

The Buzzards Bay Stormwater Collaborative Catchment Report Explanation 25 January 2021

Catchment Reports

These individual reports represent an analysis for each discharge studied. These reports include basic information about the outfall, the associated (305(b)/303(d)) listed water, results of water quality analysis, and some interpretation of the results. A sample report 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 two page reports can provide insights to causes of stormwater impairments, and help focus resources to address stormwater related impairments. See QAPP for additional details on methods.

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Stormwater Report for: AIH1022PI 1
in the Town of Acushnet 3

Slocum Street underbridge 4

2016 Massachusetts Integrated Listed Water

Discharge directly to Acushnet River 6

MA95-33 Category 5 Estuary 6

Pollutants: Color, Debris, Odor, Oil and Grease, Trash, Dissolved Oxygen, Metals, Nitrogen (Total), Nutrient/Eutrophication

Sampling Parameters: VOCs, Metals, TN, DO, BOD, Entero, Fecal

SNEP Project: Yes 7

Urbanized: Yes 7

Sewered: Yes 7

No Flow Observations 9

Rating by Weather (0-5):

Wet: 8

Dry: 8

Recommendation: Pipe: 10

No flow during dry weather, therefore no issues. Additional wet weather samples needed. Sample for required parameters.

12

MS4 Ranking: 13

Status: 14



Status and Recommendation based on the opinion of the BBNEP.

Field Results													
SampleID	SampleDate	FacilityID	SampleType	Last Rain	48hr Rain	pH	Temp.	Salinity	Ammonia	Chlorine	Cl Method	Nitrate	Surfactants
7AC06SEP02-A	9/6/2017	AIH1022PI	pipe	0 hrs	0.32 in	7.00	25.1 C	0.02 ppt	0.25 ppm			4.4 ppm	0.25 ppm

Certified Laboratory Results													
SampleID	Enteroc.	Fecal C.	E. coli	Kjeldhal N	Ammonia N	Nitrate N	Nitrite N	Phosphorous	TSS	DO	BOD	HydroCarbons	
7AC06SEP02-A	9600												

Key

1. Name of the discharge and associated catchment known as FacilityID (both pages)
2. Date of report (both pages)
3. Town
4. Location of discharge – street name and description
5. General location map of discharge
6. MassDEP 2016 Integrated List of Waters (305(b)/303(d)); discharge connection and name of receiving water body; water body identification designation, category, and classification; pollutants identified as causing impairments and EPA required sampling parameters for that water body.
7. Indication if discharge is: part of the SNEP research project, in a MS4 urbanized area, and if the catchment area has sewer service
8. Number of dry weather visits where no flow was observed and thus no samples taken. Objective rating of discharge based on water quality data for dry weather and wet weather samples.
 - 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 with higher numbers indicating worse water quality
 - Separate scores for Dry Weather and Wet Weather (>0.02 inches in 4 hours previous to sample)
9. Photograph of discharge point (if available)
10. Size and description of pipe
11. Map showing area near discharge along with Facility ID numbers for nearby infrastructure; blue squares are catchbasins and yellow dots are manholes; the yellow circle with the x is the discharge
12. BBNEP specific analysis and recommendation
13. 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

14. 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

15. Water quality data from Field Results:

- **SampleID** – sample identification number; shown in blue if it's part of a duplicate sample
- **SampleDate** - date the water sample was taken
- **FacilityID** – facility identifier for location of sample; may vary and be different than discharge ID
- **Sample Type** - type of sample collected: pipe, stream, surface, or sump
- **Last Rain** – number of hours since last rain and time of sample
- **48 hr. Rain** – number of inches of rain in previous 48 hours
- **pH** – sample pH
- **Temp** – sample temperature in degrees centigrade
- **Salinity** – sample salinity in parts per thousand; shown in red if salinity is above 6ppt
- **Ammonia** – sample ammonia concentration in parts per million
- **Chlorine** - sample chlorine concentration in parts per million or parts per billion
- **Cl Method** – method used to determine chlorine concentration
- **Nitrate** – sample nitrate concentration in parts per million
- **Surfactants** – sample surfactants concentration in parts per million (detergent indicator)

16. Water quality data from Certified Laboratory Results:

- **SampleID** – sample identification number – same as Field Results Table
- **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
- **E. coli** - laboratory results for Escherichia coli bacteria colony forming units per 100 ml
- **Kjeldhal N** – sample Total Kjeldhal Nitrogen concentration
- **Ammonia N** – sample ammonia nitrogen concentration
- **Nitrate N** – sample nitrate nitrogen concentration
- **Nitrite N** – sample nitrite nitrogen concentration
- **Phosphorous** – sample total phosphorous concentration
- **TSS** – sample total suspended solids
- **DO** – sample dissolved oxygen concentration
- **BOD** – sample biological oxygen demand
- **Hydrocarbons** – sample oil and grease results