

**The Buzzards Bay Stormwater Collaborative
Healthy Communities Grant Water Quality Data Report
6 May 2019 - Final**



<http://stormwater.buzzardsbay.org/>
<http://buzzardsbayaction.org/index.html>

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Town of Wareham

Acknowledgements

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Project Overview

The Buzzards Bay Stormwater Collaborative Project was a regional inter-municipal program of the Buzzards Bay Action Committee (BBAC) and five municipalities (Acushnet, Dartmouth, Fairhaven, Mattapoisett, and Wareham). The purpose of the program was to map stormwater collection networks and monitor stormwater discharges that are contributing to shellfish bed closures and other pollution-caused impairments in the Buzzards Bay watershed. Funding for the program was provided by a U.S. Environmental Protection Agency (EPA) Healthy Communities grant program to the BBAC. The Buzzards Bay National Estuary Program (NEP) provided planning and technical support to the Stormwater Collaborative. One of the goals of the effort was to identify illicit discharges to stormwater networks contributing to these water quality impairments. With this knowledge, municipalities can take action to eliminate illicit discharges, or treat stormwater discharges conveying non-point sources of pollution, thereby reducing the water quality impairments. Because there are thousands of stormwater discharges along Buzzards Bay, an important first step is to prioritize discharges to impaired waters for further study or management action. For the five participating municipalities, this report is the first step in that process.

The Buzzards Bay Stormwater Collaborative operated through cost sharing of resources and expertise to monitor discharges and map stormwater networks. Water quality data was collected from the summer of 2016 through the fall of 2017 by the BBAC Stormwater Collaborative. Deliverables of this project include this report and the supporting GIS and water quality data available online¹. A final report was prepared for each town that included all collected stormwater quality data, dry weather inspection information, maps based on collected stormwater infrastructure GIS data, identification of possible illicit connections, and recommended priorities for municipal action to manage these stormwater discharges. This data is organized as a comprehensive summary for each discharge with prioritization based on water quality analysis; identification of potential illicit connections; and recommendations related to that discharge. This information will assist participating municipalities to make informed decisions about actions they can take to improve water quality.

Stormwater Mapping Initiative

The water quality of an outfall pipe or roadcut discharge may be related to nearby sources, or inputs hundreds or thousands of feet away. Solving local stormwater issues requires an understanding of the character and connectivity of the stormwater infrastructure. The water quality at an outfall discharge is defined by pollution sources within the catchment. A catchment can be small or cover several hundred acres. Defining that catchment requires the knowledge of both land surface topography and the connectivity of the catchbasins, manholes, and pipes that cumulate to the outfall discharge.

Recognizing the relationship between stormwater infrastructure and water quality of Buzzards Bay, the Buzzards Bay NEP began mapping stormwater discharges and catchbasins over 20 years ago, culminating in the Buzzards Bay Stormwater Atlas, first released in 2003, and last updated 2012. The Stormwater Atlas data enabled the 2016 Stormwater Collaborative effort to implement quickly a stormwater monitoring program, and provided the basis for a strategic monitoring plan, including potential monitoring site

¹ Available at <http://stormwater.buzzardsbay.org/>

locations. Without the previous inventory, the start of the monitoring program would have been significantly delayed. At the outset of the project, preselected sampling locations were found, evaluated, and documented for the monitoring program by Buzzards Bay NEP staff. This analysis resulted in the selection of 250 monitoring sites to be the focus of the monitoring effort.

The 2012 Atlas also provided a sound basis for a more detailed and refined GIS database. Updating, improving, and expanding the Atlas was a major accomplishment of this project. A systematic approach to GIS data development was used to map stormwater structures and their connectivity. The mapping component of this project began with verification of existing Atlas feature locations with a mapping grade GPS. Many new above ground structures were discovered and added to the Atlas and all structures were more accurately located. In four participating towns (Dartmouth, Fairhaven, Mattapoisett, and Wareham), all previously mapped manholes and catch basins were GPS verified. In the heavily urbanized Town of Acushnet, GPS verification manholes and catch basins covered only 15%, principally in the catchment area of the stormwater discharges being monitored.

After surface-level stormwater infrastructure were mapped, the next step in the mapping process was to scan stormwater network engineering plans, and geo-reference them in GIS. All plans made available from the five towns were scanned and geo-referenced. This step is essential to define stormwater infrastructure connectivity. The towns of Dartmouth and Fairhaven were able to provide geo-referenced plans through efforts they had funded. Under this Healthy Communities grant, the effort to scan and georeference paper engineering plans of stormwater networks was focused on the Towns of Acushnet, Mattapoisett, and Fairhaven. The Town of Mattapoisett had limited plan coverage, and all plans were scanned and georeferenced. In the Town of Acushnet all plans within the catchments of the monitored discharges were scanned and georeferenced. The Town of Wareham has an extensive coastline and hundreds of paper plans on file. Only a portion of these maps were scanned and georeferenced through the Healthy Communities grant, but the Buzzards Bay NEP is continuing the effort.

In the final step of the GIS analysis, stormwater pipes from the stormwater network plans are added to the GIS database using the GPS-located above ground structures to stretch the plans to the appropriate scale, and allow for a heads-up digitization of pipe infrastructure shown on the plans. The level of completeness of the effort varied with each town, and was dependent on of the amount of infrastructure, quantity and quality of stormwater network plans, and area covered by the project. The addition of stormwater pipe infrastructure to the GIS database was completed for the towns of Fairhaven and Dartmouth under the grant, and the Buzzards Bay NEP is continuing the effort for the other three participating towns. In limited areas, attributes were added to the GIS database from information shown on the plans. This process to develop a comprehensive GIS database for all five participating municipalities, as well as other municipalities in the Buzzards Bay watershed, is an ongoing effort of the Buzzards Bay NEP.

When undertaking a GIS analysis like the one described above, sometimes plans and GPS feature data did not always agree. In those cases, field verification of existing conditions was required to resolve uncertainties. This field work is labor intensive and requires participation of the municipal department of public works to provide institutional knowledge, open manhole covers, clear catchbasins, and use metal

detectors to find structures. A limited amount of this work has been done in each town and will be a focus of future efforts by the Buzzards Bay NEP and municipalities as mapping and water quality issues are examined.

Summary of Sampling Methods

This project investigated 250 discharges in five municipalities, which included both pipe outfalls and roadcuts. 547 monitoring site visits were completed, and resulted in the collection of 657 water quality samples. Water samples were tested for nine different parameters, which were indicators of potential illicit connections or other sources of contamination. In addition, 724 “no-flow/no-sample” observations were made and documented for many outfalls. Through dry weather monitoring, the monitoring program was able to document discharge pipes with no dry weather flow. Documenting the absence of dry weather flow is an important characteristic of a discharge network, and is required observation under the MS4 permit. An observation of ‘no-flow’ does not preclude the possibility of an illicit connection, just that it is less likely. Table 1 summarizes data collection by town.

Table 1 - Summary of site visits, discharges and samples.

Municipality	Total Number of Discharges	Number of Investigated Discharges	Number of Stormwater Samples	No-Flow No-Sample Observations
Acushnet	119	15	77	72
Dartmouth	575	47	70	111
Fairhaven	354	65	266	173
Mattapoisett	557	26	106	87
Wareham	930	97	138	281
Total	2535	250	657	724

The water quality data collection effort consisted of three components – field observations and testing, indoor analysis of nitrates and surfactants, and certified laboratory analysis for bacteria. The basic methods and equipment for each component is described below in Tables 2, 3, and 4. The QAPP for the study contains additional details.

Table 2 - Field Testing

Parameter	Equipment	Operating Range	Resolution	Accuracy
Ammonia	Hach Test Strips	0-6ppm	0.25ppm	+/- one half of a color block
Conductivity	HachPocket Pro, Multi 2	0 to 200 μ S/cm or 2.00-19.9 mS/cm (auto-range)	0.01mS/0.1 μ S/1.0uS (range dependent)	\pm 1.0%
Salinity	HachPocket Pro, Multi 2	0 to 10 ppt	0.01 ppt	\pm 1%
Temperature	HachPocket Pro, Multi 2	0 to 50°C (32 to 122°F)	0.1°C	\pm 0.5°C
pH	HachPocket Pro, Multi 2	0.0-14.0	0.01	0.02

Table 3 – Indoor (in-office) Analysis

Parameter	Equipment	Operating Range	Resolution	Accuracy	Holding Time
Surfactants (detergents as MBAS)	CHEMetrics K-9400 ¹	0-3 ppm	+ 1 color standard increment	+ 30% error	48 hours
Nitrates	LaMotte Nitrate-Nitrogen test kit (3615-01)	0.00 to 1.00 ppm	0.1ppm	0.1ppm	24 hours

Table 4 - Certified Laboratory Analysis

Parameter	Sample Container	Holding Time	Field Processing/	Method	Units
Fecal Coliform	100 ml sterilize polyethylene	6 hours	Collect, label, store on blue ice	Membrane Filtration, wastewater, SM9222D, 21 th Edition 2005	cfu/100ml
Enterococci	100 ml sterilize polyethylene	6 hours	Collect, label, store on blue ice	EPA Office of Water, Method 1600, Membrane Filter Test EPA 821-R-97-004.	cfu/100ml

Relation of Project to MS4 Permit

As noted above, the primary area of focus for the Stormwater Collaborative was to monitor discharges and map connections of stormwater outfalls that directly discharge into shellfish beds and other impaired coastal waters. Many of these discharges must also be monitored, and their stormwater collection systems mapped, as part of the U.S. EPA Small Municipal Separate Storm Sewer Systems (MS4) permit. For the most part, the Stormwater Collaborative's discharge monitoring program adheres to the EPA MS4 permit monitoring requirements. The activities of the Stormwater Collaborative will partially help participating municipalities meet the MS4 permit monitoring requirements, outreach and education efforts, and water quality testing training. The Stormwater Collaborative only monitored and mapped a fraction of each participating town's MS4 discharges and discharge networks through this program. The program directed efforts towards discharges associated with impaired waters that impact shellfish beds. For example, inland discharges affecting fresh-waterbodies and streams (non-shellfish waters) were not monitored under this program, but are required to be considered for the MS4 permit.

Under the MS4 permit program, each municipality must assess discharges to any impaired waters or wetlands from their "Urbanized Area," not just discharges to coastal waters. The new small MS4 permits in Massachusetts became effective on July 1, 2018. This 2018 permit is a continuation of the 2003 MS4 permit, and but includes additional monitoring and mapping requirements, and may also include an expansion of the 2003 Urbanized Area.

Each municipality's first obligation under the 2018 MS4 permit is to prepare and submit a Notice of Intent (NOI) by September 29, 2018. The NOI provides an update of the 2003 permit and an outline of future activities within the scope of the 2018 permit requirements. By July 1, 2019, each permittee must develop a Storm Water Management Plan (SWMP) describing in more detail how activities outlined in your NOI will

be accomplished. To summarize, the key differences between the Buzzards Bay Stormwater Collaborative Program efforts and the MS4 permit requirements are:

- The activities of the Collaborative were limited to monitoring discharges and mapping discharge networks directly affecting impaired coastal waters. These discharges may or may not be within Urbanized Areas as defined by EPA;
- EPA's MS4 permit requires that municipalities obtain a permit and evaluate all stormwater discharges serving their Urbanized Area Stormwater collection networks. Discharges to impaired waters outside the Urbanized Area are not included in the 2018 MS4 permit.

Another factor to consider with the MS4 permitting process is the concentration of bacteria when monitoring. Much of the output from this report has been based on bacteria levels chosen for appropriate analysis in the context of this study. These levels are different from Massachusetts Department of Environmental Protection regulatory standards as described in 314 CMR the Massachusetts Surface Water Quality Standards. See Table 5 for some examples of regulatory thresholds for bacteria levels.

Table 5 – Massachusetts Surface Water Quality Standards Summary

Receiving Water Class	Parameter	Standard
Unfiltered WS - A	Fecal coliform [CFU]	< = 20 in six month period
Filtered WS –A & B	Enterococci [CFU]	< = 126 geometric mean
Filtered WS –A & B	E. coli [CFU]	< = 33 in six month period
SA (Shellfish)	Fecal coliform [CFU]	< = 14 geometric mean
SA/SB (Beaches)	Enterococci [CFU]	< = 35 geometric mean
SB (w/ depuration)	Fecal coliform [CFU]	< = 88 geometric mean





Summary Maps

Included in this report are overview maps that show discharges monitored within the participating municipalities. Each discharge on the map is coded for a Stormwater Classification priority as shown in Table 6 and coded for the potential Illicit Discharge Classification priority shown in Table 7. Each map shows the Facility ID number for the discharge, which can be used to reference the corresponding data sheet. A comprehensive, interactive version of this data is available in the online map. The process for determining these classifications is based on criteria applied to the water quality data based on professional judgments by the Buzzards Bay NEP. Different criteria would have resulted in different rankings. Consequently, informed decision-making may require additional monitoring and field investigations of priority sites. Below is a description of the methods used for the symbols on the maps.

Stormwater Classification:

Criteria: freshwater (non-tidal) samples only; samples from flows only; wet weather samples only; and based on maximum observation of bacteria (Fecal coliform [CFU] or Enterococci [CFU]).





Table 6 - Map Legend for Stormwater Classification

Symbol		Bacteria
	High Concern	> 10,000
	Medium Concern	50 – 10,000
	Low Concern	< 50
	Not Determined	No Data

Illicit Discharge Classification:

Criteria: freshwater (non-tidal) samples only; samples from flows only; wet or dry weather samples; and based on the maximum observation of bacteria (Fecal coliform [CFU] or Enterococci [CFU]) with the number of water quality parameters above a threshold. These thresholds are: > 0.50 ppm for Ammonia (NH₃), > 0.25 ppm for Surfactants, and > = 0.44 ppm for Nitrate (NO₃).

Table 7 – Map Legend for Illicit Discharge Classification

Symbol		Bacteria		Water Quality Parameter
	Elevated Potential	> 10,000	and / or	3 above threshold
	Some Potential	50 – 10,000	and / or	2 above threshold
	Low Potential	< 50	and	1 or less above threshold
	Not Determined	No Data		

Discharge Data Sheets

Included in this report are individual data sheets for each discharge studied. These sheets include basic information about the outfall, results of water quality analysis, and some interpretation of the results. A sample data sheet is provided below with an explanation of each field. Additional raw data about field conditions, unusual observations, rainfall details, and various notes are all maintained in the water quality database. The information shown on these data sheets can provide insights to causes of stormwater impairments, and help focus resources to address stormwater related impairments.

Sample data sheet

Stormwater Report for: **AIH1028PI** **1**
in the Town of Acushnet **2**
 Main St near Shady Tree Lane

Water Body: **Acushnet River** Qualifier: **SFR, CSO** **4**
 Urbanized: **Yes** Sewered: **Yes** Class: **SB** Category: **5**
 MS4 Ranking: **High Priority Outfall**
 Status: **Some Concern Warranted - Continue Monitoring**

DW: Low to Moderate levels of Bact. (4 out of 6). DW Rank: Bact (1), Nitrates(1), Total 2. WW: Moderate Bact levels and elevated Amm, Nitrates, and Surf in WW. WW rank: Bact (1), Amm/Nitrates/Surf (1 ea), Total 4. Recommend: Continue to monitor both DW and WW. If DW, collect sample only if flow is evident, if stagnant (no flow), make a note on data sheet indicating no flow. Investigate for potential ID. Impair: None, discharge into trib of Acu R.

Rating
 Wet Weather: **4**
 Dry Weather: **2**

2 'No Sample Visits' **11**

12

9

3

10

11

12

Report Created on: 8/13/2018

FacilityID	SampleDate	SampleID	Sample Type	Water Classification	Last Rain	12 hr. Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Enterococcus	Fecal Coliform
AIH1028PI	6/2/2016	6AC02JUN03-A	pipe	Fresh Water	51 hrs	0 in	6.43	17.9	0.34	0.25	4.40	0.100	3200	5900
AIH1028PI	6/8/2016	6AC08JUN03-A	pipe	Fresh Water	60 hrs	0 in	6.32	19.9	0.32	0.25	4.40	0.000	82	9
AIH1028PI	6/14/2016	6AC14JUN03-A	pipe	Fresh Water	65 hrs	0 in	6.34	20.1	0.25	0.00	4.40	0.000	64	9
AIH1028PI	6/20/2016	6AC20JUN03-S	pipe	Fresh Water	56 hrs	0 in	6.22	21.2	0.24	0.25	4.40	0.100	9	55
AIH1028PI	6/21/2016	6AC21JUN06-A	pipe	Fresh Water	5 hrs	0.73 in	6.30	21.5	0.21	0.00	3.52	0.200	3400	490
AIH1028PI	6/21/2016	6AC21JUN06-A	pipe	Fresh Water	5 hrs	0.73 in	6.29	20.5	0.21	0.25	4.40	0.200	2800	550
AIH1028PI	7/5/2016	6AC05JUL05-A	pipe	Fresh Water	2 hrs	0.61 in	6.49	22.8	0.06		0.00	0.300	7000	7400
AIH1028PI	6/5/2017	7AC05JUN03-A	pipe	Fresh Water	2 hrs	0.41 in	6.30	16.2	0.31	0.25	4.40	0.100	700	
AIH1028PI	7/11/2017	7AC11JUL02-A-D	pipe	Fresh Water	0 hrs	0.13 in	7.40	23.4	0.00	1.00	4.40	1.000	7100	
AIH1028PI	7/11/2017	7AC11JUL02-A	pipe	Fresh Water	0 hrs	0.13 in	7.90	23.4	0.00	1.00	4.40	1.000	2800	

Key

1. Name of the discharge and associated catchment
2. Town and location of discharge
3. Map showing area near discharge along with Facility ID numbers for nearby infrastructure
4. MassDEP 2014 Integrated List of Waters (305(b)/303(d)); Name of receiving water body along with Class, Category, and Qualifier of water body
5. Indication if discharge is in a MS4 urbanized area and if the catchment area has sewer service
6. MS4 Ranking for discharge based on permit language; possible ranks include:
 - Not Determined
 - Problem Outfall
 - High Priority Outfall
 - Medium Priority Outfall
 - Low Priority Outfall
 - Excluded Outfall
7. BBNEP summary status; possible status suggestions include:
 - Evaluation Not Complete
 - Requires Additional Monitoring
 - No Apparent Issues – Allocate Resources Elsewhere

- Some Concern Warranted – Continue Monitoring
 - Some Concern Warranted – Consider Corrective Action
 - Requires Immediate Attention
8. BBNEP specific analysis and recommendation
 9. Photograph of discharge point (if available)
 10. Rating of discharge based on water quality data (objective determination)
 - Only freshwater (<6 ppt salinity) and flowing waters used for scoring
 - Maximum of observed sample values used for scoring
 - If parameter above threshold, 1 point each for ammonia, nitrate, and surfactants - These thresholds are > 0.50 ppm for Ammonia (NH₃), > 0.25 ppm for Surfactants, and > = 0.44 ppm for Nitrate (NO₃).
 - Bacteria could be either Fecal coliform or Enterococci
 - Bacteria scored between 0 for > 50 CFU, 1 for 50 to 10,000 CFU, and 2 for >10,000 CFU
 - Total scores range between 0 and 5
 - Separate scores for Dry Weather and Wet Weather (>0.02 inches in 4 hours previous to sample)
 11. Number of dry weather visits where no flow was observed and thus no samples taken
 12. Water quality data:
 - **FacilityID** – facility identifier for location of sample; may vary and be different than discharge ID
 - **SampleDate** - date the water sample was taken
 - **SampleID** – sample identification number used to track internally and at laboratory
 - **Sample Type** - type of sample collected: pipe, stream, surface, or sump
 - **Water Classification** – Fresh Water if <6 ppt salinity else classified as Brackish or Sea Water
 - **Last Rain** – number of hours since last rain and time of sample
 - **12 hr. Rain** – number of inches of rain in previous 12 hours
 - **pH** – sample pH
 - **Temp** – sample temperature in degrees centigrade
 - **Salinity** – sample salinity in parts per thousand
 - **Ammo** – sample ammonia concentration in parts per million
 - **Nitrate** – sample nitrate concentration in parts per million
 - **Surfact** – sample surfactants concentration in parts per million (detergent indicator)
 - **Enterococcus** – laboratory results for enterococcus bacteria colony forming units per 100 ml
 - **Fecal Coliform** - laboratory results for fecal coliform bacteria colony forming units per 100 ml

West Wareham Stormwater Report 8/14/2018



Stormwater Classification

- High Concern
- Medium Concern
- Low Concern
- Not Determined

Illicit Discharge Classification

- Elevated Potential
- Some Potential
- Not Determined



Wareham Center 1 Stormwater Report 8/14/2018

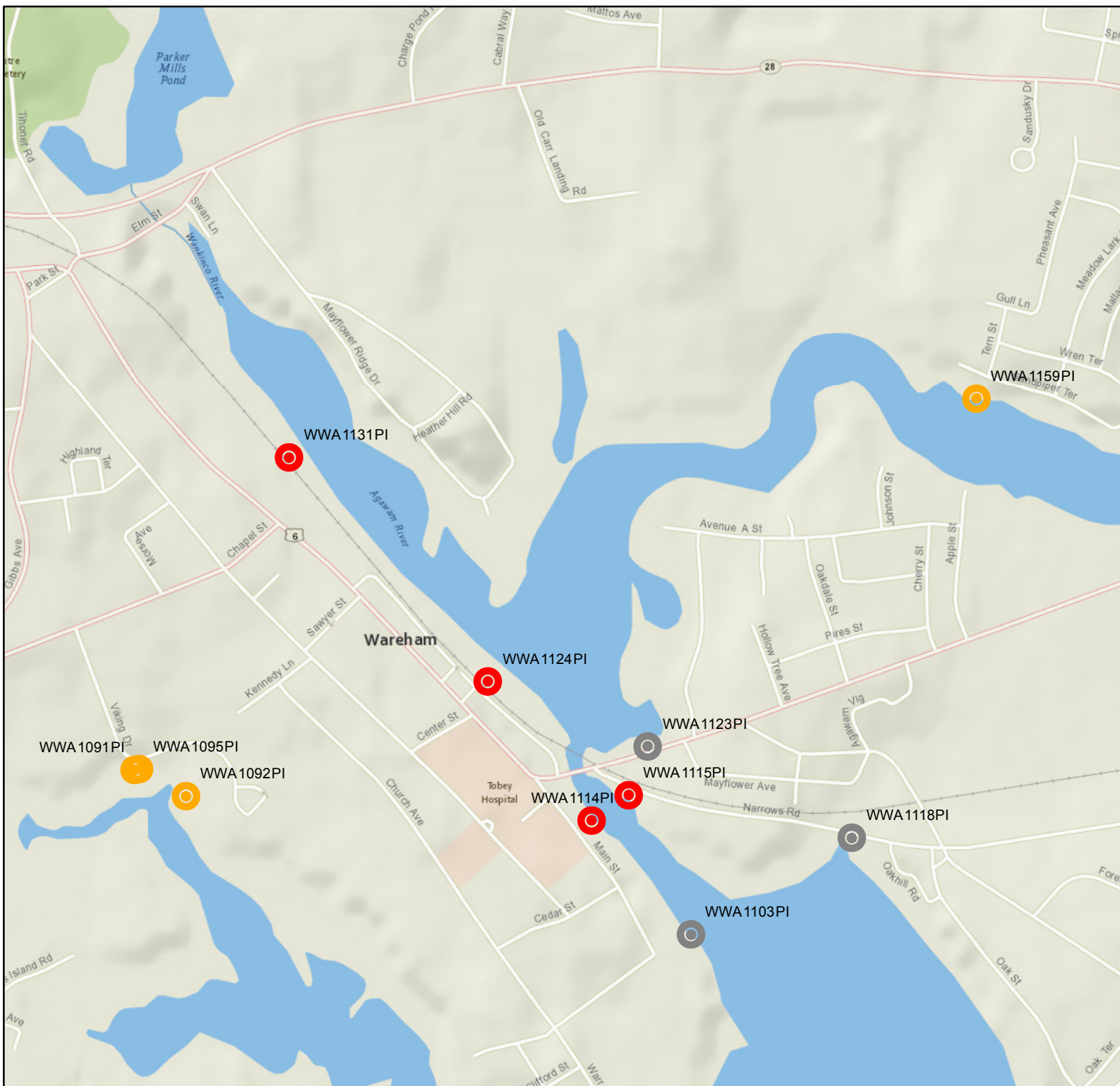


Stormwater Classification

- High Concern
- Medium Concern
- Low Concern
- Not Determined

Illicit Discharge Classification

- Elevated Potential
- Some Potential
- Not Determined






Wareham Center 2 Stormwater Report 8/14/2018

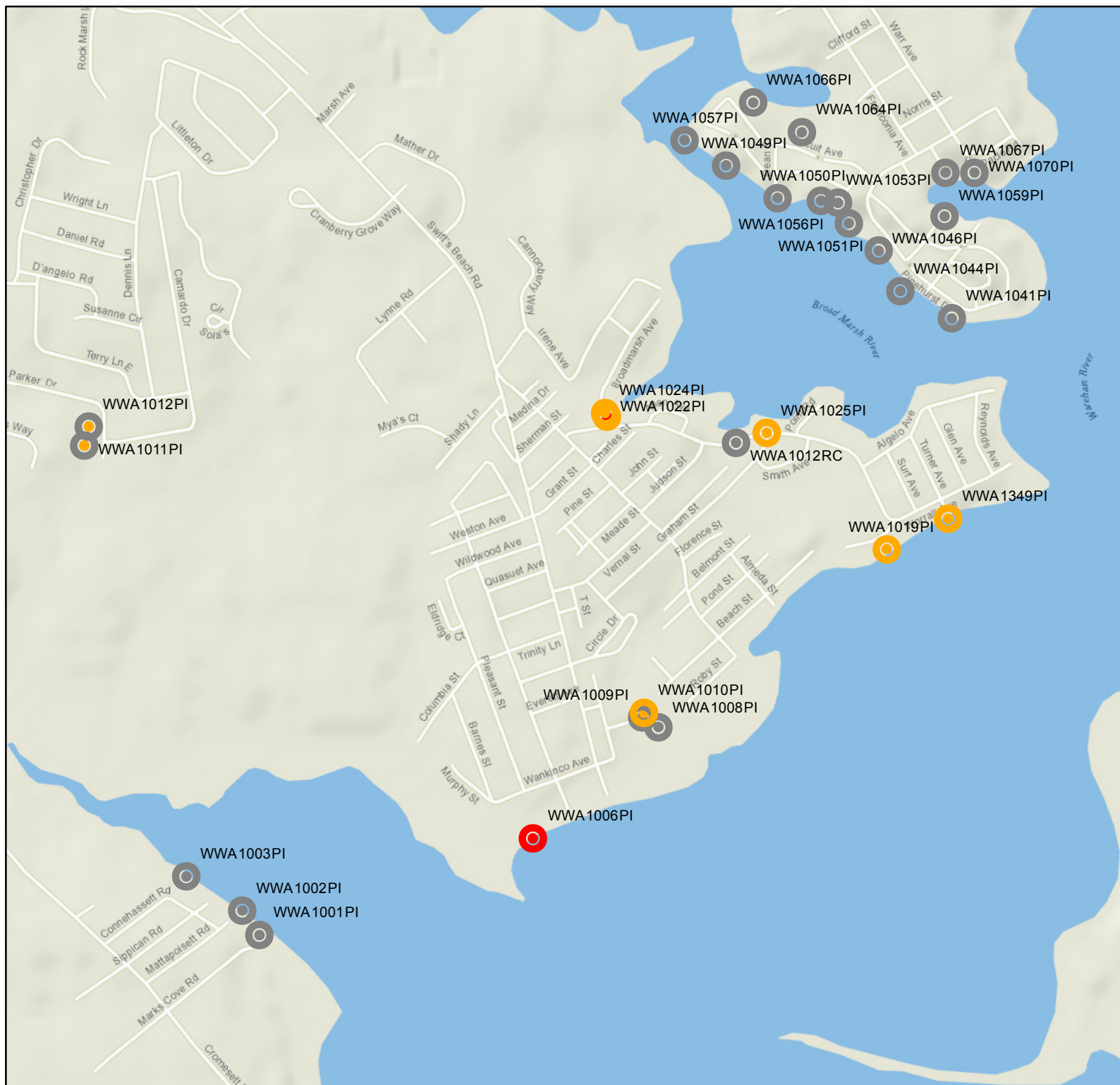


Stormwater Classification

-  High Concern
-  Medium Concern
-  Low Concern
-  Not Determined

Illicit Discharge Classification

-  Elevated Potential
-  Some Potential
-  Not Determined






Wareham Center 3 Stormwater Report 8/14/2018

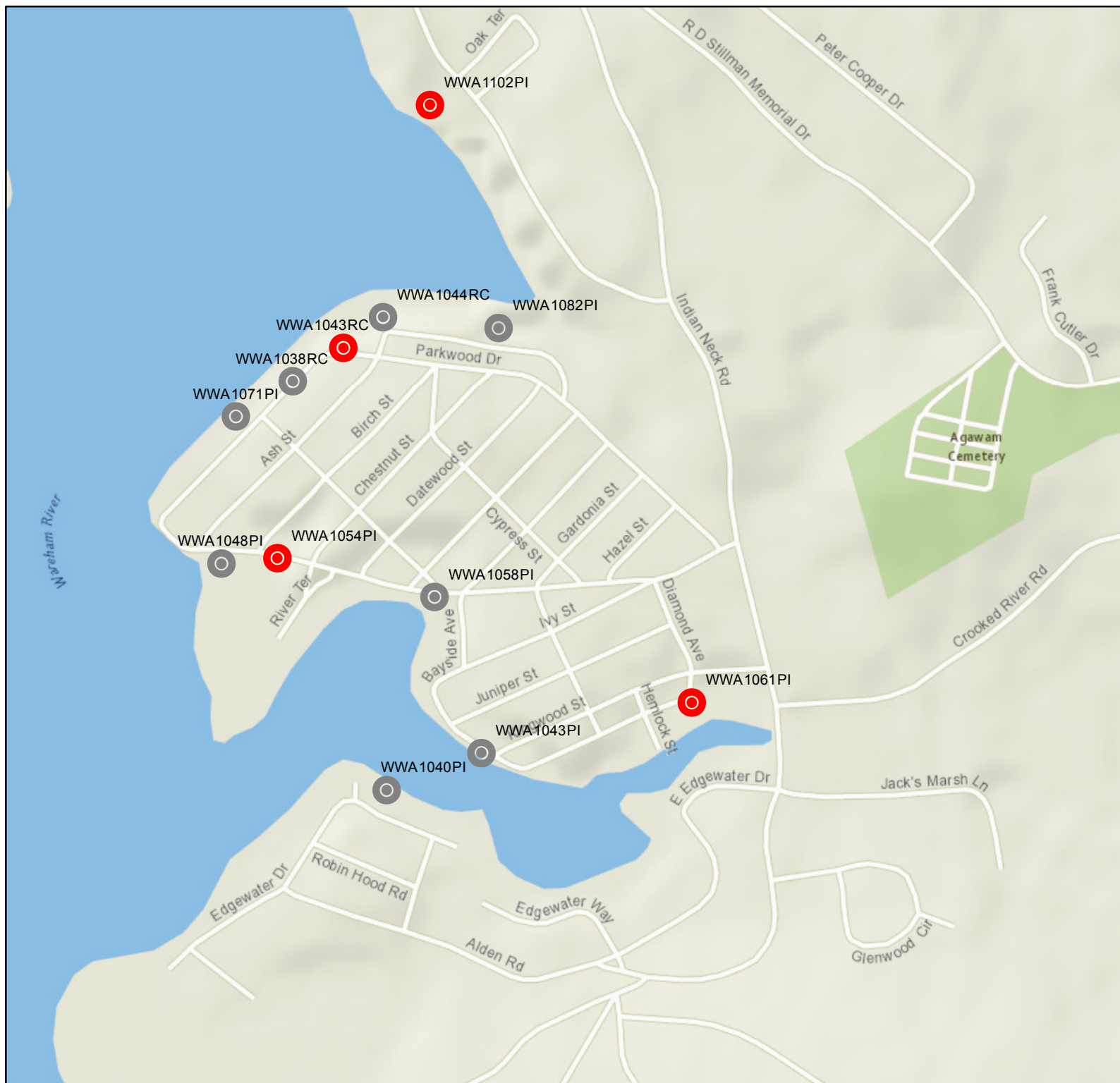


Stormwater Classification

-  High Concern
-  Medium Concern
-  Low Concern
-  Not Determined

Illicit Discharge Classification

-  Elevated Potential
-  Some Potential
-  Not Determined



East Wareham Stormwater Report 8/14/2018

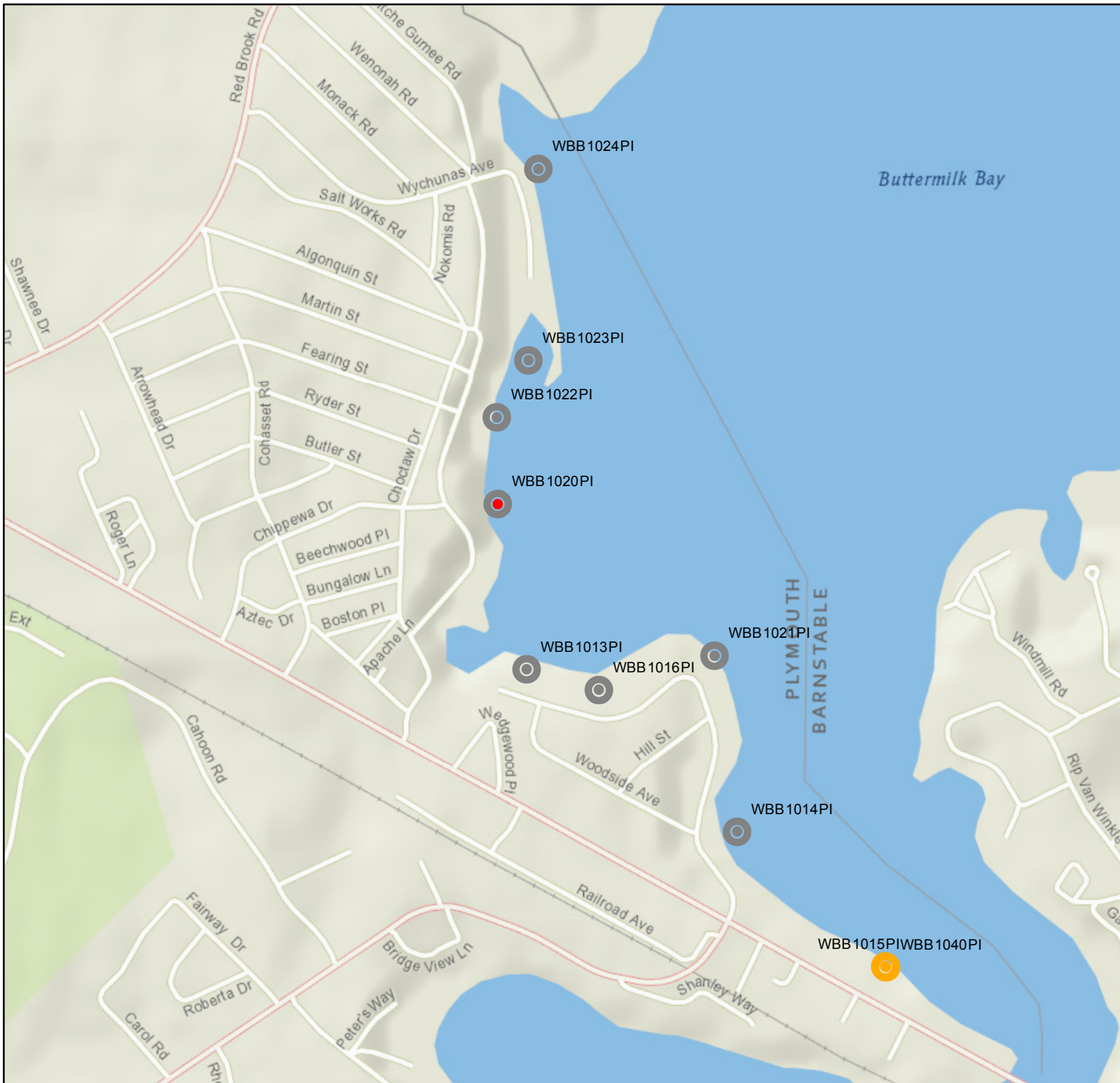


Stormwater Classification

- High Concern
- Medium Concern
- Low Concern
- Not Determined

Illicit Discharge Classification

- Elevated Potential
- Some Potential
- Not Determined



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Page 93 of 98	WBB1016PI	Jefferson Shore Rd
Page 94 of 98	WBB1013PI	Jefferson Shore Rd
Page 95 of 98	WBB1020PI	Chippewa Dr at Miller Cove
Page 96 of 98	WBB1022PI	Cleveland Way near Fearing St
Page 97 of 98	WBB1023PI	Town Landing at end of Algonquin St
Page 98 of 98	WBB1024PI	end of Wychunas Ave

Stormwater Report for: **WSR1020PI**
in the Town of **Wareham**

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Rose Point Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW:
Recommend: Monitor for WW, if
discharge is brackish or tidally
blocked, monitor road surface at both
WSR1056CB and WSR1061CB. Sip R
Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WSR1025PI
in the Town of Wareham

Rose Point Ave

Water Body: Sippican River Category: 4A

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: No flow, no issues. WW: Recommend: Monitor for WW, if discharge is brackish or tidally blocked, monitor road surface at both WSR1070CB and WSR1072CB. Sip R Impair: Bact.



Rating by Weather (0-5):

Wet : No Data

Dry : No Data or No Flow

4 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWE1004RC**
in the Town of **Wareham**

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end of Winter St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

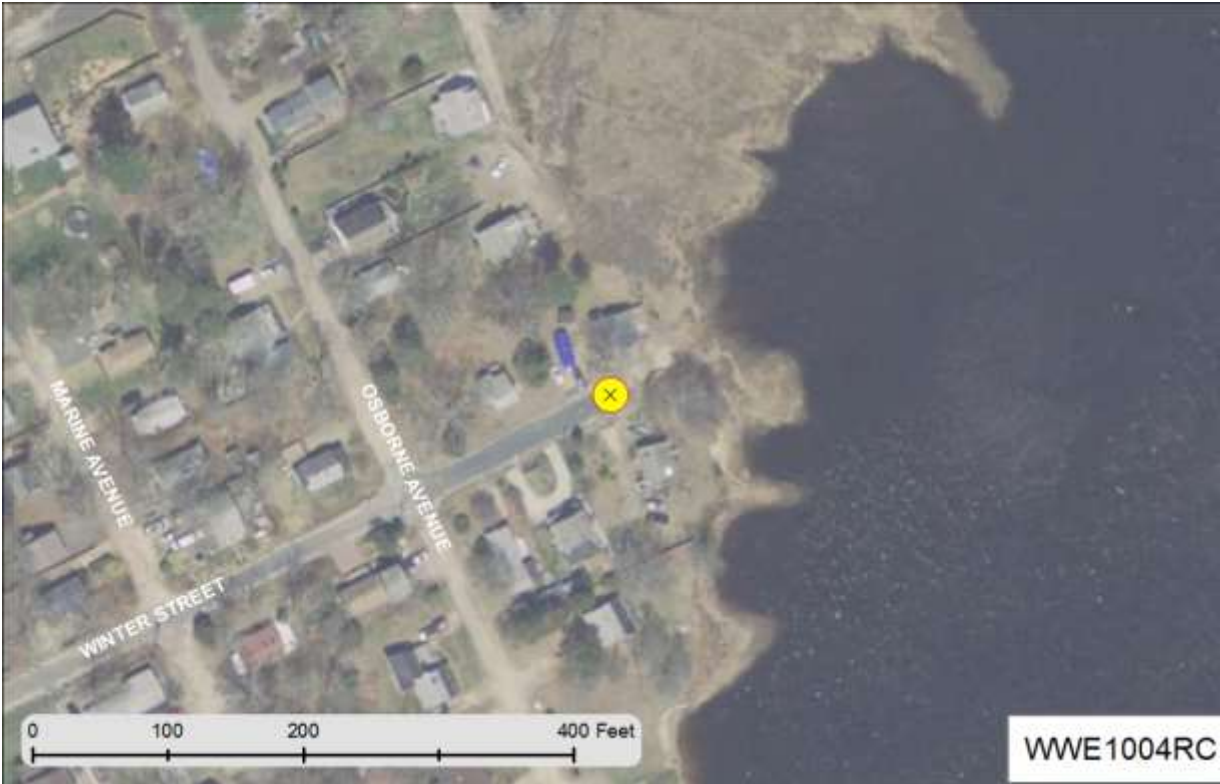
No WW samples collected.
Recommend: Collect WW samples for
evaluation. Wewe R Impair: Bact and
N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWE1153PI**
in the Town of **Wareham**

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end of Seventeenth Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW:
Recommend: Monitor for WW, if
discharge is brackish or tidally
blocked, monitor road surface at both
WWE1224CB and WWE1224CB.
Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWE1152PI**
in the Town of **Wareham**

Highland Shores Dr between 14th and 15th

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples collected. Recommend monitoring in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



'No Sample Visits' *Status and Recommendation based on the opinion of the BBNEP.* Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1190CB	10/24/2016	6WA24OCT08-S	sump	Fresh Water	4 hrs	0.08 in	6.43	16.3	0.01	0.25	0.44	=0.125	1800	

Stormwater Report for: **WWE1149PI**
in the Town of Wareham

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end of Tenth Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

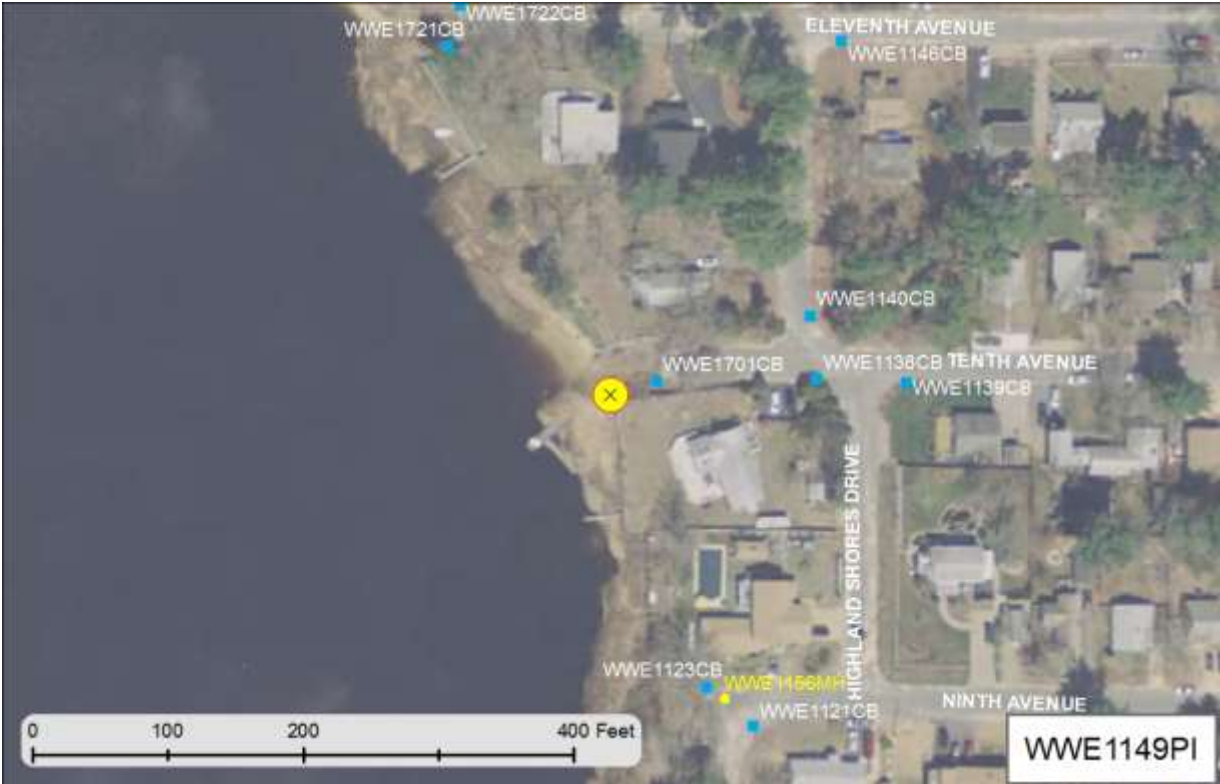
DW: No flow, no issues. WW: no samples collected. Recommend: Monitor in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWE1032PI**
in the Town of **Wareham**

end of Ninth Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples collected. Recommend: Monitor in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Stormwater Report for: **WWE1023PI**
in the Town of **Wareham**

Fifth Avenue

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank (1 sample): Bact (1), Nitrates (1), Total 2. Recommend: Continue monitoring in WW. Wewe R Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1155MH	10/25/2017	7WA25OCT02-A	pipe	Fresh Water	1 hrs	0.24 in	7.64	20.0	1.14	0.25	0.88	=0.25	6500	

Stormwater Report for: **WWE1150PI**
in the Town of **Wareham**

end of First Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: 1 sample collected. WW Rank (1 sample): Bact (2), Total 2.
Recommend: Continue monitoring in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1004MH	10/21/2016	6WA21OCT09-S	sump	Brackish or Sea Water	9 hrs	0.07 in	6.78	21.2	9.62	0.25	0.88	=2	100	
WWE1004MH	10/24/2016	6WA24OCT07-S	sump	Fresh Water	3 hrs	0.08 in	7.19	18.3	0.07	0.25	0.00	=0	1500	
WWE1004MH	10/26/2016	6WA26OCT03-S	sump	Fresh Water	40 hrs	0 in	6.96	16.6	0.14	0.25	0.00	=0.125	400	
WWE1004MH	10/25/2017	7WA25OCT04-A	pipe	Fresh Water	0 hrs	0.32 in	6.50	21.3	0.03	0.25	0.00	=0.25	22000	

end of Second Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: 1 sample collected. WW Rank (1 sample): Bact (2), Total 2.
Recommend: Continue monitoring in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1005MH	10/25/2017	7WA25OCT03-A	pipe	Fresh Water	0 hrs	0.29 in	7.20	21.9	0.02	0.50	0.88	=0.25	26000	

Marion Rd across from Kool Kone

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank Bact (1), Amm/Nitrates/Surf (1 ea), Total 4. Recommend: Investigate for ID. Construct a management practice for bacteria treatment. Wewe R Impair: Bact and N.

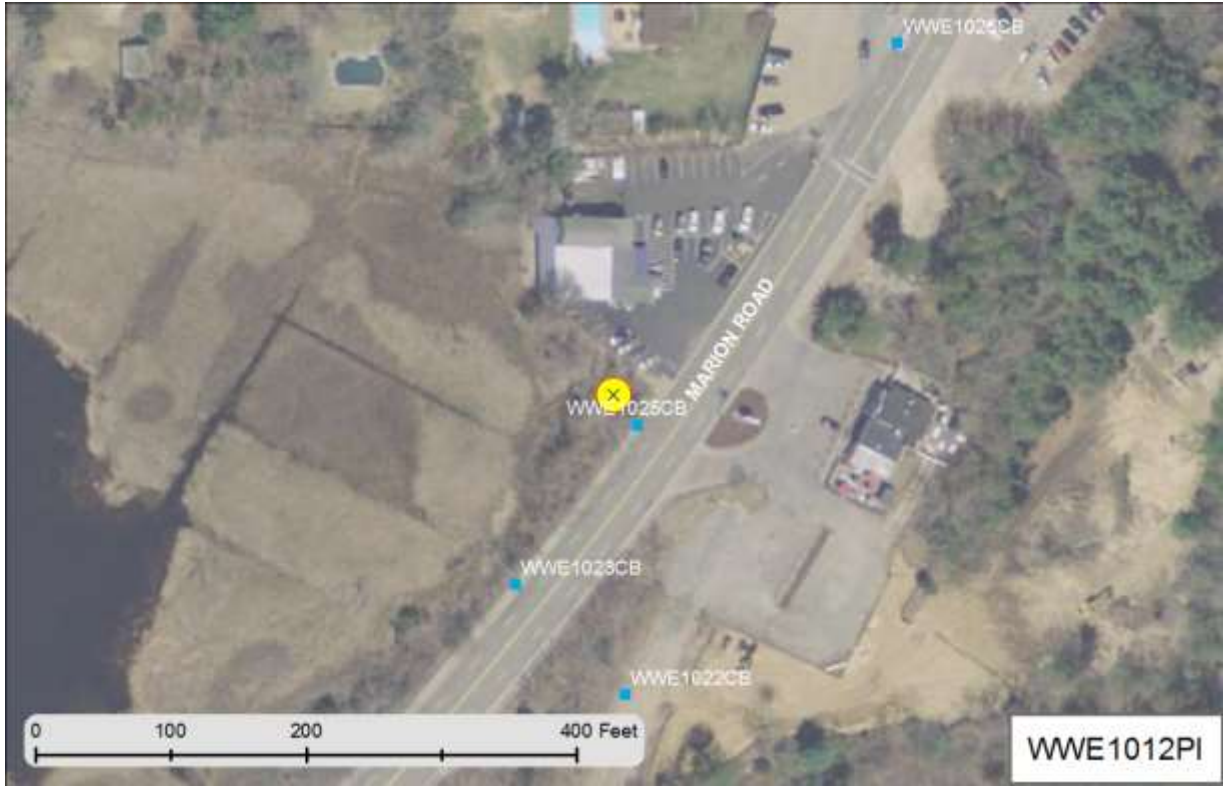


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1012PI	6/6/2017	7WA06JUN01-A	pipe	Fresh Water	0 hrs	0.95 in	7.85	16.4	0.56	0.25	0.88	=0.125	4500	
WWE1012PI	7/11/2017	7WA11JUL01-A-D	pipe	Fresh Water	0 hrs	0.11 in	7.27	21.8	0.71	1.00	4.40	=1	1700	
WWE1012PI	7/11/2017	7WA11JUL01-A	pipe	Fresh Water	0 hrs	0.11 in	7.29	21.9	0.72	1.00	4.40	=1	2200	
WWE1012PI	9/22/2017	7WA22SEP01-A	pipe	Fresh Water	0 hrs	0.91 in	7.56	19.1	0.04	0.00	0.44	=0.12	3300	
WWE1012PI	10/25/2017	7WM25OCT04-A	pipe	Fresh Water	0 hrs	0.44 in	6.59	20.6	0.01	0.00	0.00	=0.25	6800	

Marion Rd near Hathaway Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank Bact (1), Amm/Nitrates/Surf (1 ea), Total 4. Recommend: Investigate for ID. Construct a management practice for bacteria treatment. Wewe R Impair: Bact and N.

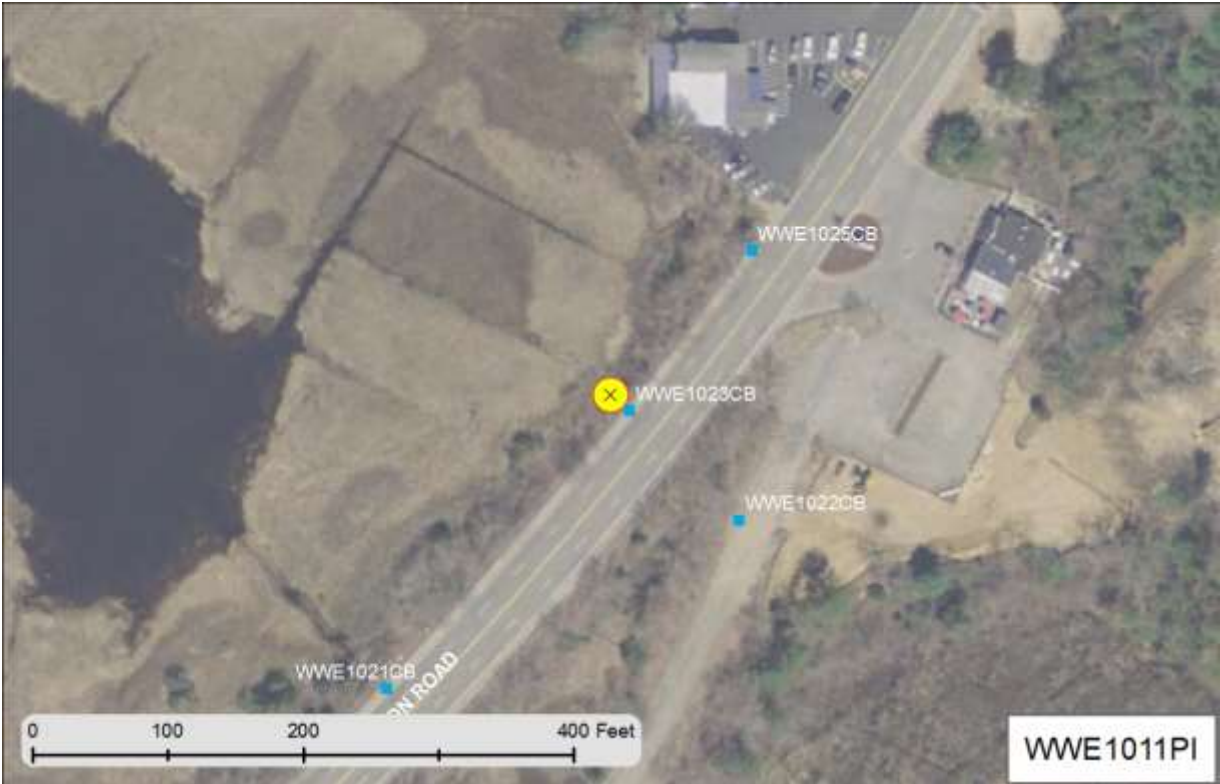


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1011PI	6/6/2017	7WA06JUN02-A	pipe	Fresh Water	1 hrs	0.95 in	7.86	15.2	0.07	1.00	0.88	=0.125	6100	
WWE1011PI	7/11/2017	7WA11JUL02-A	pipe	Fresh Water	0 hrs	0.12 in	6.86	22.2	0.07	1.00	1.76	=0.75	1700	
WWE1011PI	9/22/2017	7WA22SEP02-A-D	pipe	Fresh Water	0 hrs	0.91 in	6.58	18.1	0.02	0.50	0.00	=0.25	4800	
WWE1011PI	9/22/2017	7WA22SEP02-A	pipe	Fresh Water	0 hrs	0.91 in	6.63	18.0	0.03	0.05	0.00	=0.25	5200	
WWE1011PI	10/25/2017	7WM25OCT05-A	pipe	Fresh Water	0 hrs	0.62 in	6.93	21.0	0.01	0.00	0.00	=0.25	1100	

Marion Rd across from gym

Water Body: Category:

Urbanized: Sewered:

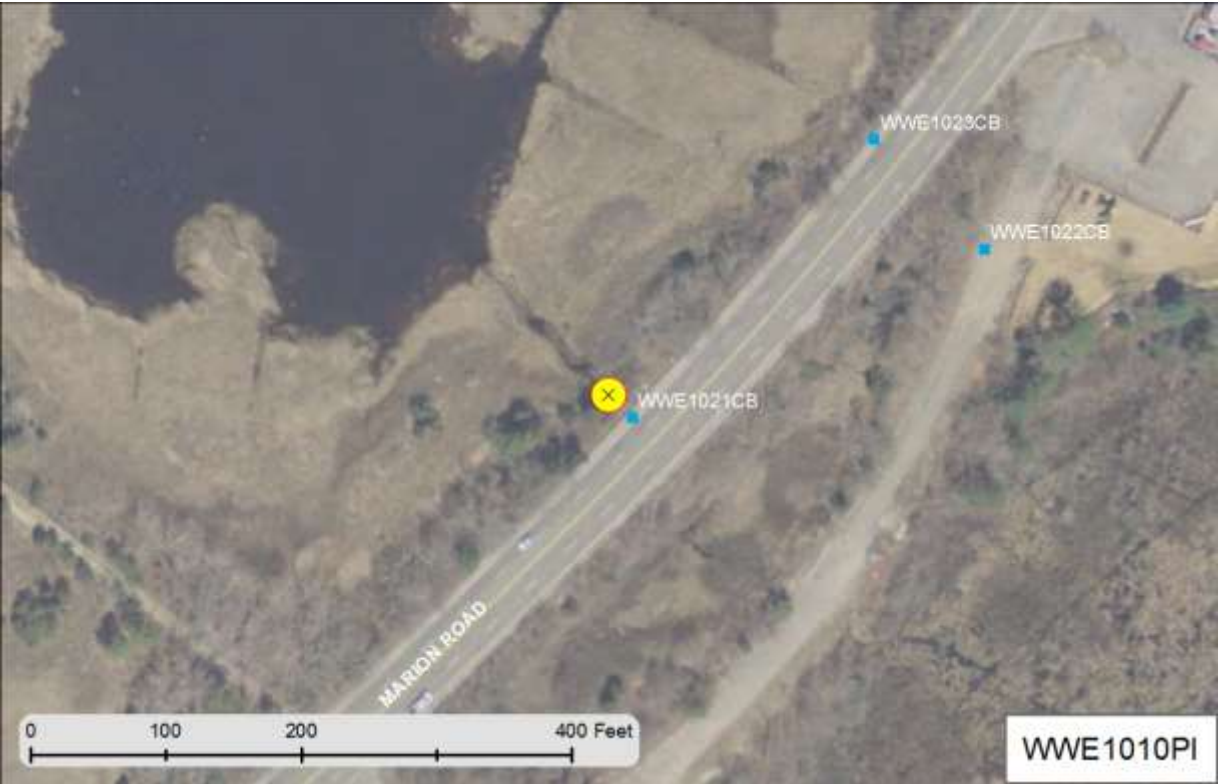
MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank Bact (1), Amm/Nitrates/Surf (1 ea), Total 4. Recommend: Construct a management practice for bacteria treatment. Wewe R Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1010PI	6/6/2017	7WA06JUN03-A	pipe	Fresh Water	0 hrs	0.98 in	7.30	15.1	0.05	0.50	0.44	=0.125	3200	
WWE1010PI	7/11/2017	7WA11JUL03-A	pipe	Fresh Water	0 hrs	0.12 in	6.96	22.1	0.08	2.00	4.40	=0.5	2100	
WWE1010PI	9/22/2017	7WA22SEP03-A	pipe	Fresh Water	0 hrs	0.91 in	6.35	17.4	0.02	0.50	0.44	=0.25	4900	
WWE1010PI	10/25/2017	7WM25OCT06-A	pipe	Fresh Water	0 hrs	0.62 in	6.84	21.1	0.01	0.00	0.00	=0.25	1500	

Stormwater Report for: **WWE1009PI**
in the Town of **Wareham**

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Marion Rd just east of Briarwood Dr

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: (1 sample) Moderate levels of Bact. WW Rank: Bact (1), , Total 1. Recommend: Continue WW monitoring. Wewe R Impair: Bact and N.

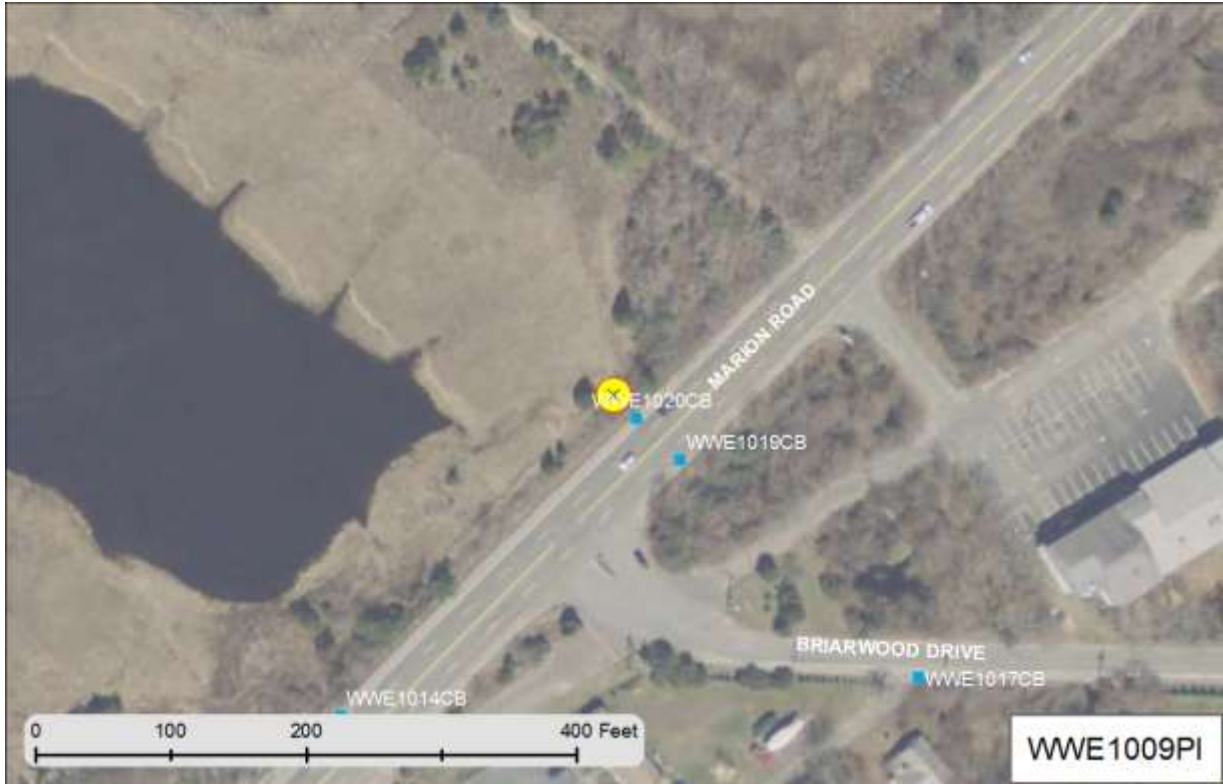


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1009PI	9/22/2017	7WA22SEP04-A	pipe	Fresh Water	0 hrs	0.95 in	6.31	18.4	0.02	0.25	0.00	=0.25	4000	

Stormwater Report for: **WWE1006PI**
in the Town of **Wareham**

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Marion Rd just west of Briarwood Dr

Water Body: Category:

Urbanized: Sewered:

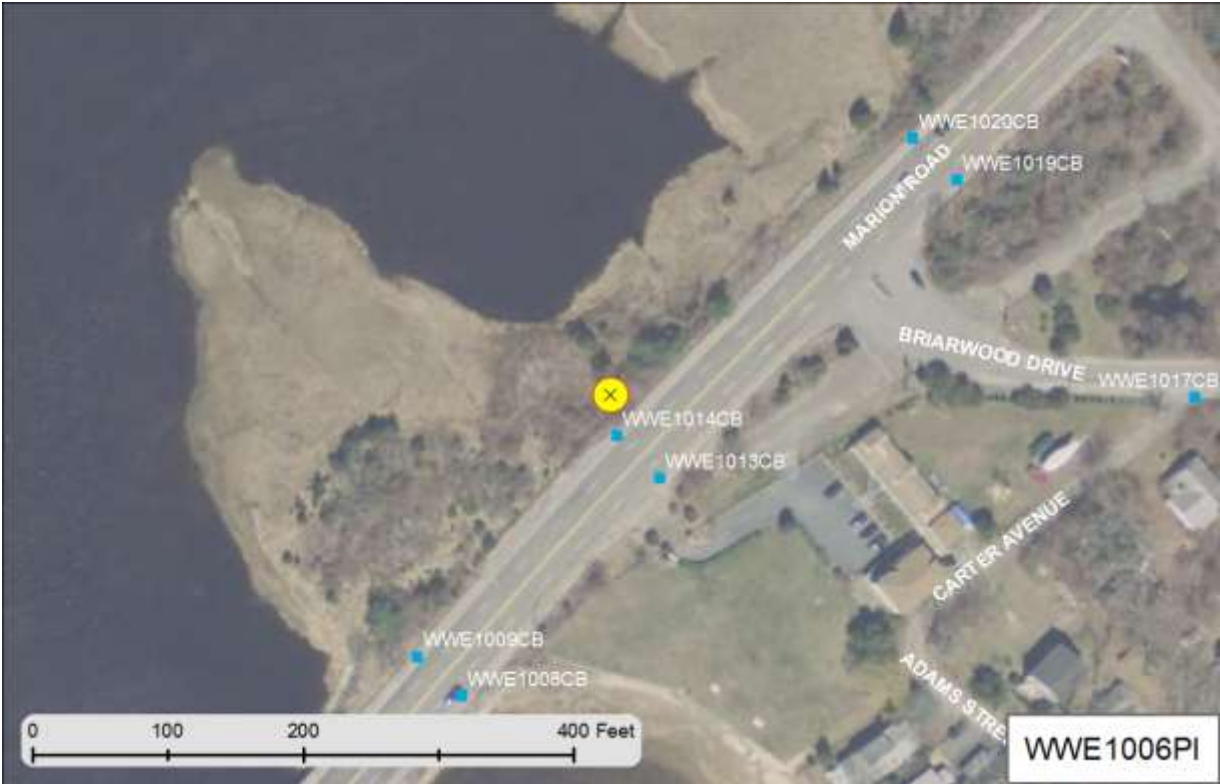
MS4 Ranking:

Status:

DW: No flow, no issues. WW: (2 samples) Low to Moderate levels of Bact. WW Rank: Bact (1), Nitrates (1), Total 1. Recommend: Continue WW monitoring. Wewe R Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1006PI	9/22/2017	7WA22SEP05-A	pipe	Fresh Water	0 hrs	0.95 in	6.37	18.0	0.02	0.50	0.44	=0.25	2500	
WWE1006PI	10/25/2017	7WA25OCT07-A	pipe	Fresh Water	0 hrs	0.62 in	6.50	20.8	0.01	0.25	0.00	=0	100	

Marion Rd near Briarwood Motel

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples collected. Recommend: Monitor in WW. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Stormwater Report for: **WWE1004PI**
in the Town of **Wareham**

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Marion Rd edge of Weweantic River

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank Bact (1), Nitrates (1), Total 2.
Recommend: Construct a management practice for bacteria treatment. Wewe R Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1004PI	6/6/2017	7WA06JUN04-A-D	pipe	Fresh Water	0 hrs	0.94 in	7.00	14.8	0.04	0.25	0.88	=0.125	2800	
WWE1004PI	6/6/2017	7WA06JUN04-A	pipe	Fresh Water	0 hrs	0.94 in	6.97	14.8	0.04	0.25	0.88	=0.125	2100	
WWE1004PI	9/22/2017	7WA22SEP06-A	pipe	Fresh Water	0 hrs	1.02 in	6.53	18.7	0.02	0.25	0.44	=0.25	2300	
WWE1004PI	10/25/2017	7WA25OCT06-A	pipe	Fresh Water	0 hrs	0.44 in	6.83	21.9	0.01	0.25	0.00	=0.25	2400	

end of Briarwood Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

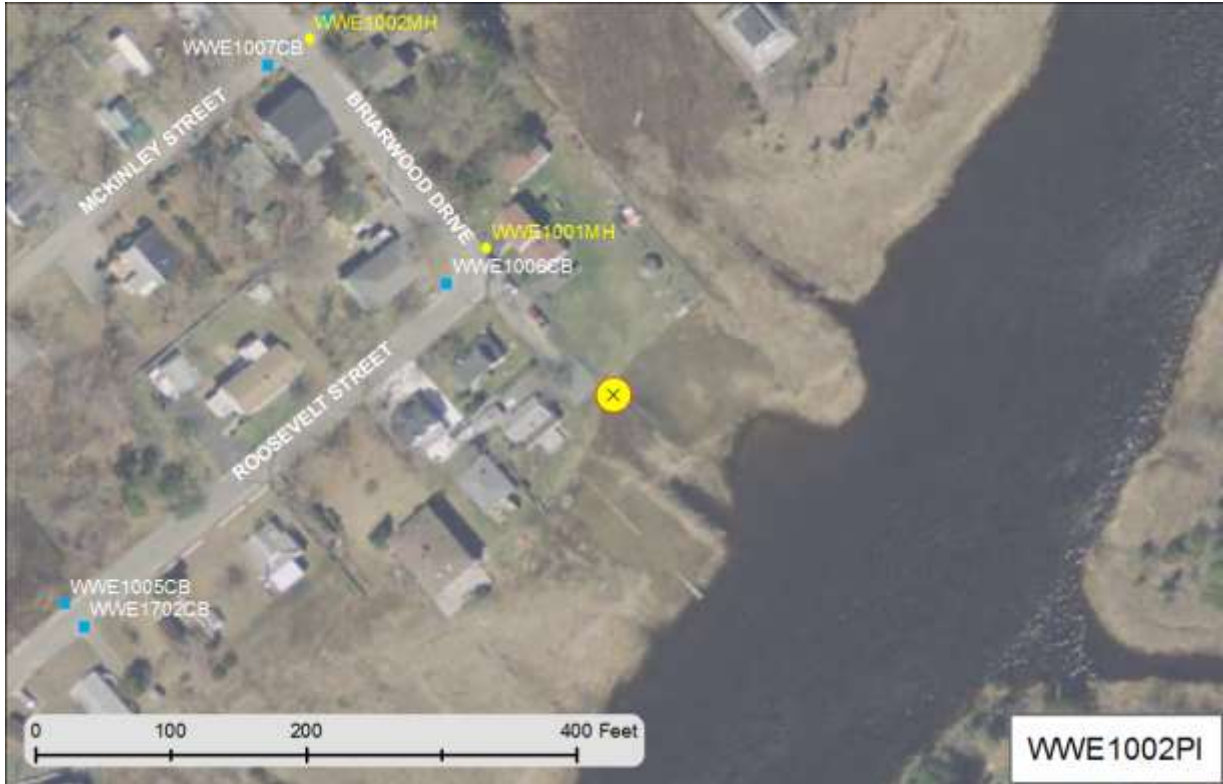
WW Rank (1 sample): Bact (2), Total 2.
Recommend: Continue monitoring both DW and WW. During DW, monitor only if there is evidence of flow. If stagnant (not flowing), make a note on the data sheet. Continue WW sampling at WWE1001MH as the bacteria counts are significantly higher than DW. Investigate for potential ID. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1001MH	10/21/2016	6WA21OCT08-S	sump	Fresh Water	275 hrs	0 in	6.68	22.3	0.74	3.00	0.44	=0.125	900	
WWE1001MH	10/24/2016	6WA24OCT05-S	sump	Fresh Water	3 hrs	0.04 in	6.75	18.2	0.05	0.25	0.00	=0.125	46000	
WWE1001MH	10/26/2016	6WA26OCT01-S	sump	Fresh Water	42 hrs	0 in	6.92	16.3	0.07	0.50	0.00	=0.125	2000	

Roosevelt St opposite house 20

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

No fresh water samples. Recommend:
continue with WW samples, collect
samples from the road surface at
WWE1702CB and WWE1005CB.
Wewe R Impair: Bact and N.

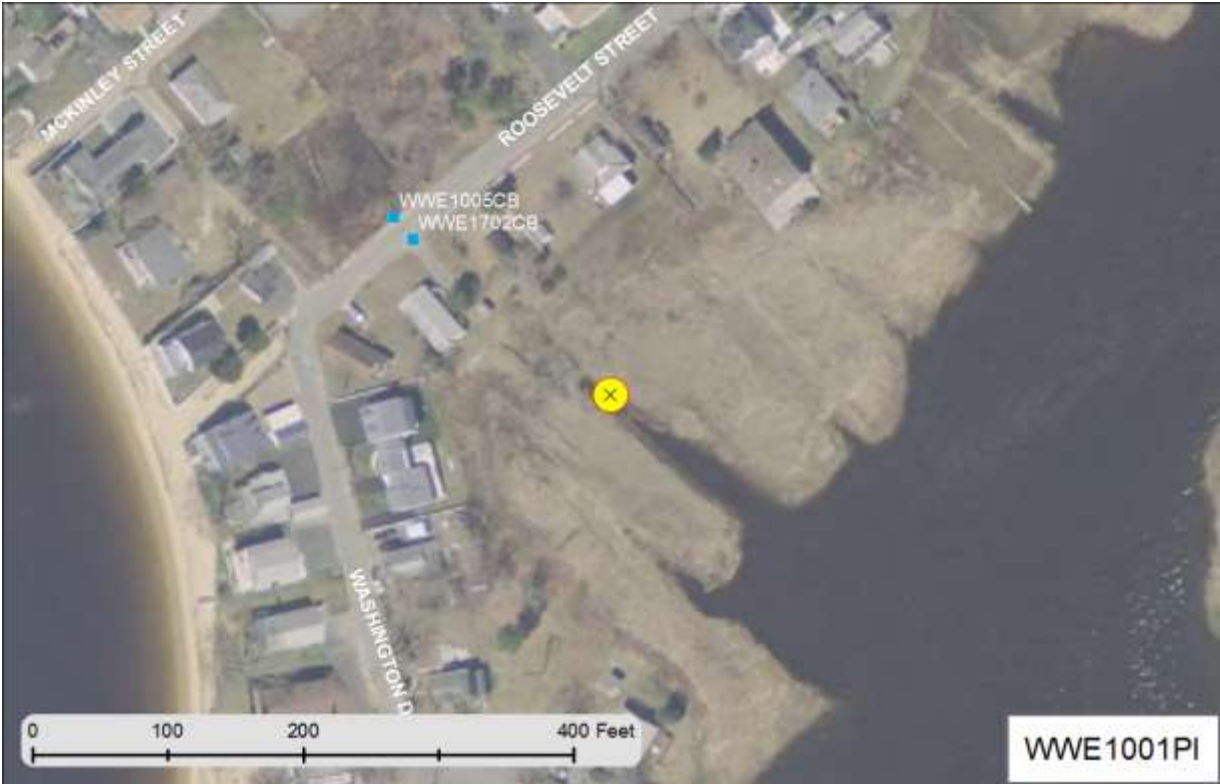
Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1702CB	10/21/2016	6WA21OCT07-S	sump	Brackish or Sea Water	275 hrs	0 in	6.48	21.9	9.54	0.25	0.44	>3	1000	
WWE1702CB	10/24/2016	6WA24OCT06-S	sump	Brackish or Sea Water	3 hrs	0.04 in	7.31	17.6	7.46	0.50	0.44	=1.5	400	
WWE1005CB	10/26/2016	6WA26OCT02-S-D	sump	Brackish or Sea Water	42 hrs	0 in	6.60	14.6	8.11	0.50	0.00	=1.5	100	
WWE1005CB	10/26/2016	6WA26OCT02-S	sump	Brackish or Sea Water	42 hrs	0 in	6.49	14.9	8.08	0.50	0.00	=1.5	200	

Stormwater Report for: **WWE1029PI**
in the Town of **Wareham**

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Terry Lane

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

Recommend: Continue monitoring both DW and WW. During DW, monitor only if there is evidence of flow. If stagnant (not flowing), make a note on the data sheet. Wewe R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWE1105CB	10/12/2016	6WA12OCT01-S	sump	Fresh Water	55 hrs	0 in	6.88	14.3	0.28	0.25	0.00	=0.1	3800	
WWE1105CB	10/24/2016	6WA24OCT04-S	sump	Fresh Water	3 hrs	0.04 in	6.27	17.0	0.01	0.25	0.00	=0.125	1800	

Stormwater Report for: WWA1011PI in the Town of Wareham

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Parker Dr opposite Camardo Dr

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW Rank (2 samples in sump): Bact (1), Amm/Nitrates (1 ea), Total 3.
Recommend: Continue monitoring for DW and WW (no samples taken). For DW take a sample only if the sump does not appear to be stagnant. Make note on data sheet if sump was stagnant or flowing. DW and WW: Start at first inline upstream structure (confirm drainage connectivity onsite), check salinity first if 5.5 or less continue monitoring, if > 5.5 monitor the next upstream inline structure). Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1007MH	10/17/2016	6WA17OCT06-S	sump	Fresh Water	178 hrs	0 in	6.25	21.0	0.06	0.35	4.40	=0.125	100	
WWA1011PI	10/17/2016	6WA17OCT07-S	stream	Fresh Water	178 hrs	0 in	6.20	21.3	0.06	0.40	4.40	=0.125	100	
WWA1007MH	10/21/2016	6WA21OCT04-S	sump	Fresh Water	273 hrs	0 in	6.23	22.1	0.07	1.00	4.40	=0.125	100	

Stormwater Report for: WWA1012PI

in the Town of Wareham

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Parker Dr opposite Camardo Dr

Water Body: Cedar Island Creek

Category: 4A

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: no flow, no issues. Recommend: Continue to monitor for WW (no samples taken). Warh R Impair: Bact and N.



Rating by Weather (0-5):

Wet : No Data

Dry : 3

2 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1092CB	10/17/2016	6WA17OCT05-S	sump	Fresh Water	177 hrs	0 in	7.18	20.5	0.03	0.25	0.00	=0.125	100	
WWA1092CB	10/21/2016	6WA21OCT03-S	sump	Fresh Water	273 hrs	0 in	6.79	21.0	0.03	1.00	0.88	=0.125	100	
WWA1012PI	10/21/2016	6WA21OCT05-S	stream	Fresh Water	274 hrs	0 in	6.02	21.2	0.06	1.00	4.40	=0	100	

Springhill Rd

Water Body: Category:

Urbanized: Sewered:

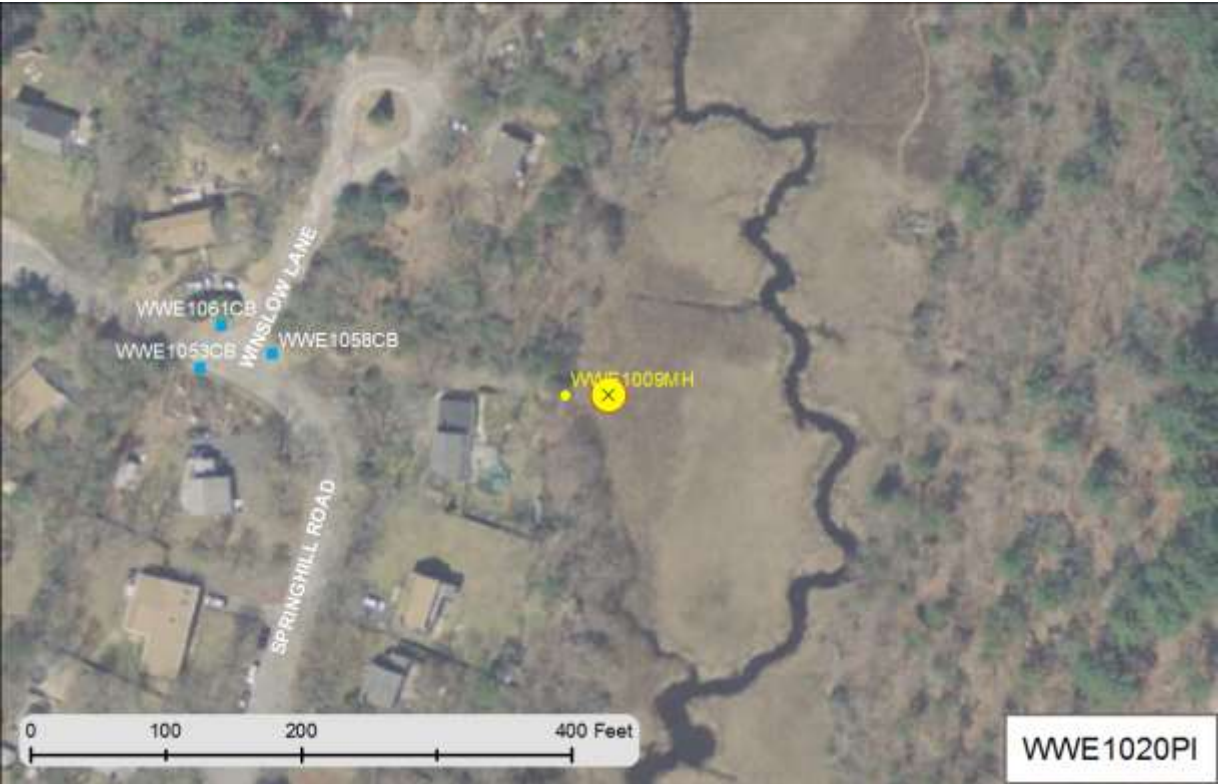
MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples collected. Recommend: Collect samples in WW. Bvd Crk Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



Stormwater Report for: **WWE1018PI**
in the Town of **Wareham**

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Fairfield Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

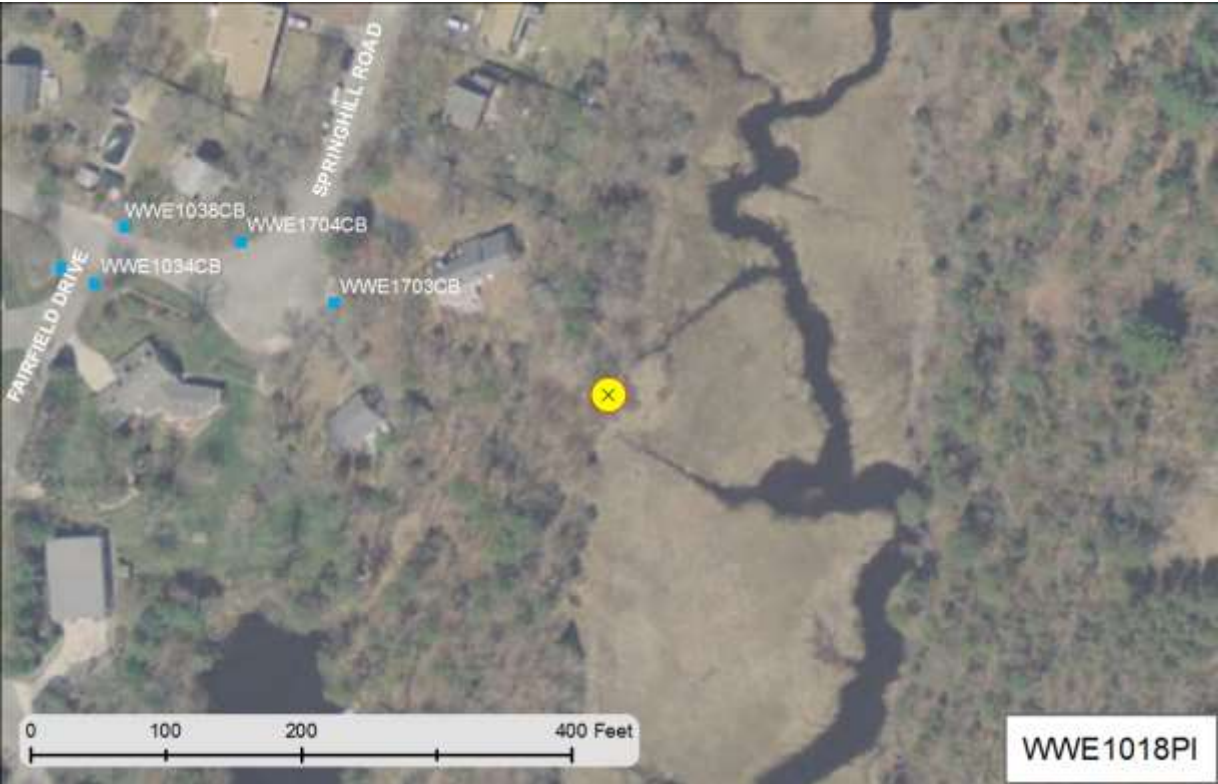
DW: No flow, no issues. WW: no samples collected. Recommend: Collect samples in WW. Bvd Crk Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1003PI
in the Town of Wareham

end of Connehasset Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: 2 samples in CB sump, may be residual in the sump or an indication of an issue. DW rank: Bact (1), Surf (1)., No WW samples. Recommend continue DW and WW monitoring. For DW monitor only if there is evidence of flow (not stagnant). Indicate on data sheet if the sump is flowing or stagnant. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1023CB	10/12/2016	6WA12OCT02-S	sump	Fresh Water	56 hrs	0 in	6.87	15.9	0.01	0.25	0.00	=0.1	4600	
WWA1023CB	10/17/2016	6WA17OCT08-S	sump	Fresh Water	178 hrs	0 in	6.42	21.3	0.02	0.25	0.00	=1	300	

Stormwater Report for: **WWA1002PI**
in the Town of **Wareham**

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end of Mattapoissett Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Recommend monitoring during WW, if discharge is brackish greater than 5.5), move monitoring site to the first inline upstream CB. Need to check CB pipes to determine upstream connectivity. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1001PI
in the Town of Wareham

end of Marks Cove Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

Only 1 sample for DW and none for WW. DW rank: Bact (1), Total 1. Recommend continue DW and WW monitoring at low tide. Check salinity first, if less than 5.5 monitor, if greater than 5.5 monitor WWA2546CB. Warh R Impair: Bact and N.

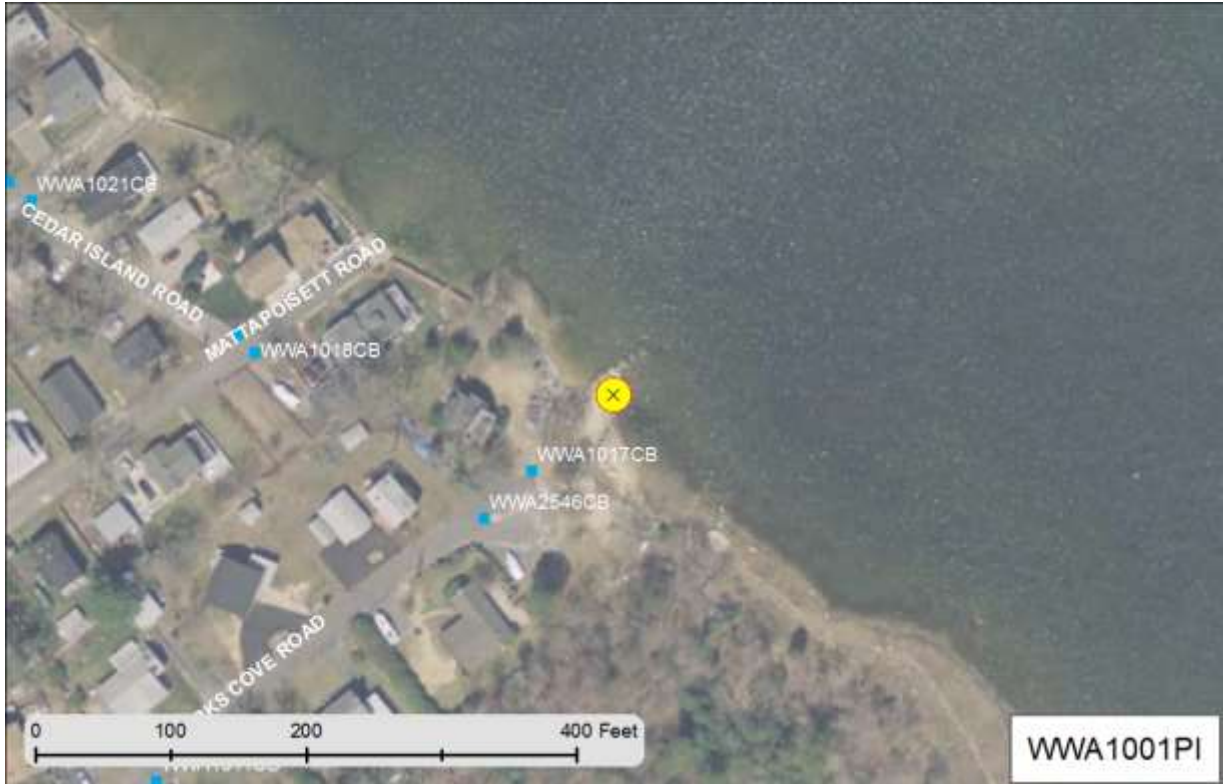


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1017CB	10/12/2016	6WA12OCT03-S	sump	Fresh Water	56 hrs	0 in	6.75	15.7	0.02	0.20	0.00	=0.1	400	
WWA1017CB	10/17/2016	6WA17OCT09-S	sump	Brackish or Sea Water	179 hrs	0 in	6.93	20.1	10.00	0.25	0.00	=3	100	
WWA1017CB	10/21/2016	6WA21OCT06-S	sump	Brackish or Sea Water	274 hrs	0 in	6.67	21.3	6.45	0.25	1.32	=2	700000	

Stormwater Report for: WWA1006PI

in the Town of Wareham

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Wankinco Ave

Water Body: Wareham River Category: 5

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: No flow, no issues. WW rank (1 sample): Bact (2), Total 2.
Recommend: Continue monitoring during WW. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet : 2

Dry : No Data or No Flow

3 'No Sample Visits'



3 'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1003MH	10/25/2017	7WA25OCT05-A	pipe	Fresh Water	0 hrs	0.59 in	6.60	20.8	0.04	0.25	0.00	=0.25	59000	

Stormwater Report for: WWA1008PI
in the Town of Wareham

end of Roby St into ditch

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. WW: monitor the road surface at both WWA1070CB and WWA1071CB. Warh R Impair: Bact and N.

Rating by Weather (0-5):

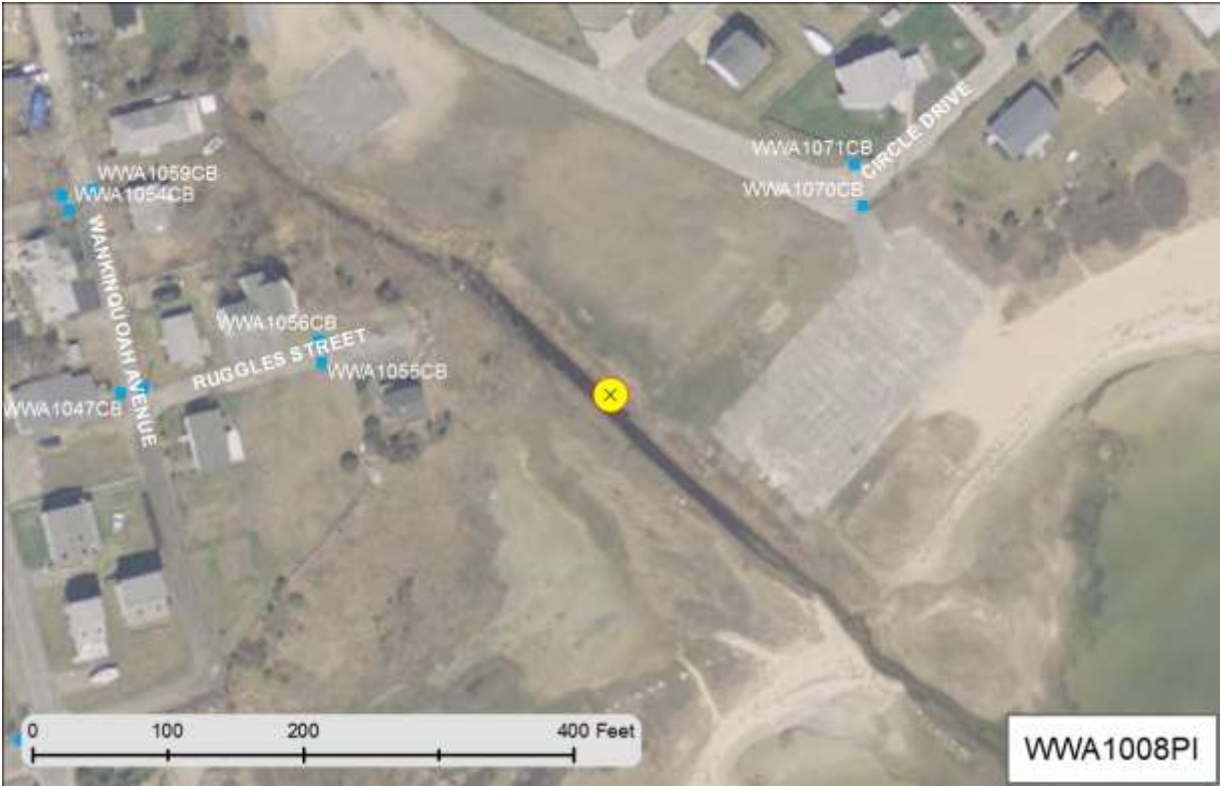
Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1070CB	10/17/2016	6WA17OCT02-S-D	sump	Brackish or Sea Water	176 hrs	0 in	7.02	18.9	9.11	0.25	1.76	=1.5	2200	
WWA1070CB	10/17/2016	6WA17OCT02-S	sump	Brackish or Sea Water	176 hrs	0 in	7.07	18.7	9.17	0.25	2.64	=1.5	2100	

Stormwater Report for: WWA1009PI
in the Town of Wareham

Oak St at pump house

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. Recommend continued monitoring in WW, start at first CB upstream (confirm WWA1056CB), check salinity first if 5.5 or less continue monitoring, If > 5.5 monitor the next upstream inline CB (WWA1047CB or WWA1049CB). Confirm drainage connectivity onsite. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1056CB	10/17/2016	6WA17OCT04-S	sump	Brackish or Sea Water	177 hrs	0 in	7.17	19.4	10.00	0.25	0.00	=2	200	

Stormwater Report for: WWA1010PI
in the Town of Wareham

Circle Dr opposite of Beach St into ditch

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW (2 samples): 1 sample. Bact moderate. DW rank: Bact (1) , Total 1. WW rank (1 sample): Bact (1), Nitrates (1), Total 2. Recommend: Continue monitoring for DW and WW. For DW take a sample only if the sump does not appear to be stagnant. Make note on data sheet if sump was stagnant or flowing. DW and WW: start at first CB upstream (confirm drainage onsite (WWA1080CB?), check salinity first, if 5.5 or less continue monitoring, if > 5.5 monitor the next upstream inline CB (WWA1073CB/WWA1076CB?).

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1080CB	9/27/2016	6WA27SEP06-A	pipe	Fresh Water	0 hrs	0.31 in	6.74	22.2	0.02	0.25	2.64	=0.25	6600	
WWA1080CB	10/12/2016	6WA12OCT04-S	sump	Fresh Water	57 hrs	0 in	6.79	17.8	0.06	0.25		=0.125	700	
WWA1080CB	10/17/2016	6WA17OCT03-S	sump	Brackish or Sea Water	177 hrs	0 in	7.28	19.9	10.00	0.35	0.00	=2	200	

Broadmarsh Ave near Pilgrim Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

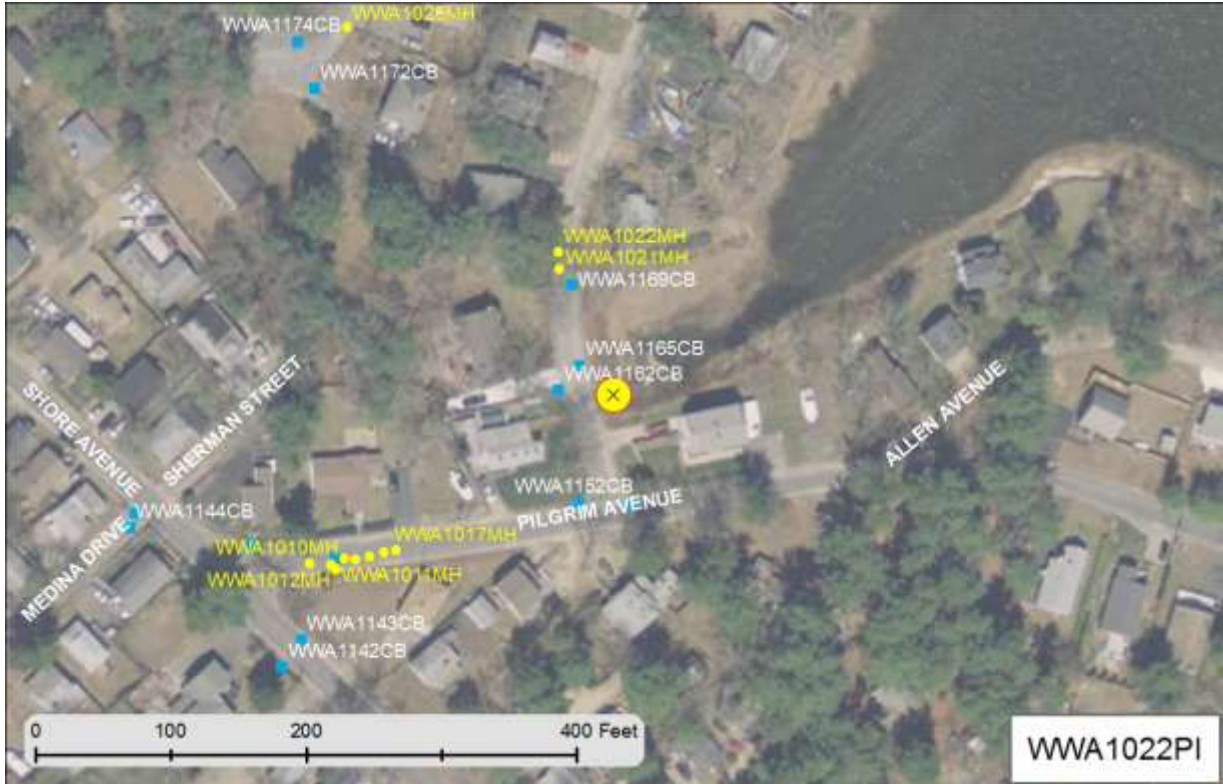
DW: No flow, no issues. WW: (1 sample) Rank: Bact (1), Amm/N/Surf (1 ea). Total 4. This drainage system has an underground infiltration practice. Recommend inspecting infiltration sytem in the rain to establish functionality. Clean out as needed. Continue monitoring. Inspect drainage system for potential ID. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1154CB	9/27/2016	6WA27SEP02-A	surface	Fresh Water	0 hrs	0.12 in	6.63	21.7	0.03	3.00	2.64	=0.75	1800	
WWA1154CB	10/21/2016	6WA21OCT02-S	sump	Fresh Water	273 hrs	0 in	7.00	19.5	0.11	3.50	0.00	=0.125	3200	

Stormwater Report for: WWA1024PI

in the Town of Wareham

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Broadmarsh Ave just north of Pilgrim Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: (1 sample) Rank: Bact (1), N/Surf (1 ea). Total 4. This drainage system has an underground infiltration practice. Recommend inspecting infiltration sytem in the rain to establish functionality. Clean out as needed. Continue monitoring. Inspect drainage system for potential ID. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1024PI	9/27/2016	6WA27SEP01-A	pipe	Fresh Water	0 hrs	0.12 in	6.92	21.7	0.15	0.25	1.76	=0.05	5200	

Stormwater Report for: WWA1012RC

in the Town of Wareham

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Pilgrim Ave between Judson St and Graham St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

Recommend; monitor for DW and WW. Warh R Impair: Bact and N

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Pilgrim Ave and Graham St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: (1 sample) Rank: Bact (1), N/Surf (1 ea). Total 4. Recommend: Continue WW monitoring. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1025PI	9/27/2016	6WA27SEP03-A	pipe	Fresh Water	0 hrs	0.31 in	6.90	22.2	0.64	0.50	0.88	=0.5	500	

west end of Worrall Ave into creek

Water Body: Wareham River

Category: 5

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

Recommend: Continue monitoring DW and WW. For both DW and WW, monitor at low tide. For DW take a sample only if the sump does not appear to be stagnant. Make note on data sheet if sump was stagnant or flowing. DW and WW: check salinity first if 5.5 or less continue monitoring. If > 5.5 for WW, monitor flow from street surface at CB. For DW (salinity> 5.5, do not monitor, but document salinity on data sheet). Warh R Impair: Bact and N

Rating by Weather (0-5):

Wet : 3

Dry : No Data or No Flow

0 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1157CB	9/27/2016	6WA27SEP04-A	surface	Fresh Water	0 hrs	0.31 in	6.74	21.6	0.02	0.25	1.76	=0.5	6200	
WWA1157CB	10/5/2016	6WA05OCT07-S	sump	Brackish or Sea Water	95 hrs	0 in	6.82	19.4	10.00	0.25	1.76	=1.5	200	
WWA1157CB	10/12/2016	6WA12OCT05-S-D	sump	Brackish or Sea Water	59 hrs	0 in	7.11	19.2	9.50	0.25	1.32	=2	100	
WWA1157CB	10/12/2016	6WA12OCT05-S	sump	Brackish or Sea Water	59 hrs	0 in	7.05	20.0	9.45	0.25	1.32	=2	100	
WWA1157CB	10/17/2016	6WA17OCT01-S	sump	Brackish or Sea Water	176 hrs	0 in	7.49	17.4	9.11	0.25	2.64	=1.5	100	

Stormwater Report for: WWA1349PI
in the Town of Wareham

Worrall Ave opposite Turner Ave

Water Body: Wareham River Category: 5

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

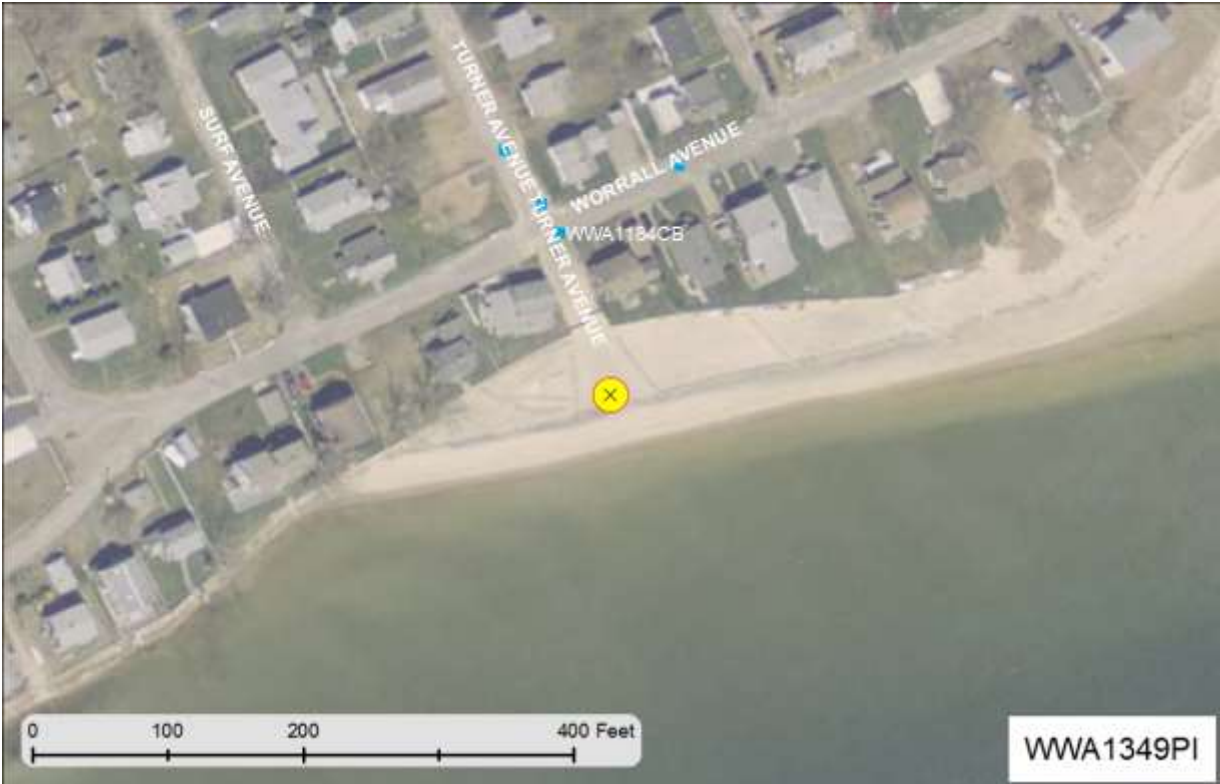
DW: No flow, no issues. WW rank (1 sample): Bact (1), Total 1.
Recommend: Continue WW monitoring. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet : 2

Dry : No Data or No Flow

2 'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1184CB	9/27/2016	6WA27SEP05-A	surface	Fresh Water	0 hrs	0.31 in	6.73	21.8	0.02	0.25	0.88	=0.25	2700	
WWA1184CB	10/24/2016	6WA24OCT03-S	sump	Fresh Water	2 hrs	0.04 in	7.19	14.6	0.01	0.25	0.88	=0.625	3100	

Stormwater Report for: **WWA1059PI**
in the Town of **Wareham**

end of Cottage St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: only 1 sample collected, no samples for WW. Recommend: Continue to monitor DW and WW.
BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

1

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1041PI**
in the Town of **Wareham**

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Pinehurst Dr just west of Beach Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

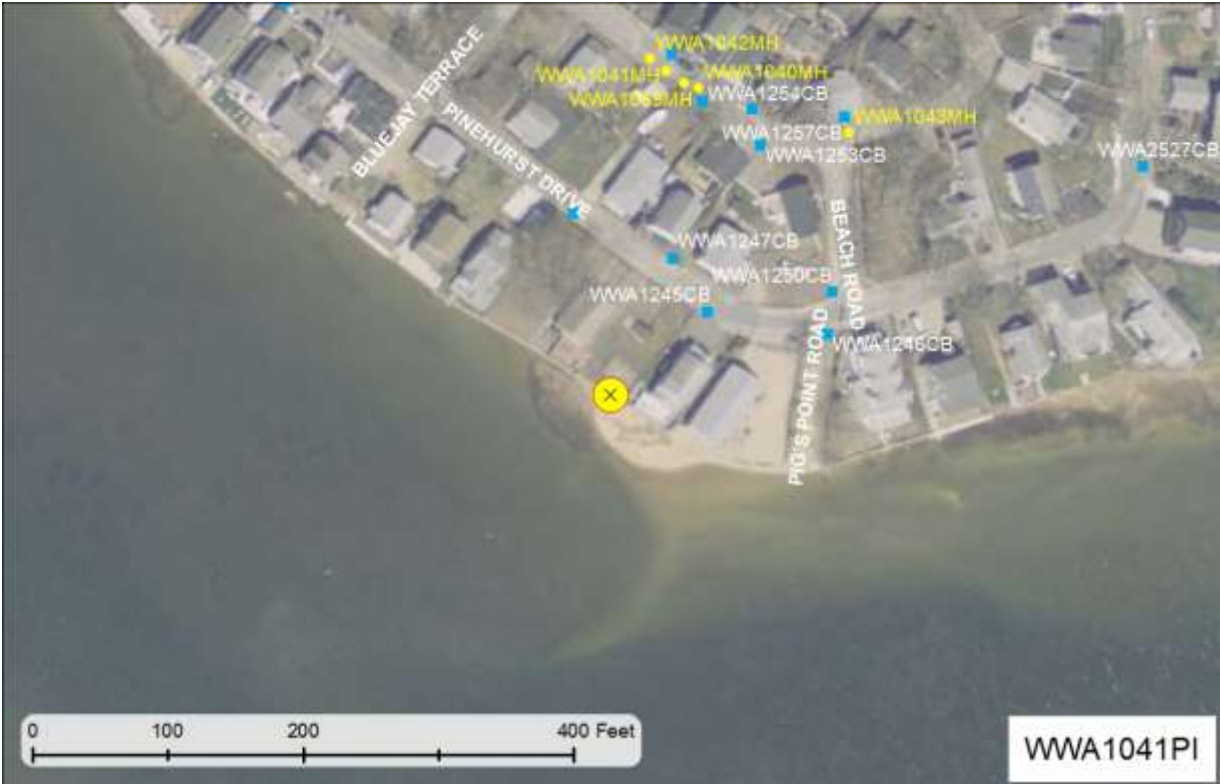
Status:

DW: only 1 sample collected, no samples for WW. Recommend: Monitor for DW and WW. BMR Impair: Bact.

Rating by Weather (0-5):
Wet :
Dry :

1

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1046PI**
in the Town of **Wareham**

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Pinehurst Dr west of Cottage St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: only 1 sample collected, no samples for WW. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out as needed. Continue DW and WW monitoring. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1064PI**
in the Town of **Wareham**

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Circuit Ave northeast of Dean St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. WW: no samples collected. Recommend: Monitor WW. BMR: Bact.

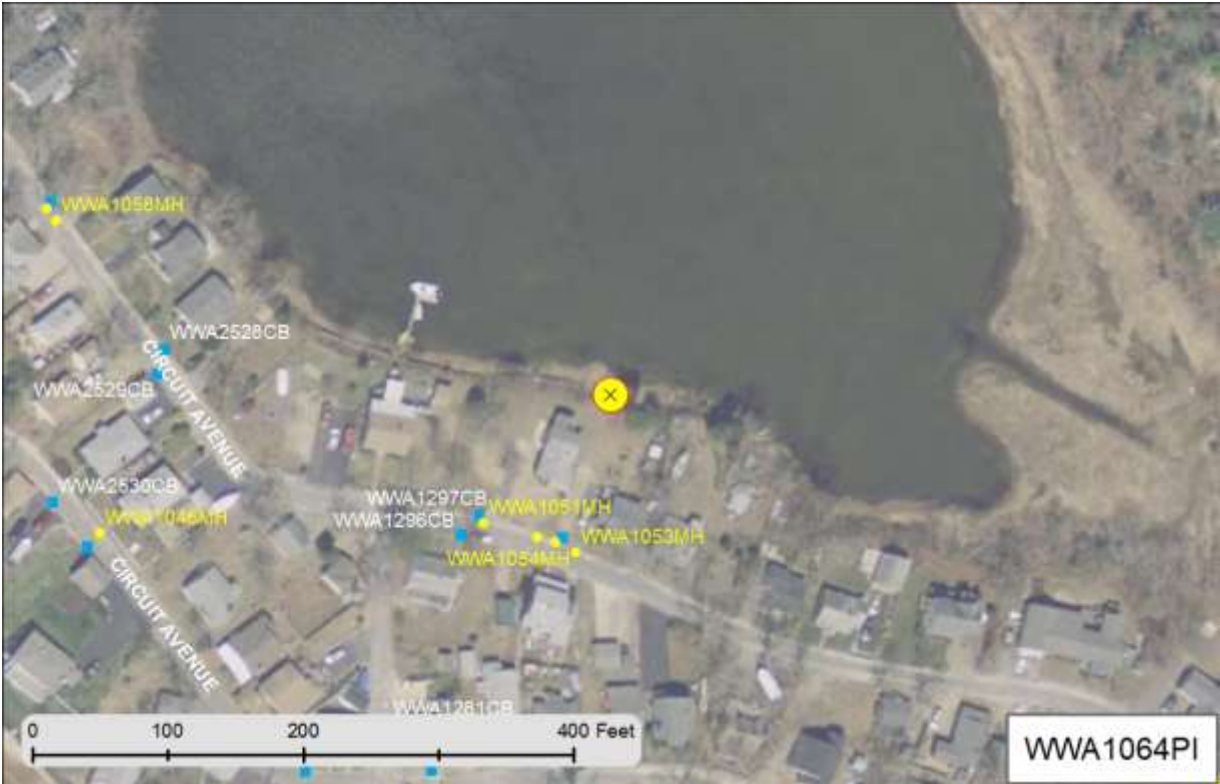


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1057PI**
in the Town of **Wareham**

Circuit Ave west of Dean St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

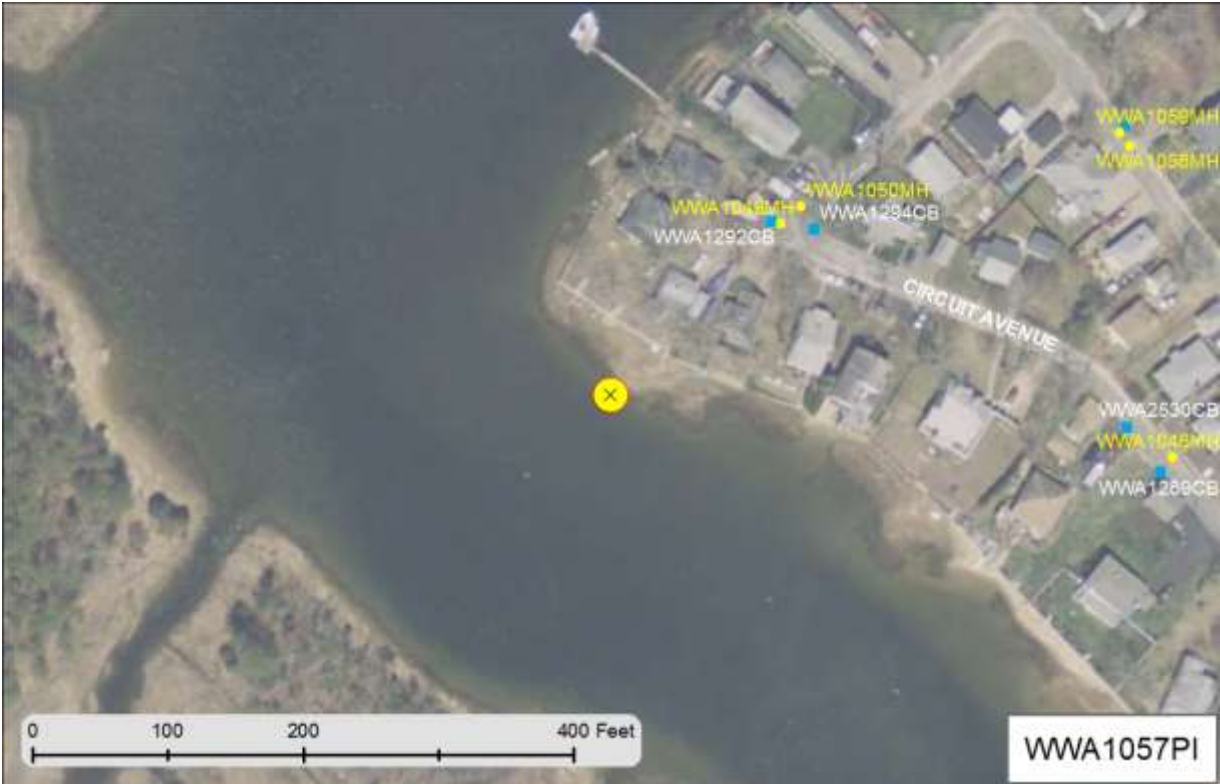
DW: no flow, no issues. WW: no samples collected. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out if necessary and collect DW and WW samples for evalutation. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1049PI**
in the Town of **Wareham**

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Circuit Ave near Dean St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

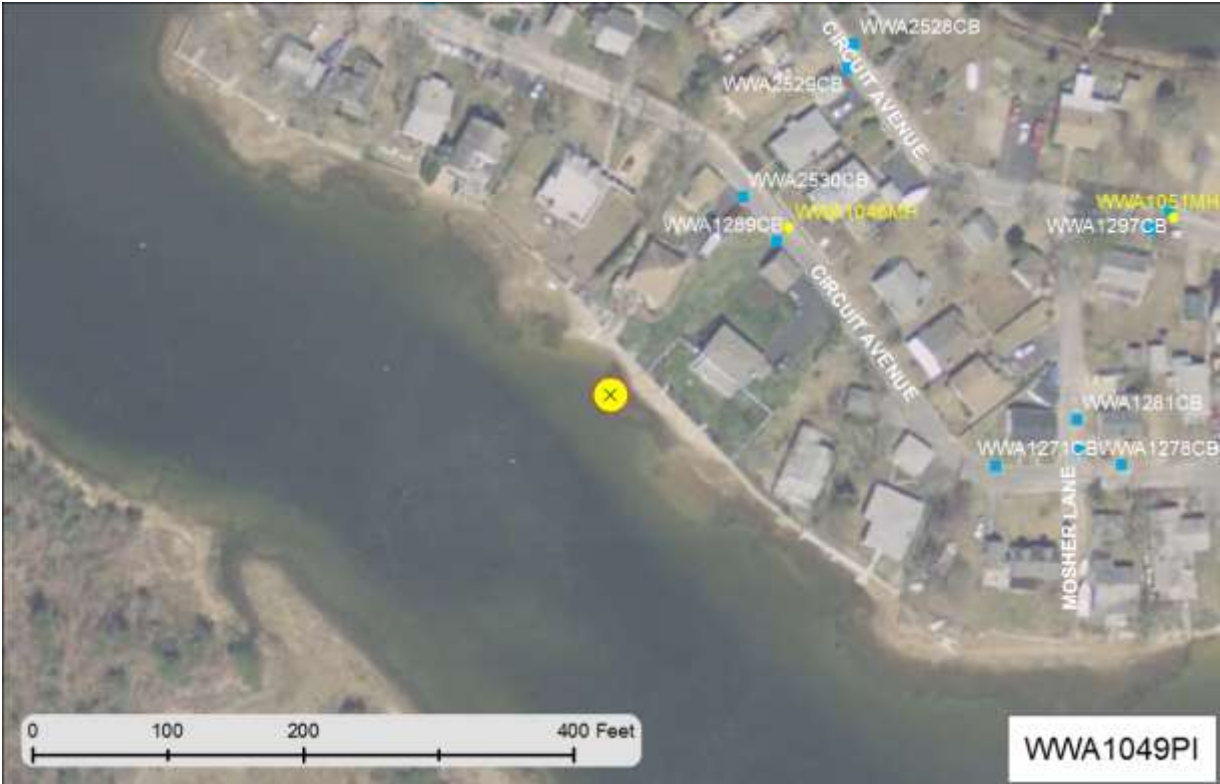
DW: no flow, no issues. WW: no samples collected. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out as needed. Monitor WW. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1056PI**
in the Town of **Wareham**

Circuit Ave southeast of Dean St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: only 1 sample collected, no samples for WW. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out if necessary and collect DW and WW samples for evalutation. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1066PI**
in the Town of **Wareham**

Circuit Ave northwest of Dean St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

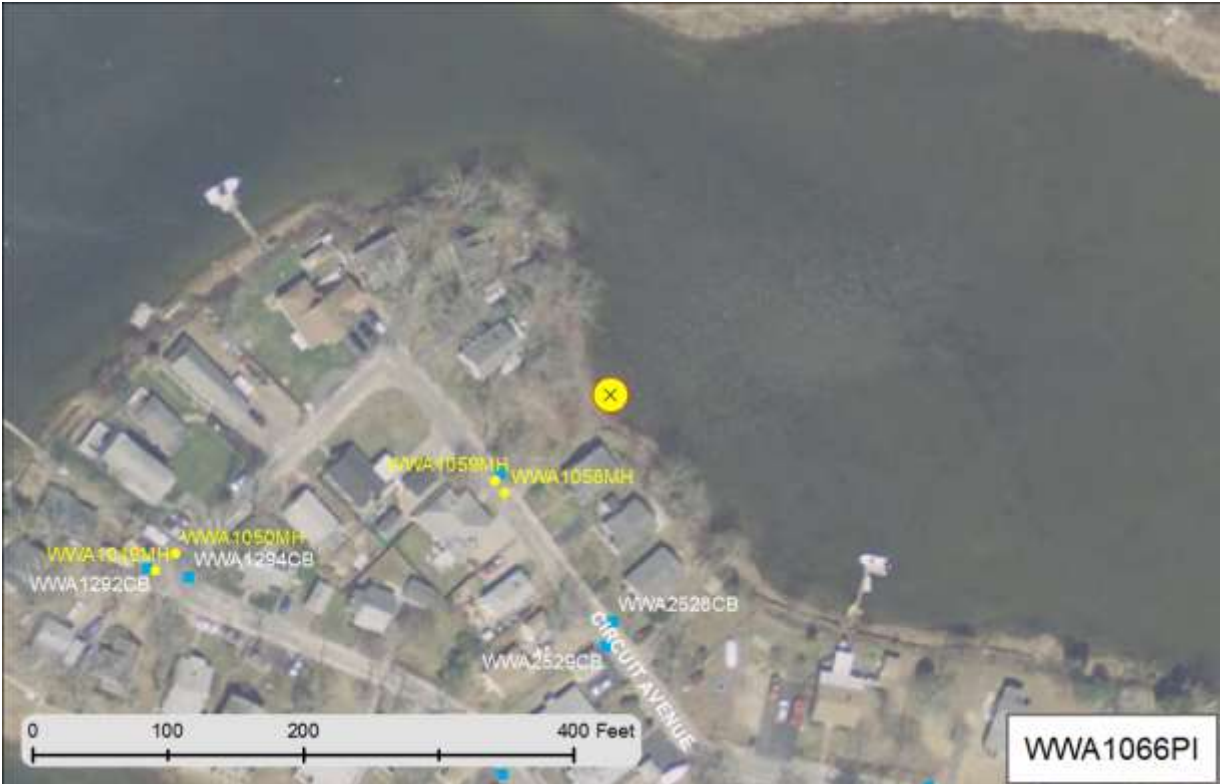
DW: only 1 sample. WW: no samples collected. Recommend: Continue to monitor for DW and WW. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

end of Beach St at Circuit Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

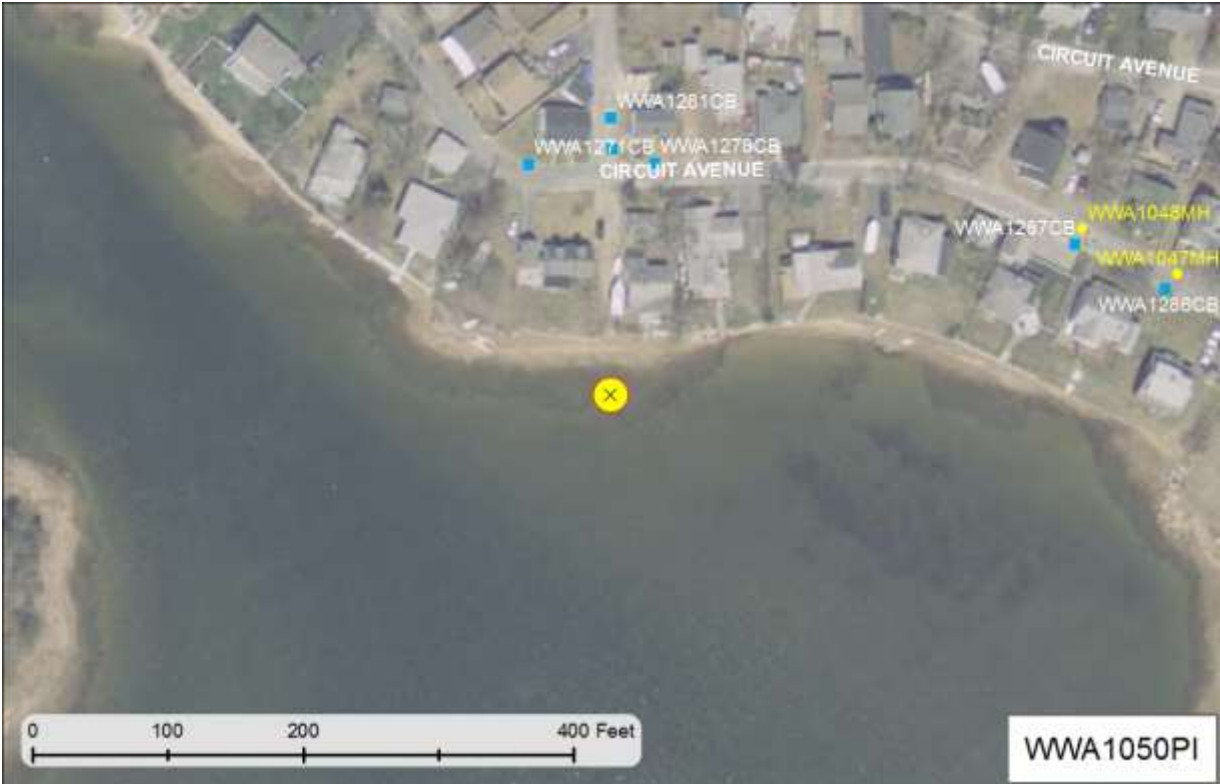
DW: only 1 sample collected, no samples for WW. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out if necessary and monitor DW and WW.
BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Stormwater Report for: **WWA1053PI**
in the Town of **Wareham**

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Circuit Ave at southeast bend

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: only 1 sample collected, no samples for WW. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out if necessary and collect DW and WW samples for evalutation. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1051PI**
in the Town of **Wareham**

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Pinehurst St at split

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

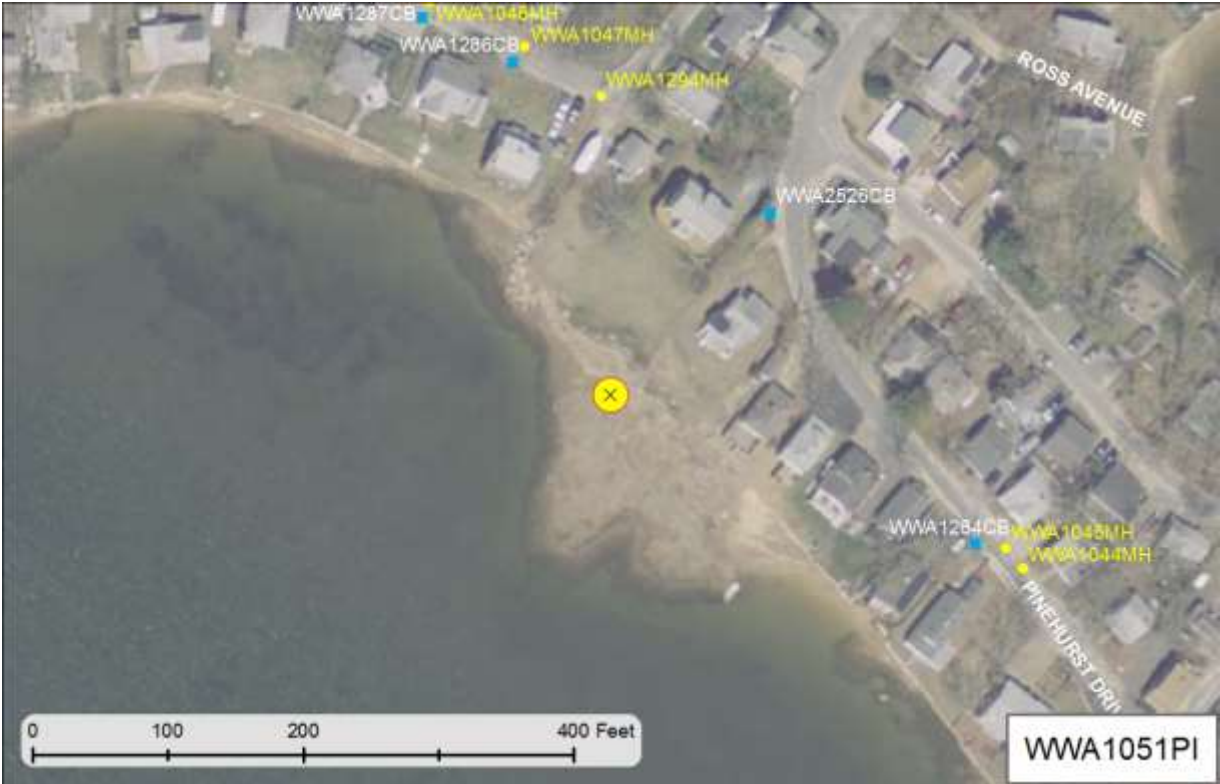
DW: only 1 sample collected, no samples for WW. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out if necessary and collect DW and WW samples for evalutation. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1044PI**
in the Town of **Wareham**

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Pinehurst Dr southeast of Cottage St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. No monitoring results for WW. This drainage system has an underground infiltration practice. Recommend: Inspect infiltration sytem in the rain to establish functionality. Clean out as needed. Continue monitoring. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1067PI**
in the Town of **Wareham**

end of Sea Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. WW: no samples collected.
Recommend: Monitor WW. Warh R
Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1070PI**
in the Town of **Wareham**

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end of Warr Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

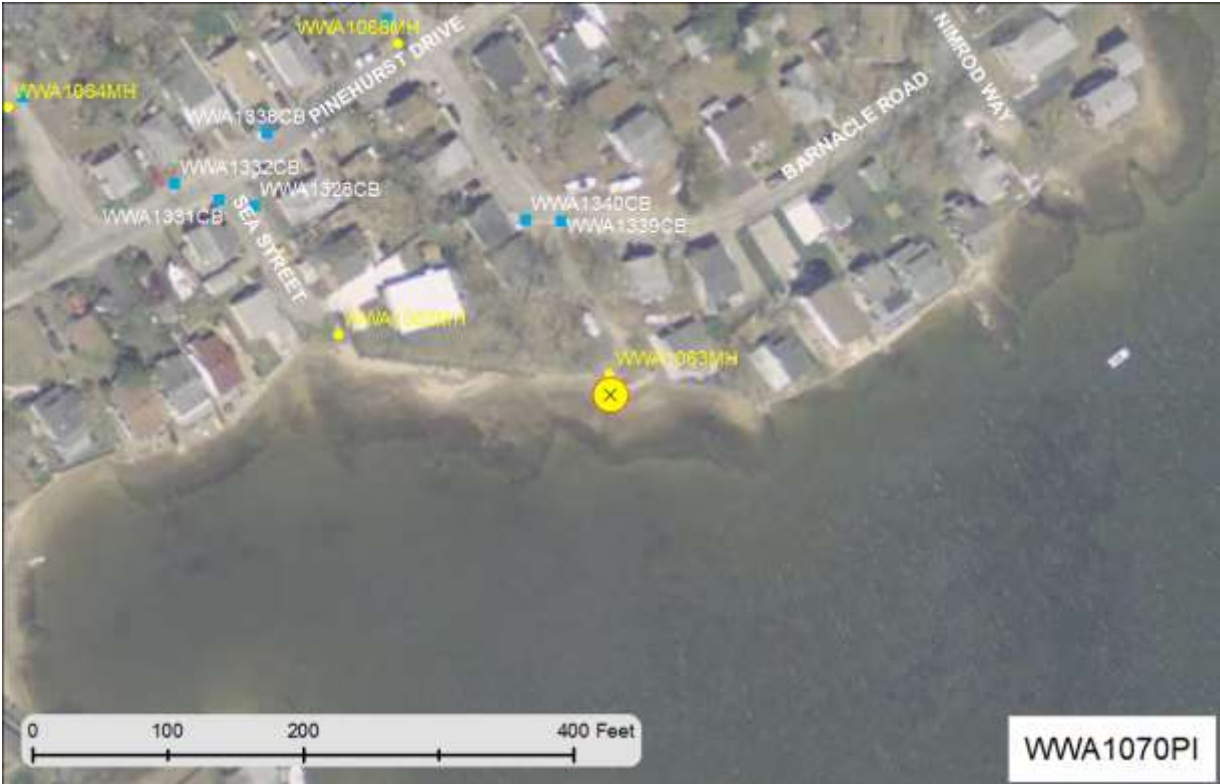
DW: no flow, no issues. WW: no samples collected. Recommend: Monitor WW. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1351PI**
in the Town of **Wareham**

adjacent to Besse Park, Main Street

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Stormwater Report for: WWA1103PI
in the Town of Wareham

corner of Warr Ave and Main St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. Although the samples from this CB were in the sump, there is concern of the high counts of bact, even with a small amount of rain or 24 hours after a rain. Recommend: Continue WW monitoring of WWA1443CB. If sample is in sump, make a note in data sheets regarding flow status (flowing, stagnant). Investigate for possible ID. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1433CB	9/28/2016	6WA28SEP09-S	sump	Fresh Water	24 hrs	0 in	7.04	20.4	0.06	0.00	0.44	=0.125	34000	
WWA1433CB	10/24/2016	6WA24OCT01-S-D	sump	Fresh Water	1 hrs	0.04 in	7.52	13.9	0.03	0.25	0.44	=0.125	54000	
WWA1433CB	10/24/2016	6WA24OCT01-S	sump	Fresh Water	1 hrs	0.04 in	7.85	13.8	0.04	0.25	0.44	=0.125	48000	

Stormwater Report for: WWA1091PI
in the Town of Wareham

Viking Dr at corner into woods

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Moderate Bact levels. WW Rank: Bact (1), Total 1. Some of this drainage is treated with an infiltration structures (around municipal complex). Recommend: Check functioning status of exting structures during a rain. Clean out as needed. Install additional management practices for treating bacteria if needed. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1091PI	9/19/2016	6WA19SEP08-A	pipe	Fresh Water	0 hrs	1.3 in	6.75	24.9	0.01	0.00	0.00	=0.25	1900	
WWA1091PI	10/25/2017	7WM25OCT03-A-D	pipe	Fresh Water	0 hrs	0.59 in	6.57	20.8	0.01	0.00	0.00	=0.25	5000	
WWA1091PI	10/25/2017	7WM25OCT03-A	pipe	Fresh Water	0 hrs	0.59 in	6.78	21.0	0.01	0.00	0.00	=0.25	6200	

Viking Dr at corner into woods

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Moderate Bact levels. WW Rank: Bact (1), Total 1. Some of this drainage is treated with an infiltration structures (around municipal complex). Recommend: Check functioning status of exting structures during a rain. Clean out as needed. Install additional management practices for treating bacteria if needed. BMR Impair: Bact.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1095PI	9/19/2016	6WA19SEP07-A	pipe	Fresh Water	0 hrs	1.3 in	6.34	24.2	0.01	0.00	0.00	=0	2500	
WWA1095PI	10/25/2017	7WM25OCT02-A	pipe	Fresh Water	0 hrs	0.55 in	7.29	20.8	0.01	0.00	0.00	=0.25	7500	

Stormwater Report for: WWA1092PI

in the Town of Wareham

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Viking Dr behind home plate of softball field

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Moderate Bact levels. WW Rank: Bact (1), Total 1. Recommend: Continue WW monitoring. BMR Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

4

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1092PI	9/19/2016	6WA19SEP06-A	pipe	Fresh Water	0 hrs	1.3 in	6.92	24.3	0.01	0.00	0.00	=0	3400	

Stormwater Report for: WWA1159PI
in the Town of Wareham

Sand Piper Terrace at house 24

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flows, no issues. WW rank (2 samples): Bact (1), Nitrates (1). Total 2. Recommend: Unless there is a change in the watershed, discontinue monitoring. Agaw R Impair: Bact.and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1804CB	5/31/2017	7WA31MAY01-A-D	pipe	Fresh Water	0 hrs	0.04 in	7.61	19.3	0.01	0.25	0.88	=0.125	400	
WWA1804CB	5/31/2017	7WA31MAY01-A	pipe	Fresh Water	0 hrs	0.04 in	8.32	19.7	0.03	0.25	0.88	=0.125	300	

Stormwater Report for: **WWA1173PI**
in the Town of **Wareham**

Sandwich Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples. Recommend: Monitor for WW. Agaw R Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1179PI
in the Town of Wareham

Linwood Ave half way around circle

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW rank (1 sample): Bact (1), Total 1.
Recommend: Continue WW monitoring. Agaw R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1865CB	10/24/2016	6WA24OCT09-S	sump	Fresh Water	5 hrs	0.04 in	6.29	16.9	0.01	0.25	0.00	=0.25	1200	

Main St across tracks near Dunkin Donuts

Water Body: Wankinco River Category: 4A

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Some Concern Warranted - Continue Monitoring

DW: no flows, no issues. WW rank (1 Sample): Bact (2), Nitrates/Surf (1 ea). Total 4. Recommend: Continue WW monitoring, investigate for ID, construct management practice for bacteria. Wank R Impair: Bact.



Rating by Weather (0-5):

Wet : 4

Dry : No Data or No Flow

4 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1142MH	9/19/2016	6WA19SEP05-A	pipe	Brackish or Sea Water	0 hrs	1.1 in	7.04	24.1	10.00	0.25	0.88	=1.5	41000	
WWA1131PI	9/27/2016	6WA27SEP09-A	pipe	Fresh Water	0 hrs	0.35 in	6.61	21.8	4.33	0.25	0.88	=1	73000	

Stormwater Report for: WWA1124PI

in the Town of Wareham

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Merchants Way

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW with flows, moderate bact. Rank: Bact (1), Nitrates(1), Total 2. WW rank: Bact (2), Nitrates (1). Total 3. Recommend: Investigate for potential ID. Construct management practice for bacteria. Wank R Impair: Bact.

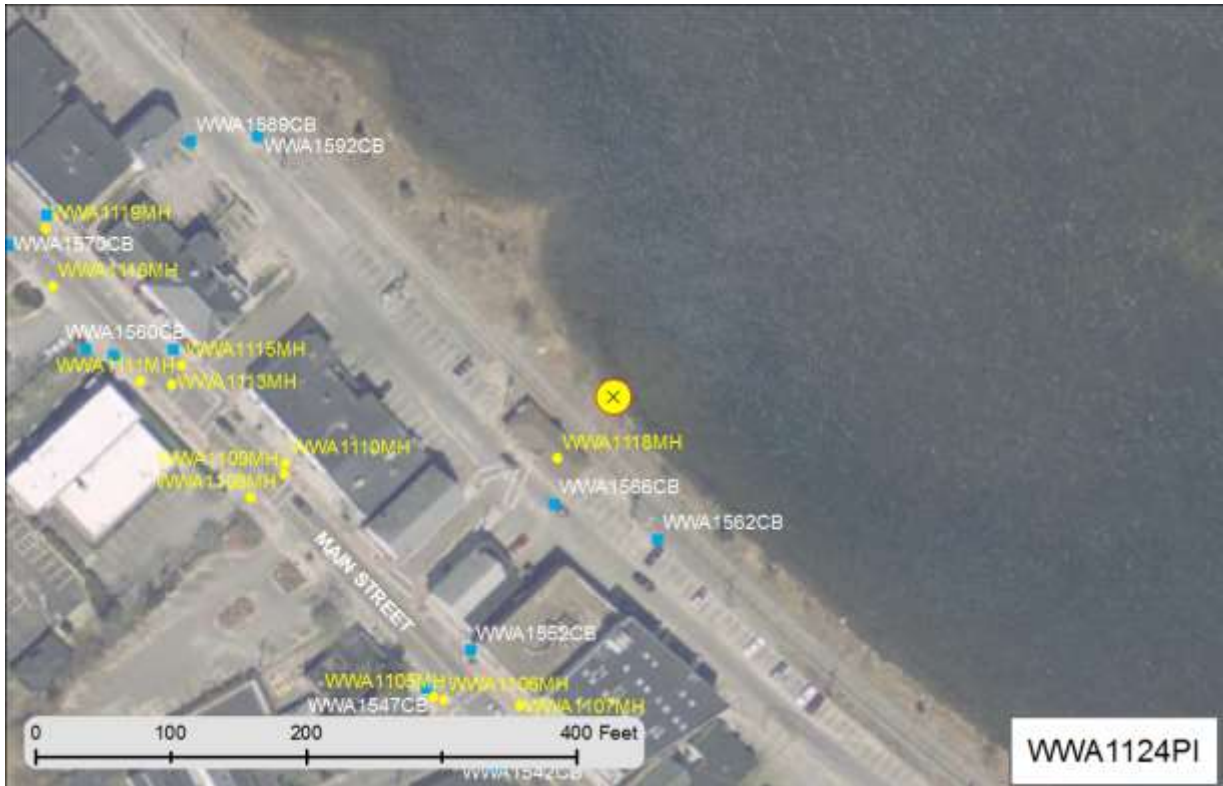


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1124PI	8/25/2016	6WA25AUG01-06	pipe	Fresh Water	76 hrs	0 in	7.05	23.9	0.64	0.25	3.52	<0.125	100	1000
WWA1124PI	8/25/2016	6WA25AUG01-05	pipe	Fresh Water	76 hrs	0 in	6.59	23.3	0.54	0.00	4.40	<0.125	100	1300
WWA1124PI	8/25/2016	6WA25AUG01-04	pipe	Fresh Water	76 hrs	0 in	6.57	23.8	0.53	0.00	4.40	<0.125	100	100
WWA1124PI	8/25/2016	6WA25AUG01-03	pipe	Fresh Water	76 hrs	0 in	6.56	23.4	0.52	0.25	4.40	<0.125	100	3400
WWA1124PI	8/25/2016	6WA25AUG01-02	pipe	Fresh Water	76 hrs	0 in	6.64	23.8	0.55	0.25	4.40	<0.125	100	3200
WWA1124PI	8/25/2016	6WA25AUG01-01	pipe	Fresh Water	76 hrs	0 in	6.68	25.2	0.63	0.25	4.40	<0.125	100	5200
WWA1124PI	9/27/2016	6WA27SEP08-A	pipe	Fresh Water	0 hrs	0.35 in	6.59	22.4	0.17	0.00	3.52	=0.5	25000	
WWA1124PI	10/21/2016	6WA21OCT01-A-D	pipe	Fresh Water	272 hrs	0 in	6.72	19.7	0.33	0.25	4.40	=0.05	200	
WWA1124PI	10/21/2016	6WA21OCT01-A	pipe	Fresh Water	272 hrs	0 in	6.81	19.6	0.51	0.25	4.40	=0.05	200	
WWA1124PI	10/24/2016	6WA24OCT02-A	pipe	Fresh Water	2 hrs	0.04 in	6.89	15.6	0.25	0.25	4.40	=0.125	2700	
WWA1124PI	6/20/2017	7WA20JUN03-A	pipe	Fresh Water	2 hrs	0.16 in	6.39	20.2	0.59	0.25	4.40	=0.1	32000	
WWA1124PI	10/25/2017	7WM25OCT01-A	pipe	Fresh Water	0 hrs	0.51 in	7.49	20.9	0.27	0.50	0.00	=0.25	52000	

Stormwater Report for: **WWA1123PI**
in the Town of **Wareham**

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Sandwich Rd near Mayflower Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples. Recommend: Monitor for WW. Agaw R Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1114PI

in the Town of Wareham

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Main St in seawall of parking lot

Water Body: Wareham River

Category: 5

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Some Concern Warranted - Consider Corrective Action

DW: No flow, no issues. WW Rank (2 samples): Bact (2), Nitrates/Surf (1 ea), Total 4. Recommend: Investigate for possible ID and construct a management practice for bacteria treatment. Warh R Impair: Bact and N.

Rating by Weather (0-5):
Wet : 4
Dry : No Data or No Flow

3 'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1114PI	6/20/2017	7WA20JUN01-A-D	pipe	Fresh Water	0 hrs	0.16 in	7.10	21.6	1.76	0.25	1.76	=0.75	86000	
WWA1114PI	6/20/2017	7WA20JUN01-A	pipe	Fresh Water	0 hrs	0.16 in	7.29	21.5	1.74	0.25	1.76	=0.75	76000	
WWA1114PI	8/30/2017	7WA30AUG03-A	pipe	Fresh Water	1 hrs	0.75 in	6.75	17.0	0.33	0.50	0.44	=0.5	7300	

Stormwater Report for: WWA1115PI
in the Town of Wareham

Narrows Rd behind Narrows Restaurant

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank (1 sample): Bact (2), Nitrates/Surf (1 ea), Total 4. Recommend: Continue WW monitoring, Investigate for possible ID and construct a management practice for bacteria treatment. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



			5] No Sample Visits'	Status and Recommendation based on the opinion of the BBNEP.								Report Created on: 5/6/2019			
FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.	
WWA1115PI	6/20/2017	7WA20JUN02-A	pipe	Fresh Water	0 hrs	0.16 in	7.71	21.7	0.05	0.25	1.76	=0.75	44000		

Stormwater Report for: **WWA1118PI**
in the Town of **Wareham**

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Narrows Rd near Oak St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: no samples. Recommend: Monitor for WW. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

7

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1102PI
in the Town of Wareham

Oak St at public boat ramp

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: High Bact levels. WW Rank (1 sample): Bact (2), Total 2. Recommend: Continue WW monitoring. Install management practices for treating bacteria. Warh R Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1102PI	9/19/2016	6WA19SEP04-A	pipe	Fresh Water	0 hrs	1.1 in	7.05	24.4	0.02	0.00	0.00	=0.25	34000	

Stormwater Report for: **WWA1082PI**
in the Town of **Wareham**

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Crab Cove Terrace

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. WW: no samples collected. Recommend: Monitor WW. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Crab Cove Terrace and Ash St

Water Body: Wareham River

Category: 5

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

No monitoring results for DW or WW.
Recommend: Monitor for DW and WW.
Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet : No Data

Dry : No Data or No Flow

0 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1043RC

in the Town of Wareham

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Parkwood Dr between Teakwood Ave and Ash St

Water Body: Wareham River

Category: 5

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

No DW samples, only one WW sample collected. WW had very high Bact. counts. WW Rank: Bact (2), Nitrates (1), Total 3. Recommend: Monitor for both DW and WW. Investigate for potential ID. Warh R Impair: Bact and N

Rating by Weather (0-5):

Wet : 3

Dry : No Data or No Flow

0 'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1043RC	9/19/2016	6WA19SEP02-A	surface	Fresh Water	0 hrs	0.35 in		24.5	0.03	0.25	0.88	=0.25	89000	

Parkwood Dr between Teakwood Ave and Ash St

Water Body: Wareham River

Category: 5

Urbanized: Yes

Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

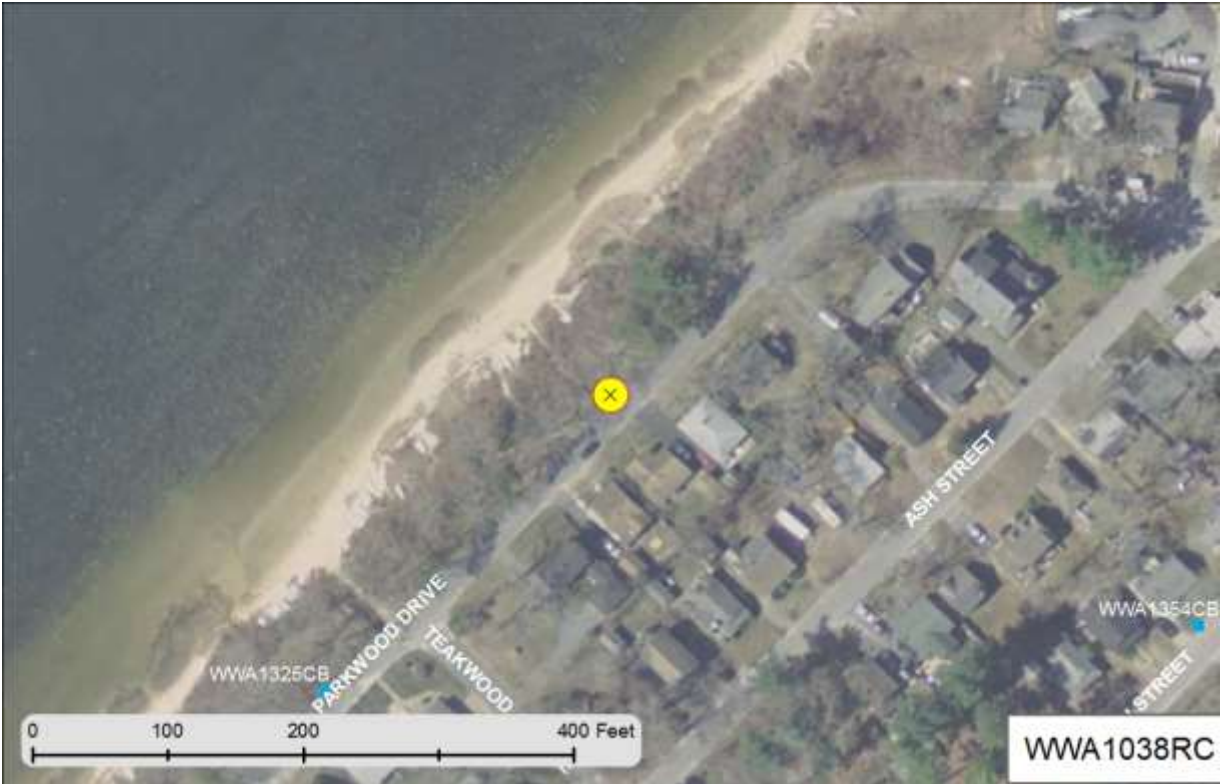
No monitoring results for DW or WW.
Recommend: Monitor for DW and
WW. Warh R Impair: Bact and N

Rating by Weather (0-5):

Wet : No Data

Dry : No Data or No Flow

0 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WWA1071PI**
in the Town of **Wareham**

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Parkwood Ave opposite Teakwood Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

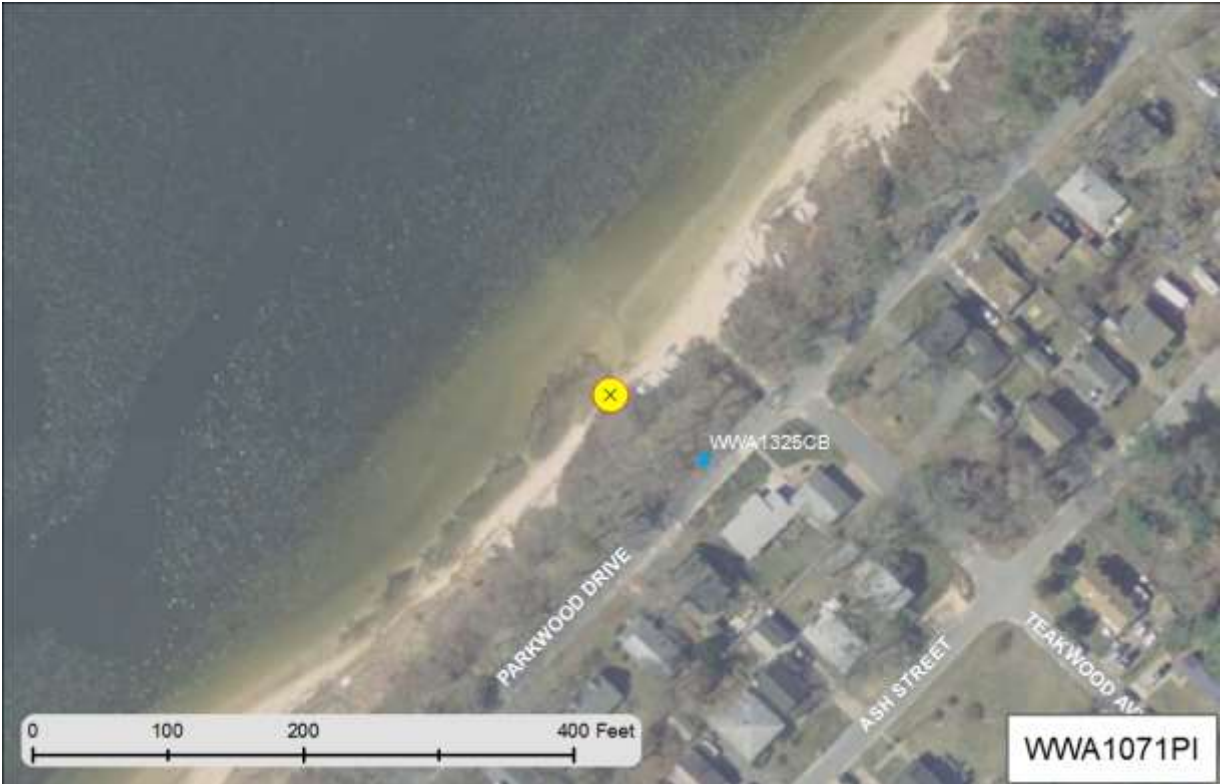
DW: no flow, no issues. WW: no samples collected. Recommend: Monitor WW. Warh R Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1048PI

in the Town of Wareham

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Parkwood Beach off of Parkwood Dr

Water Body: Wareham River

Category: 5

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: no flow, no issues. WW: no samples collected. Recommend: Monitor for WW. Warh R Impair: Bact and N.



Rating by Weather (0-5):

Wet : No Data

Dry : No Data or No Flow

2 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1261CB	9/28/2016	6WA28SEP10-S-D	sump	Fresh Water	25 hrs	0 in	6.84	20.2	0.05	0.25	1.76	=0.25	500	
WWA1261CB	9/28/2016	6WA28SEP10-S	sump	Fresh Water	25 hrs	0 in	6.84	20.1	0.05	0.25	0.88	=0.125	1200	

Stormwater Report for: WWA1054PI
in the Town of Wareham

Parkwood Drive near Birch St

Water Body: Wareham River Category: 5

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: no flow, no issues. WW Rank (1 sample): Bact (2), Amm/Nitrates/Surf (1 ea). Total 5. Recommend: Continue monitoring for WW and begin ID investigation. Warh R Impair: Bact and N.



Rating by Weather (0-5):

Wet : 5

Dry : No Data or No Flow

3 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1054PI	9/19/2016	6WA19SEP01-A	pipe	Fresh Water	0 hrs	0.35 in	8.99	23.7	0.08	1.00	1.76	=1.5	58000	

Stormwater Report for: WWA1058PI
in the Town of Wareham

Bayside Ave

Water Body: Crooked River Category: 4A

Urbanized: Yes Sewered: Yes

MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

Recommend: Continue monitoring WWA2533CB for DW and WW. If DW is in sump, take a sample only if the sump does not appear to be stagnant. Make note on data sheet if sump was stagnant or flowing. DW and WW: check salinity first if 5.5 or less monitor. If > 5.5 for WW monitor next upstream inline structure (confirm drainage connectivity onsite). Crkd R Impair: Bact.



Rating by Weather (0-5):
Wet : No Data
Dry : No Data or No Flow

0 'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA2533CB	9/28/2016	6WA28SEP08-S	sump	Fresh Water	24 hrs	0 in	6.43	20.4	0.04	0.25	0.44	=0.125	3400	
WWA2533CB	10/3/2016	6WA03OCT07-S	sump	Fresh Water	46 hrs	0 in	6.67	20.1	0.06	0.25	0.00	=0.25	1300	
WWA2533CB	10/5/2016	6WA05OCT06-S	sump	Fresh Water	93 hrs	0 in	6.85	18.6	0.07	0.30	0.00	=0.125	300	

Stormwater Report for: WWA1043PI
in the Town of Wareham

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Bayside Ave at house 20

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. No monitoring results for WW.
Recommend: Monitor for WW. Crkd R Impair: Bact.

Rating by Weather (0-5):

Wet :

Dry :

3

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: WWA1061PI
in the Town of Wareham

Diamond Ave and Larch Ave

Water Body: Crooked River Category: 4A

Urbanized: Yes Sewered: Yes

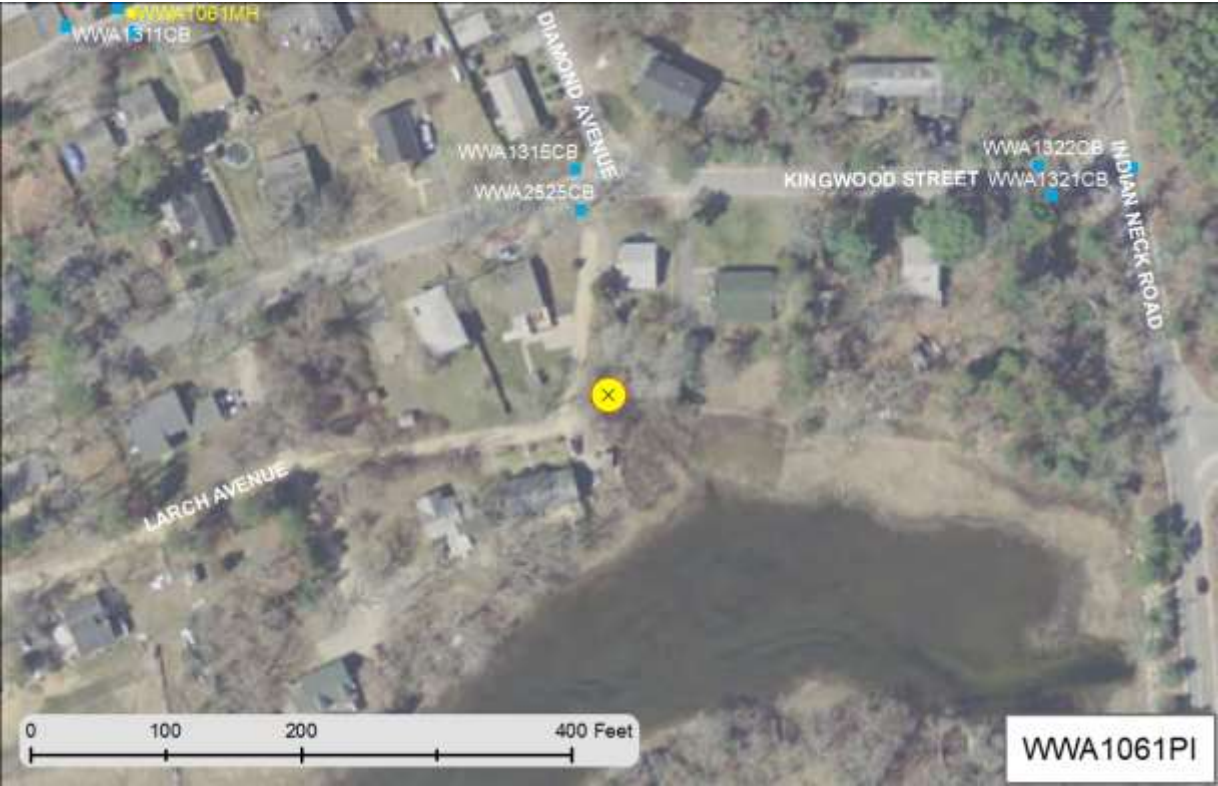
MS4 Ranking: High Priority Outfall

Status: Evaluation Not Complete

DW: no flow, no issues. WW Rank (1 sample): Bact (2) and Nitrates (1), Total 3. Recommend: Continue sampling WW and begin ID investigation (bacteria). Crkd R Impair: Bact.

Rating by Weather (0-5):
Wet : 3
Dry : No Data or No Flow

3 'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WWA1061PI	9/19/2016	6WA19SEP03-A	pipe	Fresh Water	0 hrs	0.35 in	9.50	24.2	0.11	0.05	0.88	=0.25	62000	

Stormwater Report for: **WWA1040PI**
in the Town of **Wareham**

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Edgewater Dr at house 65

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. No monitoring results for WW. Monitor for WW. Crkd R Impair: Bact.

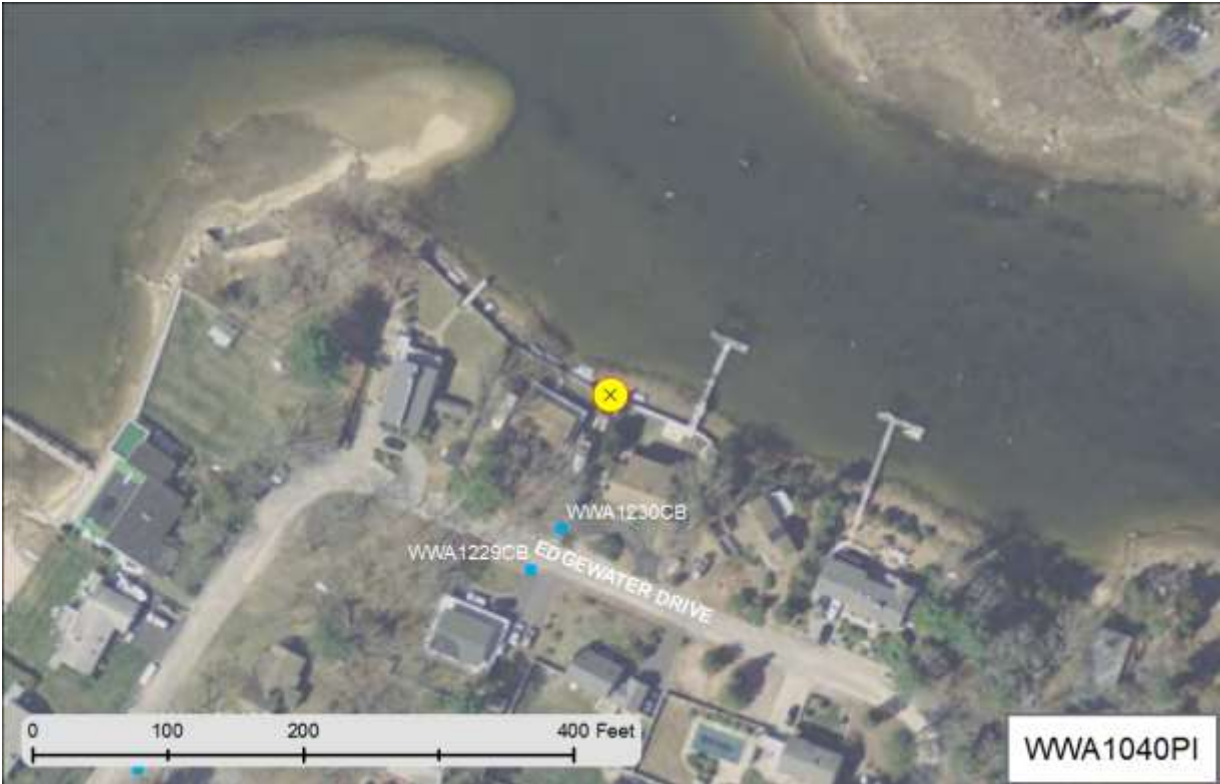


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

West Blvd at end of Longwood Ave


Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW rank: Bact (1), Total 1. WW: no samples, Recommend: Collect WW samples for evaluation. ONB Impair: Bact, N



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1045CB	9/28/2016	6WA28SEP04-S	sump	Fresh Water	22 hrs	0 in	6.95	19.6	0.03	0.25	0.00	=0.25	1000	

Stormwater Report for: ONB1008PI

in the Town of Wareham

South Blvd at end of Second St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

ONB1059CB is a flow splitter for the infiltration structures (IS). The 3 MHs adjacent to the CB are access to the IS. Concern is with the high bact concentrations in the CB sump. Recommend: Need to determine if the IS are functioning correctly and being maintained. This sytem should be a HIGH PRIORITY for wet weather sampling. Details should be recorded as to the functionality of the overall system. ONB Impair: Bact, N

2

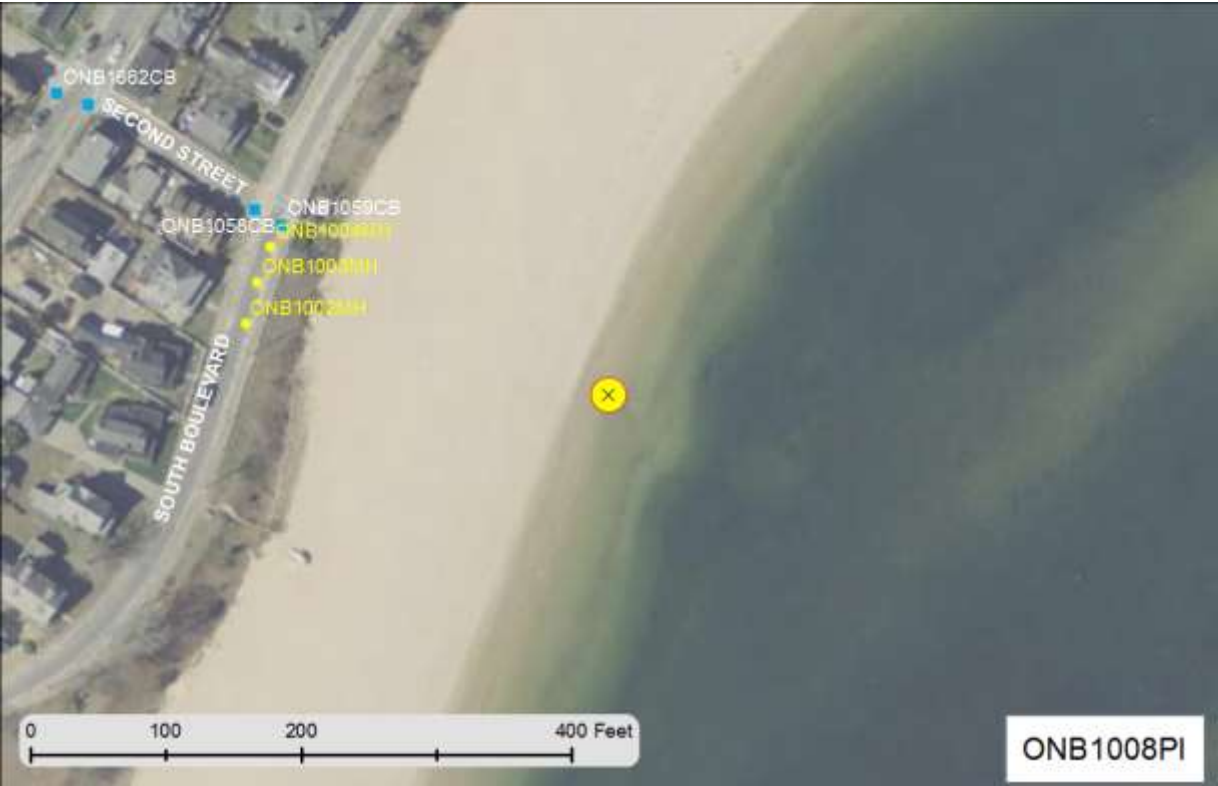
'No Sample Visits'



Rating by Weather (0-5):

Wet :

Dry :



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1059CB	9/28/2016	6WA28SEP05-S-D	sump	Fresh Water	23 hrs	0 in	6.83	19.2	0.01	0.25	0.88	=0.125	10000	
ONB1059CB	9/28/2016	6WA28SEP05-S	sump	Fresh Water	23 hrs	0 in	6.98	19.2	0.01	0.25	0.88	=0.125	14000	
ONB1059CB	10/3/2016	6WA03OCT04-S	sump	Fresh Water	45 hrs	0 in	7.74	18.8	0.01	0.25	0.44	=0	20000	
ONB1059CB	10/5/2016	6WA05OCT04-S	sump	Fresh Water	93 hrs	0 in	8.30	18.5	0.02	0.25	0.44	=0.125	9000	

Stormwater Report for: ONB1010PI
in the Town of Wareham

South Blvd at end of Fourth St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

ONB1068CB is a flow splitter for the infiltration structures (IS). The 4 MHs adjacent to the CB are access to the IS. Concern is with the slightly high bact concentrations in the CB sump. Recommend: Need to determine if the IS are functioning correctly and being maintained. This sytem should be a HIGH PRIORITY for wet weather sampling. Details should be recorded as to the functionality of the overall system. ONB Impair: Bact, N



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1068CB	9/28/2016	6WA28SEP06-S	sump	Fresh Water	23 hrs	0 in	6.33	19.7	0.02	0.25	0.00	=0.125	3800	
ONB1068CB	10/3/2016	6WA03OCT05-S	sump	Fresh Water	45 hrs	0 in	6.73	19.7	0.02	0.25	0.00	=0.125	1300	

Stormwater Report for: ONB1012PI
in the Town of Wareham

South Blvd at end of Pleasant Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

ONB1076CB is a flow splitter for the infiltration structures (IS). The 4 MHs adjacent to the CB are access to the IS. Although the bact concentrations in the CB sump are not too high, these IS should be investigated similar to IS associated with ONB1008PI and ONB1010PI. Recommend: Need to determine if the IS are functioning correctly and being maintained. This sytem should be a HIGH PRIORITY for wet weather sampling. Details should be recorded as to the functionality of the overall system. ONB Impair: Bact,

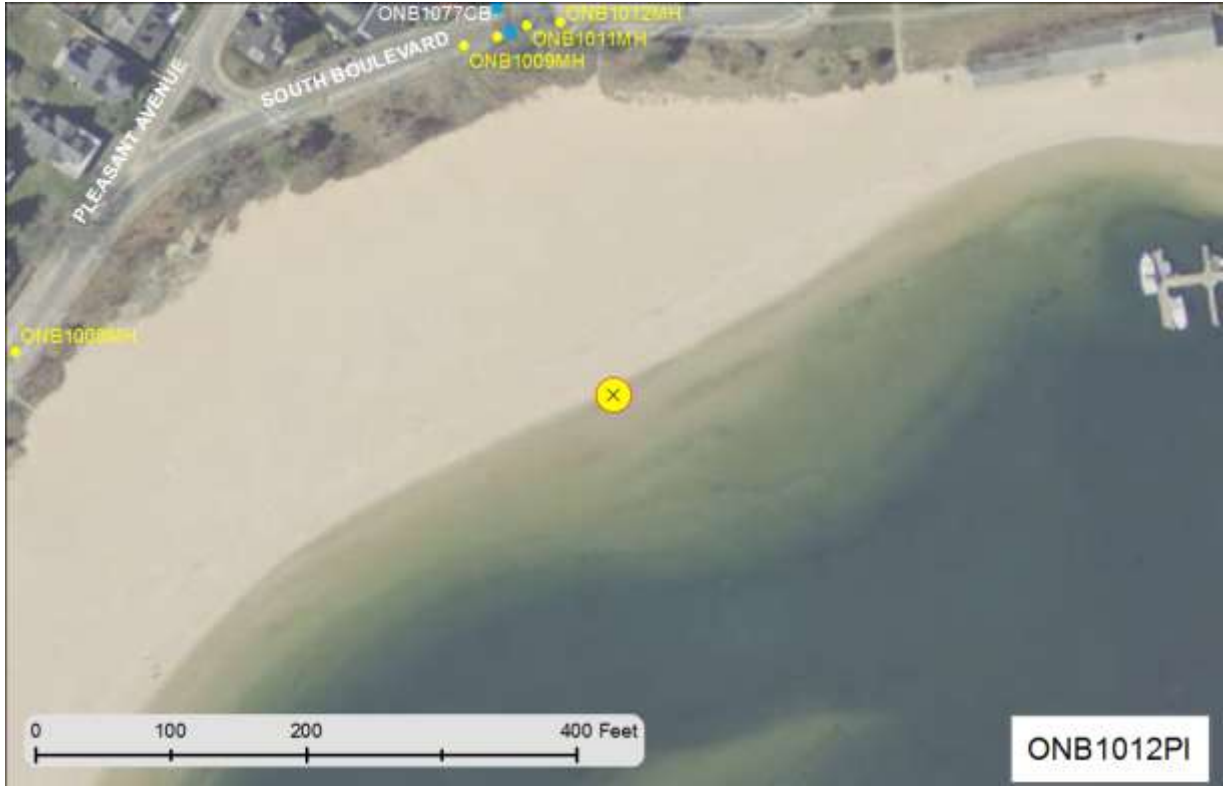


Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1076CB	9/28/2016	6WA28SEP07-S	sump	Fresh Water	23 hrs	0 in	6.36	19.3	0.02	0.25	0.88	=0.25	1400	
ONB1076CB	10/3/2016	6WA03OCT06-S	sump	Fresh Water	45 hrs	0 in	6.65	19.3	0.01	0.30	0.00	=0.125	600	
ONB1076CB	10/5/2016	6WA05OCT05-S	sump	Fresh Water	93 hrs	0 in	7.02	18.6	0.02	0.20	0.00	=0.5	100	

Onset Ave at public pier

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

The samples from ONB1015MH have all been brackish, the next upstream MH (ONB1016MH) has a sediment filter that affects sample collection. Recommend (DW): Continue to monitor the pipe. WW: Determine the flow characteristics of both the of the parking lot and Onset Ave. (at least two drainnge systems). Monitor the next upstream structures. ONB Impair: Bact, N



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1015MH	9/28/2016	6WA28SEP03-S	sump	Brackish or Sea Water	22 hrs	0 in	7.28	19.5	10.00	0.25	1.76	=2	500	
ONB1015MH	10/3/2016	6WA03OCT03-S	sump	Brackish or Sea Water	45 hrs	0 in	7.58	18.3	10.00	0.25	3.52	=2	800	
ONB1015MH	10/5/2016	6WA05OCT03-S	sump	Brackish or Sea Water	92 hrs	0 in	7.64	17.7	10.00	0.25	1.32	=2	500	

Independence Ln at Onset Bay Marina

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

ONB1654CB (and probably ONB1289CB) are brackish. Recommend checking for other structures (MH,CB), monitor the next upstream structure for WW and DW. If none exist monitor drainage (WW only) from the surface of the parking lot adjacent ONB1654CB and ONB1289CB and note this is a parking lot surface sample on data sheet. ONB Impair: Bact, N

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1654CB	9/28/2016	6WA28SEP02-S	sump	Brackish or Sea Water	22 hrs	0 in	7.40		10.00	0.25	0.00	=2	13000	
ONB1654CB	10/3/2016	6WA03OCT02-S	sump	Brackish or Sea Water	44 hrs	0 in	7.42	18.4	10.00	0.25	0.00	=2	79000	
ONB1654CB	10/5/2016	6WA05OCT02-S	sump	Brackish or Sea Water	92 hrs	0 in	7.57	16.8	10.00	0.30	0.00	=3	600	

end of Churbuck Lane

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: No samples collected. Recommend: Collect WW samples for evaluation.
ONB Impair: Bact, N

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1052MH	9/6/2016	6WA06SEP12-S	sump	Fresh Water	13 hrs	0 in	6.39	25.2	0.23	0.00	2.64	=0.25	3900	

Stormwater Report for: **ONB1040PI**
in the Town of **Wareham**

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Between Green St and Maple St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

This discharge is inaccessible.
Recommend (DW and WW): Need to determine flow characteristics of drainage system and monitor next upstream structure. ONB Impair: Bact, N

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **ONB1110PI**
in the Town of **Wareham**

Prospect St opposite Andrews St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

Recommend (DW and WW): Continue to monitor. ONB Impair: Bact, N

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Stormwater Report for: **ONB1038PI**
in the Town of **Wareham**

Prospect Rd at private beach

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: no flow, no issues. WW: No samples collected. Recommend: Collect WW samples for evaluation.
ONB Impair: Bact, N

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

end of Sagamore St at boardwalk

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

For the most part the DW samples do not appear to be an issue, although Bact was found to be high in sump on 9/6/16. Recommend: DW continue to monitor, take sample if there is evidence of flow, if stagnant make a note on data sheet "No flow in sump".
WW: Collect WW samples for evaluation. ONB Impair: Bact, N



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
ONB1318CB	9/6/2016	6WA06SEP09-S	sump	Fresh Water	12 hrs	0.04 in	6.60	22.5	0.09	0.25	0.88	=1.5	40000	



Cranberry Hwy just west of Bryant St


Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank (1 sample): Bact (1)Surf (1), Total 2.
Recommend: Collect additional WW samples. BB Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



5

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WBB1015PI	8/30/2017	7WA30AUG01-A-D	pipe	Fresh Water	0 hrs	0.75 in	7.81	16.2	0.04	0.25	0.00	=0.5	1900	
WBB1015PI	8/30/2017	7WA30AUG01-A	pipe	Fresh Water	0 hrs	0.75 in	8.01	16.2	0.18	0.25	0.00	=0.5	1800	

Cranberry Hwy just west of Bryant St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW Rank (1 sample): Bact (1), Nitrates (1) Total 2.
Recommend: Continue to monitor during WW. BB Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP. Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WBB1040PI	8/30/2017	7WA30AUG02-A	pipe	Fresh Water	0 hrs	0.75 in	7.42	17.3	0.03	0.50	0.88	=0.25	4400	

Jefferson Shore Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Recommend collecting samples for evaluation (none collected). BB Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

4

'No Sample Visits'



Jefferson Shore Rd


Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

WW: Recommend taking samples from road surface at both WBB1169CB and WBB1171CB. BB Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WBB1171CB	9/6/2016	6WA06SEP07-S	sump	Brackish or Sea Water	11 hrs	0.04 in	6.82	21.5	10.00	0.00	0.88	=2	9000	
WBB1171CB	9/28/2016	6WA28SEP01-S	sump	Brackish or Sea Water	21 hrs	0 in	7.06	18.2	10.00	0.25	1.76	=2	900	
WBB1171CB	10/3/2016	6WA03OCT01-S-D	sump	Brackish or Sea Water	44 hrs	0 in	7.01	17.5	10.00	0.25	4.40	=1.5	500	
WBB1171CB	10/3/2016	6WA03OCT01-S	sump	Brackish or Sea Water	44 hrs	0 in	7.03	17.0	10.00	0.25	4.40	=1.5	400	
WBB1171CB	10/5/2016	6WA05OCT02-S-D	sump	Brackish or Sea Water	91 hrs	0 in	7.10	16.9	10.00	0.25	4.40	=2	200	
WBB1171CB	10/5/2016	6WA05OCT01-S	sump	Brackish or Sea Water	91 hrs	0 in	7.02	16.6	10.00	0.25	4.40	=2	100	

Jefferson Shore Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

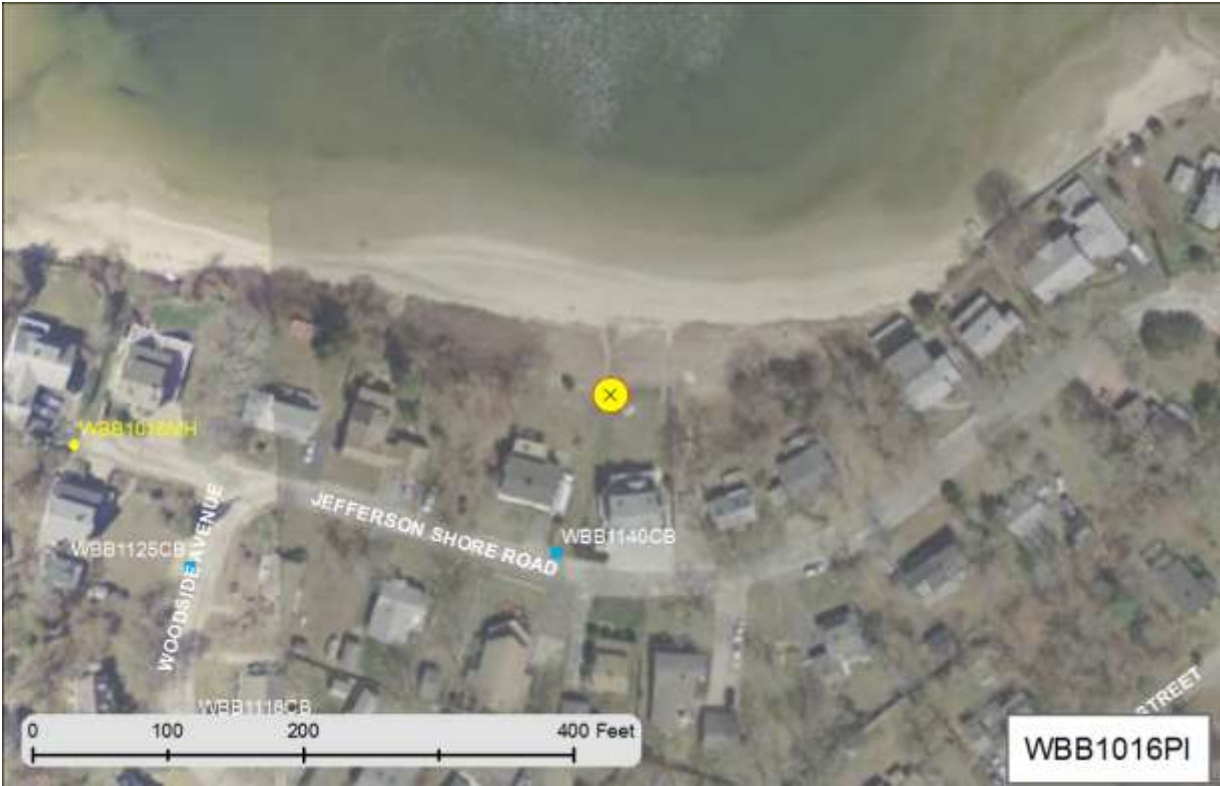
DW: No flow, no issues. WW:
Recommend collecting samples for
evaluation (none collected). BB
Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Jefferson Shore Rd

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW: Recommend collecting samples for evaluation (none collected). BB Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Chippewa Dr at Miller Cove

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW
Recommendation: Need to check status of the drainage system on Chippewa. Two underground infiltration systems are installed just downhill of Choctaw and downhill of Cleveland. Cleanout if needed. Observe how the system is functioning during rain (flowing into infiltration or bypassing and flowing into the main stormdrain system). BB
Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WBB1355CB	9/6/2016	6WA06SEP04-S	sump	Fresh Water	11 hrs	0.08 in	6.40	21.2	0.07	0.00	0.88	=0.5	19000	

Cleveland Way near Fearing St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW
Recommendation: Need to check status of the infiltration systems on Choctaw, Cleveland and Fearing. Cleanout if needed. Observe how the system is functioning during rain (flowing into infiltration or bypassing and flowing into the main stormdrain system). BB Impair: Bact and N.

Rating by Weather (0-5):
Wet :
Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

Stormwater Report for: **WBB1023PI**
in the Town of **Wareham**

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Town Landing at end of Algonquin St

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW
Recommendation: Need to check
status of the infiltration system on
Town Way. Cleanout if needed.
Observe how the system is
functioning during rain (flowing into
infiltration or bypassing and flowing
into the main stormdrain system). BB
Impair: Bact and N.

Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'



Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019

end of Wychunas Ave

Water Body: Category:

Urbanized: Sewered:

MS4 Ranking:

Status:

DW: No flow, no issues. WW
Recommendation: Need to check
status of the infiltration systems
throughout the drainage area.
Cleanout if needed. Observe how the
system is functioning during rain
(flowing into infiltration or bypassing
and flowing into the main stormdrain
system). BB Impair: Bact and N.



Rating by Weather (0-5):

Wet :

Dry :

'No Sample Visits'

Status and Recommendation based on the opinion of the BBNEP.

Report Created on: 5/6/2019



FacilityID	SampleDate	SampleID	SampleType	Water Classification	Last Rain	12hr Rain	pH	Temp	Salinity	Ammo	Nitrate	Surfact	Entero.	Fecal C.
WBB1241CB	9/6/2016	6WA06SEP01-S	sump	Fresh Water	10 hrs	0.12 in	7.20	21.5	0.03	0.25	2.64	=0.25	19000	