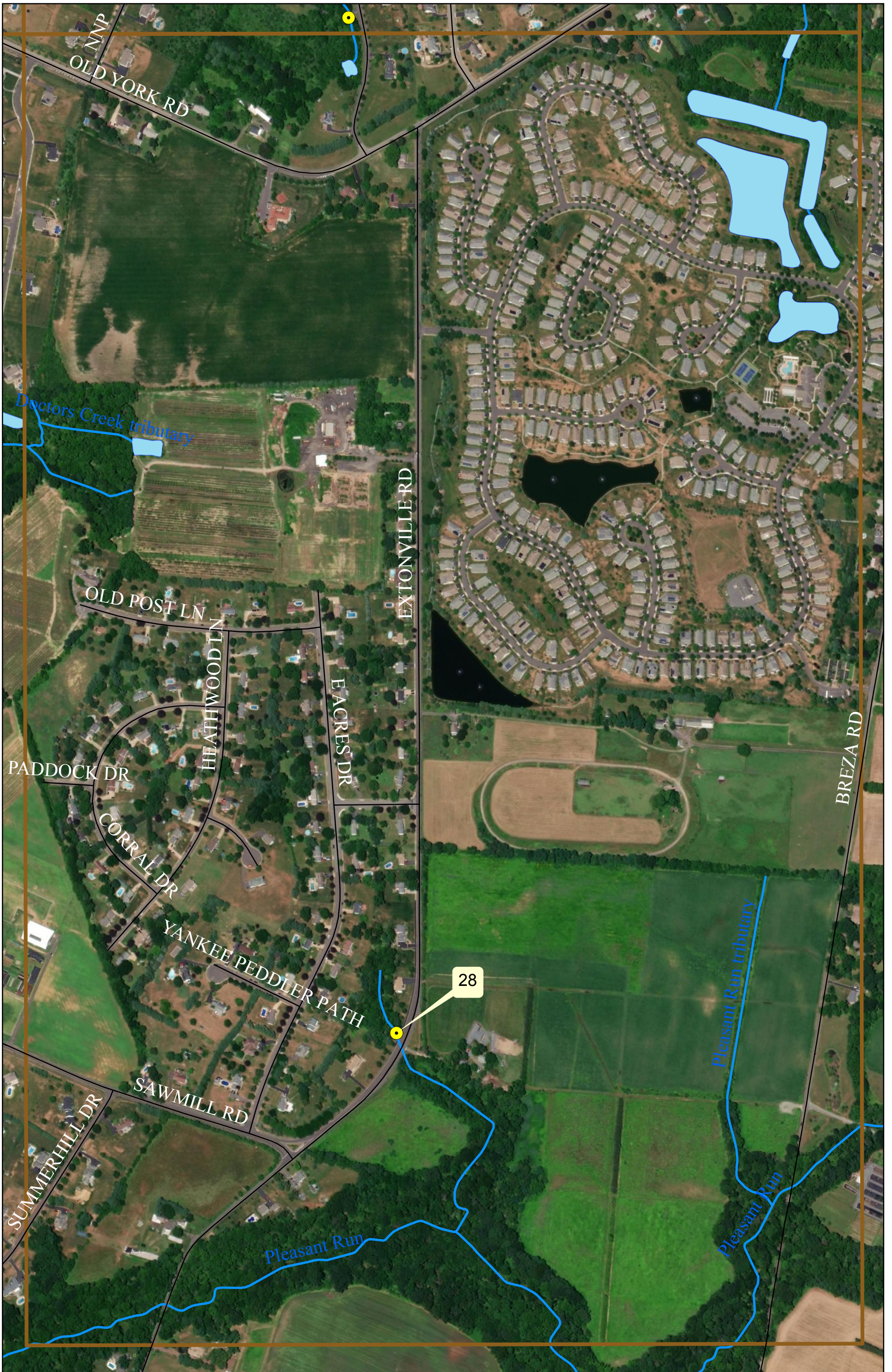
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 Source: Hamilton Township, DEP, NJDOT, NJOIT



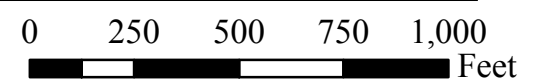
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 Number of Outfalls: 1



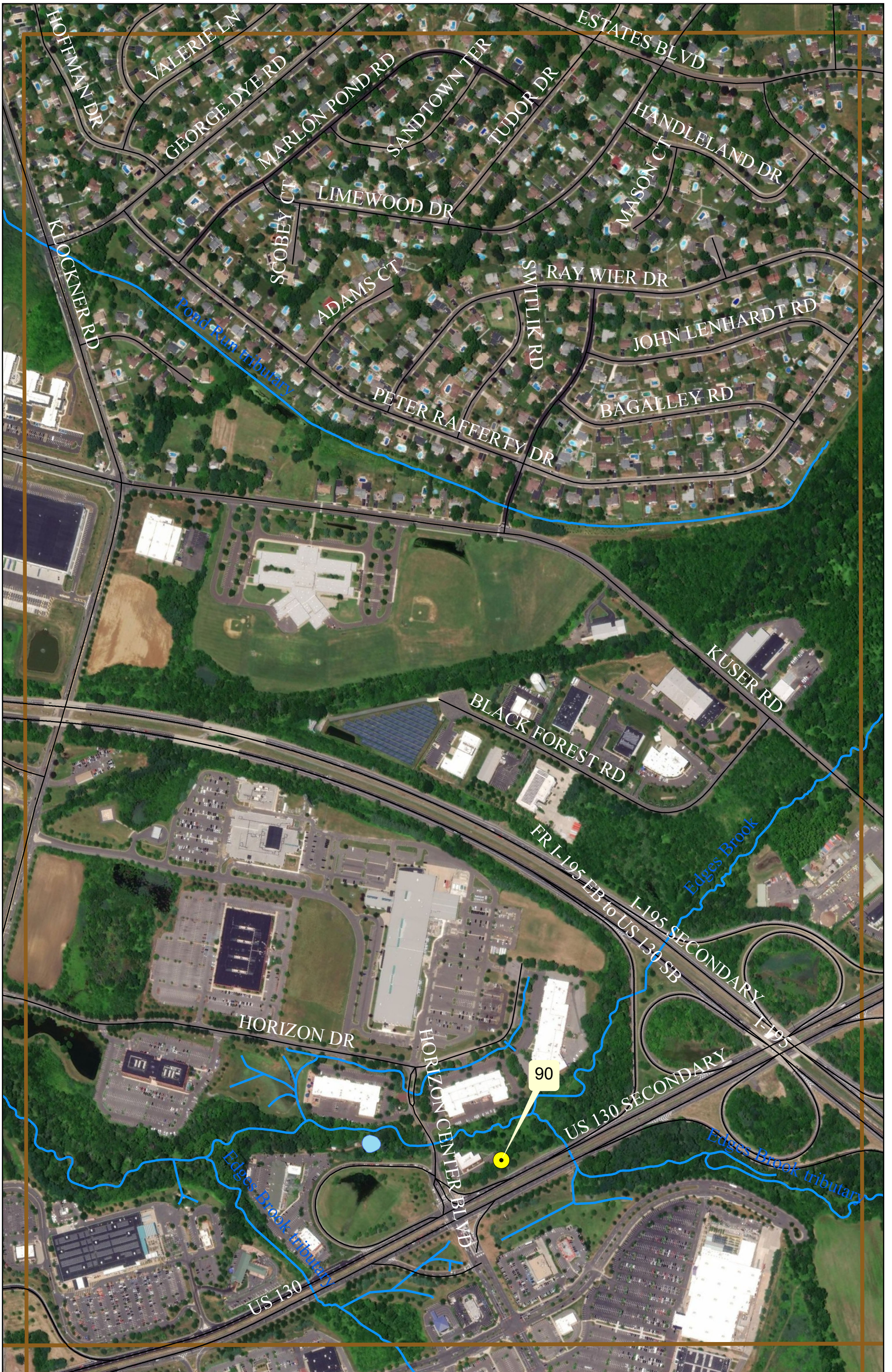
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 Source: Hamilton Township, DEP, NJDOT, NJOIT



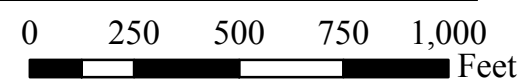
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Number of Outfalls: 1



Composition: RCE Water Resources Program
Source: Hamilton Township, DEP, NJDOT, NJOIT



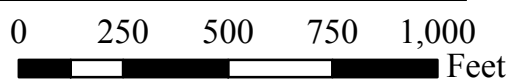
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 Number of Outfalls: 1



Composition: RCE Water Resources Program
 Source: Hamilton Township, DEP, NJDOT, NJOT



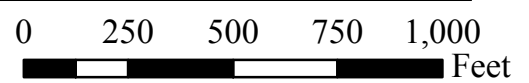
Grid ID: B7
Number of Outfalls: 1



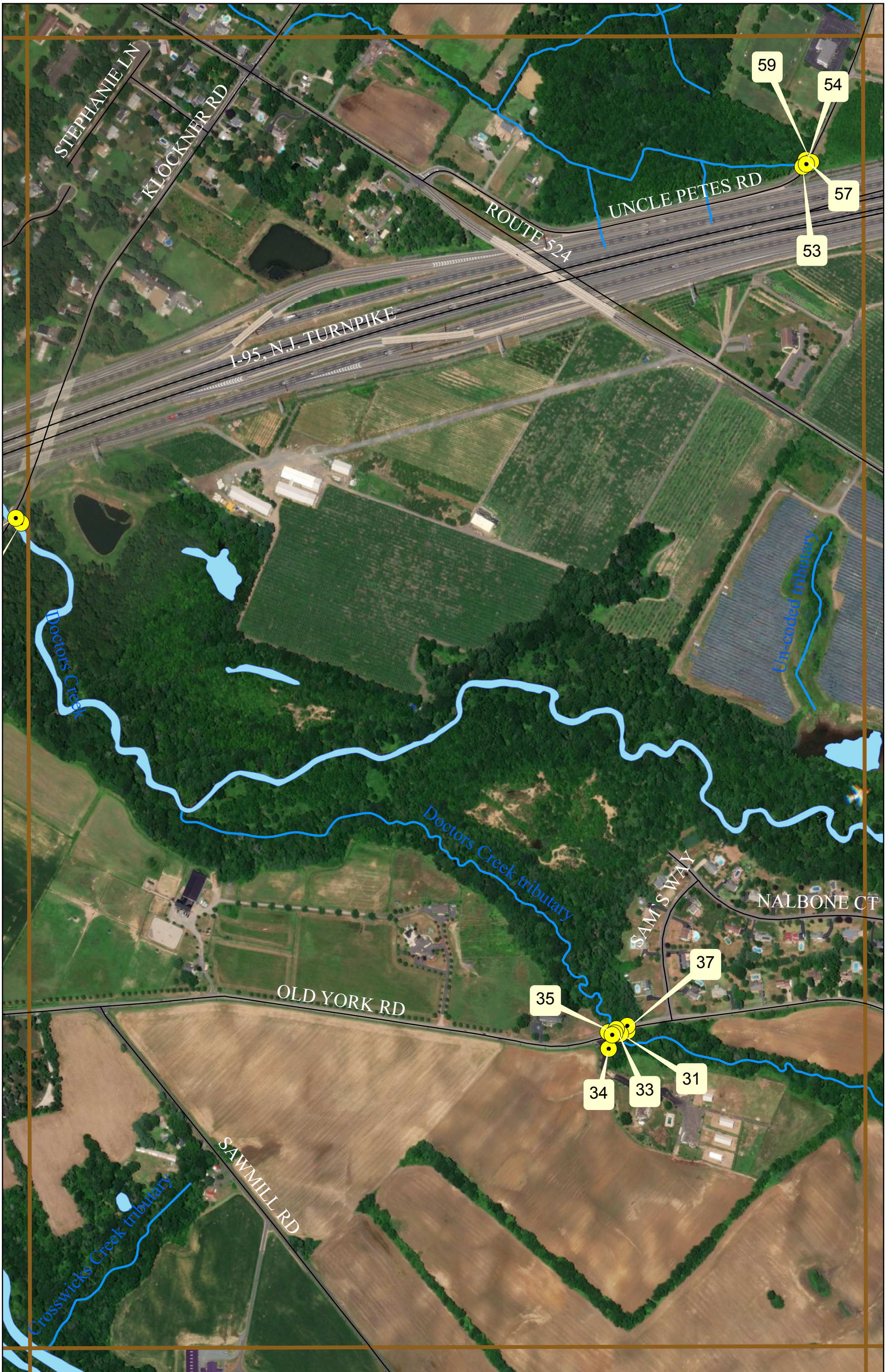
Composition: RCE Water Resources Program
Source: Hamilton Township, DEP, NJDOT, NJOIT



Grid ID: C6
 Number of Outfalls: 10



Composition: RCE Water Resources Program
 Source: Hamilton Township, DEP, NJDOT, NJOIT

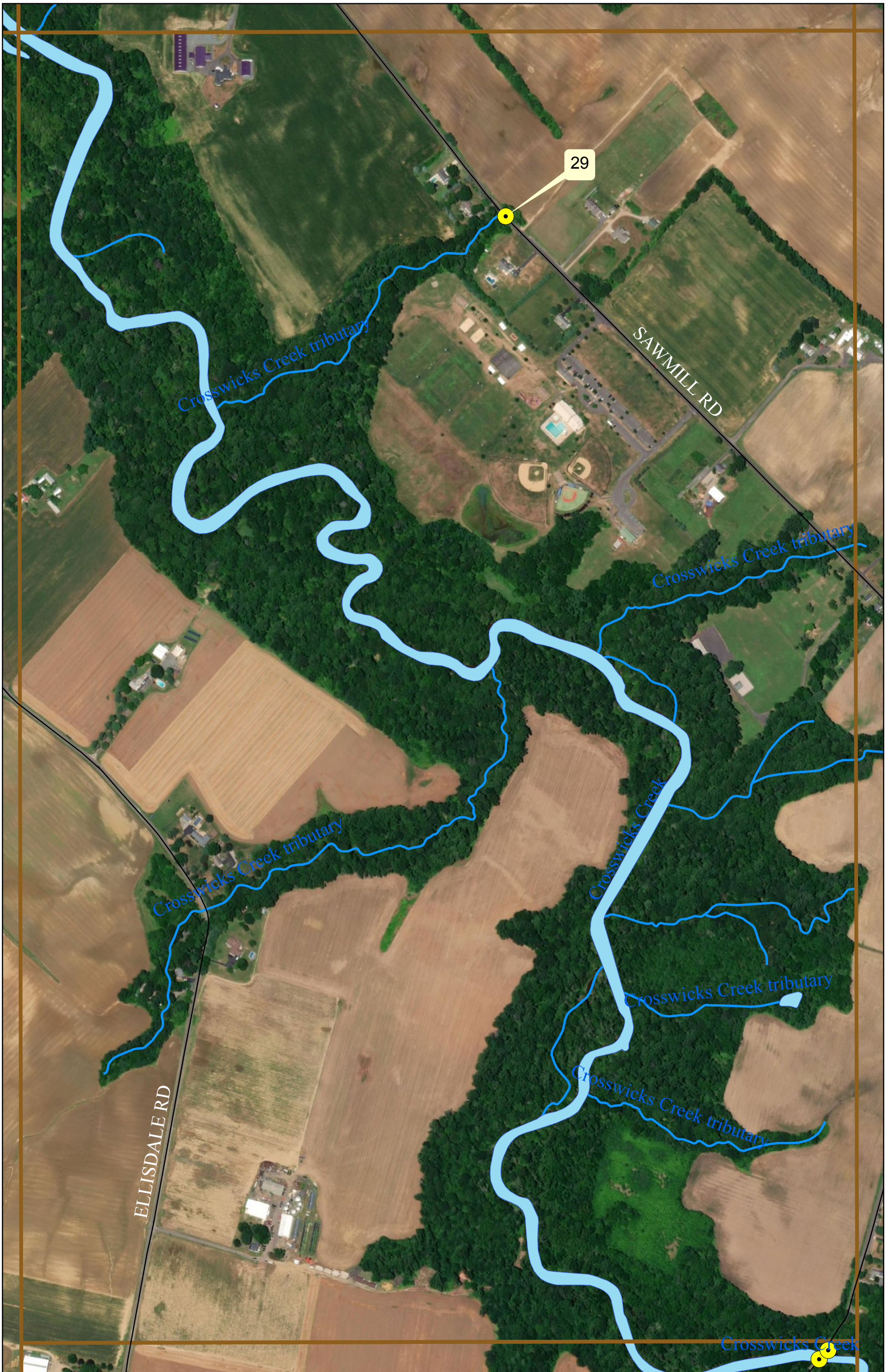


Grid ID: C7
 Number of Outfalls: 9

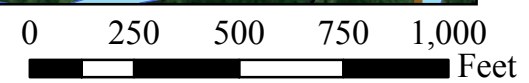


0 250 500 750 1,000 Feet

Composition: RCE Water Resources Program
 Source: Hamilton Township, DEP, NJDOT, NJOIT



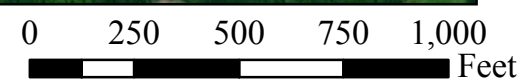
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Number of Outfalls: 1



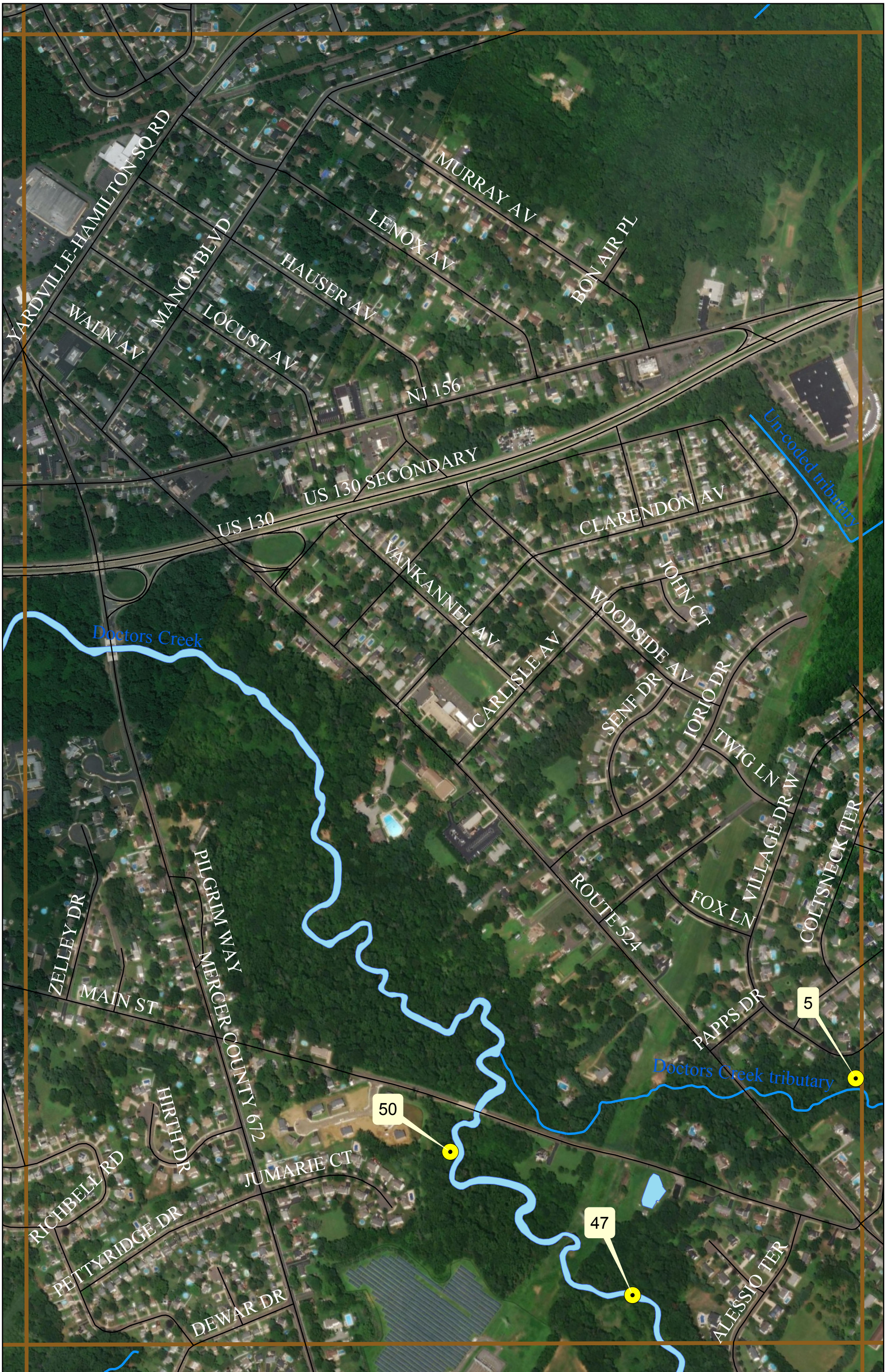
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Source: Hamilton Township, DEP, NJDOT, NJOIT



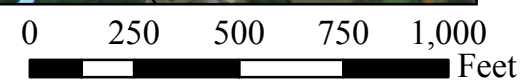
Grid ID: C9
Number of Outfalls: 2



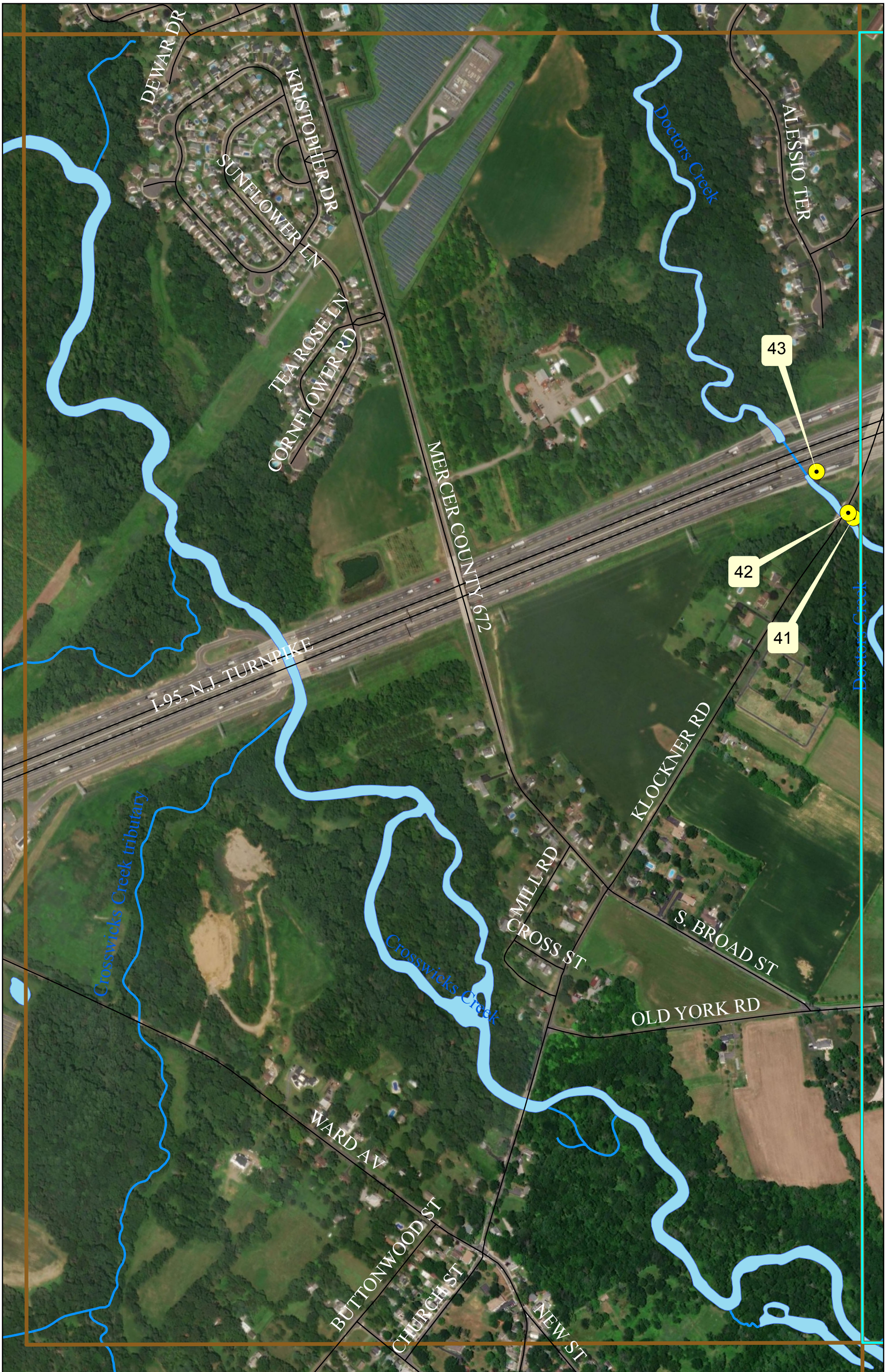
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Source: Hamilton Township, DEP, NJDOT, NJOIT



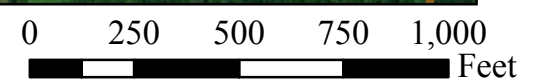
Grid ID: D6
 Number of Outfalls: 3



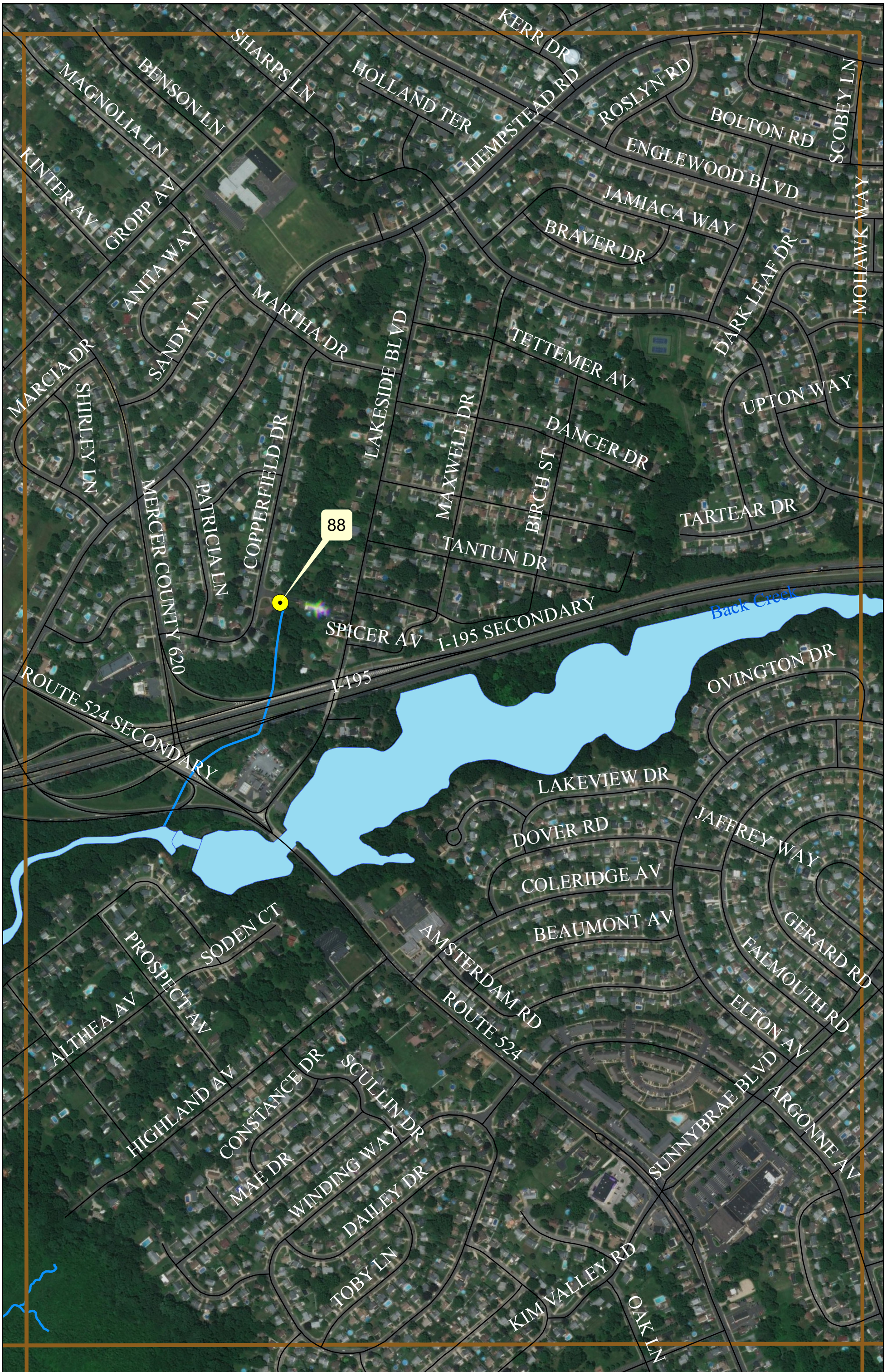
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 Source: Hamilton Township, DEP, NJDOT, NJOT



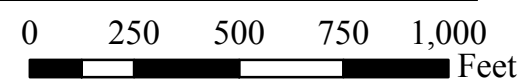
Grid ID: D7
 Number of Outfalls: 3



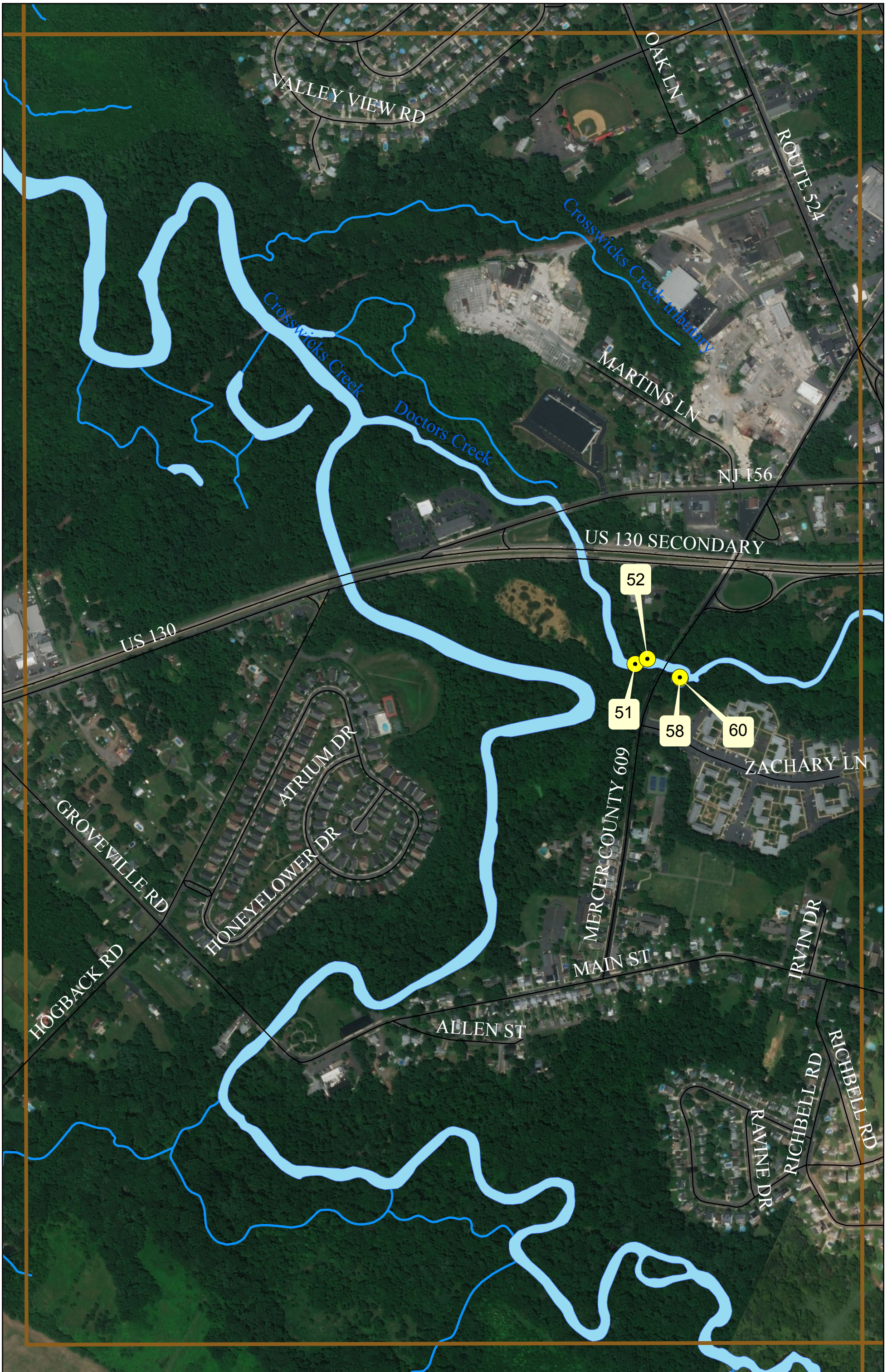
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 Source: Hamilton Township, DEP, NJDOT, NJOIT



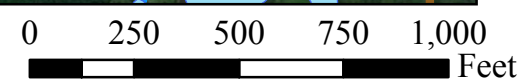
Grid ID: E5
 Number of Outfalls: 1



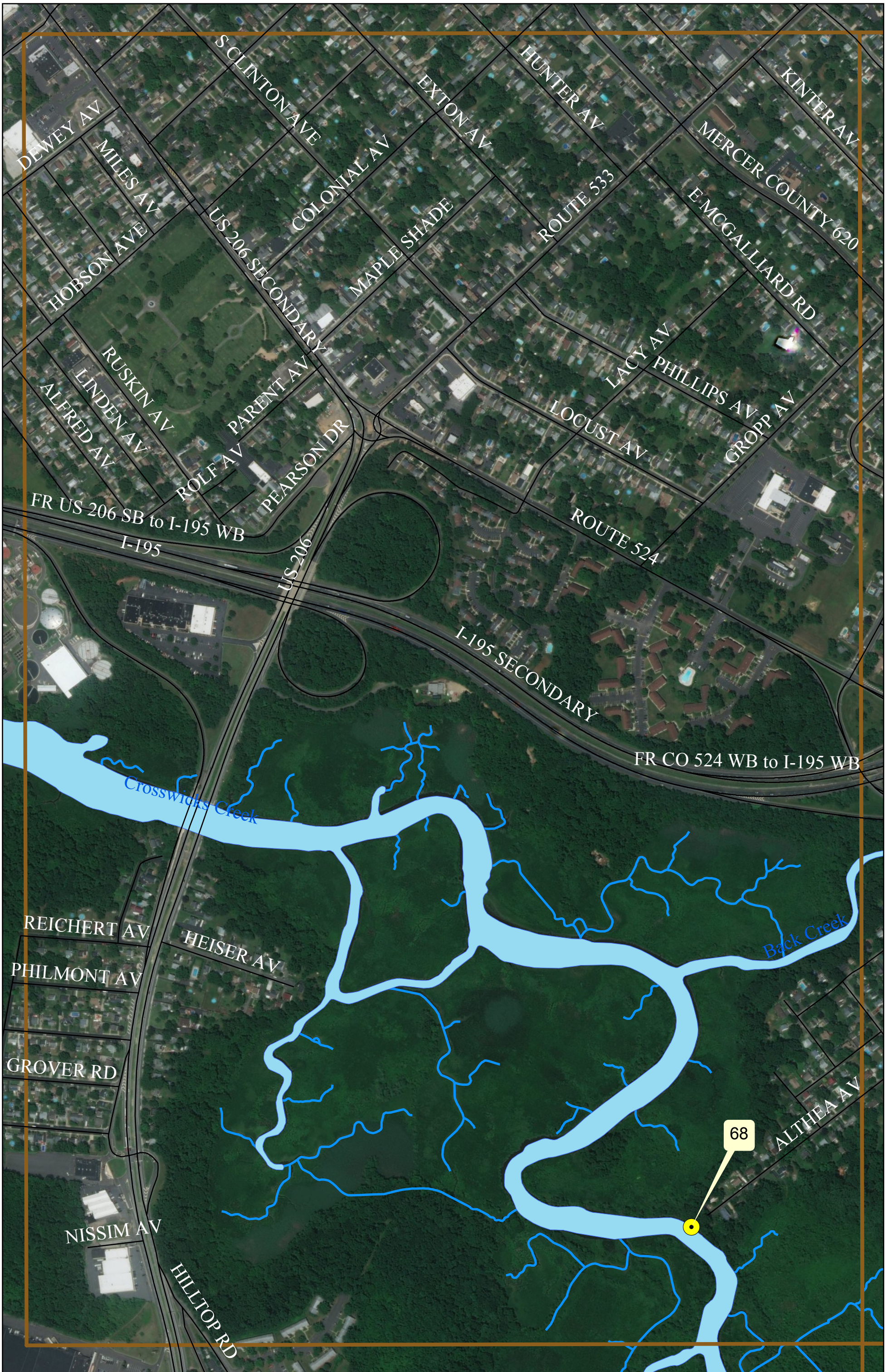
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 Source: Hamilton Township, DEP, NJDOT, NJOIT



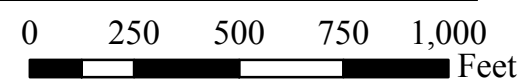
Grid ID: E6
Number of Outfalls: 4



Composition: RCE Water Resources Program
Source: Hamilton Township, DEP, NJDOT, NJOIT



Grid ID: F5
 Number of Outfalls: 1



Composition: RCE Water Resources Program
 Source: Hamilton Township, DEP, NJDOT, NJOIT



GENERAL INFORMATION		Site ID:
Name(s) person inspecting the outfall:		Date:
Location Address and Cross Streets:	Watershed:	
Name of Creek, Stream, or area into which the outfall discharges:	Property Owner / Tax Parcel Block & Lot:	
Contact information:		
STRUCTURAL COMPONENTS		
Outfall description:	Is the outfall accessible to maintain? Yes / No	
Outfall Material:	Is it maintained: Mowed, clear of woody plants, blockages?	
Weather over past 24 Hours:	Outlet diameter:	

GENERAL OBSERVATIONS	YES	NO	NOTES/REMARKS
1) Any reports on the outlet not functioning?			
2) Are there any unauthorized or malfunctioning structures connected to the outfall?			



OUTLET	YES	NO	NOTES/REMARKS
1) Known industrial or commercial uses in drainage area?			
2) Odor? (Sewage, Sulfide, Oil, Gas, Rancid or Sour, Other)			
3) Color? (None, Yellow, Brown, Green, Gray)			
4) Turbidity? (Clear, Cloudy, Opaque)			
5) Floatables? (Petroleum Slick, Raw Sewage, Trash)			
6) Deposits? (Sediment, Oil, Other)			
7) Vegetation? (Normal, Excessive, Inhibited)			
8) Outfall Pipe Condition? (No Damages, Cracking, Spalling, Corrosion, Peeling Paint)			
9) Has Erosion Undermined the stability of the outfall?			
10) Extent of Erosion Damage in square feet? (None, Under 100, Between 100 and 500, Over 500)			

SUMMARY AND NOTES: Identify unique characteristics and/or opportunities

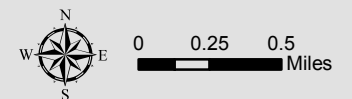
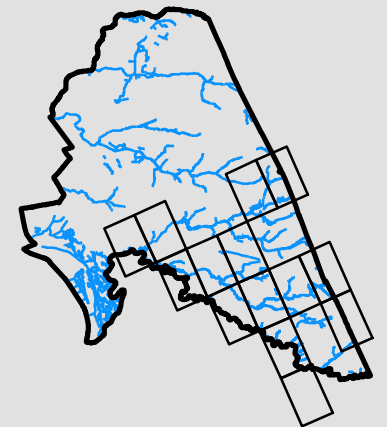
Outfall ID	Grid Number	Weather Over Past 24 Hours	Flowing During Wet Weather	Pipe Material	Diameter in Inches	Known Industrial Discharges	Odor	Color	Turbidity	Floatables	Deposits	Vegetation	Outfall Pipe Condition	Has Erosion Undermined the Stability of the Outfall?	Extent of Erosion Damage	Accessible
23	A5	Sunny	No	concrete	55	no known discharges	none	brown	clear	none	sediment	excessive growth	No Damages	No	none	Yes
44	A7	Sunny	Yes	n/a	0	no known discharges	rancid or sour	yellow	opaque	petroleum slick	oil	normal growth	n/a	Yes	n/a	Yes
28	A8	Sunny	No	concrete	45	no known discharges	none	gray	clear	none	none	normal growth	No Damages	No	none	Yes
90	B5	Sunny	No	concrete	22	no known discharges	none	None	Clear	None	Sediment	Normal growth	No Damages	No	none	Yes
14	C6	Sunny	No	plastic	4	no known discharges	none	None	Clear	None	Sediment	Normal growth	No Damages	No	none	Yes
15	C6	Sunny	No	concrete	4	no known discharges	none	none	clear	none	sediment	normal growth	No Damages	No	none	Yes
16	C6	Sunny	No	concrete	4	no known discharges	none	none	clear	none	sediment	normal growth	No Damages	No	none	Yes
17	C6	Sunny	No	concrete	4	no known discharges	none	none	clear	none	sediment	normal growth	No Damages	No	none	Yes
18	C6	Sunny	No	concrete	4	no known discharges	none	none	clear	none	sediment	normal growth	No Damages	No	none	Yes
19	C6	Sunny	No	concrete	36	no known discharges	none	None	Cloudy	None	None	Excessive growth	No Damages	No	none	Yes
62	C6	Sunny	No	concrete	30	no known discharges	none	None	Clear	None	None	Normal growth	No Damages	No	none	Yes
70	C6	Sunny	No	concrete	16	no known discharges	none	None	Clear	Trash	Sediment	Normal growth	cracking	Yes	Under 100	Yes
71	C6	Sunny	No	concrete	16	no known discharges	none	None	Clear	Trash	Sediment	Inhibited growth	spalling	No	none	Yes
89	C6	Sunny	Yes	clay	12	no known discharges	rancid or sour	Brown	Opaque	Petroleum slick	Sediment	Normal growth	corrosion	No	none	Yes
31	C7	Sunny	No	concrete	24	no known discharges	none	Brown	Cloudy	Trash	Sediment	Normal growth	corrosion	Yes	Under 100	Yes
34	C7	Sunny	No	concrete	24	no known discharges	none	Brown	Cloudy	None	Sediment	Normal growth	No Damages	No	none	Yes
35	C7	Sunny	No	concrete	24	no known discharges	none	None	Clear	None	Sediment	Excessive growth	No Damages	No	none	Yes
37	C7	Sunny	No	concrete	20	no known discharges	none	None	Clear	None	Sediment	Excessive growth	corrosion	Yes	Under 100	Yes
53	C7	Sunny	No	concrete	37	no known discharges	none	None	Clear	Trash	Sediment	Excessive growth	No Damages	No	none	Yes
54	C7	Sunny	No	concrete	37	no known discharges	rancid or sour	Brown	Opaque	None	Other	Excessive growth	No Damages	No	none	Yes
29	C8	Sunny	Yes	concrete	30	no known discharges	none	Brown	Clear	None	Sediment	Normal growth	No Damages	No	none	Yes
24	C9	Sunny	Yes	concrete	72	no known discharges	none	None	Clear	None	None	Normal growth	No Damages	No	none	Yes
26	C9	Sunny	Yes	concrete	24	no known discharges	none	Brown	Clear	None	Sediment	Excessive growth	No Damages	No	none	Yes
47	D6	Sunny	Yes	concrete	30	no known discharges	none	None	Clear	None	None	Excessive growth	No Damages	No	none	Yes
50	D6	Sunny	Yes	concrete	48	no known discharges	none	None	Clear	None	None	Normal growth	No Damages	No	none	Yes
41	D7	Sunny	No	concrete	24	no known discharges	none	Yellow	Cloudy	None	None	Normal growth	No Damages	No	none	Yes
42	D7	Sunny	Yes	concrete	36	no known discharges	rancid or sour	Brown	Cloudy	None	Other	Excessive growth	No Damages	No	none	Yes
88	E5	Sunny	No	clay	0	no known discharges	none	None	Clear	None	None	Normal growth	No Damages	No	none	Yes
51	E6	Sunny	No	metal	15	no known discharges	none	Brown	Cloudy	None	None	Normal growth	No Damages	No	none	Yes
52	E6	Sunny	No	metal	15	no known discharges	none	Brown	Cloudy	None	None	Normal growth	cracking	No	none	Yes
58	E6	Sunny	No	concrete	19	no known discharges	none	Green	Cloudy	None	Sediment	Normal growth	cracking	Yes	Under 100	Yes
60	E6	Sunny	No	concrete	9	no known discharges	none	Green	Cloudy	None	None	Normal growth	corrosion	Yes	Under 100	Yes
68	F5	Sunny	No	concrete	45	no known discharges	none	brown	cloudy	none	none	excessive growth	spalling	Yes	Under 100	Yes
49	B7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
59	C7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
55	C7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
56	C7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
57	C7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
5	D6	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	No
43	D7	Sunny	Not Accessible	Not Accessible	0	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	Not Accessible	excessive growth	Not Accessible	Not Accessible	Not Accessible	No

Hamilton

Outfall Maintenance
Prioritization

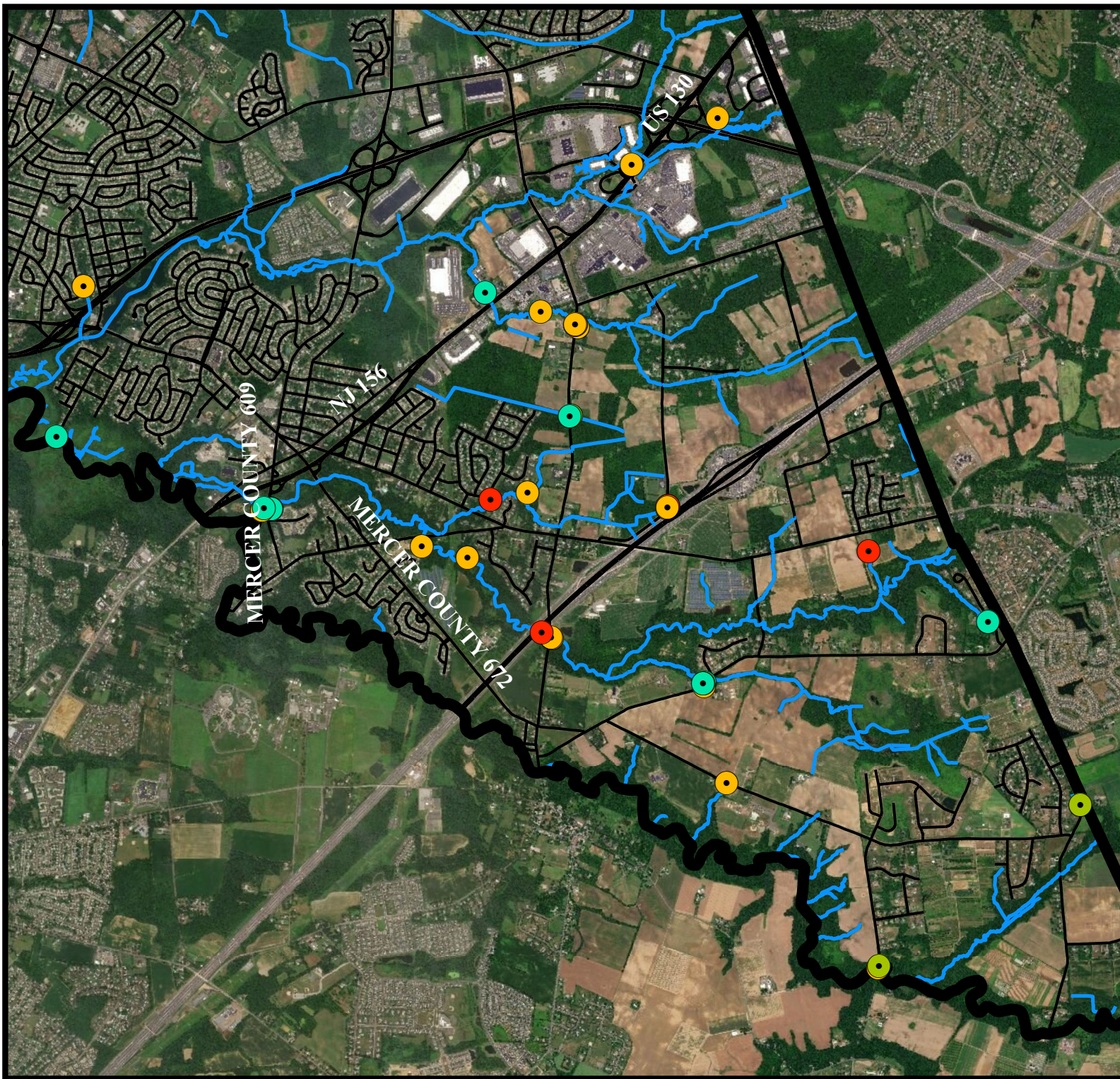
Maintenance Needs

- Not Accessible: 7
- Low: 20
- Medium: 4
- High: 9



Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

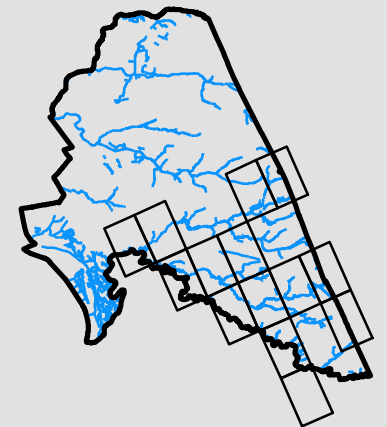
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Hamilton

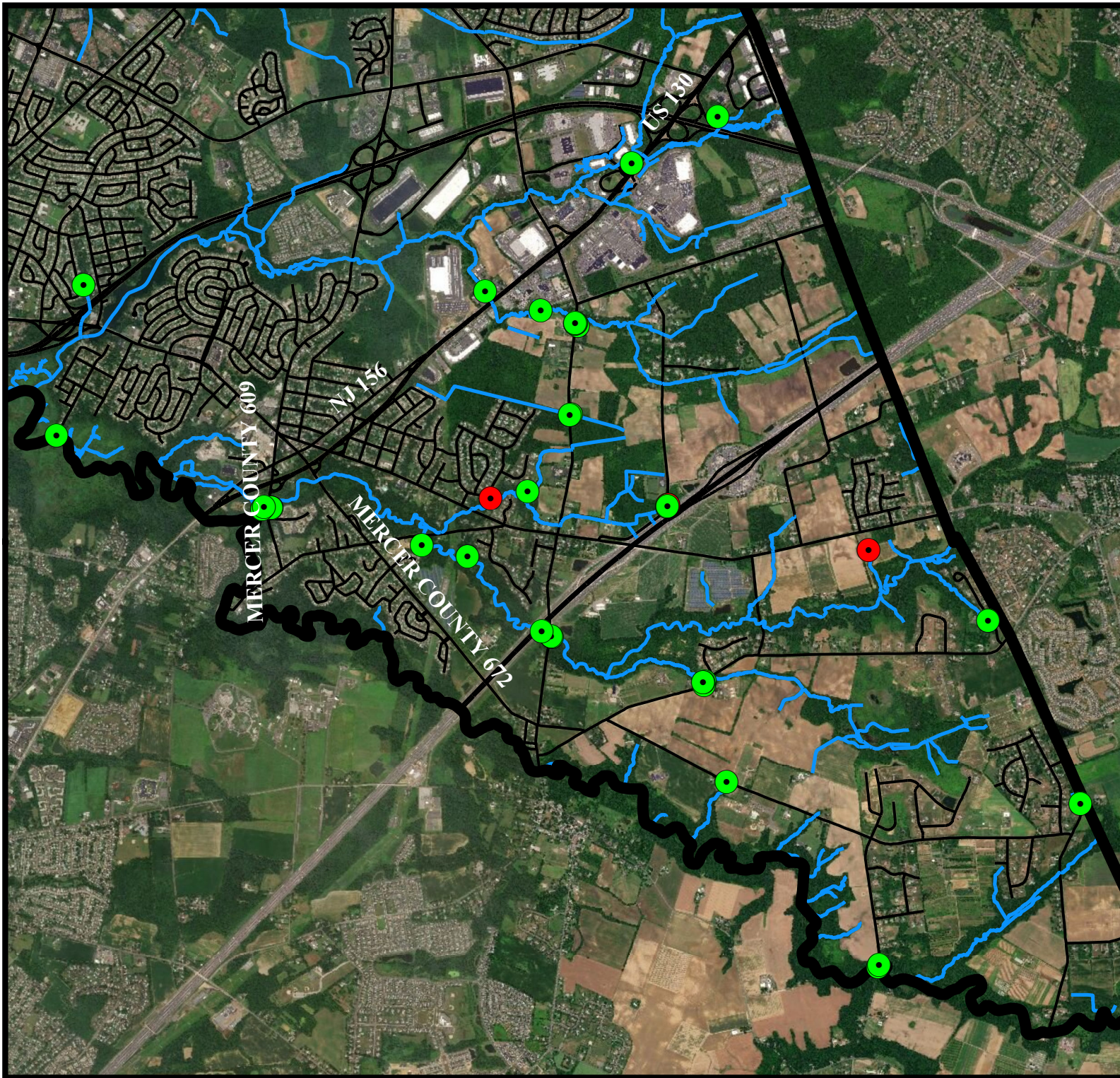
Outfall Accessibility

- Not Accessible: 6
- Accessible: 34




Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

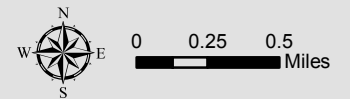
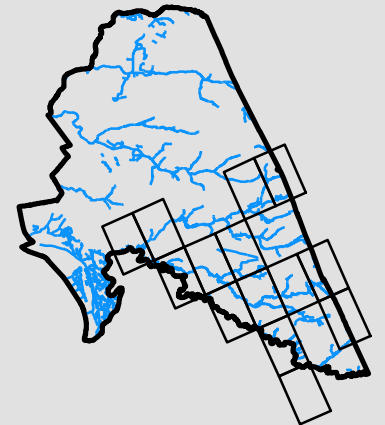
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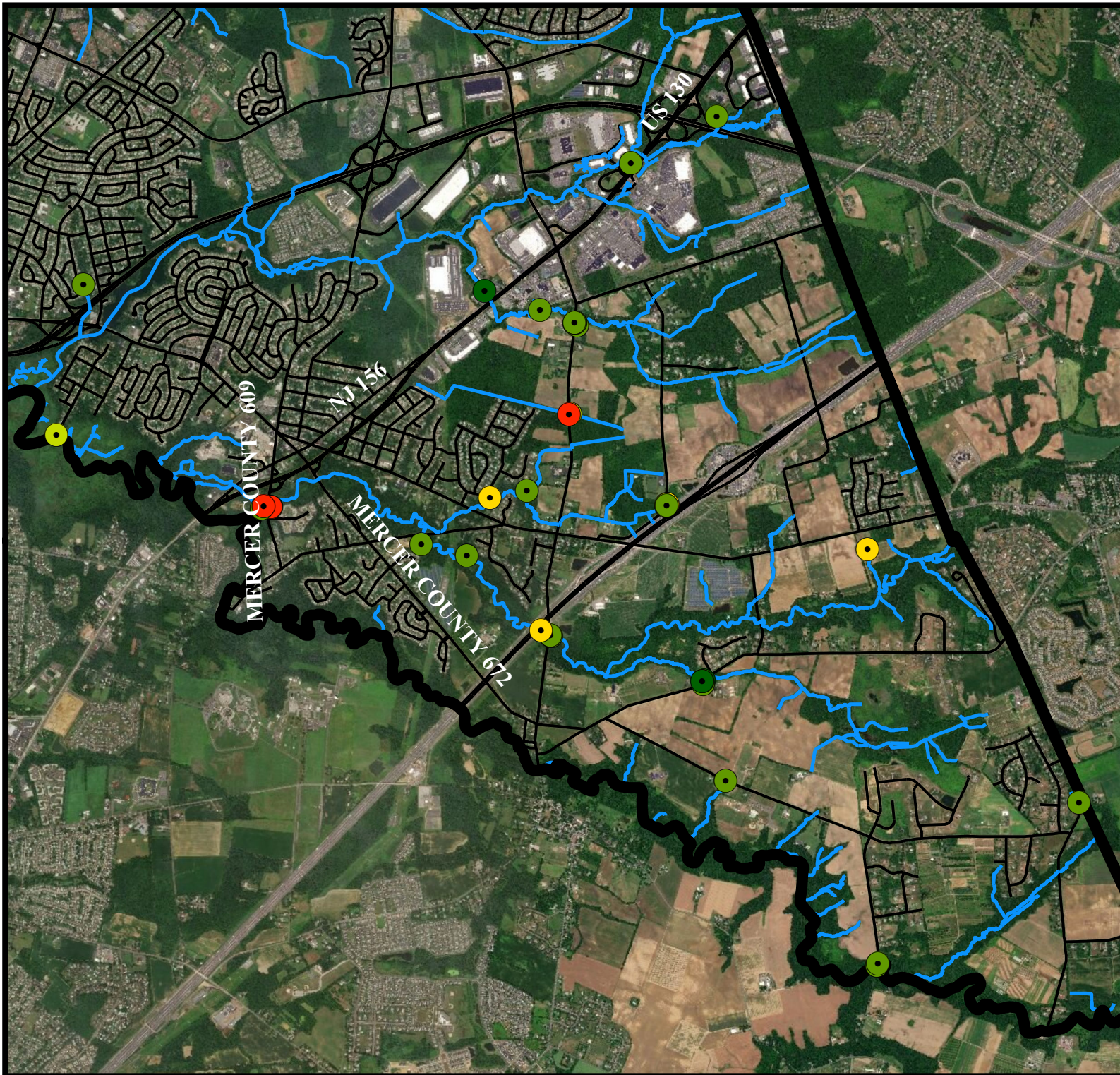
Outfall Pipe Condition

-  spalling: 2
-  corrosion: 4
-  cracking: 3
-  No Damages: 23
-  Not Accessible: 7






Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

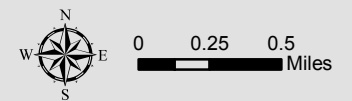
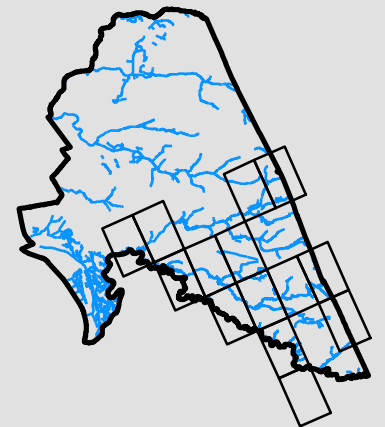
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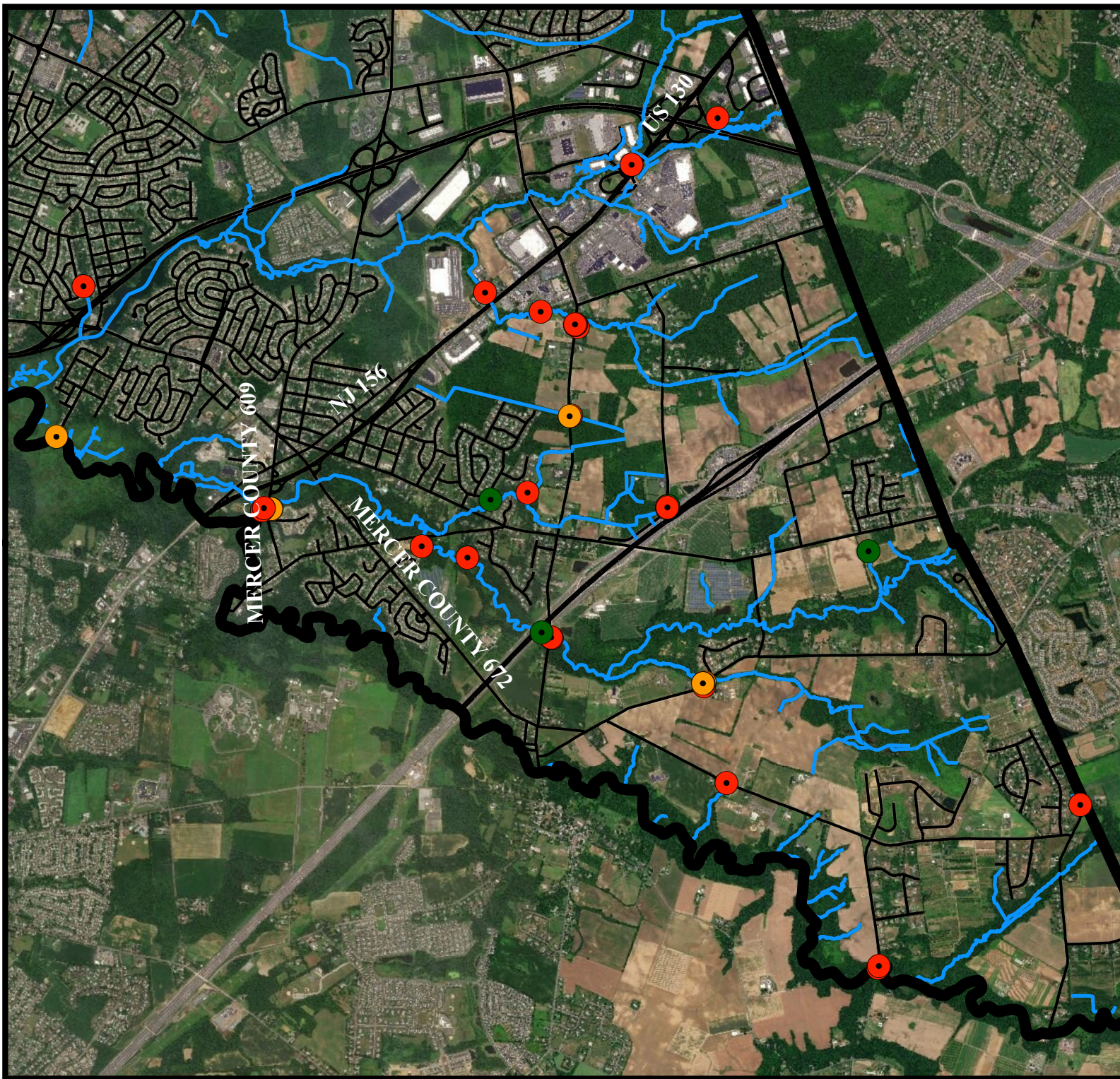
Outfall Erosion

-  Some Erosion: 6
-  No Erosion: 26
-  Not Accessible: 7






Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

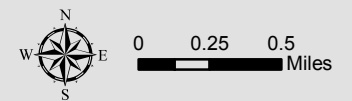
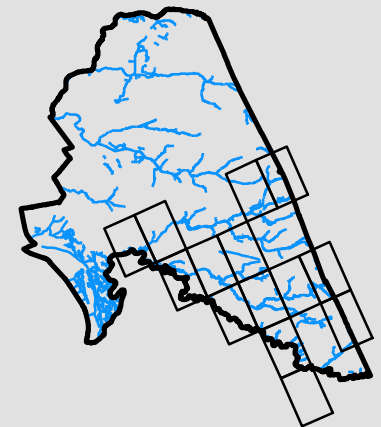
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



Hamilton

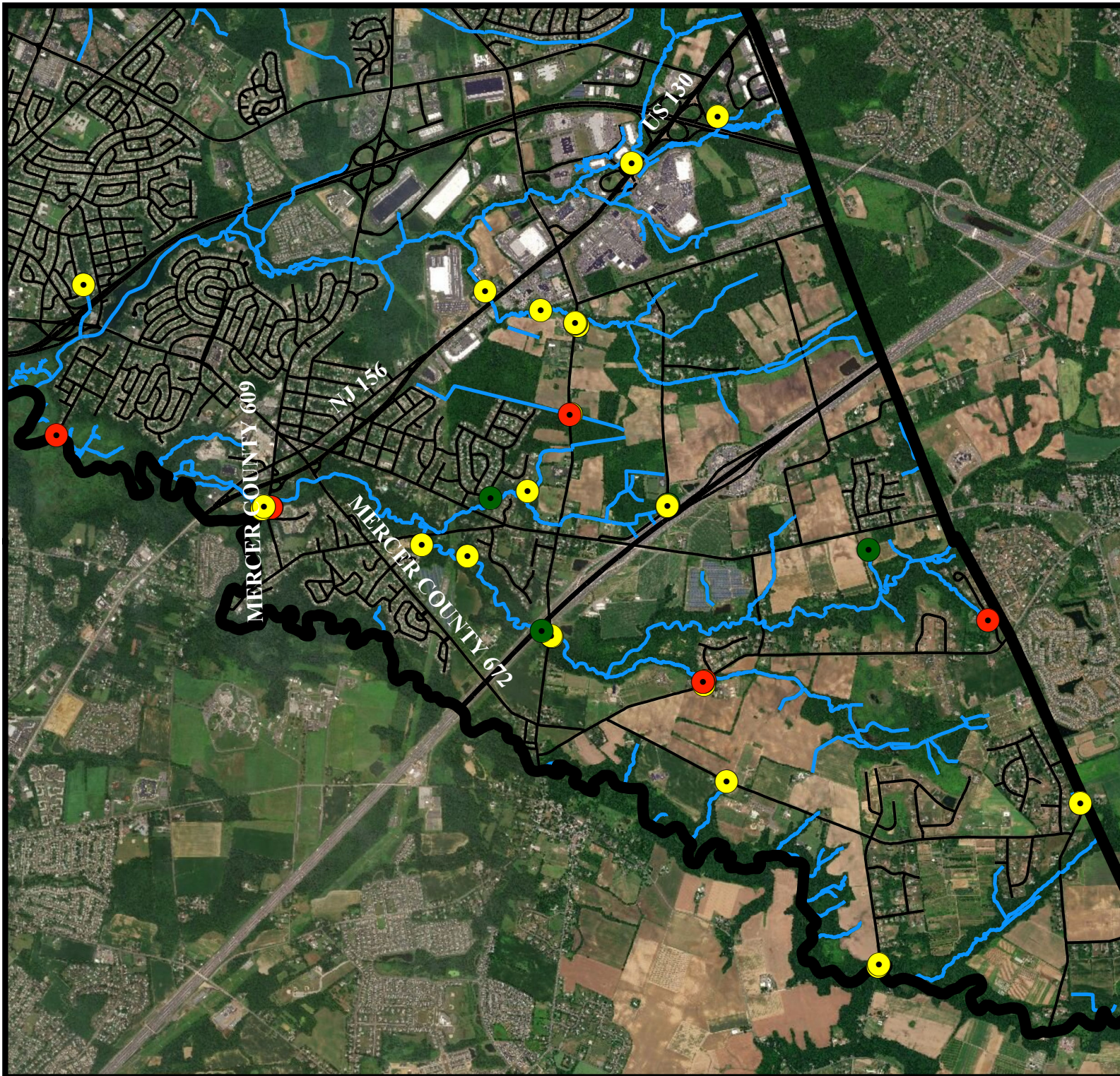
Outfall Stability

-  Stable: 26
-  Unstable: 7
-  Not Accessible: 7



Data Sources: NJOIT, NJDOT, NJDEP,
RCE Water Resources Program

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



Hamilton Township Stormwater Outfall Assessment



Grid ID: A5

ID Number: 23

Closest Waterway:

Edges Brook Tributary

Closest Address:

7 Sylvan Way

Short Summary:

- 55" diameter concrete pipe
- Brown receiving waters
- Excessive vegetation growing around pipe



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: A7

ID Number: 44

Closest Waterway:

Doctors Creek Tributary

Closest Address:

4 Hidden Hollow Drive

Short Summary:

- Pipe is fully submerged
- Rancid smelling, opaque receiving water with oil slicks
- Water is flowing from pipe during dry weather



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: A8

ID Number: 28

Closest Waterway:

Pleasant Run Tributary

Closest Address:

160 Extonville Road

Short Summary:

- 45" concrete pipe
- Water appears to have deposits of solvents



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: B5

ID Number: 90

Closest Waterway:

Edges Brook

Closest Address:

200 Horizon Center Boulevard

Short Summary:

- 22" concrete pipe
- Sediment depositing in pipe
- Water appears stagnant



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: B7

ID Number: 49

Closest Waterway:

Doctors Creek Tributary

Closest Address:

400 Plaza Road

Short Summary:

- Not accessible

Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 14,15,16,17,18

Closest Waterway:

Back Creek

Closest Address:

3880 Crosswicks Creek Hamilton Square Road

Short Summary:

- 4" plastic pipes, 12 under bridge in total
- 4 pipes are obstructed by sediment build up



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 19

Closest Waterway:

Back Creek

Closest Address:

655 State Highway 130

Short Summary:

- 36" concrete pipe
- Cloudy water
- Excessive vegetation growth
- Looks new and generally in good condition



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 62

Closest Waterway:

Doctors Creek Tributary

Closest Address:

7 Bear Court

Short Summary:

- 30" concrete pipe
- Overall in good condition



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 70

Closest Waterway:

Uncoded canal draining to
Doctors Creek Tributary

Closest Address:

4105 Crosswicks Hamilton
Square Road

Short Summary:

- 16" concrete pipe
- Outfall is collapsed on one side and crumbling
- Sediment depositing within pipe



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 71

Closest Waterway:

Uncoded canal draining to
Doctors Creek Tributary

Closest Address:

4105 Crosswicks Hamilton
Square Road

Short Summary:

- 16" concrete pipe
- Trash present
- Large accumulation of dirt around outfall



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C6

ID Number: 89

Closest Waterway:

Back Creek

Closest Address:

602 State Highway 130

Short Summary:

- 12" clay pipe
- Brown, opaque water flowing during dry weather
- Water is rancid smelling
- Sediment accumulation made pipe difficult to find



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C7

ID Number: 31

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road

Short Summary:

- 24" concrete pipe
- Brown, cloudy water
- Trash and sediment accumulations



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C7

ID Number: 34

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road

Short Summary:

- 24" diameter concrete pipe
- Cloudy, brown water
- Sediment deposits



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C7

ID Number: 35

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road



Short Summary:

- 24" diameter concrete pipe
- Sediment deposits
- Excessive vegetation growth
- Small pool of stagnant water



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C7

ID Number: 37

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road

Short Summary:

- 20" diameter concrete pipe
- Clear water
- Sediment deposits
- Excessive vegetation growth
- Erosion has undermined the stability of the outfall. The extent of erosion damage is under 100 sq. ft.
- Outfall completely destroyed.



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C7

ID Number: 38

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road

Short Summary:

- Not accessible



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C7

ID Number: 40

Closest Waterway:

Doctors Creek Tributary

Closest Address:

184 Old York Road

Short Summary:

- Not accessible



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C7

ID Number: 53

Closest Waterway:

Doctors Creek Tributary

Closest Address:

215 Uncle Pete's Road

Short Summary:

- 37" diameter concrete pipe
- Trash present
- Sediment deposits
- Excessive vegetation growth



Date Assessed:

8/16/2019



RUTGERS
New Jersey Agricultural
Experiment Station



Hamilton Township Stormwater Outfall Assessment

Grid ID: C7

ID Number: 54

Closest Waterway:

Doctors Creek Tributary

Closest Address:

215 Uncle Pete's Road

Short Summary:

- 37" diameter concrete pipe
- Opaque, brown water
- Excessive vegetation growth
- Stagnant water in outflow



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C7

ID Number: 55, 56, 57, 59

Closest Waterway:

Doctors Creek Tributary

Closest Address:

215 Uncle Pete's Road

Short Summary:

- Not accessible



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: C7

ID Number: 55, 56, 57, 59

Closest Waterway:

Doctors Creek Tributary

Closest Address:

215 Uncle Pete's Road

Short Summary:

- Not accessible

Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C8

ID Number: 29

Closest Waterway:

Crosswicks Creek Tributary

Closest Address:

135 Sawmill Road

Short Summary:

- 30" diameter concrete pipe
- Flowing during dry weather
- Brown, rusty water
- Sediment deposits



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C9

ID Number: 24

Closest Waterway:

Edges Brook Tributary

Closest Address:

6 Iron Bridge Road

Short Summary:

- 72" diameter concrete pipe
- Flowing during dry weather



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: C9

ID Number: 26

Closest Waterway:

Edges Brook Tributary

Closest Address:

9 Iron Bridge Road

Short Summary:

- 24" diameter concrete pipe
- Brown water
- Flowing during dry weather
- Sediment deposits
- Excessive vegetation growth
- Reddish staining exiting outfall



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: D6

ID Number: 5

Closest Waterway:

Doctors Creek Tributary

Closest Address:

2090 Greenwood Avenue



Short Summary:

- Not accessible

Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: D6

ID Number: 47

Closest Waterway:

Doctors Creek

Closest Address:

5570 Broad Street

Short Summary:

- 30" diameter concrete pipe
- Flowing during dry weather
- Excessive vegetation growth



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: D6

ID Number: 50

Closest Waterway:

Doctors Creek

Closest Address:

5 Blake Court

Short Summary:

- 48" diameter concrete pipe
- Flowing during dry weather
- Raccoon tracks going in and out of outfall



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: D7

ID Number: 41

Closest Waterway:

Doctors Creek

Closest Address:

4754 Crosswicks Hamilton Square Road

Short Summary:

- 24" diameter concrete pipe
- Cloudy, yellow water
- Vegetation growing inside pipe



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: D7

ID Number: 42

Closest Waterway:

Doctors Creek

Closest Address:

4754 Crosswicks Hamilton Square Road

Short Summary:

- 36" diameter concrete pipe
- Rancid/sour odor
- Cloudy, brown water
- Flowing during dry weather
- Excessive vegetation growth



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: D7

ID Number: 43

Closest Waterway:

Doctors Creek

Closest Address:

4754 Crosswicks Hamilton Square Road

Short Summary:

- Not accessible due to excessive vegetation growth



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: D7

ID Number: 43

Closest Waterway:

Doctors Creek Tributary

Closest Address:

4754 Crosswicks Hamilton Square
Road

Short Summary:

- Not accessible

Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: E5

ID Number: 88

Closest Waterway:

Doctors Creek Tributary

Closest Address:

20 Copperfield Drive

Short Summary:

- Clay pipe
- Unable to access



Date Assessed:
8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: E6

ID Number: 51

Closest Waterway:

Doctors Creek

Closest Address:

55 Groveville Road

Short Summary:

- 15" metal pipe
- Cloudy, brown water



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment



Grid ID: E6

ID Number: 52

Closest Waterway:

Doctors Creek

Closest Address:

55 Groveville Road

Short Summary:

- 15" metal pipe
- Cloudy, brown water
- Outfall pipe is cracking



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: E6

ID Number: 58

Closest Waterway:

Doctors Creek

Closest Address:

190 Church Road

Short Summary:

- 19" diameter concrete pipe
- Cloudy, green water
- Sediment deposits
- Outfall pipe is cracking
- Erosion has undermined the stability of the outfall. The extent of erosion damage is under 100 sq. ft.



Date Assessed:

8/16/2019

Hamilton Township Stormwater Outfall Assessment

Grid ID: E6

ID Number: 60

Closest Waterway:

Doctors Creek

Closest Address:

190 Church Road

Short Summary:

- 9" diameter concrete pipe
- Cloudy, green water
- Outfall pipe corrosion
- Erosion has undermined the stability of the outfall. The extent of erosion damage is under 100 sq. ft.



Date Assessed:

8/16/2019



Hamilton Township Stormwater Outfall Assessment



Grid ID: F5

ID Number: 68

Closest Waterway:

Crosswicks Creek

Closest Address:

310 Soden Drive

Short Summary:

- 45" diameter concrete pipe
- Cloudy, brown water
- Excessive vegetation growth
- Outfall pipe spalling
- Erosion has undermined the stability of the outfall. The extent of erosion damage is under 100 sq. ft.



Date Assessed:
8/16/2019