



# COMMONWEALTH of VIRGINIA

*Department of Health*  
*DIVISION OF SHELLFISH SANITATION*  
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## **BROWNS BAY and MONDAY CREEK Growing Area # 045 Gloucester County Shoreline Sanitary Survey**

**Date:** 24 May 2018

**Survey Period:** October 29, 2017 to May 2, 2018

**Total number of properties surveyed and samples analyzed:** 79

**Surveyed By:** J.D. Dickerson, I.M. Geeson, E.M. Yeargan, L.Z. Sakach, F.P. Monis, and T.A. Egerton

### **SECTION A: GENERAL**

This survey area extends from Reference Point 45 at Bush Point to Reference Point 46 at the southernmost tip of Jenkins Neck, including Browns Bay (Blevins Creek and John West Creek), Little Monday Creek, Monday Creek, and all of their tributaries. The topography in this area is low with elevations not exceeding 5 feet. A large portion of the area is covered in tidal marshes. The population density is moderate and the economy of the area is largely dependent upon the seafood industry.

Field # L3, Baywater Seafood, formerly a certified crab processing plant (VA 226 C) has a discharge permit from DEQ/PRO (# VAG524059). Firm is no longer in operation or certified under Virginia Department of Health Division of Shellfish Sanitation. However, facility continues to remain in active status of VPDES permit.

At the beginning of the survey, inspectors reviewed the available literature from prior reports, public works and online resources to characterize land use, drainage patterns, and establish nearshore seawater stations. Properties identified in the previous survey as having sanitary deficiencies or other environmental significance were revisited to evaluate their current status. All roadways and navigable shoreline within the survey boundary were visually inspected to identify potential pollution sources requiring further investigation.

Meteorological data indicated that the area received a total rainfall of 18.8" for the survey period. A monthly breakdown is as follows:

|           |       |          |       |          |       |           |       |
|-----------|-------|----------|-------|----------|-------|-----------|-------|
| Oct. 2017 | 4.27" | November | 0.86" | December | 1.87" | Jan. 2018 | 4.00" |
| February  | 1.49" | March    | 3.18" | April    | 3.13" | May       | 0.00" |

Nearshore seawater stations were established to survey the full extent of waters beyond routine classification stations. Stations were created in closer proximity to the shoreline and farther upstream than routine stations and are intended to evaluate drainage entry points of potential pollution sources. Station data were analyzed to compare relative concentrations of fecal indicator bacteria within the waterway to identify potential onshore

sources of contamination. Areas with elevated concentrations of fecal indicator bacteria were surveyed onshore using a property-by-property approach. Surveyors interviewed occupants and examined properties for evidence of pollution sources within the immediate watershed.

Hydrographic data, sampling times and range of enterococcus concentrations measured are shown in the table below.

| Growing Area # 45 Nearshore Sampling                               |           |               |               |                                | Rainfall in inches |                   |                 |
|--------------------------------------------------------------------|-----------|---------------|---------------|--------------------------------|--------------------|-------------------|-----------------|
| Sample dates                                                       | High Tide | Ebb Current   | Sampling time | Enterococcus range (MPN/100ml) | Day of             | Previous 24 hours | Previous 7 days |
| 10/25/17                                                           | 00:50     | 4:48 - 11:09  | 11:35 – 12:51 | <10 - 20                       | 0.00               | 0.33              | 0.33            |
| 10/31/17                                                           | 06:16     | 10:35 – 16:35 | 10:49 – 12:06 | <10 - 272                      | 0.00               | 0.30              | 1.92            |
| 11/30/17                                                           | 05:32     | 10:04 – 15:36 | 10:18 – 11:38 | <10 - 10                       | 0.00               | 0.00              | 0.00            |
| 2/21/18                                                            | 00:12     | 4:33 - 10:31  | 8:49 – 10:11  | <10 - 20                       | 0.00               | 0.00              | 0.31            |
| 2/22/18                                                            | 01:04     | 5:31 – 11:46  | 10:12 – 11:06 | <10 - 41                       | 0.00               | 0.00              | 0.31            |
| 4/03/18                                                            | 11:52     | 3:54 – 9:52   | 9:00 – 9:47   | <10 - 41                       | 0.02               | 0.00              | 0.25            |
| 5/02/18                                                            | 11:24     | 3:34 – 9:36   | 8:49 – 9:04   | <10 - 20                       | 0.00               | 0.00              | 0.11            |
| Total rainfall for survey period (October 25, 2017 to May 2, 2018) |           |               |               |                                |                    |                   |                 |

Copies of Bacteriological and Shellfish Closure data are available at the area office for review. This report lists only those properties that have a sanitary deficiency or other environmental significance. ***"DIRECT"*** indicates that the significant activity or deficiency has a direct impact on shellfish waters. Data in this report are also made available to local health departments and other agencies to address items that may be out of compliance with their regulatory programs. Copies of VPDES Permits and inspections are available at the Department of Environmental Quality, Tidewater Regional Office (DEQ/TRO).

Copies of the current condemnation notices and maps are available via the Internet at [www.vdh.virginia.gov/shellfish/](http://www.vdh.virginia.gov/shellfish/).

SECTION B: SEWAGE POLLUTION SOURCES

| OBJECTID | GA # | Field # | Inspection Date | Deficiency or Pollution Type | Latitude | Longitude | Address | Pollutant Remarks | Septic System Type | Structure Type | Contact | Overall Site Remarks | Locality | DSS Staff | Date of Correction | Correction Notes |
|----------|------|---------|-----------------|------------------------------|----------|-----------|---------|-------------------|--------------------|----------------|---------|----------------------|----------|-----------|--------------------|------------------|
|          |      |         |                 |                              |          |           |         |                   |                    |                |         |                      |          |           |                    |                  |
|          |      |         |                 |                              |          |           |         |                   |                    |                |         |                      |          |           |                    |                  |

SECTION C: NONSEWAGE WASTE SITES

| OBJECT ID | GA # | Field # | Inspection Date | Deficiency or Pollution Type | Latitude  | Longitude  | Address                                    | Pollutant Remarks        | Septic System Type | Structure Type | Contact | Overall Site Remarks | Locality   | Boating Activity Type | Number of Wet Slips | NUM BOATS <26' | NUM BOATS >26' | Evidence of Live-Aboards | DSS Staff |
|-----------|------|---------|-----------------|------------------------------|-----------|------------|--------------------------------------------|--------------------------|--------------------|----------------|---------|----------------------|------------|-----------------------|---------------------|----------------|----------------|--------------------------|-----------|
| 1283      | 45   | L3      | 12/13/2017      | INDUSTRIAL WASTES, direct    | 37.281800 | -76.396900 | 2595 Haywood Seafood Lane, Hayes, VA 23072 | VPDES Permit # VAG524059 | Conv               | Business       | Y       | Baywater Seafood     | Gloucester | NA                    | 0                   | 0              | 0              | NA                       | LS        |
| 1284      | 45   | L2      | 12/13/2017      | INDUSTRIAL WASTES, direct    | 37.281500 | -76.396400 | 2595 Haywood Seafood Lane, Hayes, VA 23072 | VPDES Permit # VAG524062 | Conv               | Business       | Y       | Big Island Seafood   | Gloucester | NA                    | 0                   | 0              | 0              | NA                       | LS        |
|           |      |         |                 |                              |           |            |                                            |                          |                    |                |         |                      |            |                       |                     |                |                |                          |           |

SECTION D: BOATING ACTIVITY

| OBJECTID | GA # | Field # | Inspection Date | Deficiency or Pollution Type | Latitude  | Longitude  | Address                    | Pollutant Remarks | Septic System Type | Structure Type | Contact | Overall Site Remarks                                 | Locality   | Boating Activity Type | Number of Wet Slips | NUM BOATS <26' | NUM BOATS >26' | Evidence of Live-Aboards | DSS Staff |
|----------|------|---------|-----------------|------------------------------|-----------|------------|----------------------------|-------------------|--------------------|----------------|---------|------------------------------------------------------|------------|-----------------------|---------------------|----------------|----------------|--------------------------|-----------|
| 1280     | 45   | F2      | 12/11/2017      | BOATING ACTIVITY             | 37.300400 | -76.403700 | Route 651, Hayes, VA 23072 |                   | Conv               | Marine         | N       | Browns Bay Public Dock, Pier at the end of the road. | Gloucester | OPWBAM                | 0                   | 2              | 0              | N                        | FM        |
|          |      |         |                 |                              |           |            |                            |                   |                    |                |         |                                                      |            |                       |                     |                |                |                          |           |

SECTION E: CONTRIBUTES ANIMAL POLLUTION

| OBJECTID | GA # | Field # | Inspection Date | Deficiency or Pollution Type           | Latitude  | Longitude  | Address                               | Pollutant Remarks                                              | Septic System Type | Structure Type | Contact | Overall Site Remarks | Locality   | Boating Activity Type | Number of Wet Slips | NUM BOATS <26' | NUM BOATS >26' | Evidence of Live-Aboards | DSS Staff |
|----------|------|---------|-----------------|----------------------------------------|-----------|------------|---------------------------------------|----------------------------------------------------------------|--------------------|----------------|---------|----------------------|------------|-----------------------|---------------------|----------------|----------------|--------------------------|-----------|
| 1285     | 45   | L4      | 12/13/2017      | CONTRIBUTES ANIMAL POLLUTION, indirect | 37.278700 | -76.394900 | 2485 Beth's Lane, Hayes, VA 23072     | Approximately 100 chickens, 20 ducks, some turkeys and a goat. | Conv               | Dwelling       | N       |                      | Gloucester | NA                    | 0                   | 0              | 0              | NA                       | LS        |
| 4539     | 45   | L5      | 12/13/2017      | CONTRIBUTES ANIMAL POLLUTION, indirect | 37.279300 | -76.395100 | 2504 Beths Lane, Hayes, VA 23072      | Approximately 30 dogs, 10 ducks, and 4 pigs.                   | Conv               | Dwelling       | Y       |                      | Gloucester | NA                    | 0                   | 0              | 0              | NA                       | LS        |
| 4540     | 45   | F3      | 12/19/2017      | CONTRIBUTES ANIMAL POLLUTION, indirect | 37.296800 | -76.414100 | 3172 Browns Bay Road, Hayes, VA 23072 | 7 livestock observed on property.                              | Conv               | Dwelling       | N       |                      | Gloucester | NA                    | 0                   | 0              | 0              | NA                       | FM        |
|          |      |         |                 |                                        |           |            |                                       |                                                                |                    |                |         |                      |            |                       |                     |                |                |                          |           |

## SUMMARY

Growing Area # 045  
Browns Bay and Monday Creek  
24 May 2018

### SECTION B: SEWAGE POLLUTION SOURCES

#### 1. SEWAGE TREATMENT FACILITIES

0 – DIRECT – None

0 – INDIRECT – None

0 – B.1. TOTAL

#### 2. ON-SITE SEWAGE DEFICIENCIES – Correction of the deficiencies in this section is the responsibility of the local health department.

0 – CONTRIBUTES POLLUTION, DIRECT – None

0 – CONTRIBUTES POLLUTION, INDIRECT – None

0 – CP (Kitchen or Laundry Wastes), Direct – None

0 – CP (Kitchen or Laundry Wastes), Indirect – None

0 – NO FACILITIES, DIRECT – None

0 – NO FACILITIES, INDIRECT – None

0 – B.2. TOTAL

#### 3. POTENTIAL POLLUTION – Periodic surveillance of these properties will be maintained to determine any status change.

0 – POTENTIAL POLLUTION – None.

### SECTION C: NON-SEWAGE WASTE SITES

#### 1. INDUSTRIAL WASTE SITES

2 – DIRECT – # L2, L3

0 – INDIRECT – None

2 – C.1. TOTAL

#### 2. SOLID WASTE DUMPSITES

0 – DIRECT – None

0 – DIRECT – None

0 – C.2. TOTAL

#### 3. STORMWATER

0 – DIRECT – None

0 – INDIRECT – None

0 – TOTAL

### SECTION D: BOATING ACTIVITY

0 – MARINAS – None

1 – OTHER PLACES WHERE BOATS ARE MOORED – # F2

0 – UNDER SURVEILLANCE – None

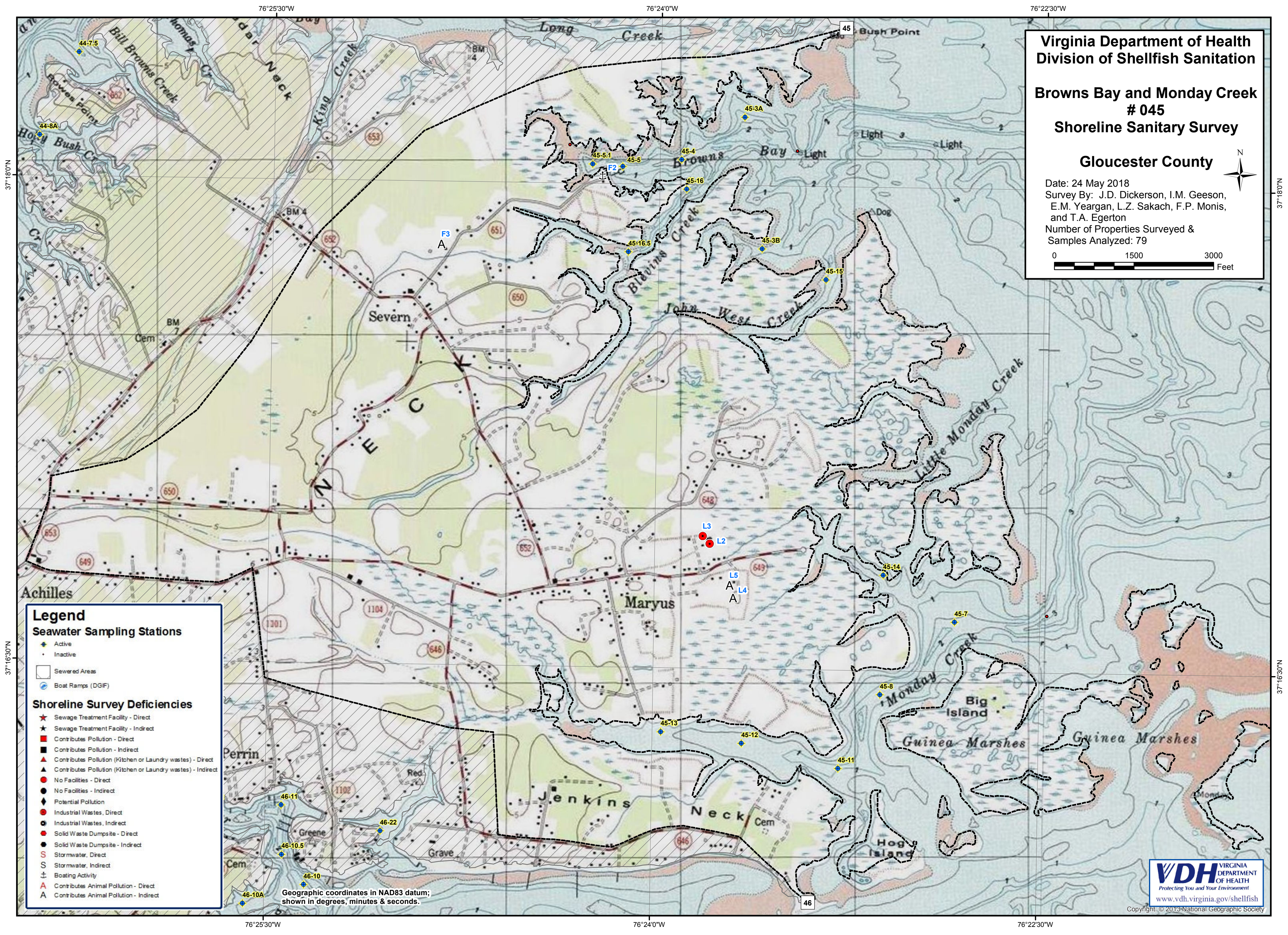
1 – D. TOTAL

### SECTION E: CONTRIBUTES ANIMAL POLLUTION

0 – DIRECT – None

3 – INDIRECT – # L4, L5, F3

3 – E. TOTAL



**Virginia Department of Health**  
**Division of Shellfish Sanitation**

**Browns Bay and Monday Creek**  
**# 045**  
**Shoreline Sanitary Survey**

**Gloucester County**

Date: 24 May 2018  
Survey By: J.D. Dickerson, I.M. Geeson,  
E.M. Yeargan, L.Z. Sakach, F.P. Monis,  
and T.A. Egerton  
Number of Properties Surveyed &  
Samples Analyzed: 79

0 1500 3000  
Feet

**Legend**

**Seawater Sampling Stations**

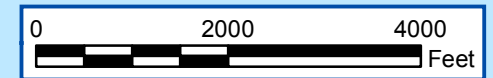
- Active
- Inactive
- Sewered Areas
- Boat Ramps (DGIF)

**Shoreline Survey Deficiencies**

- Sewage Treatment Facility - Direct
- Sewage Treatment Facility - Indirect
- Contributes Pollution - Direct
- Contributes Pollution - Indirect
- Contributes Pollution (Kitchen or Laundry wastes) - Direct
- Contributes Pollution (Kitchen or Laundry wastes) - Indirect
- No Facilities - Direct
- No Facilities - Indirect
- Potential Pollution
- Industrial Wastes, Direct
- Industrial Wastes, Indirect
- Solid Waste Dumpsite - Direct
- Solid Waste Dumpsite - Indirect
- Stormwater, Direct
- Stormwater, Indirect
- Boating Activity
- Contributes Animal Pollution - Direct
- Contributes Animal Pollution - Indirect

**GA # 045 - Browns Bay & Monday Creek**  
**Enterococcus Sampling**  
**October 25, 2017 - May 2, 2018**

\* Highest value was 272 on 10/31/17.



**Legend**

**Enterococcus spp. (MPN/100ml)**

**Sampling Dates: 10/25/17 - 5/2/18**

- < 10
- 10 - 100
- 101 - 1000
- 1001 - 10000
- > 10000

24 May 2018