

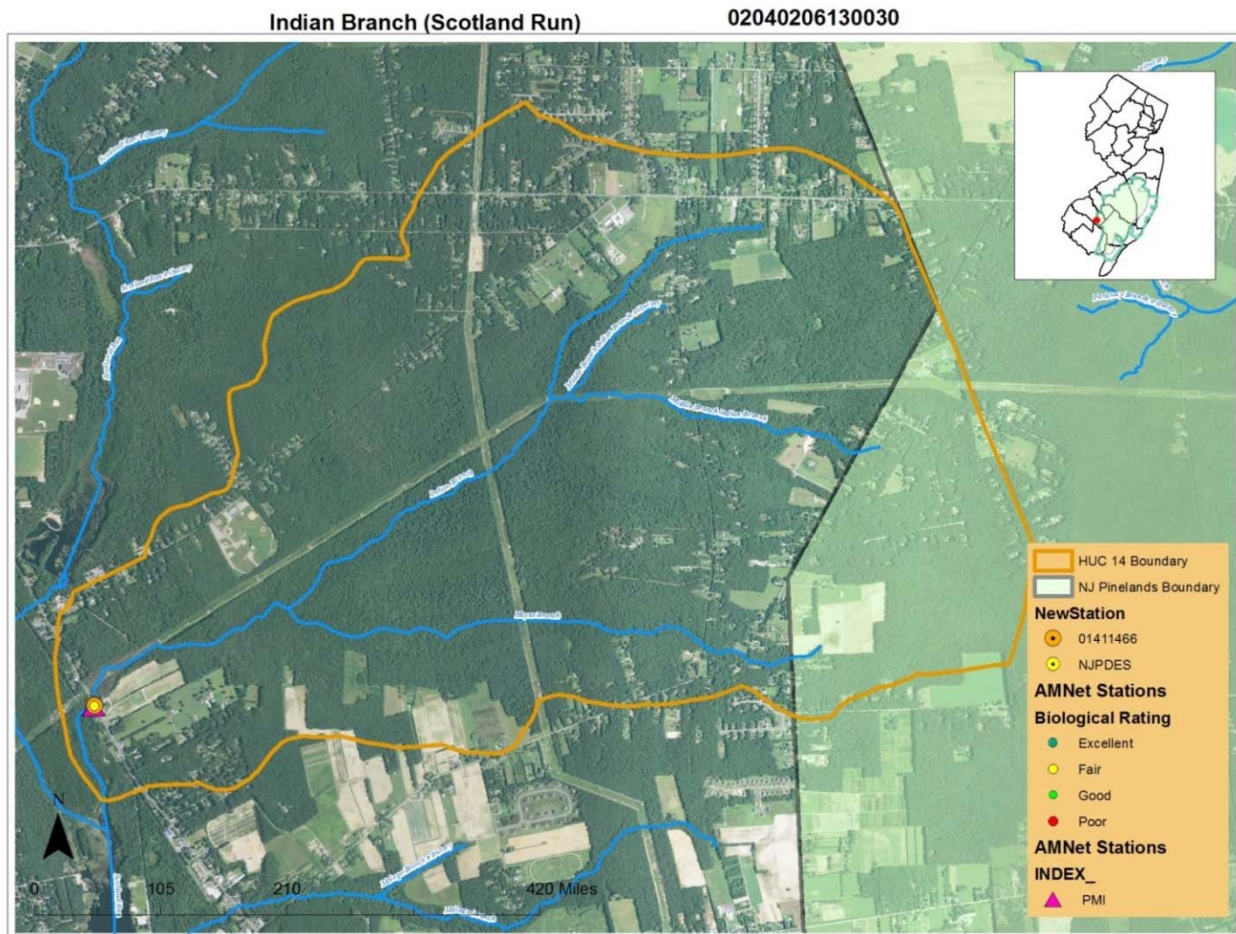
Appendix D: Justification for pH Not Listed Due to Natural Conditions

1. Indian Branch (Scotland Run)

Assessment Unit Information:

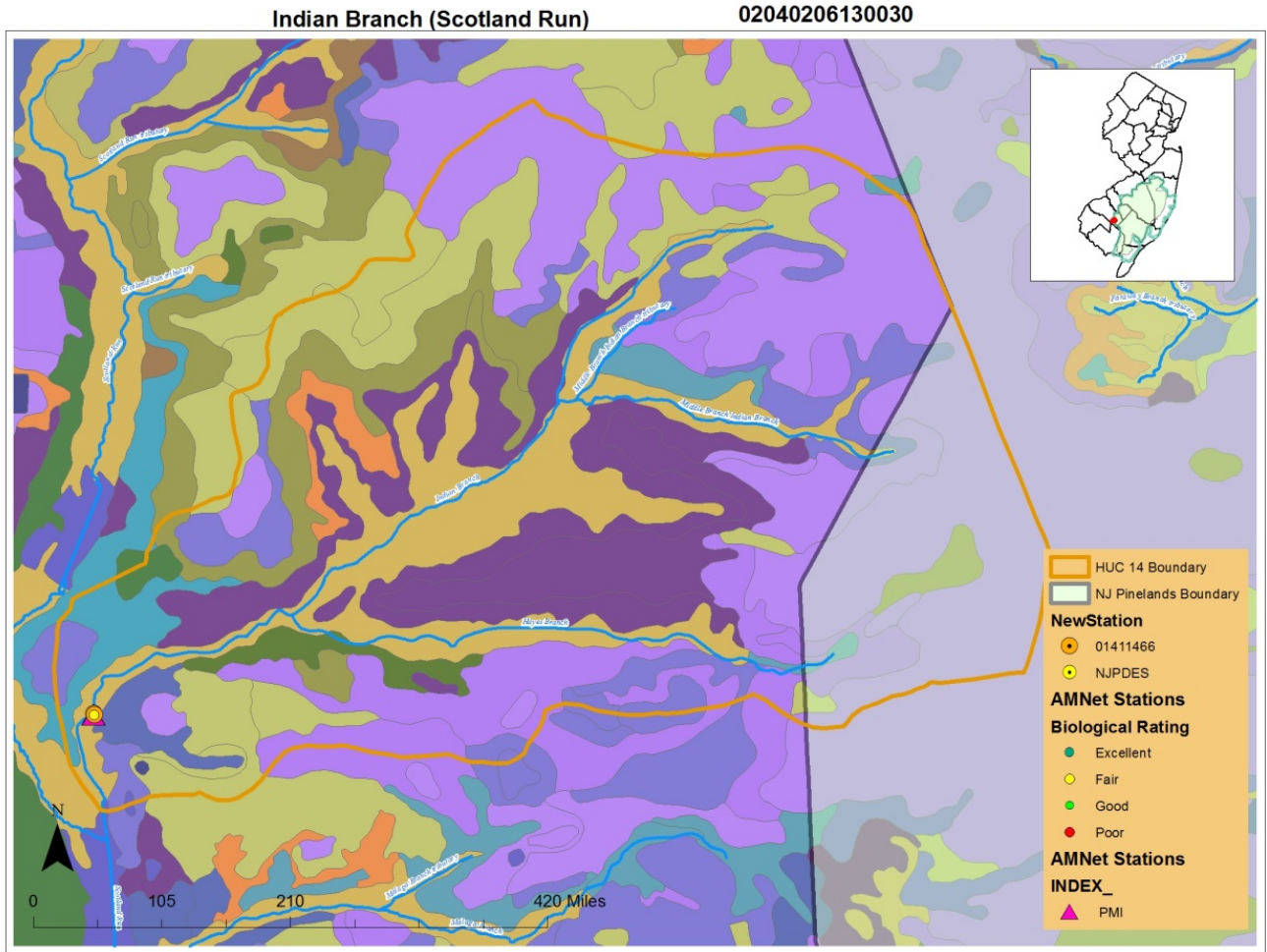
AU Number	AU Name	WMA	Station	Station Name
02040206130030-01	Indian Branch (Scotland Run)	17	01411466	Indian Br near Malaga
02040206130030-01	Indian Branch (Scotland Run)	17	AN0724	Indian Br

Geographic Information: A portion of the assessment unit (AU) is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET station AN0724 is located within the AU boundary. PMI has been identified as the appropriate index at this AMNET site and data show no biological impairment.

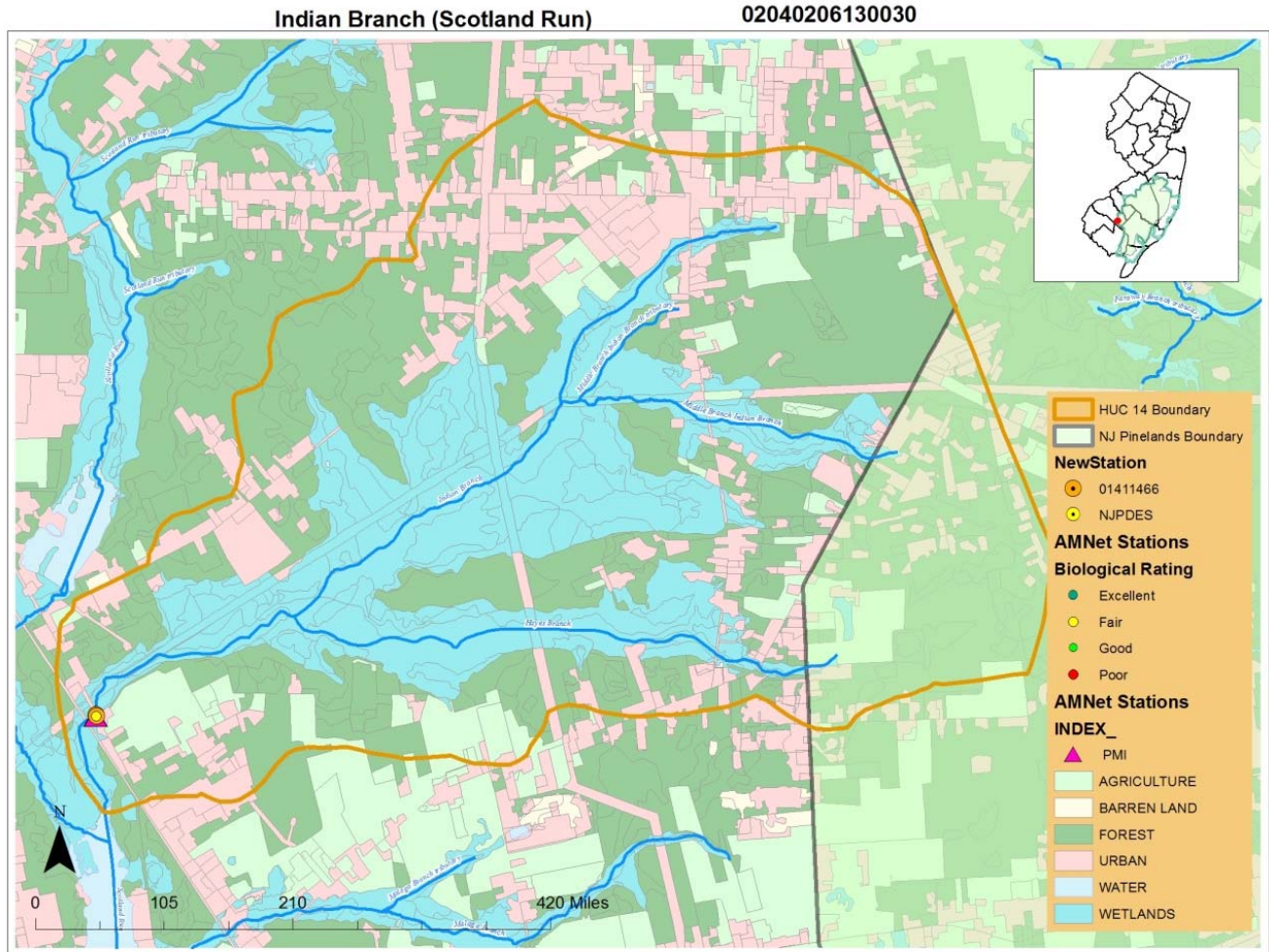


Point Sources: There are no NJPDES point source discharges within the AU.

Soils: Soil types found at the station locations are similar to those found throughout the Pinelands.



Land Uses:



Water Quality Data: All pH data at Station 01411466 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
01411466	3/5/2003	FW2-NT	3.3
01411466	5/13/2003	FW2-NT	3.7
01411466	8/12/2003	FW2-NT	4.1
01411466	11/24/2003	FW2-NT	4.1
01411466	2/9/2004	FW2-NT	3.9
01411466	5/19/2004	FW2-NT	4
01411466	9/9/2004	FW2-NT	4.2
01411466	11/15/2004	FW2-NT	3.7
01411466	2/2/2005	FW2-NT	4.2
01411466	6/2/2005	FW2-NT	4.5
01411466	8/18/2005	FW2-NT	5.5
01411466	12/5/2005	FW2-NT	4.1
01411466	2/21/2006	FW2-NT	3.4
01411466	5/25/2006	FW2-NT	3.8
01411466	8/16/2006	FW2-NT	4.9
01411466	11/30/2006	FW2-NT	4.1
01411466	2/22/2007	FW2-NT	4.1
01411466	8/29/2007	FW2-NT	4.8
01411466	11/28/2007	FW2-NT	4.7
01411466	2/25/2008	FW2-NT	4.1
01411466	5/22/2008	FW2-NT	4.2
01411466	8/20/2008	FW2-NT	5.5
01411466	12/2/2008	FW2-NT	4.0
01411466	3/10/2009	FW2-NT	4.1
01411466	5/6/2009	FW2-NT	4.2
01411466	8/13/2009	FW2-NT	4.2
01411466	11/19/2009	FW2-NT	4.2
01411466	2/18/2010	FW2-NT	3.8
01411466	6/1/2010	FW2-NT	4.8
01411466	8/25/2010	FW2-NT	5.7
01411466	11/22/2010	FW2-NT	4.9

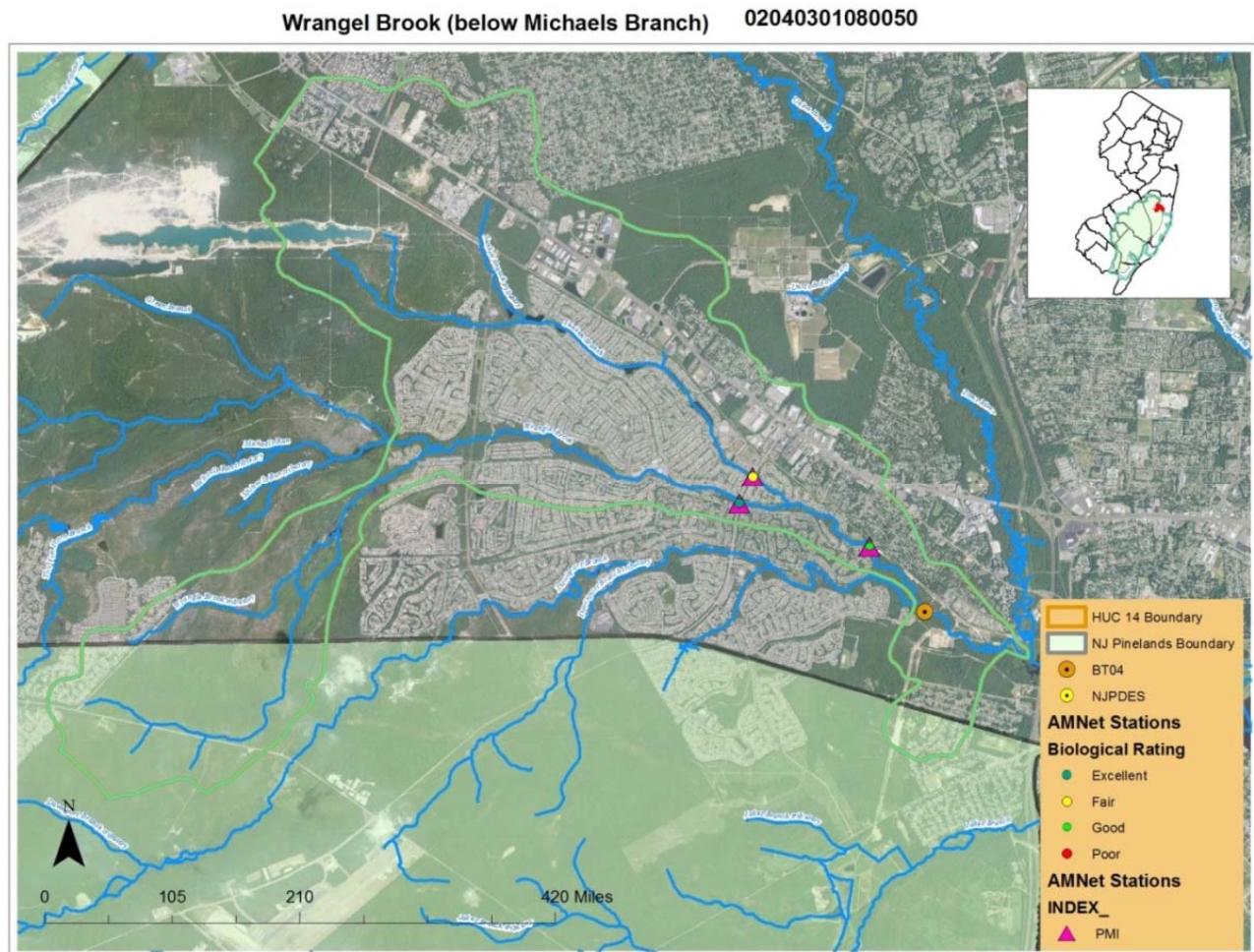
01411466	2/3/2011	FW2-NT	4.8
01411466	5/25/2011	FW2-NT	4.4
01411466	8/23/2011	FW2-NT	4.2
01411466	11/15/2011	FW2-NT	4.8
01411466	2/23/2012	FW2-NT	4.7
01411466	6/13/2012	FW2-NT	5.2
01411466	8/22/2012	FW2-NT	5.5
01411466	12/4/2012	FW2-NT	4.9
01411466	2/11/2013	FW2-NT	4.4
01411466	5/28/2013	FW2-NT	5.0

2. Wrangel Brook (below Michaels Branch)

Assessment Unit Information:

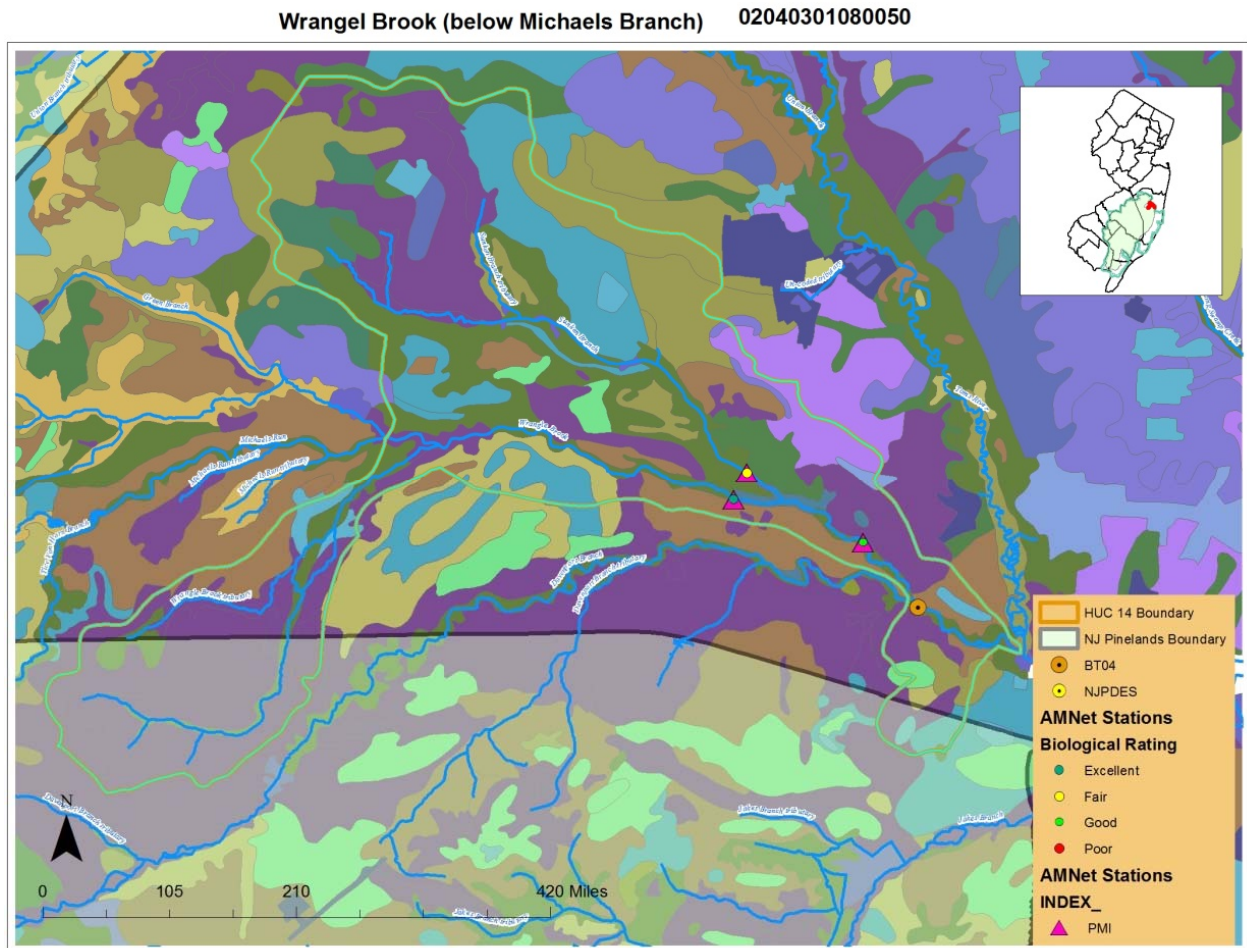
AU Number	AU Name	WMA	Station	Station Name
02040301080050-01	Wrangel Brook (below Michaels Branch)	13	BT04	Wrangle Brook near Toms River NJ
02040301080050-01	Wrangel Brook (below Michaels Branch)	13	AN0537	Wrangle Bk

Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. There are three AMNET stations located within the AU: AN0537, AN0538 and AN0539. PMI has been identified as the appropriate index at these AMNET sites and data for all three stations show no biological impairment.



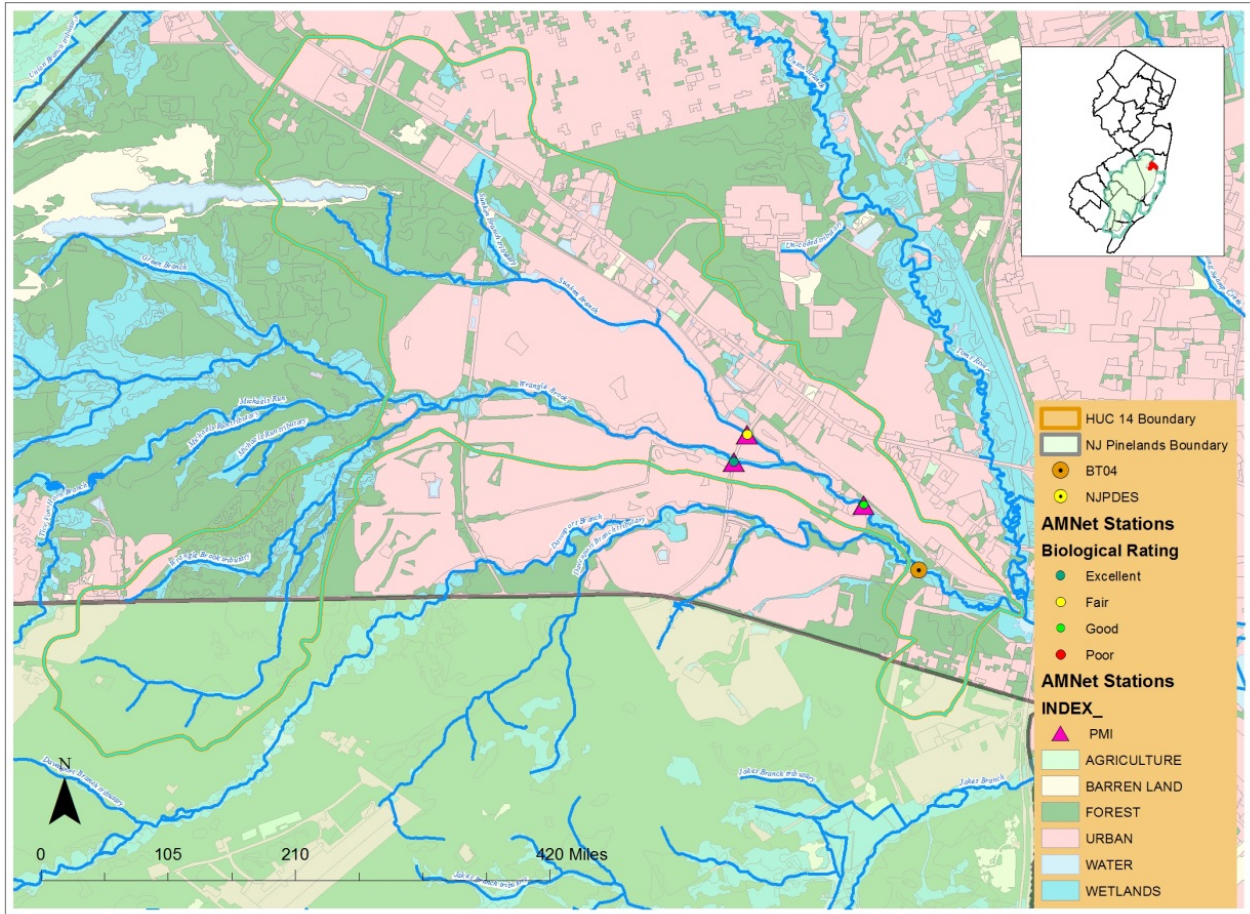
Point Sources: There are no NJPDES point source discharges within the AU.

Soils: Soil types found at the station locations are similar to those found throughout the Pinelands region.



Land Uses:

Wrangel Brook (below Michaels Branch) 02040301080050



Station Data: All pH data at Station BT04 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT04	23-Jun-11	FW2-NT	5.26
BT04	05-Jul-11	FW2-NT	4.16
BT04	21-Jul-11	FW2-NT	4.78
BT04	08-Aug-11	FW2-NT	4.6
BT04	25-Aug-11	FW2-NT	4.5
BT04	15-Sep-11	FW2-NT	4.1
BT04	26-Sep-11	FW2-NT	3.86
BT04	12-Dec-11	FW2-NT	4.36
BT04	10-Jan-12	FW2-NT	4.41
BT04	26-Jan-12	FW2-NT	4.62
BT04	07-Feb-12	FW2-NT	4.24
BT04	23-Feb-12	FW2-NT	4.68
BT04	06-Mar-12	FW2-NT	5.18
BT04	22-Mar-12	FW2-NT	5.54
BT04	03-Apr-12	FW2-NT	5.13
BT04	10-Apr-12	FW2-NT	5.81
BT04	19-Apr-12	FW2-NT	5.42
BT04	25-Apr-12	FW2-NT	3.88
BT04	08-May-12	FW2-NT	4.0
BT04	17-May-12	FW2-NT	4.05
BT04	23-May-12	FW2-NT	4.15
BT04	29-May-12	FW2-NT	4.47
BT04	05-Jun-12	FW2-NT	4.75
BT04	14-Jun-12	FW2-NT	4.38
BT04	20-Jun-12	FW2-NT	6.06
BT04	25-Jun-12	FW2-NT	4.3
BT04	05-Jul-12	FW2-NT	5.82
BT04	09-Jul-12	FW2-NT	4.67
BT04	16-Jul-12	FW2-NT	5.5
BT04	23-Jul-12	FW2-NT	5.36
BT04	26-Jul-12	FW2-NT	5.25
BT04	06-Aug-12	FW2-NT	5.22
BT04	13-Aug-12	FW2-NT	4.6
BT04	16-Aug-12	FW2-NT	4.7
BT04	28-Aug-12	FW2-NT	5.24

BT04	12-Sep-12	FW2-NT	4.73
BT04	17-Sep-12	FW2-NT	4.89
BT04	25-Sep-12	FW2-NT	4.46
BT04	11-Oct-12	FW2-NT	5.55
BT04	22-Oct-12	FW2-NT	5.1
BT04	08-Nov-12	FW2-NT	5.2
BT04	19-Nov-12	FW2-NT	4.7
BT04	06-Dec-12	FW2-NT	4.56
BT04	17-Dec-12	FW2-NT	4.36
BT04a	06-Jun-11	FW2-NT	5.5

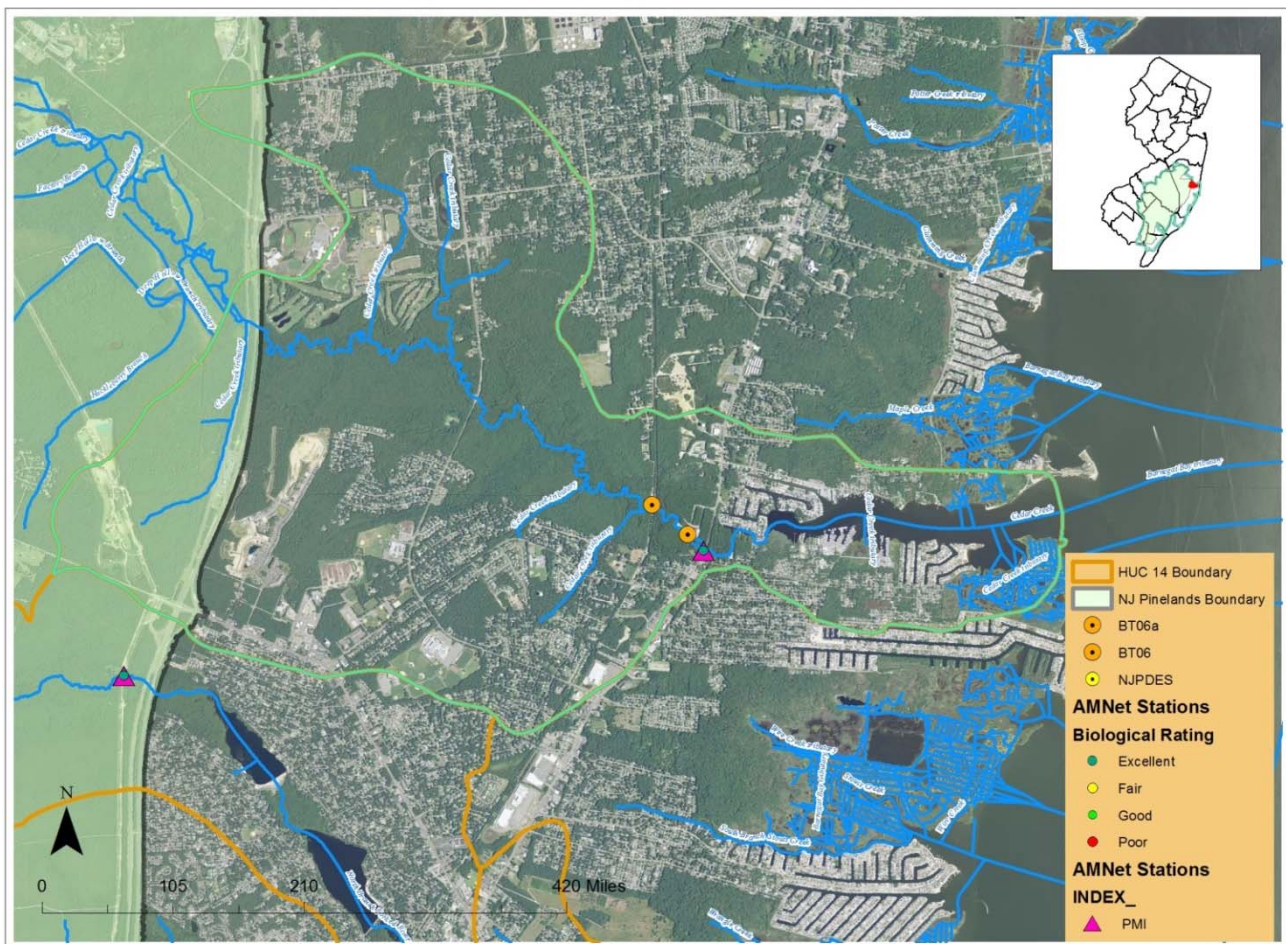
3. Cedar Creek (below GS Parkway)

Assessment Unit Information:

AU Number	AU Name	WMA	Station	Station Name
02040301090060-01	Cedar Creek (below GS Parkway)	13	BT06	Cedar Creek at Lanoka Harbor
02040301090060-01	Cedar Creek (below GS Parkway)	13	BT06a	Cedar Creek at Lanoka Harbor
02040301090060-01	Cedar Creek (below GS Parkway)	13	AN0549	Cedar Ck

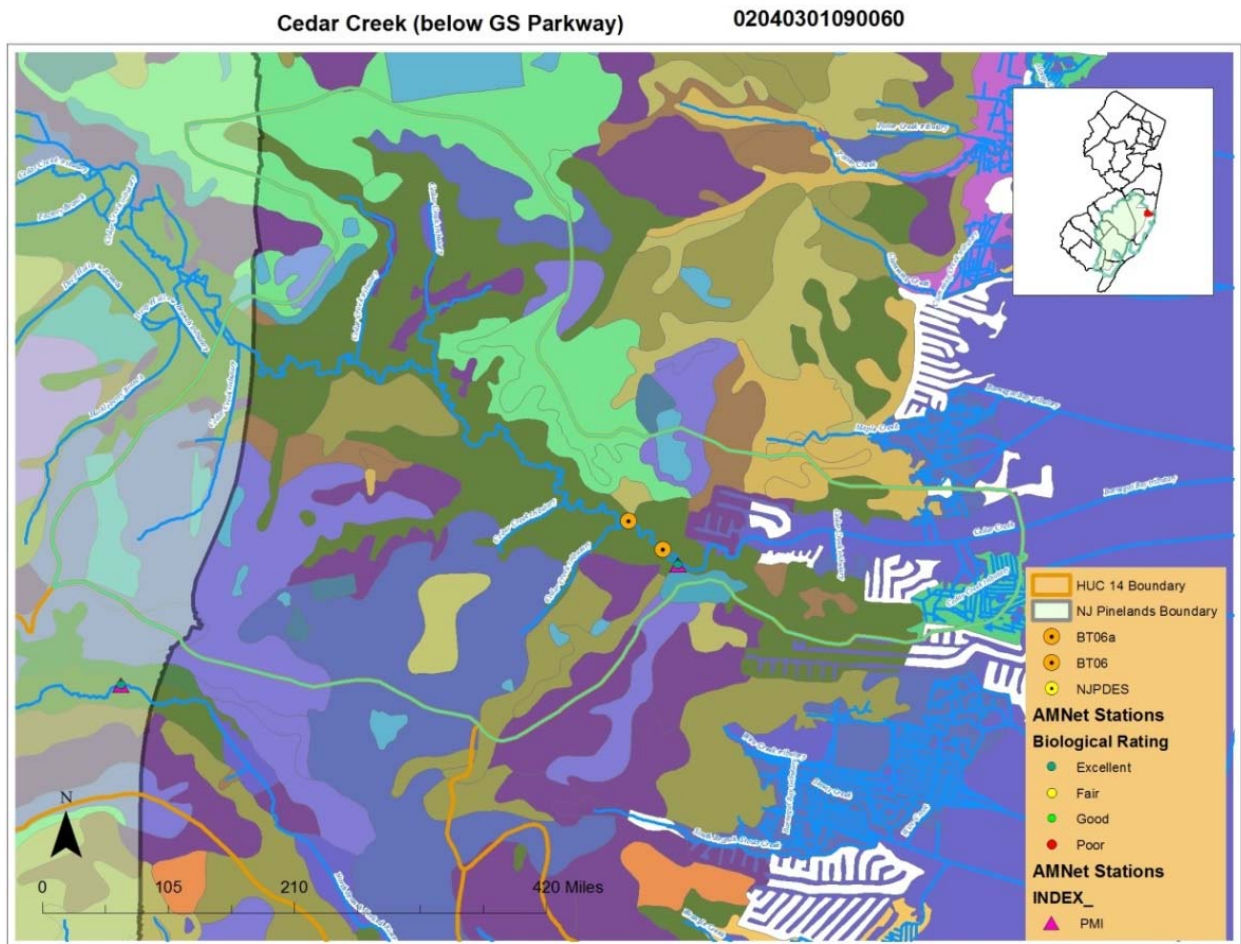
Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET Station AN0549 is located within the AU. PMI has been identified as the appropriate index at the AMNET site and data show no biological impairment.

Cedar Creek (below GS Parkway) 02040301090060

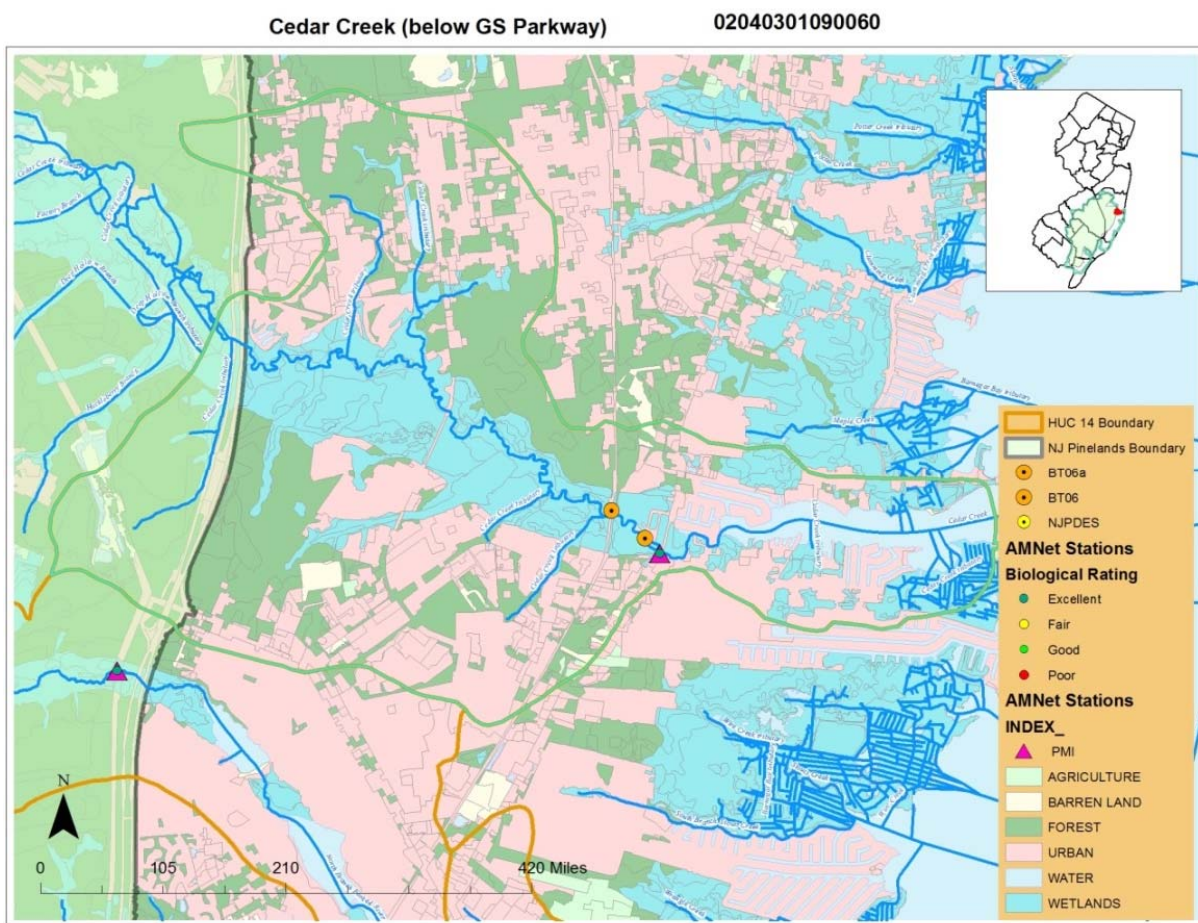


Point Sources: There are no NJPDES point source discharges within the AU.

Soils: The soil type found at the station locations is Manahawkin Muck (MakAt), which is found throughout the Pinelands region.



Land Uses:



Station Data: All data at Stations BT06 and BT06a fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT06	06-Jun-11	FW2-NT	5.09
BT06	23-Jun-11	FW2-NT	4.91
BT06	05-Jul-11	FW2-NT	4.51
BT06	21-Jul-11	FW2-NT	4.9
BT06	08-Aug-11	FW2-NT	6.82
BT06	25-Aug-11	FW2-NT	4.57
BT06	15-Sep-11	FW2-NT	4.41
BT06	26-Sep-11	FW2-NT	4.37
BT06	13-Oct-11	FW2-NT	4.55
BT06	24-Oct-11	FW2-NT	4.69
BT06	12-Dec-11	FW2-NT	4.8
BT06	10-Jan-12	FW2-NT	4.83
BT06	26-Jan-12	FW2-NT	4.67
BT06	07-Feb-12	FW2-NT	4.81
BT06	23-Feb-12	FW2-NT	4.79
BT06	06-Mar-12	FW2-NT	6.95
BT06	22-Mar-12	FW2-NT	5.11
BT06	03-Apr-12	FW2-NT	4.75
BT06	10-Apr-12	FW2-NT	4.81
BT06a	19-Apr-12	FW2-NT	4.84
BT06a	08-May-12	FW2-NT	4.6
BT06a	17-May-12	FW2-NT	4.46
BT06a	23-May-12	FW2-NT	4.35
BT06a	29-May-12	FW2-NT	4.58
BT06a	05-Jun-12	FW2-NT	4.31
BT06a	14-Jun-12	FW2-NT	4.3
BT06a	20-Jun-12	FW2-NT	4.58
BT06a	25-Jun-12	FW2-NT	4.73
BT06a	05-Jul-12	FW2-NT	4.79
BT06a	09-Jul-12	FW2-NT	4.63
BT06a	16-Jul-12	FW2-NT	4.69
BT06a	23-Jul-12	FW2-NT	4.94
BT06a	26-Jul-12	FW2-NT	4.88
BT06a	06-Aug-12	FW2-NT	4.5
BT06a	13-Aug-12	FW2-NT	4.23

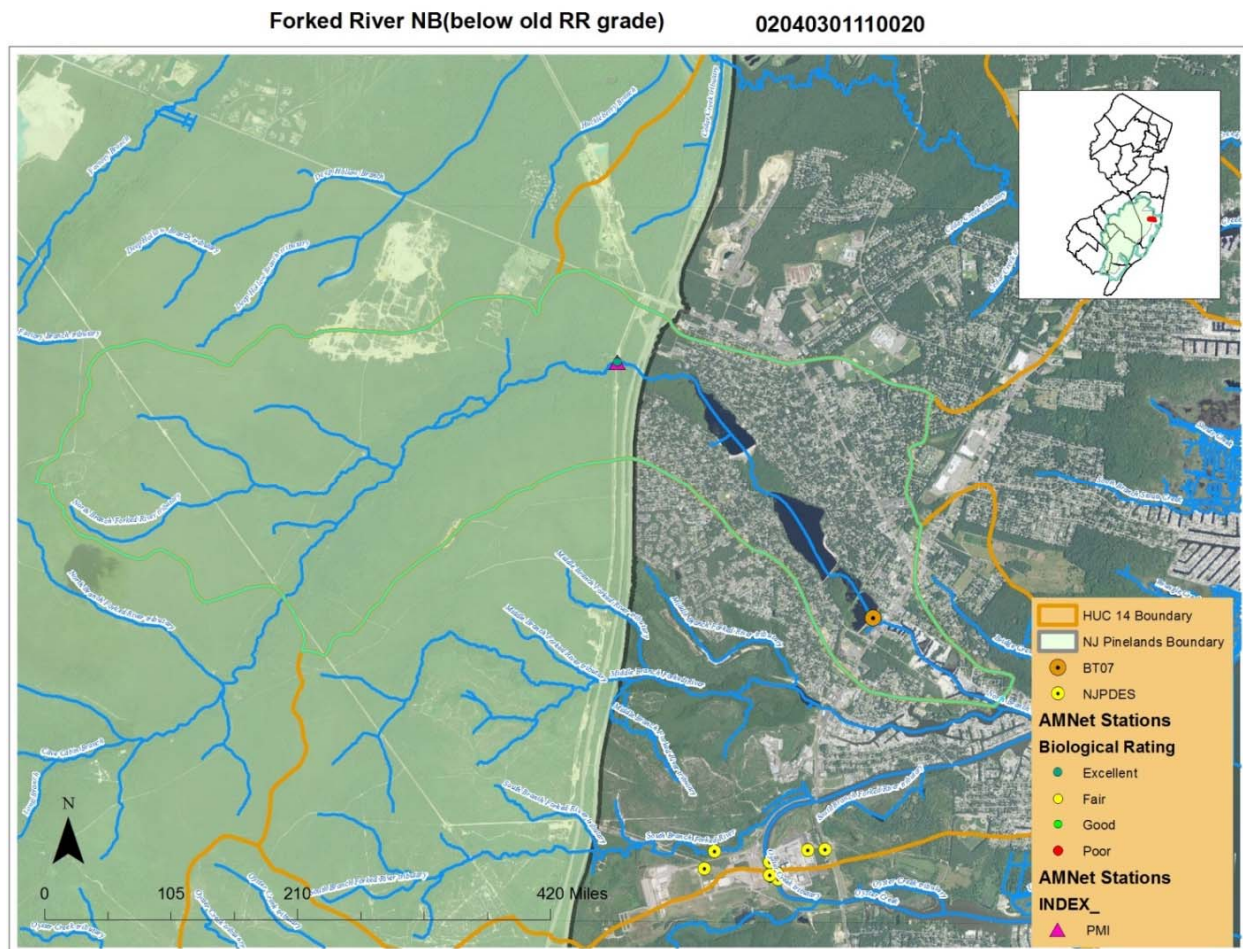
BT06a	16-Aug-12	FW2-NT	4.38
BT06a	28-Aug-12	FW2-NT	4.64
BT06a	06-Sep-12	FW2-NT	4.64
BT06a	12-Sep-12	FW2-NT	4.08
BT06a	17-Sep-12	FW2-NT	4.2
BT06a	25-Sep-12	FW2-NT	4.1
BT06a	11-Oct-12	FW2-NT	4.11
BT06a	22-Oct-12	FW2-NT	4.31
BT06a	08-Nov-12	FW2-NT	4.11
BT06a	19-Nov-12	FW2-NT	4.06
BT06a	06-Dec-12	FW2-NT	4.51
BT06a	17-Dec-12	FW2-NT	4.32
BT06a	07-Jan-13	FW2-NT	4.16
BT06a	29-Jan-13	FW2-NT	4.33
BT06a	05-Feb-13	FW2-NT	4.3
BT06a	26-Feb-13	FW2-NT	4.33
BT06a	05-Mar-13	FW2-NT	4.33
BT06a	21-Mar-13	FW2-NT	3.98
BT06a	27-Mar-13	FW2-NT	4.22
BT06a	01-Apr-13	FW2-NT	4.33
BT06a	09-Apr-13	FW2-NT	4.46
BT06a	18-Apr-13	FW2-NT	4.38
BT06a	24-Apr-13	FW2-NT	4.47
BT06a	06-May-13	FW2-NT	4.55
BT06a	14-May-13	FW2-NT	5.1
BT06a	23-May-13	FW2-NT	4.94
BT06a	29-May-13	FW2-NT	4.72
BT06a	03-Jun-13	FW2-NT	4.76
BT06a	10-Jun-13	FW2-NT	4.2
BT06a	12-Jun-13	FW2-NT	4.23
BT06a	20-Jun-13	FW2-NT	4.18
BT06a	26-Jun-13	FW2-NT	4.35

4. Forked River NB (below old RR grade)

Assessment Unit Information:

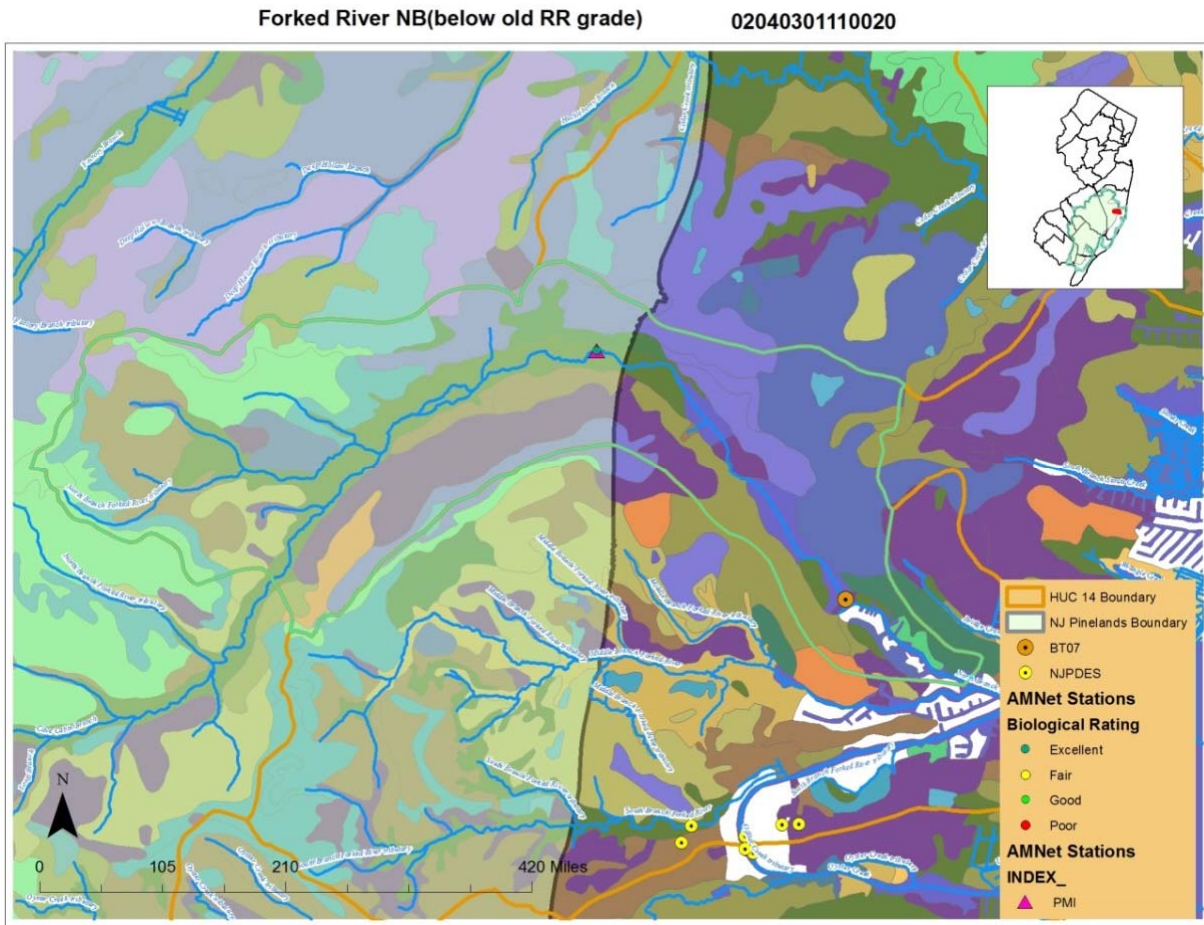
AU Number	AU Name	WMA	Station	Station Name
02040301110020-01	Forked River NB (below old RR grade)	13	BT07	Forked River NB at Forked River
02040301110020-01	Forked River NB (below old RR grade)	13	AN0615	Mattix Run (Frenches Ditch)

Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET Station AN0615 is located within the AU. PMI has been identified as the appropriate index at the AMNET site and data show no biological impairment.



Point Sources: There are no NJPDES point source discharges within the AU.

Soils: Soil types found at station locations are Manahawkin Muck (MakAt) and Evesboro Sands (EveB), which are found throughout out the Pinelands region.



Land Uses:



Station Data: All data at Station BT07 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT07	06-Jun-11	FW2-NT	5.09
BT07	23-Jun-11	FW2-NT	4.74
BT07	05-Jul-11	FW2-NT	5.06
BT07	21-Jul-11	FW2-NT	4.93
BT07	08-Aug-11	FW2-NT	4.97
BT07	25-Aug-11	FW2-NT	5
BT07	25-Aug-11	FW2-NT	5.0
BT07	15-Sep-11	FW2-NT	4.05
BT07	26-Sep-11	FW2-NT	5.03
BT07	13-Oct-11	FW2-NT	2.9
BT07	24-Oct-11	FW2-NT	4.36
BT07	14-Nov-11	FW2-NT	4.91
BT07	12-Dec-11	FW2-NT	4.41
BT07	10-Jan-12	FW2-NT	4.2
BT07	26-Jan-12	FW2-NT	4.47
BT07	07-Feb-12	FW2-NT	4.5
BT07	23-Feb-12	FW2-NT	4.59
BT07	06-Mar-12	FW2-NT	4.36
BT07	22-Mar-12	FW2-NT	4.77
BT07	03-Apr-12	FW2-NT	4.59
BT07	10-Apr-12	FW2-NT	4.87
BT07	19-Apr-12	FW2-NT	4.49
BT07	25-Apr-12	FW2-NT	4.74
BT07	08-May-12	FW2-NT	4.71
BT07	17-May-12	FW2-NT	4.63
BT07	23-May-12	FW2-NT	4.5
BT07	29-May-12	FW2-NT	4.62
BT07	05-Jun-12	FW2-NT	4.91
BT07	14-Jun-12	FW2-NT	4.54
BT07	20-Jun-12	FW2-NT	4.41
BT07	25-Jun-12	FW2-NT	4.64
BT07	05-Jul-12	FW2-NT	4.57
BT07	16-Jul-12	FW2-NT	4.49
BT07	23-Jul-12	FW2-NT	4.38
BT07	26-Jul-12	FW2-NT	4.36

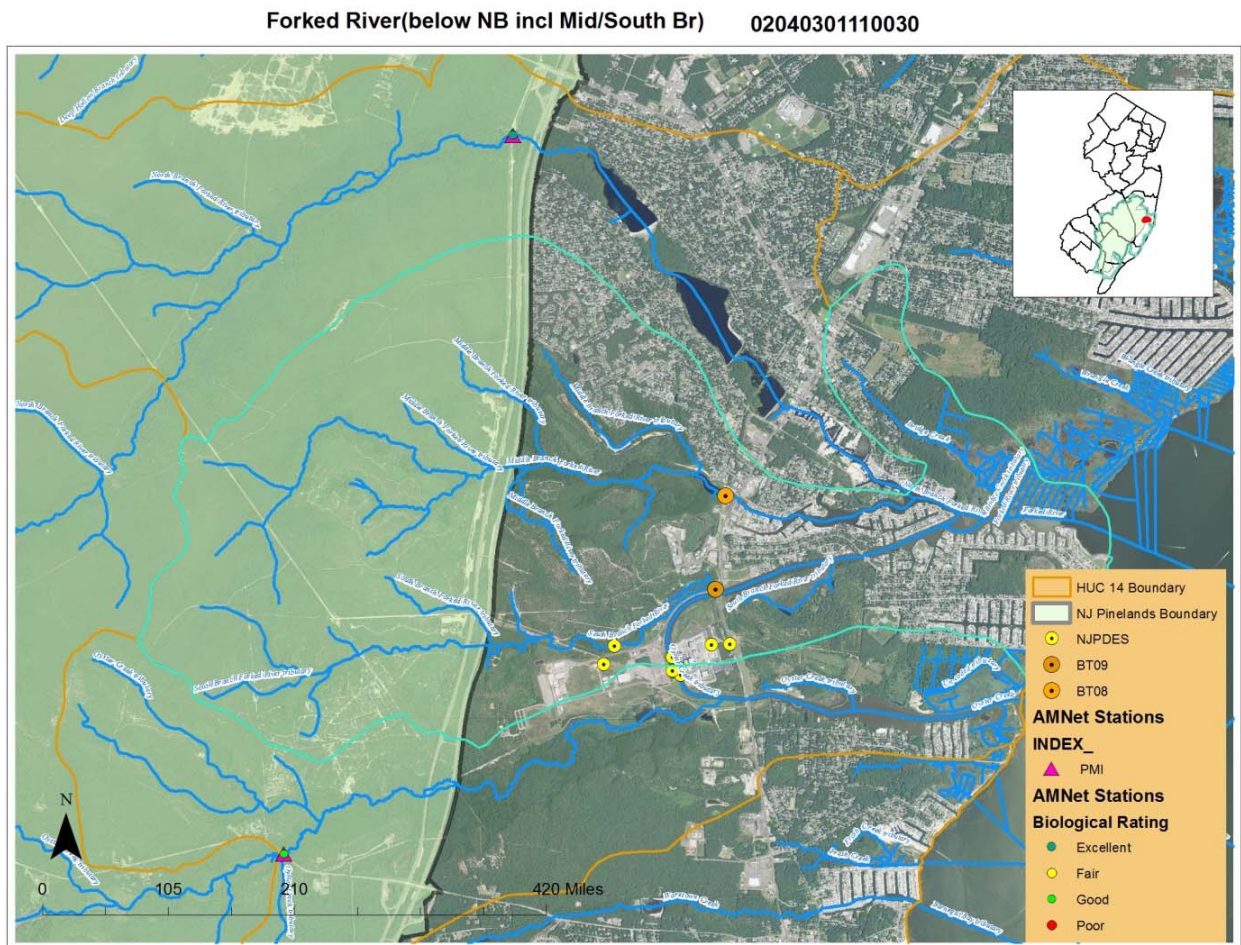
BT07	06-Aug-12	FW2-NT	4.33
BT07	13-Aug-12	FW2-NT	4.76
BT07	16-Aug-12	FW2-NT	4.38
BT07	28-Aug-12	FW2-NT	4.6
BT07	06-Sep-12	FW2-NT	4.6
BT07	12-Sep-12	FW2-NT	4.24
BT07	17-Sep-12	FW2-NT	4.67
BT07	25-Sep-12	FW2-NT	4.1
BT07	11-Oct-12	FW2-NT	4.92
BT07	22-Oct-12	FW2-NT	3.98
BT07	08-Nov-12	FW2-NT	4.0
BT07	19-Nov-12	FW2-NT	3.8
BT07	06-Dec-12	FW2-NT	3.98
BT07	17-Dec-12	FW2-NT	3.8
BT07	07-Jan-13	FW2-NT	4.3
BT07	29-Jan-13	FW2-NT	3.78
BT07	05-Feb-13	FW2-NT	3.88
BT07	26-Feb-13	FW2-NT	3.7
BT07	05-Mar-13	FW2-NT	3.78
BT07	12-Mar-13	FW2-NT	6.35
BT07	21-Mar-13	FW2-NT	3.6
BT07	27-Mar-13	FW2-NT	6.16
BT07	01-Apr-13	FW2-NT	4.6
BT07	09-Apr-13	FW2-NT	4.95
BT07	18-Apr-13	FW2-NT	4.6
BT07	24-Apr-13	FW2-NT	4.87
BT07	06-May-13	FW2-NT	4.53
BT07	14-May-13	FW2-NT	4.6
BT07	23-May-13	FW2-NT	4.51
BT07	29-May-13	FW2-NT	4.75
BT07	03-Jun-13	FW2-NT	4.7
BT07	20-Jun-13	FW2-NT	4.56
BT07	26-Jun-13	FW2-NT	4.59

5. Forked River (below NB incl Mid/South Br)

Assessment Unit Information:

AU Number	AU Name	WMA	Station	Station Name
02040301110030-01	Forked River (below NB incl Mid/South Br)	13	BT09	Forked River SB
02040301110030-01	Forked River (below NB incl Mid/South Br)	13	BT08	Middle Branch Forked River

Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. Macroinvertebrate data was collected at Stations BT08 and BT09 during the Barnegat Bay water quality monitoring project on 8/25/2011 and show no biological impairment.



Point Sources: There are several NJPDES point source discharges within the assessment unit; they are all associated with GPU Nuclear Corp - Oyster Ck, NJ0005550. These discharges occur on a tributary to the Oyster Creek. BT08 is located on a tributary of the Forked River and is not influenced by the discharges.

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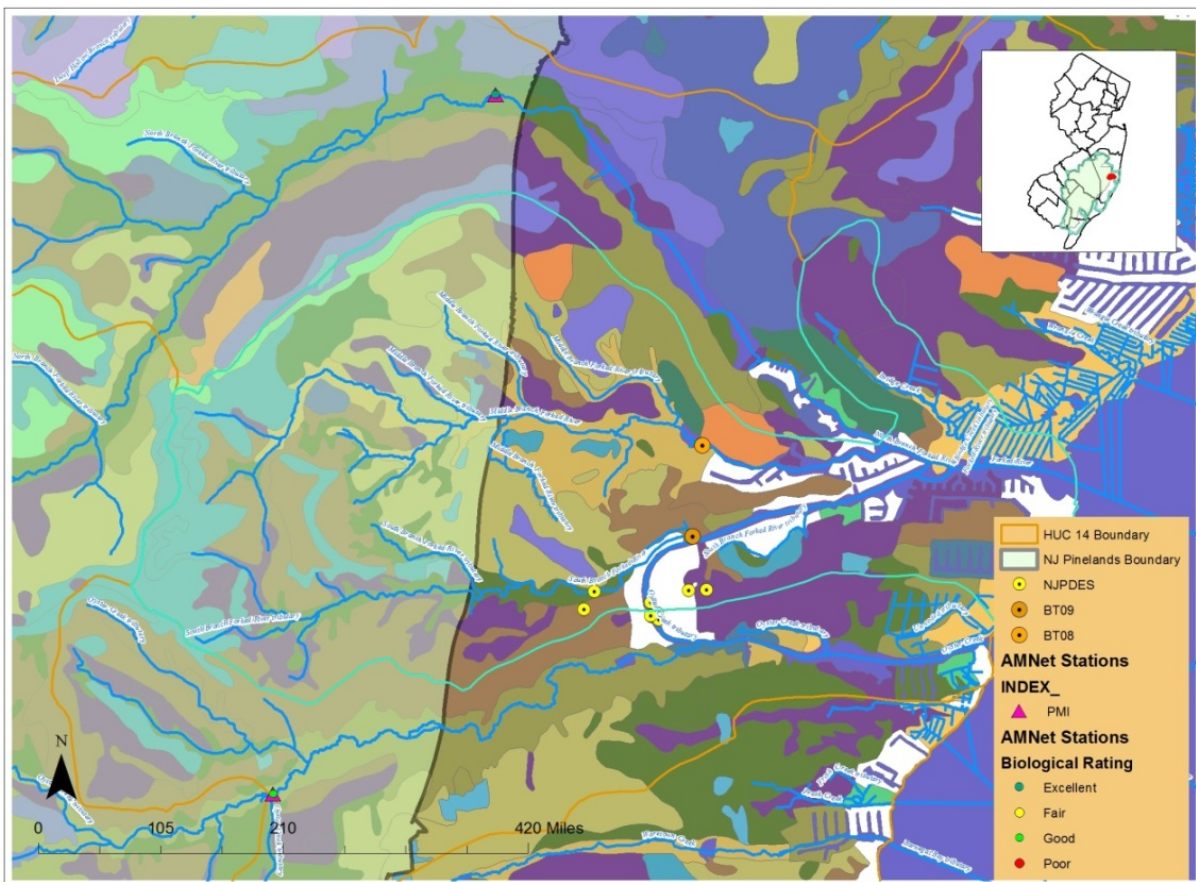
BT09 is located downstream of several of the discharges. Review of the DMR data shows that the discharge is at a neutral pH and would not cause a decrease in pH levels in-stream.

NJPDES Permit Number	Monitored Location	Mon. Period Start Date	Mon. Period End Date	Parameter Description	Sample Point	Concentration Units	Reported Value Concentration Min	Reported Value Concentration Max	Reported Sample Type
NJ0005550	001A	6/1/2011	6/30/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.5	7.9	Grab
NJ0005550	001A	6/1/2011	6/30/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.7	7.9	Grab
NJ0005550	001A	7/1/2011	7/31/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.5	7.8	Grab
NJ0005550	001A	7/1/2011	7/31/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.4	7.9	Grab
NJ0005550	001A	8/1/2011	8/31/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.6	7.8	Grab
NJ0005550	001A	8/1/2011	8/31/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.6	7.8	Grab
NJ0005550	001A	9/1/2011	9/30/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.6	7.9	Grab
NJ0005550	001A	9/1/2011	9/30/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.5	7.9	Grab
NJ0005550	001A	10/1/2011	10/31/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.4	7.9	Grab
NJ0005550	001A	10/1/2011	10/31/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.6	8	Grab
NJ0005550	001A	11/1/2011	11/30/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.7	7.9	Grab
NJ0005550	001A	11/1/2011	11/30/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.6	8	Grab
NJ0005550	001A	12/1/2011	12/31/2011	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.7	7.9	Grab
NJ0005550	001A	12/1/2011	12/31/2011	pH	Intake	STANDARD UNITS (I.E. PH)	7.6	8	Grab
NJ0005550	001A	1/1/2012	1/31/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.6	7.9	Grab
NJ0005550	001A	1/1/2012	1/31/2012	pH	Intake	STANDARD UNITS (I.E. PH)	7.8	8.1	Grab
NJ0005550	001A	2/1/2012	2/29/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.9	8.1	Grab
NJ0005550	001A	2/1/2012	2/29/2012	pH	Intake	STANDARD UNITS (I.E. PH)	7.9	8.1	Grab
NJ0005550	001A	3/1/2012	3/31/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.7	8	Grab
NJ0005550	001A	3/1/2012	3/31/2012	pH	Intake	STANDARD UNITS (I.E. PH)	7.8	8	Grab
NJ0005550	001A	4/1/2012	4/30/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.7	8.1	Grab
NJ0005550	001A	4/1/2012	4/30/2012	pH	Intake From Stream	STANDARD UNITS (I.E. PH)	7.6	8.2	Grab

NJ0005550	001A	5/1/2012	5/31/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.6	7.9	Grab
NJ0005550	001A	5/1/2012	5/31/2012	pH	Intake From Stream	STANDARD UNITS (I.E. PH)	7.6	8.3	Grab
NJ0005550	001A	6/1/2012	6/30/2012	pH	Effluent Gross Value	STANDARD UNITS (I.E. PH)	7.5	7.8	Grab
NJ0005550	001A	6/1/2012	6/30/2012	pH	Intake From Stream	STANDARD UNITS (I.E. PH)	7.6	7.8	Grab

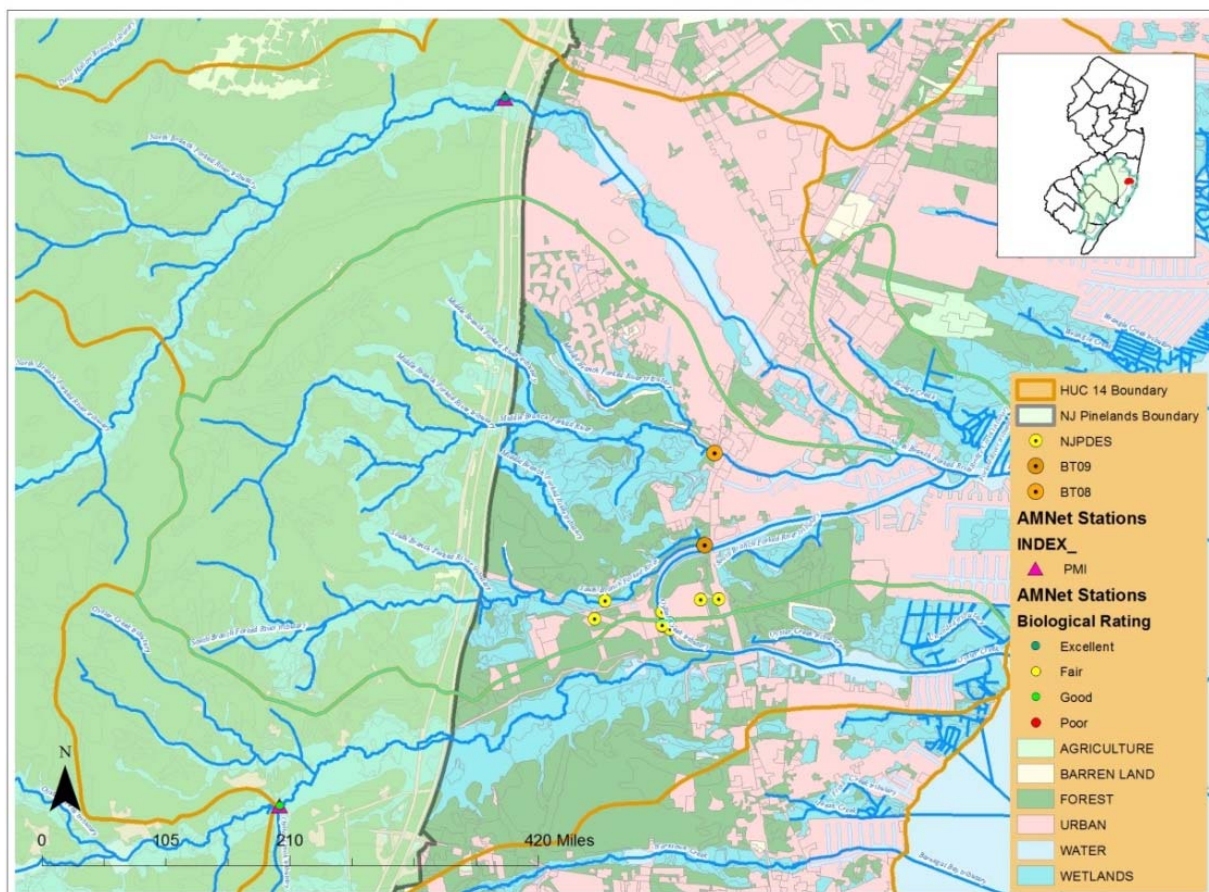
Soils: Soil types found at the station locations are Manahawkin Muck (MakAt) and Lakehurst Sands (LAKB) which are found throughout the pinelands region.

Forked River(below NB incl Mid/South Br) 02040301110030



Land Uses:

Forked River(below NB incl Mid/South Br) 02040301110030



Station Data: All data at Stations BT08 and BT09 fall within the Pinelands criteria range for pH, except for one sample at BT09 that is above the Pinelands pH threshold but is within the range for South Jersey pH criteria.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT08	06-Jun-11	FW2-NT	4.52
BT08	23-Jun-11	FW2-NT	4.3
BT08	05-Jul-11	FW2-NT	4.27
BT08	21-Jul-11	FW2-NT	4.36
BT08	08-Aug-11	FW2-NT	4.31
BT08	25-Aug-11	FW2-NT	4.33
BT08	15-Sep-11	FW2-NT	4.03
BT08	26-Sep-11	FW2-NT	4.24
BT08	13-Oct-11	FW2-NT	2.49
BT08	13-Oct-11	FW2-NT	5.23
BT08	24-Oct-11	FW2-NT	4.54
BT08	14-Nov-11	FW2-NT	4.11
BT08	12-Dec-11	FW2-NT	4.2
BT08	10-Jan-12	FW2-NT	4.0
BT08	26-Jan-12	FW2-NT	4.02
BT08	07-Feb-12	FW2-NT	4.08
BT08	23-Feb-12	FW2-NT	4.23
BT08	06-Mar-12	FW2-NT	4.0
BT08	22-Mar-12	FW2-NT	4.03
BT08	03-Apr-12	FW2-NT	4.19
BT08	10-Apr-12	FW2-NT	4.42
BT08	19-Apr-12	FW2-NT	3.93
BT08	25-Apr-12	FW2-NT	4.01
BT08	08-May-12	FW2-NT	4.0
BT08	17-May-12	FW2-NT	3.99
BT08	23-May-12	FW2-NT	3.98
BT08	29-May-12	FW2-NT	3.92
BT08	05-Jun-12	FW2-NT	4.25
BT08	20-Jun-12	FW2-NT	3.9
BT08	25-Jun-12	FW2-NT	3.71
BT08	05-Jul-12	FW2-NT	3.75
BT08	23-Jul-12	FW2-NT	3.41
BT08	06-Aug-12	FW2-NT	4.41

BT08	28-Aug-12	FW2-NT	4.4
BT08	12-Sep-12	FW2-NT	4.23
BT08	17-Sep-12	FW2-NT	4.49
BT08	11-Oct-12	FW2-NT	4.29
BT08	08-Nov-12	FW2-NT	3.7
BT08	19-Nov-12	FW2-NT	3.7
BT08	06-Dec-12	FW2-NT	3.6
BT08	17-Dec-12	FW2-NT	3.5
BT09	06-Jun-11	FW2-NT	4.48
BT09	23-Jun-11	FW2-NT	4.64
BT09	05-Jul-11	FW2-NT	4.5
BT09	21-Jul-11	FW2-NT	4.57
BT09	08-Aug-11	FW2-NT	4.67
BT09	25-Aug-11	FW2-NT	4.4
BT09	15-Sep-11	FW2-NT	4.74
BT09	26-Sep-11	FW2-NT	4.25
BT09	13-Oct-11	FW2-NT	4.52
BT09	24-Oct-11	FW2-NT	4.39
BT09	14-Nov-11	FW2-NT	4.1
BT09	12-Dec-11	FW2-NT	4.42
BT09	10-Jan-12	FW2-NT	4.62
BT09	26-Jan-12	FW2-NT	4.63
BT09	07-Feb-12	FW2-NT	4.38
BT09	23-Feb-12	FW2-NT	4.48
BT09	06-Mar-12	FW2-NT	4.41
BT09	22-Mar-12	FW2-NT	4.38
BT09	03-Apr-12	FW2-NT	4.36
BT09	10-Apr-12	FW2-NT	4.32
BT09	19-Apr-12	FW2-NT	4.5
BT09	25-Apr-12	FW2-NT	4.48
BT09	08-May-12	FW2-NT	4.52
BT09	17-May-12	FW2-NT	4.43
BT09	23-May-12	FW2-NT	4.39
BT09	29-May-12	FW2-NT	4.4
BT09	05-Jun-12	FW2-NT	4.92
BT09	14-Jun-12	FW2-NT	4.5
BT09	20-Jun-12	FW2-NT	4.5
BT09	25-Jun-12	FW2-NT	4.57
BT09	05-Jul-12	FW2-NT	4.66
BT09	09-Jul-12	FW2-NT	4.85
BT09	16-Jul-12	FW2-NT	4.77
BT09	23-Jul-12	FW2-NT	5.18

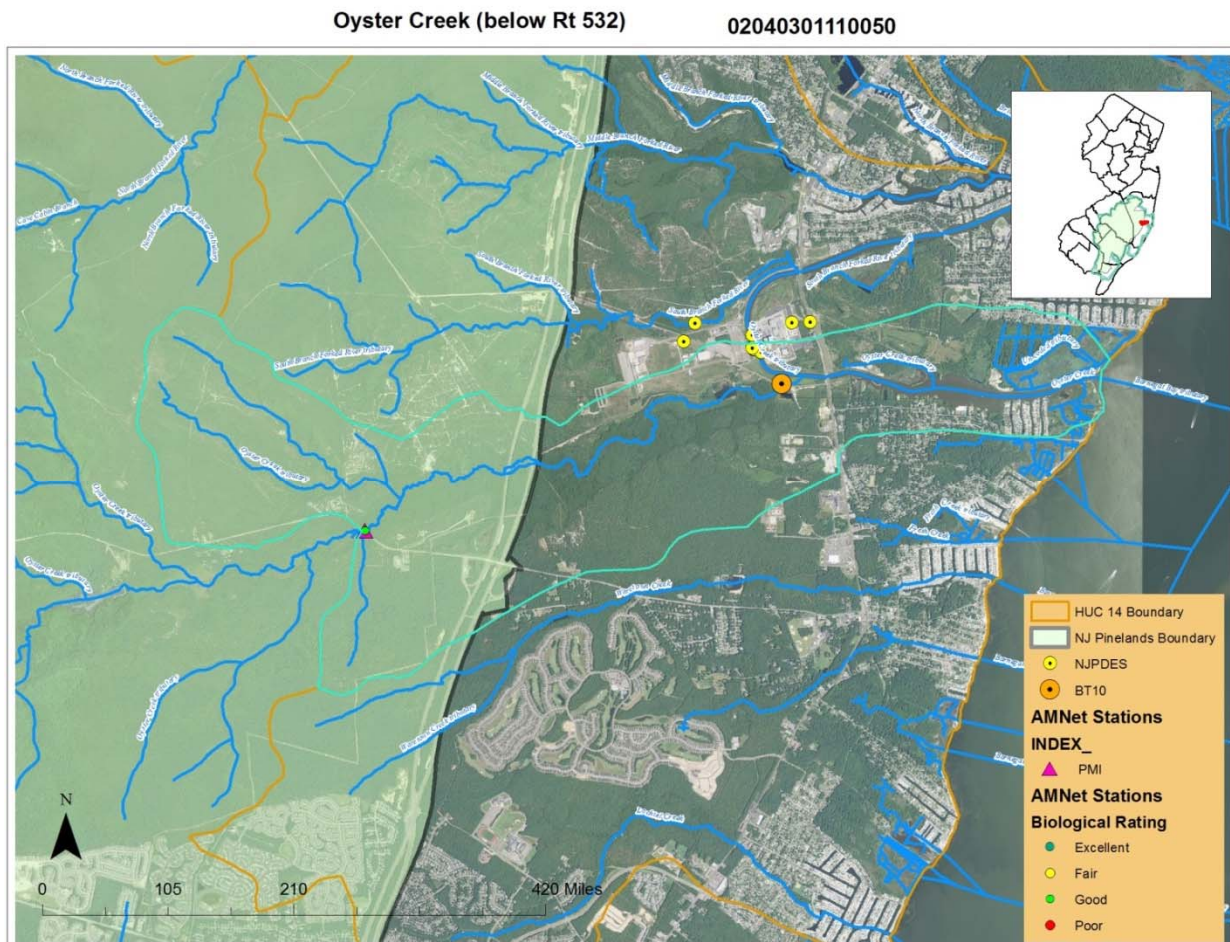
BT09	26-Jul-12	FW2-NT	6.64
BT09	06-Aug-12	FW2-NT	4.91
BT09	13-Aug-12	FW2-NT	4.65
BT09	16-Aug-12	FW2-NT	4.76
BT09	28-Aug-12	FW2-NT	4.5
BT09	06-Sep-12	FW2-NT	4.57
BT09	12-Sep-12	FW2-NT	4.73
BT09	17-Sep-12	FW2-NT	4.79
BT09	25-Sep-12	FW2-NT	4.82
BT09	11-Oct-12	FW2-NT	4.52
BT09	22-Oct-12	FW2-NT	4.82
BT09	08-Nov-12	FW2-NT	5.06
BT09	19-Nov-12	FW2-NT	4.52
BT09	06-Dec-12	FW2-NT	5.7
BT09	17-Dec-12	FW2-NT	5.53

6. Oyster Creek (below Rt 532)

Assessment Unit Information:

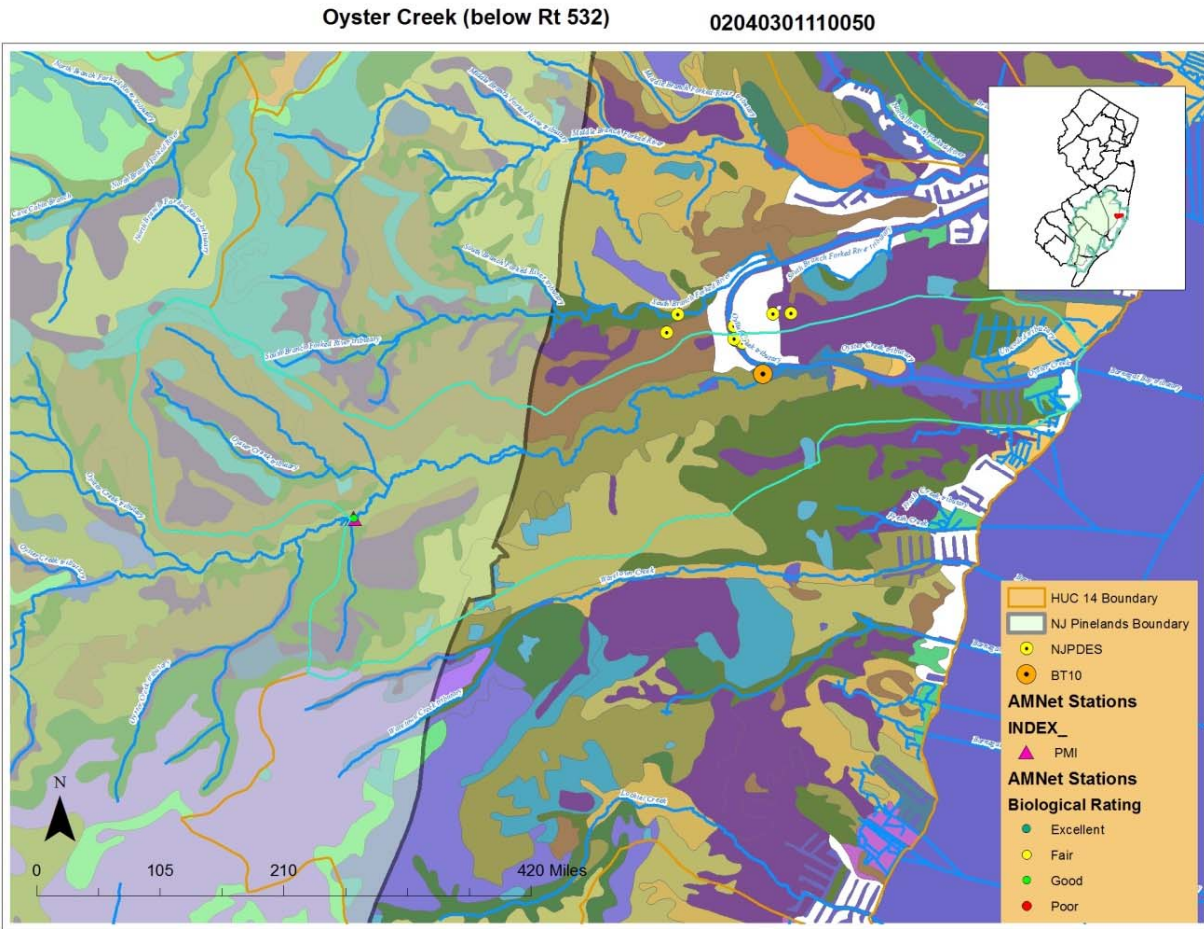
AU Number	AU Name	WMA	Station	Station Name
02040301110050-01	Oyster Creek (below Rt 532)	13	BT10	Oyster Creek
02040301110050-01	Oyster Creek (below Rt 532)	13	AN0552	Oyster Ck

Geographic Information A portion of the AUs is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET Station AN0552 is located within the AU. PMI has been identified as the appropriate index at the AMNET site and data show no biological impairment. Additional macroinvertebrate data were collected at BT10 during the Barnegat Bay water quality monitoring project on 8/25/2011 and that data also show no biological impairment.



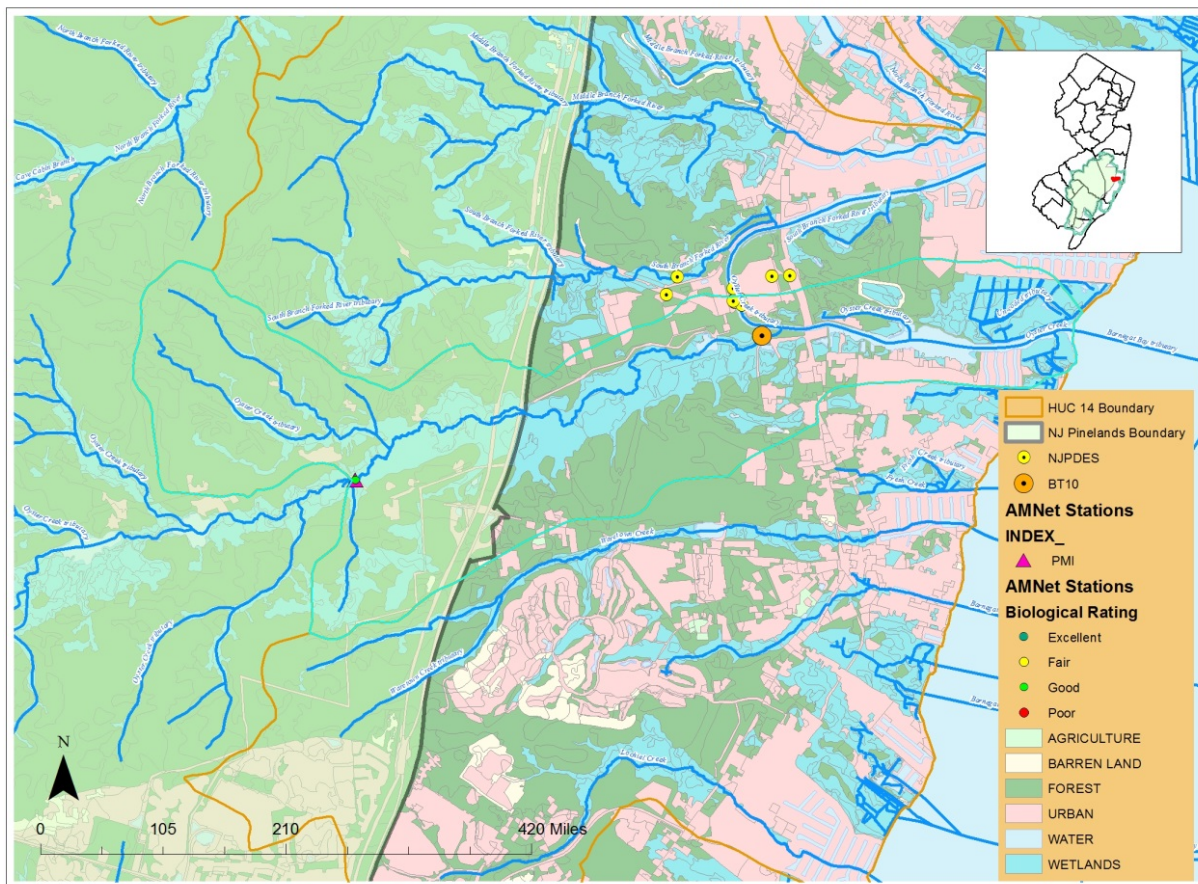
Point Sources: There are several NJPDES point source discharges within the AU; they are all associated with GPU Nuclear Corp - Oyster Ck, NJ0005550. These discharges occur on a tributary to the Oyster Creek. The station of concern is located on the mainstem of Oyster Creek, above the confluence with the tributary; therefore, it could not be impacted by these discharges.

Soils: The soil type found at these station locations is Manahawkin Muck (MakAt), which is found throughout the Pinelands region.



Land Uses:

Oyster Creek (below Rt 532) 02040301110050



Station Data: All data at Station BT10 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT10	06-Jun-11	FW2-NT	4.55
BT10	23-Jun-11	FW2-NT	4.7
BT10	05-Jul-11	FW2-NT	4.4
BT10	21-Jul-11	FW2-NT	4.7
BT10	08-Aug-11	FW2-NT	4.68
BT10	25-Aug-11	FW2-NT	4.63
BT10	15-Sep-11	FW2-NT	4.42
BT10	26-Sep-11	FW2-NT	4.16
BT10	13-Oct-11	FW2-NT	4.6
BT10	24-Oct-11	FW2-NT	4.55
BT10	14-Nov-11	FW2-NT	4.46
BT10	12-Dec-11	FW2-NT	4.42
BT10	10-Jan-12	FW2-NT	4.62
BT10	26-Jan-12	FW2-NT	4.57
BT10	07-Feb-12	FW2-NT	4.45
BT10	23-Feb-12	FW2-NT	4.51
BT10	06-Mar-12	FW2-NT	4.06
BT10	22-Mar-12	FW2-NT	4.49
BT10	03-Apr-12	FW2-NT	4.46
BT10	10-Apr-12	FW2-NT	4.78
BT10	19-Apr-12	FW2-NT	4.77
BT10	25-Apr-12	FW2-NT	4.42
BT10	08-May-12	FW2-NT	4.48
BT10	17-May-12	FW2-NT	4.32
BT10	23-May-12	FW2-NT	4.41
BT10	29-May-12	FW2-NT	4.51
BT10	05-Jun-12	FW2-NT	4.6
BT10	14-Jun-12	FW2-NT	4.47
BT10	20-Jun-12	FW2-NT	4.73
BT10	25-Jun-12	FW2-NT	4.57
BT10	05-Jul-12	FW2-NT	4.78
BT10	09-Jul-12	FW2-NT	4.64
BT10	16-Jul-12	FW2-NT	4.61
BT10	23-Jul-12	FW2-NT	4.72

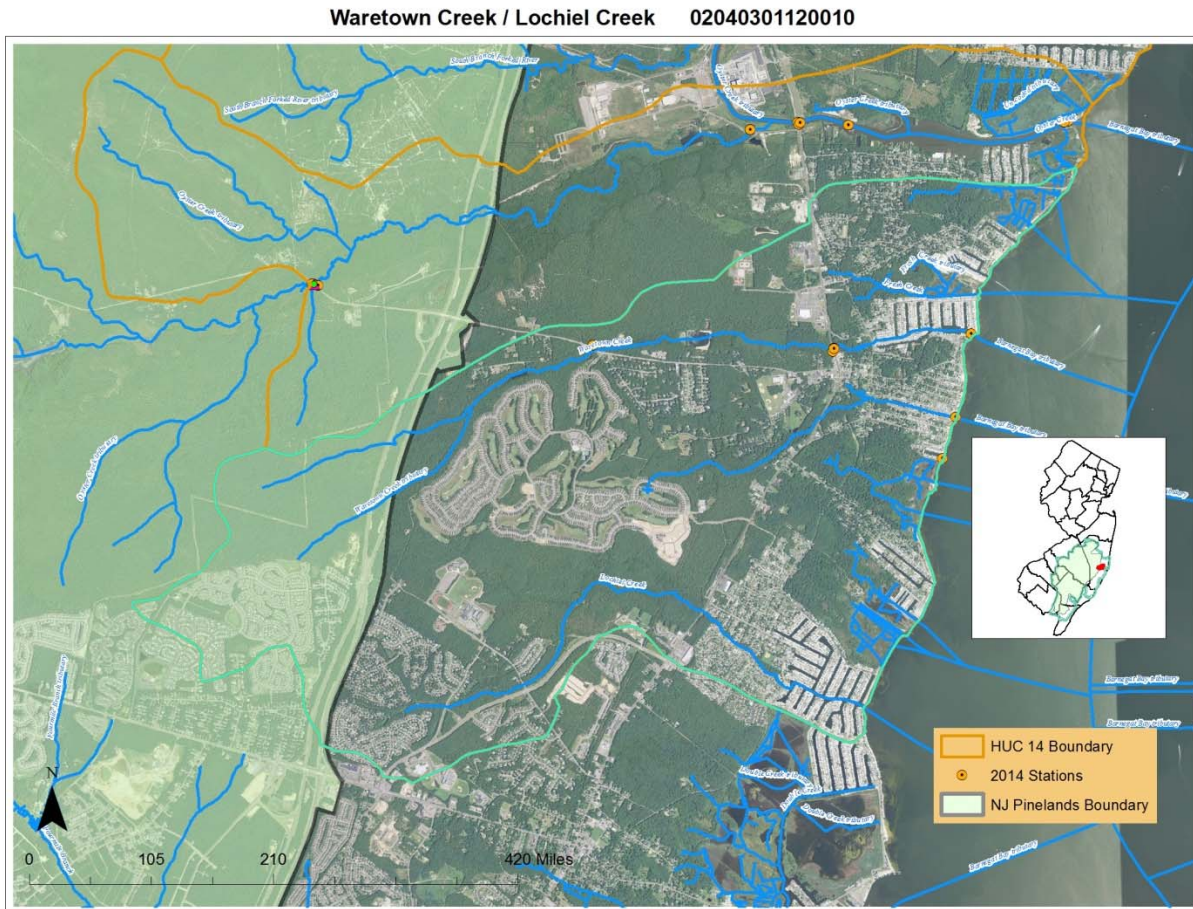
BT10	26-Jul-12	FW2-NT	4.87
BT10	06-Aug-12	FW2-NT	4.76
BT10	13-Aug-12	FW2-NT	4.61
BT10	16-Aug-12	FW2-NT	4.77
BT10	28-Aug-12	FW2-NT	4.32
BT10	06-Sep-12	FW2-NT	4.26
BT10	12-Sep-12	FW2-NT	4.65
BT10	17-Sep-12	FW2-NT	4.8
BT10	25-Sep-12	FW2-NT	4.88
BT10	11-Oct-12	FW2-NT	4.09
BT10	22-Oct-12	FW2-NT	4.74
BT10	08-Nov-12	FW2-NT	4.93
BT10	19-Nov-12	FW2-NT	4.56
BT10	06-Dec-12	FW2-NT	5.47
BT10	17-Dec-12	FW2-NT	5.01

7. Waretown Ck on Rt 9 in Waretown

Assessment Unit Information:

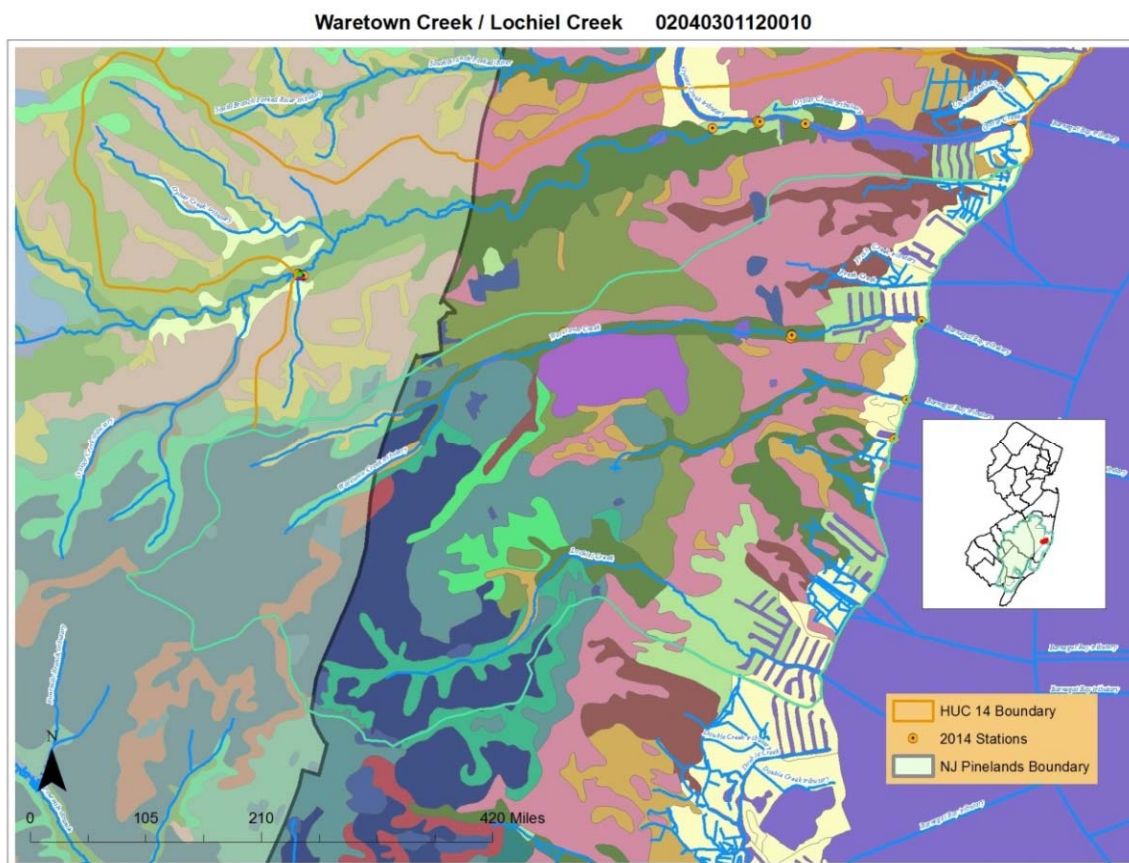
AU Number	AU Name	WMA	Station	Station Name
02040301120010-01	Waretown Creek / Lochiel Creek	13	01409108	Waretown Ck on Rt 9 in Waretown

Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary.

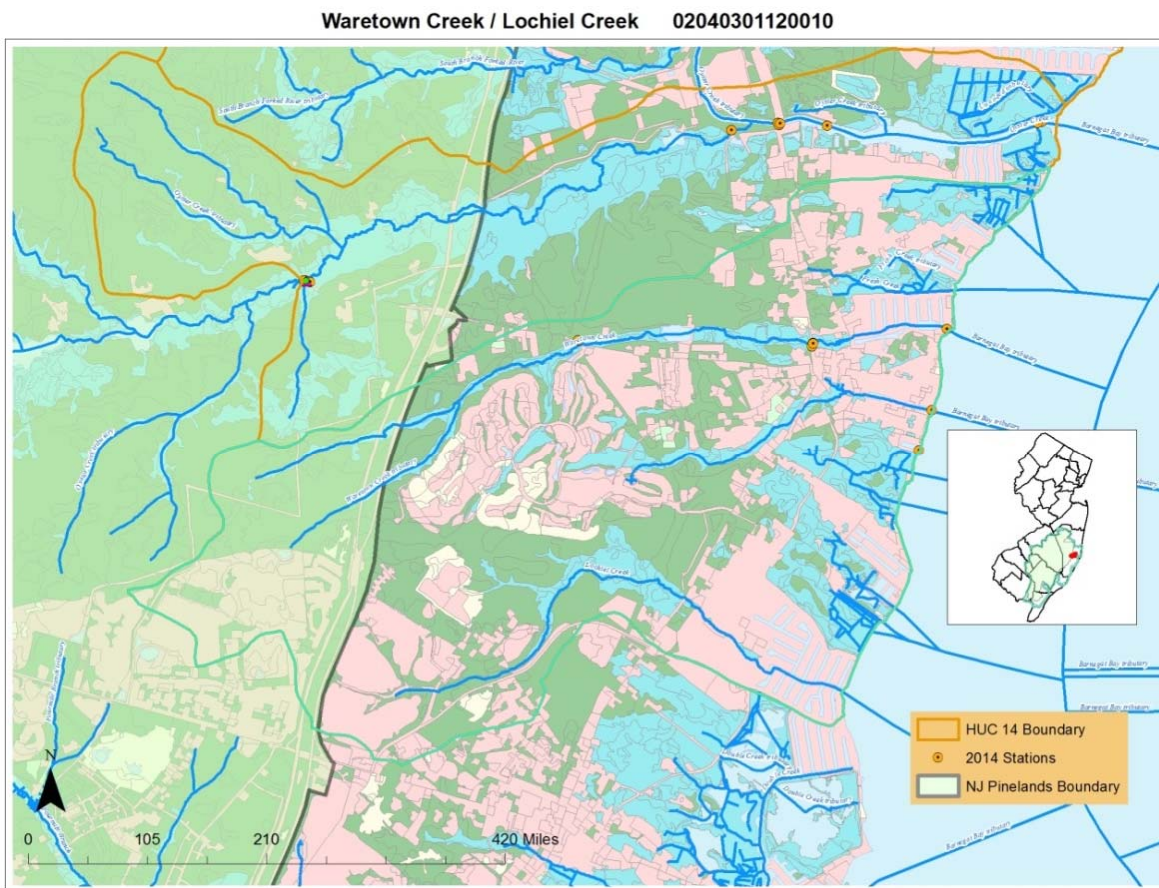


Point Sources: There are no NJPDES point source discharges within the assessment unit.

Soils: The soil type found at the station location is Manahawkin Muck(MakAt); which is found throughout the Pinelands region.



Land Uses:



Station Data: All data at Station 01409108 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
01409108	18-Nov-02	FW2-NT	4.6
01409108	26-Feb-03	FW2-NT	4.4
01409108	19-May-03	FW2-NT	4.5
01409108	05-Aug-03	FW2-NT	4.85
01409108	12-Nov-03	FW2-NT	4.6
01409108	09-Feb-04	FW2-NT	4.38
01409108	29-Apr-04	FW2-NT	4.66
01409108	02-Aug-04	FW2-NT	5.16
01409108	14-Jun-05	FW2-NT	4.9
01409108	06-Sep-05	FW2-NT	5.7
01409108	01-Dec-05	FW2-NT	4.7
01409108	06-Mar-06	FW2-NT	5.0
01409108	30-May-06	FW2-NT	5.0
01409108	29-Aug-06	FW2-NT	4.9
01409108	30-Nov-06	FW2-NT	4.9
01409108	22-Feb-07	FW2-NT	5.4
01409108	21-May-07	FW2-NT	5.5
01409108	30-Aug-07	FW2-NT	5.2
01409108	27-Nov-07	FW2-NT	5.7
01409108	26-Feb-08	FW2-NT	5.2
01409108	20-May-08	FW2-NT	5.1
01409108	28-Aug-08	FW2-NT	5.3
01409108	17-Dec-08	FW2-NT	4.6
01409108	02-Feb-09	FW2-NT	5.1
01409108	04-May-09	FW2-NT	5.1
01409108	18-Aug-09	FW2-NT	5.3
01409108	08-Dec-09	FW2-NT	4.9
01409108	09-Mar-10	FW2-NT	5.1
01409108	24-Jun-10	FW2-NT	5.4
01409108	16-Sep-10	FW2-NT	5.3
01409108	14-Dec-10	FW2-NT	5.2
01409108	06-Apr-11	FW2-NT	5.32
01409108	27-Jun-11	FW2-NT	5.1
01409108	23-Aug-11	FW2-NT	5.8
01409108	06-Dec-11	FW2-NT	5.1

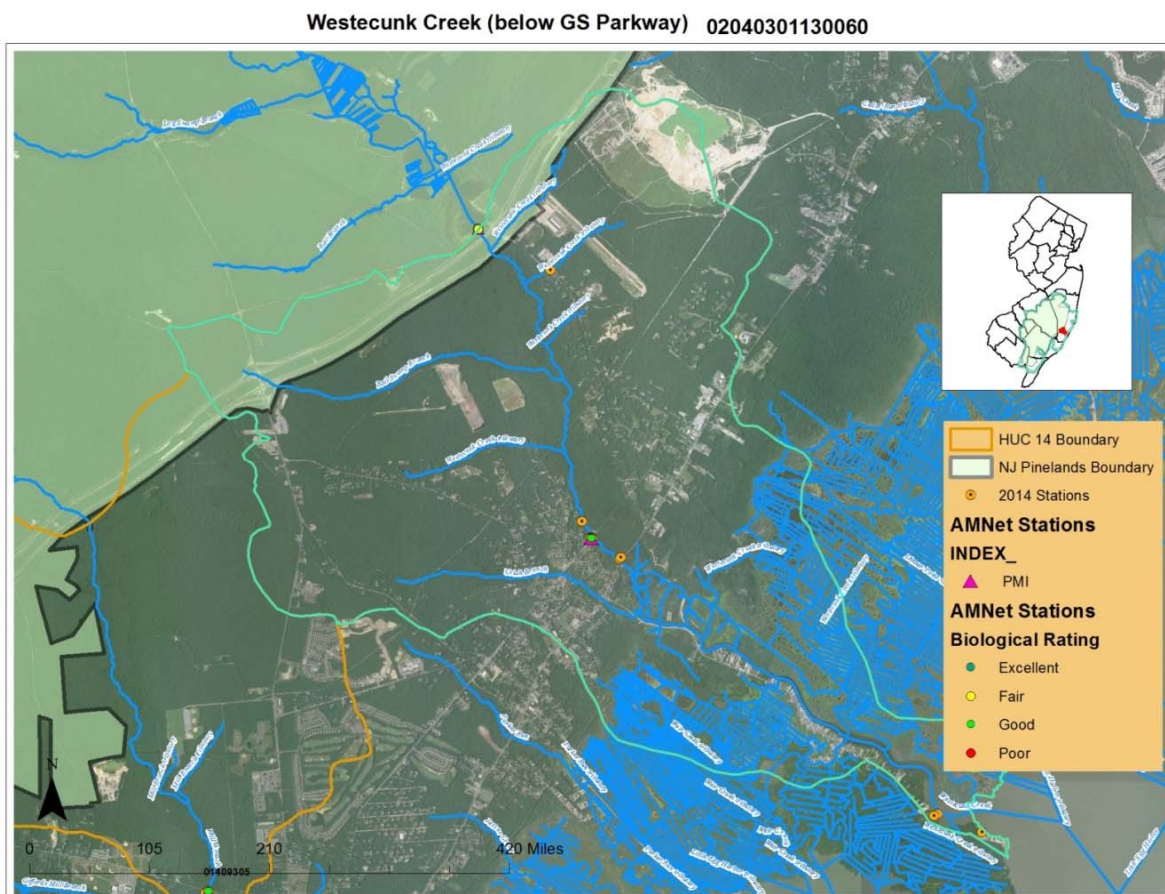
01409108	16-Feb-12	FW2-NT	5.4
01409108	27-Apr-12	FW2-NT	5.2
01409108	10-Oct-12	FW2-NT	5.4
01409108	03-Jan-13	FW2-NT	5.6
01409108	08-Apr-13	FW2-NT	5.5

8. Westecunk Creek (below GS Parkway)

Assessment Unit Information:

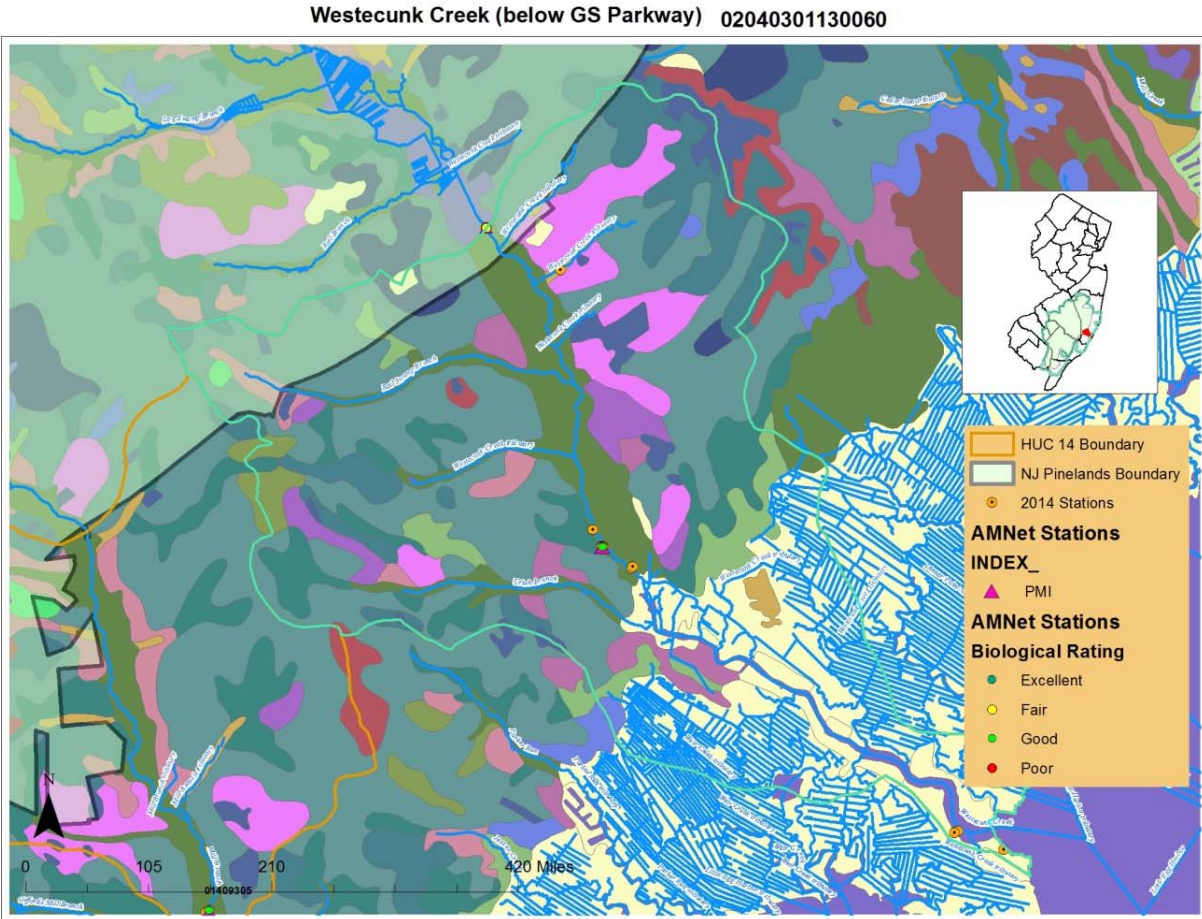
AU Number	AU Name	WMA	Station	Station Name
02040301130060-01	Westecunk Creek (below GS Parkway)	13	BT12	Westecunk Ck at Railroad Avenue at West Creek
02040301130060-01	Westecunk Creek (below GS Parkway)	13	AN0615	Mattix Run (Frenches Ditch

Geographic Information: A portion of the AU is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET Station AN0615 is located within the AU. The PMI index has been identified as the appropriate index at the AMNET site and the data show no biological impairment.



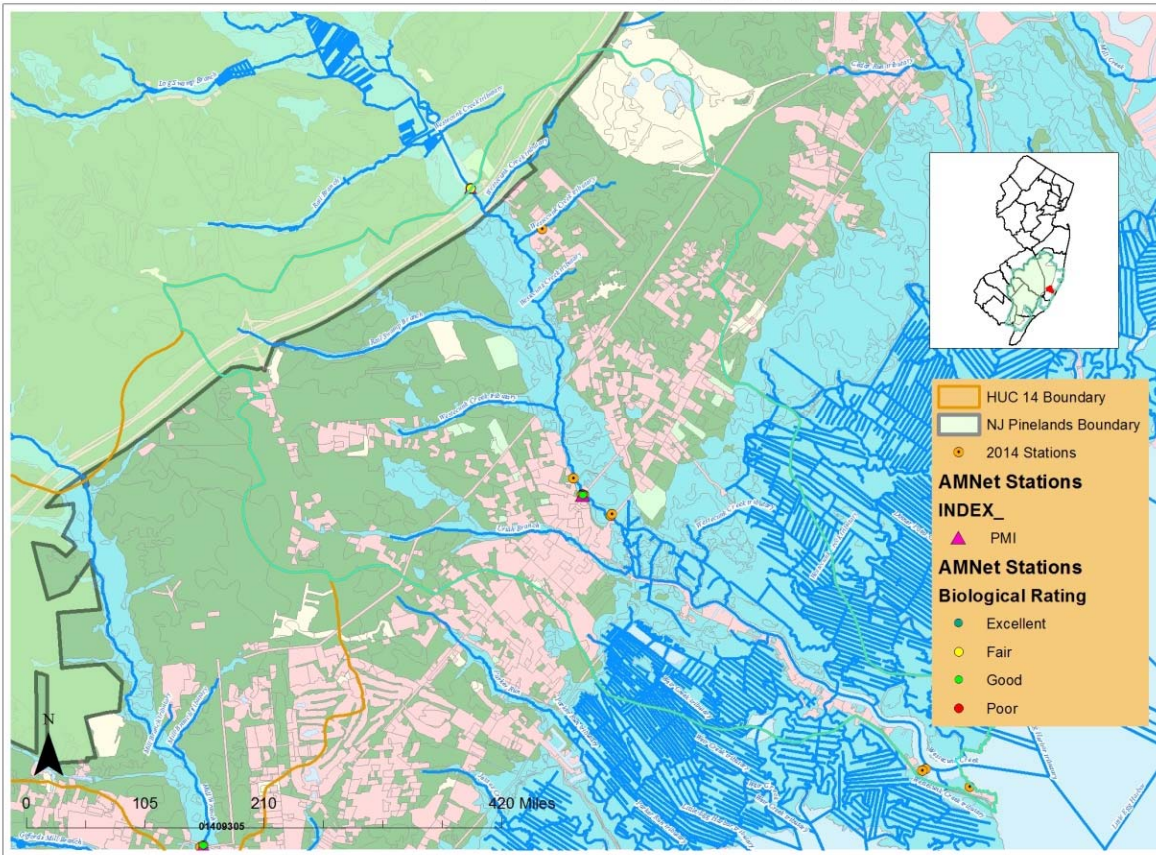
Point Sources: There are no NJPDES point source discharges in this AU.

Soils: Soil types found at the station locations are Manahawkin Muck(MakAt) and Hammonton Loamy Sand; which are found thorough out the Pinelands region.



Land Uses:

Westecunk Creek (below GS Parkway) 02040301130060



Station Data: Three out of 70 samples collected at Station BT12 are above the Pinelands criteria threshold for pH but are within the range for the South Jersey pH criteria.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
BT12	06-Jun-11	FW2-NT	5.55
BT12	23-Jun-11	FW2-NT	5.39
BT12	05-Jul-11	FW2-NT	5.28
BT12	21-Jul-11	FW2-NT	5.44
BT12	08-Aug-11	FW2-NT	5.54
BT12	25-Aug-11	FW2-NT	6.31
BT12	15-Sep-11	FW2-NT	4.86
BT12	26-Sep-11	FW2-NT	5.04

BT12	13-Oct-11	FW2-NT	5.41
BT12	24-Oct-11	FW2-NT	5.26
BT12	14-Nov-11	FW2-NT	5.48
BT12	12-Dec-11	FW2-NT	4.64
BT12	10-Jan-12	FW2-NT	5.73
BT12	26-Jan-12	FW2-NT	5.12
BT12	07-Feb-12	FW2-NT	4.15
BT12	23-Feb-12	FW2-NT	5.31
BT12	06-Mar-12	FW2-NT	5.1
BT12	22-Mar-12	FW2-NT	5.35
BT12	03-Apr-12	FW2-NT	5.64
BT12	10-Apr-12	FW2-NT	5.29
BT12	19-Apr-12	FW2-NT	5.43
BT12	25-Apr-12	FW2-NT	4.44
BT12	08-May-12	FW2-NT	5.35
BT12	17-May-12	FW2-NT	4.54
BT12	23-May-12	FW2-NT	4.46
BT12	29-May-12	FW2-NT	5.12
BT12	05-Jun-12	FW2-NT	5.14
BT12	14-Jun-12	FW2-NT	4.48
BT12	20-Jun-12	FW2-NT	5.32
BT12	25-Jun-12	FW2-NT	4.4
BT12	05-Jul-12	FW2-NT	4.69
BT12	09-Jul-12	FW2-NT	5.16
BT12	16-Jul-12	FW2-NT	5.14
BT12	23-Jul-12	FW2-NT	4.73
BT12	26-Jul-12	FW2-NT	5.09
BT12	06-Aug-12	FW2-NT	4.4
BT12	13-Aug-12	FW2-NT	4.59
BT12	16-Aug-12	FW2-NT	4.42
BT12	28-Aug-12	FW2-NT	4.2
BT12	06-Sep-12	FW2-NT	4.14
BT12	12-Sep-12	FW2-NT	4.56
BT12	17-Sep-12	FW2-NT	4.74
BT12	25-Sep-12	FW2-NT	4.88
BT12	11-Oct-12	FW2-NT	4.45
BT12	22-Oct-12	FW2-NT	5.02
BT12	08-Nov-12	FW2-NT	4.29
BT12	19-Nov-12	FW2-NT	4.41
BT12	06-Dec-12	FW2-NT	4.64
BT12	17-Dec-12	FW2-NT	4.03
BT12	07-Jan-13	FW2-NT	4.65

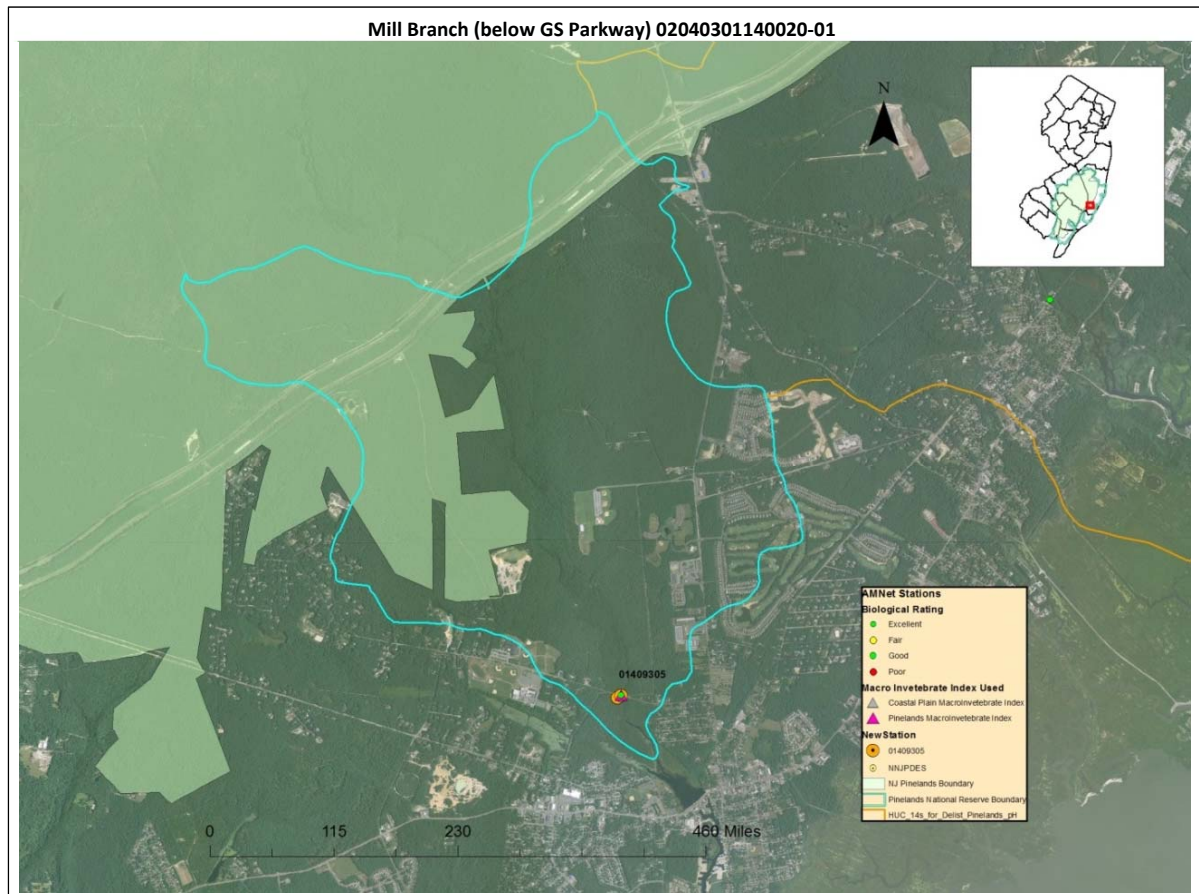
BT12	29-Jan-13	FW2-NT	4.77
BT12	05-Feb-13	FW2-NT	4.8
BT12	26-Feb-13	FW2-NT	4.84
BT12	05-Mar-13	FW2-NT	4.86
BT12	12-Mar-13	FW2-NT	4.59
BT12	21-Mar-13	FW2-NT	5.85
BT12	27-Mar-13	FW2-NT	4.66
BT12	01-Apr-13	FW2-NT	5.2
BT12	09-Apr-13	FW2-NT	4.64
BT12	18-Apr-13	FW2-NT	4.72
BT12	24-Apr-13	FW2-NT	4.77
BT12	06-May-13	FW2-NT	4.94
BT12	14-May-13	FW2-NT	4.62
BT12	23-May-13	FW2-NT	4.75
BT12	29-May-13	FW2-NT	4.42
BT12	03-Jun-13	FW2-NT	5.11
BT12	10-Jun-13	FW2-NT	4.15
BT12	12-Jun-13	FW2-NT	4.53
BT12	20-Jun-13	FW2-NT	4.35
BT12	26-Jun-13	FW2-NT	4.22

9. Mill Branch (below GS Parkway)

Assessment Unit Information:

AU Number	AU Name	WMA	Station	Station Name
02040301140020-01	Mill Branch (below GS Parkway)	13	01409305	Mill Br on Nugentown Rd in Nugentown
02040301140020-01	Mill Branch (below GS Parkway)	13	AN0559	Mill Br of Tuckerton Ck
02040301140020-01	Mill Branch (below GS Parkway)	13	AN0559A	Mill Br

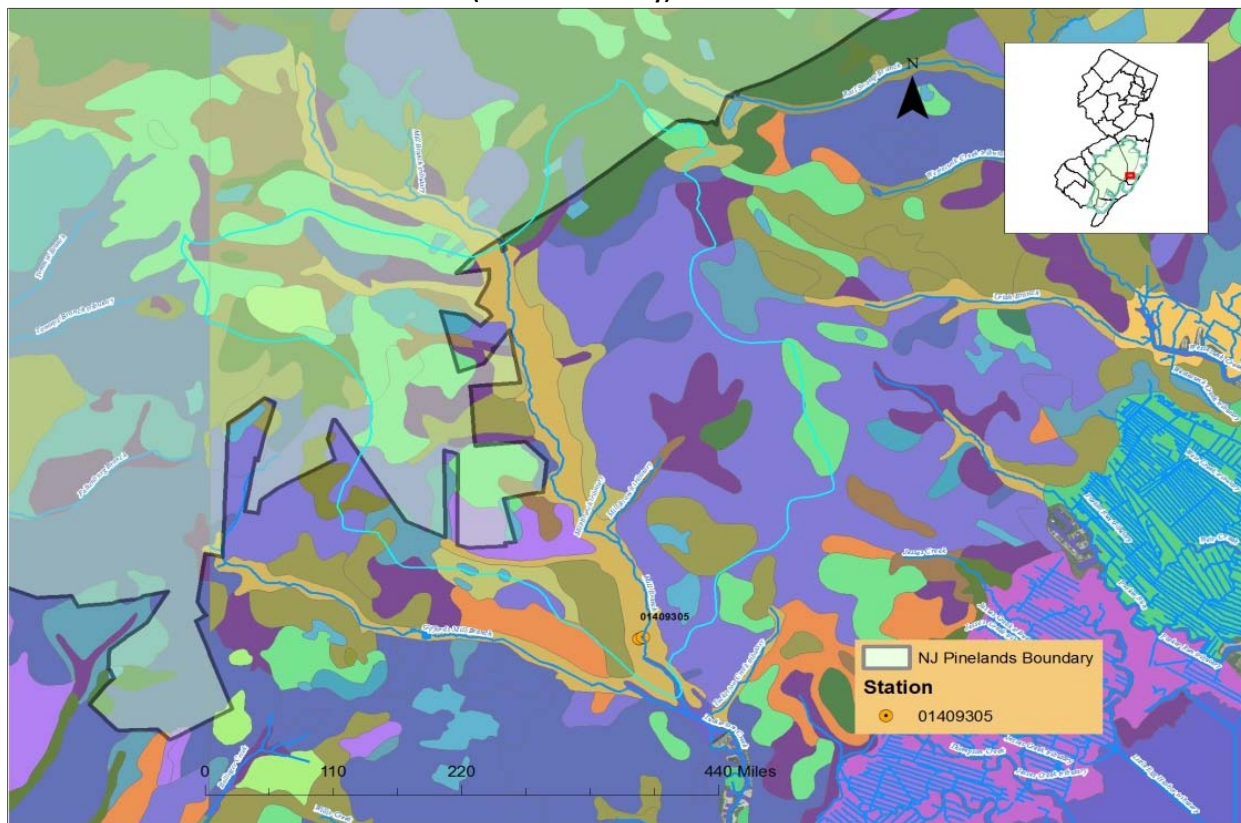
Geographic Information: A portion of the assessment unit is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. There are two AMNET Stations located in this AU, AN0559 and AN0599A. PMI has been identified as the appropriate index at both AMNET sites and the data show no biological impairment at either station.



Point Sources: There are no NJPDES point source discharges in this AU.

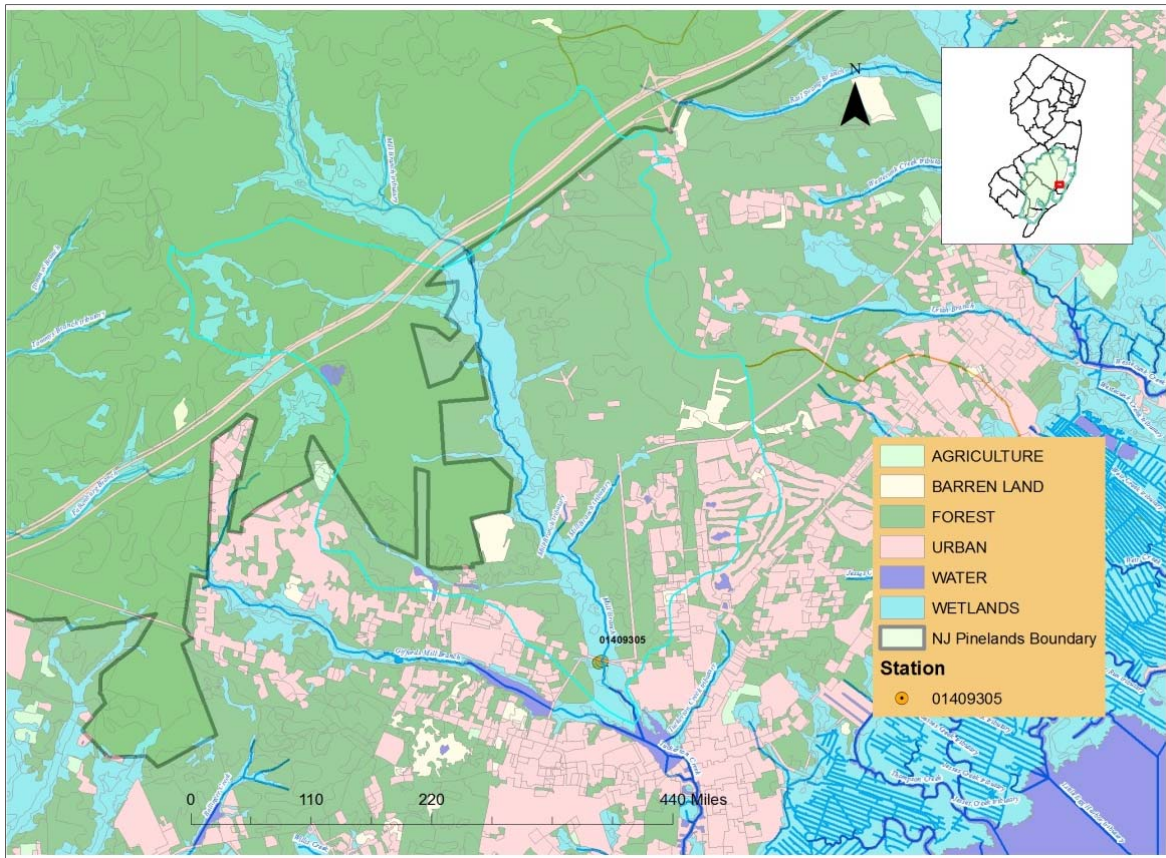
Soils:

Mill Branch (below GS Parkway) 0102040301140020-01



Land Uses:

Mill Branch (below GS Parkway) 0102040301140020-01



Station Data: All data at Station 01409305 fall within the Pinelands criteria range for pH.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
01409305	07-Nov-02	FW2-NT	4.4
01409305	06-Feb-03	FW2-NT	4
01409305	13-May-03	FW2-NT	4.4
01409305	31-Jul-03	FW2-NT	4.4
01409305	27-Oct-03	FW2-NT	4.5
01409305	21-Jan-04	FW2-NT	4.6
01409305	19-Apr-04	FW2-NT	4.2
01409305	20-Jul-04	FW2-NT	4.7
01409305	30-Jun-05	FW2-NT	4.6
01409305	30-Aug-05	FW2-NT	5

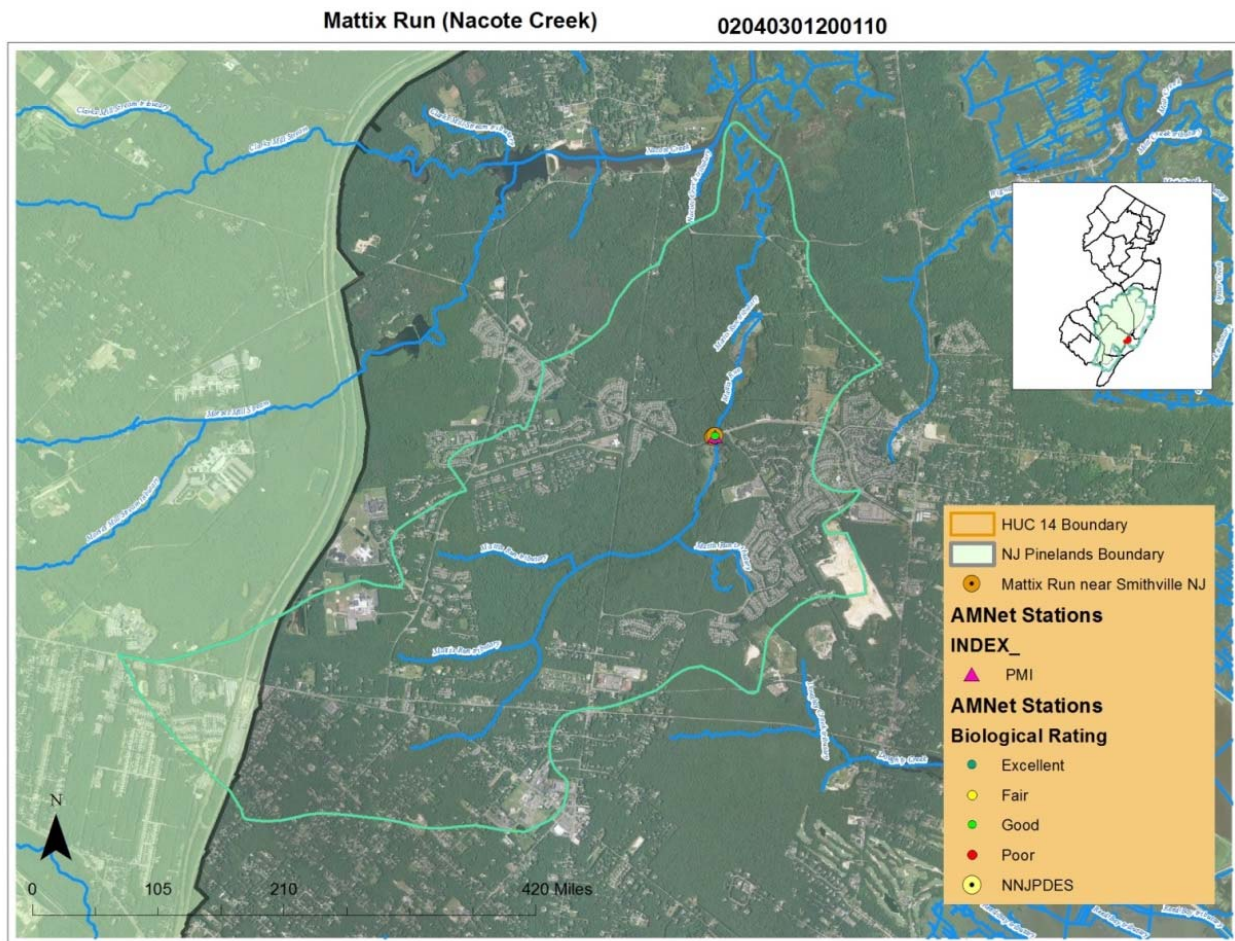
01409305	28-Nov-05	FW2-NT	4.5
01409305	27-Feb-06	FW2-NT	4.7
01409305	23-May-06	FW2-NT	4.46
01409305	22-Aug-06	FW2-NT	6
01409305	30-Oct-06	FW2-NT	4.8
01409305	30-Jan-07	FW2-NT	4.5
01409305	30-Apr-07	FW2-NT	4.35
01409305	12-Jul-07	FW2-NT	4.87
01409305	11-Oct-07	FW2-NT	5.05
01409305	22-Jan-08	FW2-NT	4.54
01409305	14-Apr-08	FW2-NT	4.38
01409305	22-Jul-08	FW2-NT	5.39
01409305	23-Oct-08	FW2-NT	5.15
01409305	15-Jan-09	FW2-NT	4.21
01409305	06-Apr-09	FW2-NT	4.51
01409305	13-Jul-09	FW2-NT	4.64
01409305	27-Oct-09	FW2-NT	4.23
01409305	12-Jan-10	FW2-NT	4.2
01409305	06-Apr-10	FW2-NT	4.2
01409305	21-Sep-10	FW2-NT	4.5
01409305	16-Dec-10	FW2-NT	5.4
01409305	22-Mar-11	FW2-NT	4.19
01409305	21-Jun-11	FW2-NT	4.6
01409305	23-Aug-11	FW2-NT	5.0
01409305	09-Nov-11	FW2-NT	4.98
01409305	15-Mar-12	FW2-NT	4.53
01409305	06-Jun-12	FW2-NT	4.94
01409305	09-Oct-12	FW2-NT	4.79
01409305	20-Mar-13	FW2-NT	4.26
01409305	02-May-13	FW2-NT	4.37

10. Mattix Run (Nacote Creek)

Assessment Unit Information:

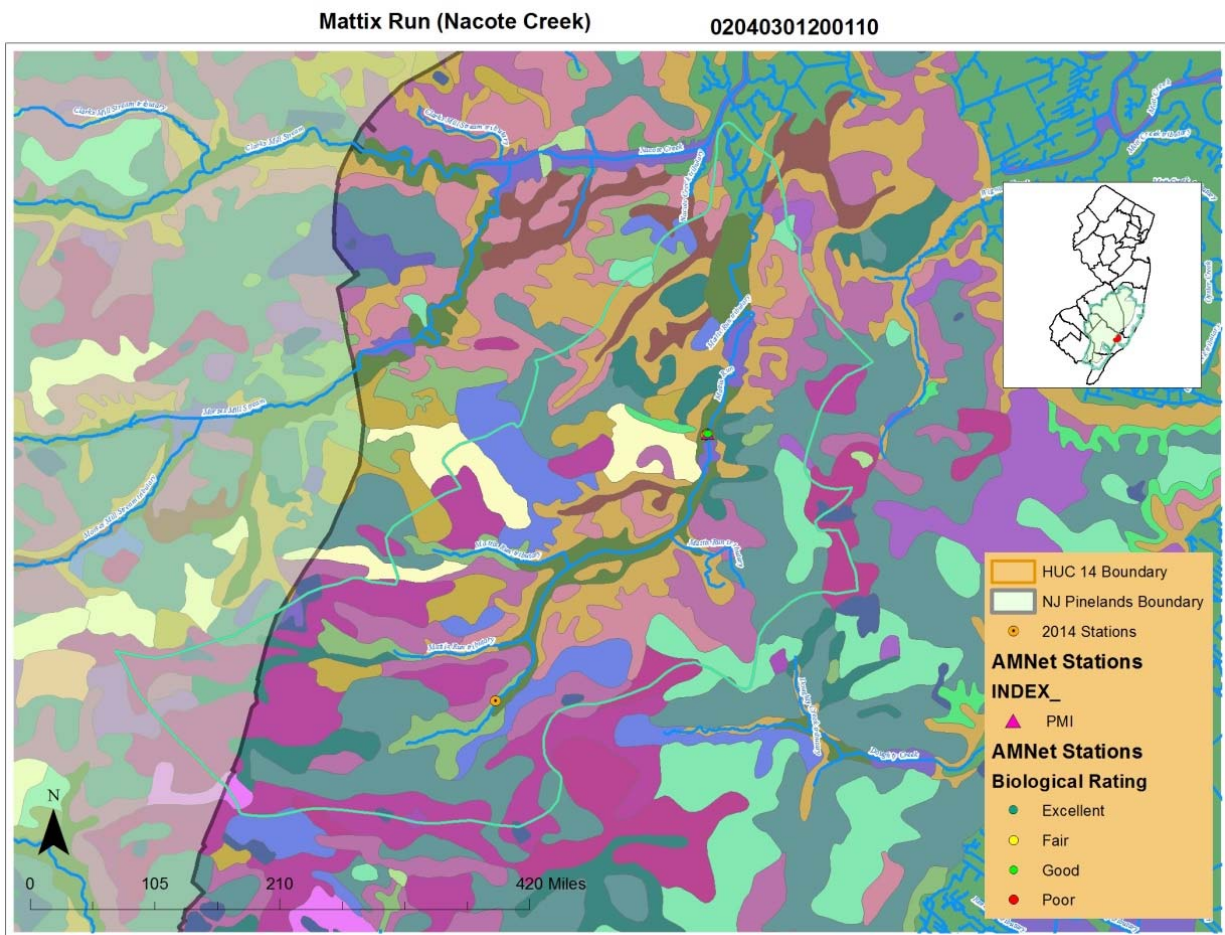
AU Number	AU Name	WMA	Station	Station Name
02040301200110-01	Mattix Run (Nacote Creek)	14	01410230	Mattix Run on Old Port Republic Rd in Galloway Twp
02040301200110-01	Mattix Run (Nacote Creek)	14	AN0615	Mattix Run (Frenches Ditch)

Geographic Information: A portion of the assessment unit is located inside the Pinelands boundary. The station of concern is located outside the Pinelands boundary. AMNET Station AN0615 is located in this AU. PMI has been identified as the appropriate index at this AMNET site and data show no biological impairment.

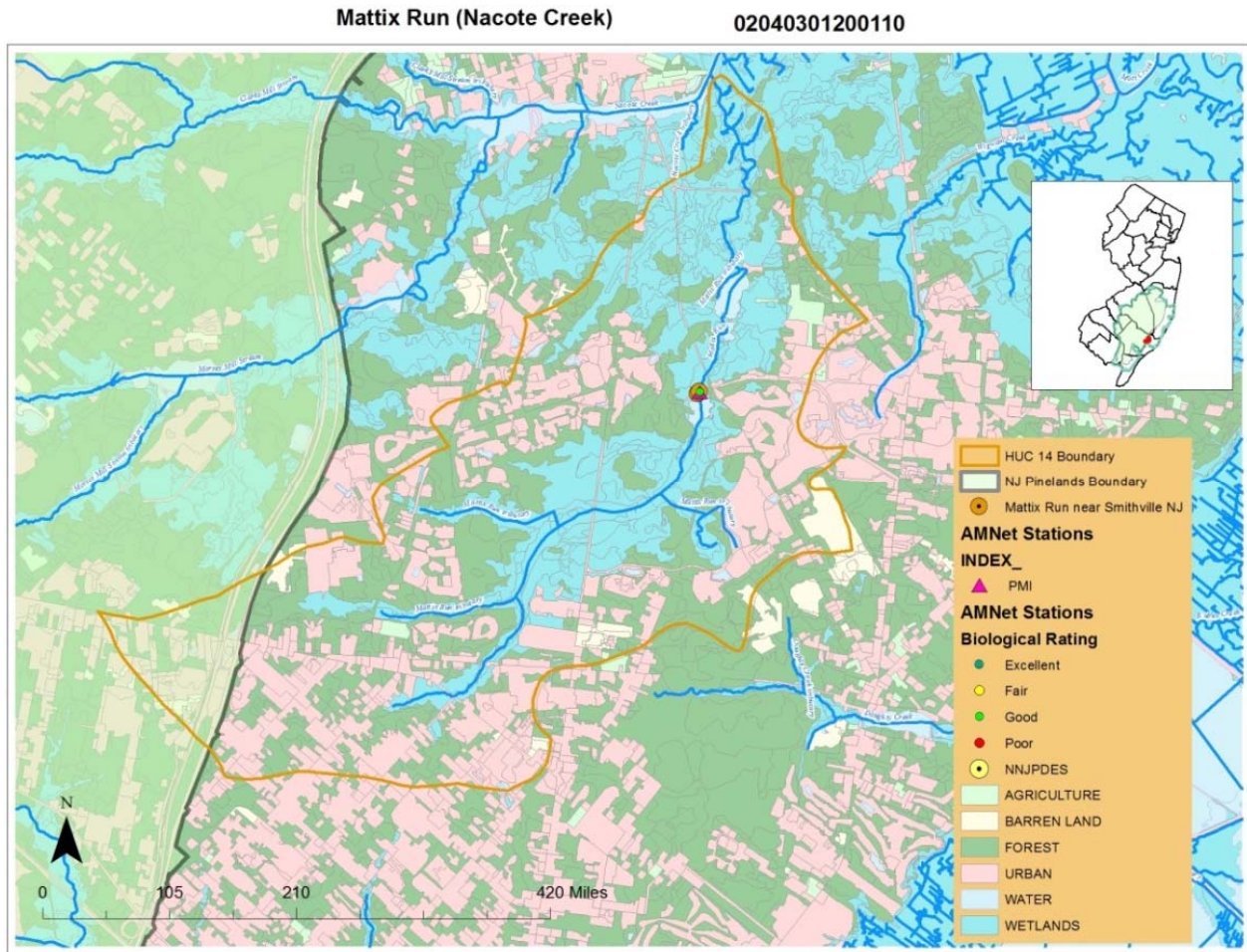


Point Sources: There are no NJPDES discharge points within the watershed.

Soils: The soil type found at the station location is Manahawkin Muck(MakAt), which is found throughout the Pinelands region.



Land Uses:



Station Data: Two out of 34 samples at Station 01410230 fall above the Pinelands criteria threshold but are within the range of the South Jersey pH criteria.

pH Criteria Thresholds	Pinelands Criterion	South Jersey Criterion
pH high	5.5	7.5
pH low	3.5	4.5

Station	Sample Date	Stream Classification	pH Value
01410230	21-Nov-02	FW2-NT	3.97
01410230	10-Mar-03	FW2-NT	4.2
01410230	15-May-03	FW2-NT	4.2
01410230	12-Aug-03	FW2-NT	4.4
01410230	20-Nov-03	FW2-NT	4.3
01410230	19-Feb-04	FW2-NT	4.2
01410230	10-May-04	FW2-NT	4.4

01410230	10-Aug-04	FW2-NT	5
01410230	30-Jun-05	FW2-NT	5.03
01410230	30-Aug-05	FW2-NT	5.4
01410230	28-Nov-05	FW2-NT	4.35
01410230	27-Feb-06	FW2-NT	4.19
01410230	23-May-06	FW2-NT	4.15
01410230	22-Aug-06	FW2-NT	5.68
01410230	30-Oct-06	FW2-NT	4.23
01410230	30-Jan-07	FW2-NT	4.13
01410230	30-Apr-07	FW2-NT	4.1
01410230	12-Jul-07	FW2-NT	5.22
01410230	11-Oct-07	FW2-NT	5.96
01410230	22-Jan-08	FW2-NT	4.09
01410230	14-Apr-08	FW2-NT	4.09
01410230	22-Jul-08	FW2-NT	5.46
01410230	23-Oct-08	FW2-NT	5.67
01410230	15-Jan-09	FW2-NT	4.1
01410230	06-Apr-09	FW2-NT	4.26
01410230	13-Jul-09	FW2-NT	4.71
01410230	27-Oct-09	FW2-NT	4.61
01410230	12-Jan-10	FW2-NT	4.1
01410230	06-Apr-10	FW2-NT	4.58
01410230	21-Sep-10	FW2-NT	5.12
01410230	16-Dec-10	FW2-NT	4.41
01410230	22-Mar-11	FW2-NT	4.17
01410230	21-Jun-11	FW2-NT	4.68
01410230	23-Jun-11	FW2-NT	4.7