



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF HEALTH**  
**DIVISION OF SHELLFISH SAFETY**

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**ASSATEAGUE CHANNEL AND OYSTER BAY**

Growing Area # 102  
Accomack County  
Shoreline Sanitary Survey

**Date:** 26 September 2022

**Survey Period:** September 9, 2021 - September 9, 2022

**Total Number of Properties Surveyed & Near-shore Samples Collected:** 266

**Surveyed By:** T. Charnock, R. Snead, D. Miller, I. Geeson

**SECTION A: GENERAL**

This survey area includes the bay and seaside shoreline of the portion of Chincoteague Island north of Maddox Boulevard and the northern portion of Assateague Island from Beach Road to the Virginia - Maryland state line.

The topography of this area is low with maximum elevations of 5' on Chincoteague Island and 10' on Assateague Island. Flooding and ponding occurs in the low-lying areas during storms and unusually high tides. The economy of both islands are based primarily on tourism. Chincoteague Island has a productive shellfish aquaculture industry and other seafood processing operations. Chincoteague Island is densely populated with significant seasonal variation due to a large number of dwellings used as vacation homes.

Assateague Island is sparsely populated with the majority of the land mass occupied by the Chincoteague National Wildlife Refuge. A high level of tourist traffic visits the park beaches and pony-viewing areas in summer months. The Virginia pony herd is owned by the Chincoteague Volunteer Fire Company and is permitted by the U.S. Fish & Wildlife Service. The maximum number of ponies allowed is 150 and their population is controlled by an annual auction.

Several small fishing cabins and "oyster watch houses" are near or over portions of the waters in the marshy northern part of this Growing Area. The owners were contacted and it was verified that each is disposing of their sewage in an acceptable manner.

The sewage disposal systems serving residential and commercial properties on Chincoteague Island are cesspools, septic tanks with drain fields, or approved alternative systems, such as mounds and sand filtration systems. As cesspools age and experience increased seasonal demand, they are being replaced with alternative systems that are better suited to low ground. Several businesses and a few private residences have DEQ approved Waste Water Treatment Plants with discharges into Chincoteague Channel.

Meteorological data indicated that a total of 29.53" of rain fell during the survey period. A monthly breakdown of rainfall is as follows:

|                |       |          |       |          |       |          |       |
|----------------|-------|----------|-------|----------|-------|----------|-------|
| September 9-30 | 1.13" | October  | 1.4"  | November | 1.04" | December | 1.12" |
| January        | 4.59" | February | 1.35" | March    | 4.35" | April    | 1.59" |
| May            | 5.3"  | June     | 2.62" | July     | 3.6"  | August   | 1.3"  |
| September 1-6  | 0.06" |          |       |          |       |          |       |

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 point and nonpoint source pollution. Station data were analyzed to compare relative concentrations of fecal indicator bacteria within the waterway to identify potential onshore sources of contamination.

Hydrographic data, sampling times and range of enterococcus concentrations measured are shown in the table below. Maps of the enterococcus sampling are shown at the conclusion of this report.

| Growing Area 102 Nearshore Sampling                             |            |                |                                | Rainfall in Inches |                   |                 |
|---|------------|----------------|--------------------------------|--------------------|-------------------|-----------------|
| Sample Dates  | High Tide* | Sampling Times | Enterococcus range (MPN/100ml) | Day of             | Previous 24 hours | Previous 7 days |
| 10/15/21  | 04:56      | 09:00-10:16    | <10 - 31                       | 0                  | 0                 | .06"            |
| 10/28/21  | 02:07      | 10:37-11:17    | <10 - 52                       | 0                  | 0                 | .55             |
| 12/7/21   | 10:34      | 09:54-10:25    | <10 - 10                       | 0                  | 0                 | 0               |
| 3/16/22   | 08:02      | 09:53-11:26    | <10 -10                        | 0                  | 0                 | 1.8             |
| 3/29/22   | 07:07      | 09:56-10:37    | <10 -10                        | 0                  | 0                 | 1.85            |
| 5/31/22   | 08:41      | 10:23-12:05    | <10 - 75                       | 0                  | 0                 | 1.3             |
| 6/1/22  | 10:27      | 10:56-12:35    | <10 -10                        | 0                  | 0                 | .52             |
| 6/13/22   | 07:55      | 09:28-11:07    | <10 - 1,314                    | 0                  | .83               | 1               |
| 6/27/22   | 07:56      | 09:57-11:18    | <10 - 20                       | .44                | 0                 | .15             |
| 7/14/22   | 09:25      | 10:25-11:29    | <10 - 30                       | 0                  | 0                 | 1.69            |
| 8/1/22  | 11:39      | 11:43-11:54    | <10 - 20                       | 0                  | .05               | .57             |
| 8/17/22   | 12:51      | 14:20          | 52                             | 0                  | .22               | .51             |
| 8/25/22   | 07:47      | 08:25-10:53    | <10 - 213                      | 0                  | 0                 | .03             |
| 8/29/22   | 10:30      | 10:45          | 52                             | 0                  | 0                 | .23             |
| 9/6/22  | 05:05      | 10:04-10:35    | <10                            | .06                | 0                 | .29             |
| Total Rainfall for sampling period (10/15/21 to 9/6/22): 28.21" |            |                |                                |                    |                   |                 |

\*High tide estimated from USCG station Chincoteague Inlet

Information in this report is gathered by and primarily for use by the Division of Shellfish Safety, Virginia Department of Health, in order to fulfill its responsibilities of shellfish growing area supervision and classification. However, the data are made available to various agencies participating in shellfish program coordinated activities or other interested parties.

Copies of VPDES permits and inspections are available at the Department of Environmental Quality. A directory and interactive map are available via the internet at <https://www.deq.virginia.gov/permits-regulations/permits/water/surface-water-virginia-pollutant-discharge-elimination-system> and <https://geohub-vadeq.hub.arcgis.com/pages/Water%20Datasets>

Copies of Bacteriological, Hydrographic and Shellfish Closure data are available at the area office for review. Copies of the current condemnation notices and maps are available via the Internet at <http://www.vdh.virginia.gov/shellfish/>.

This report lists only those properties which have a sanitary deficiency or have other environmental significance. ***“DIRECT”*** indicates that the significant activity or deficiency has a direct impact on shellfish waters.

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[illegible]

## SECTION C: NONSEWAGE WASTE SITES

[illegible]

## SECTION D: BOATING ACTIVITY

[illegible]

[illegible]

## SUMMARY

Area # 102

Assateague Channel and Oyster Bay

26 September 2022

### SECTION B: SEWAGE POLLUTION SOURCES

#### 1. SEWAGE TREATMENT FACILITIES

2 – DIRECT – # T11, T11.5

0 – INDIRECT – None.

2 – 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.

2 – CONTRIBUTES POLLUTION, INDIRECT – # T2, T12

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.

2 – 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 – # T6, T15

0 – INDIRECT – None.

2 – C.1. TOTAL

#### 2. SOLID WASTE DUMPSITES

0 – DIRECT – None.

1 – INDIRECT – # T1

1 – C.2. TOTAL

#### 3. STORMWATER OUTFALLS

0 – DIRECT – None.

0 – INDIRECT – None.

0 – E. TOTAL

### SECTION D: BOATING ACTIVITY

2 – MARINAS – # T9, T10

3 – UNDER SURVEILLANCE – T5, T7, T8

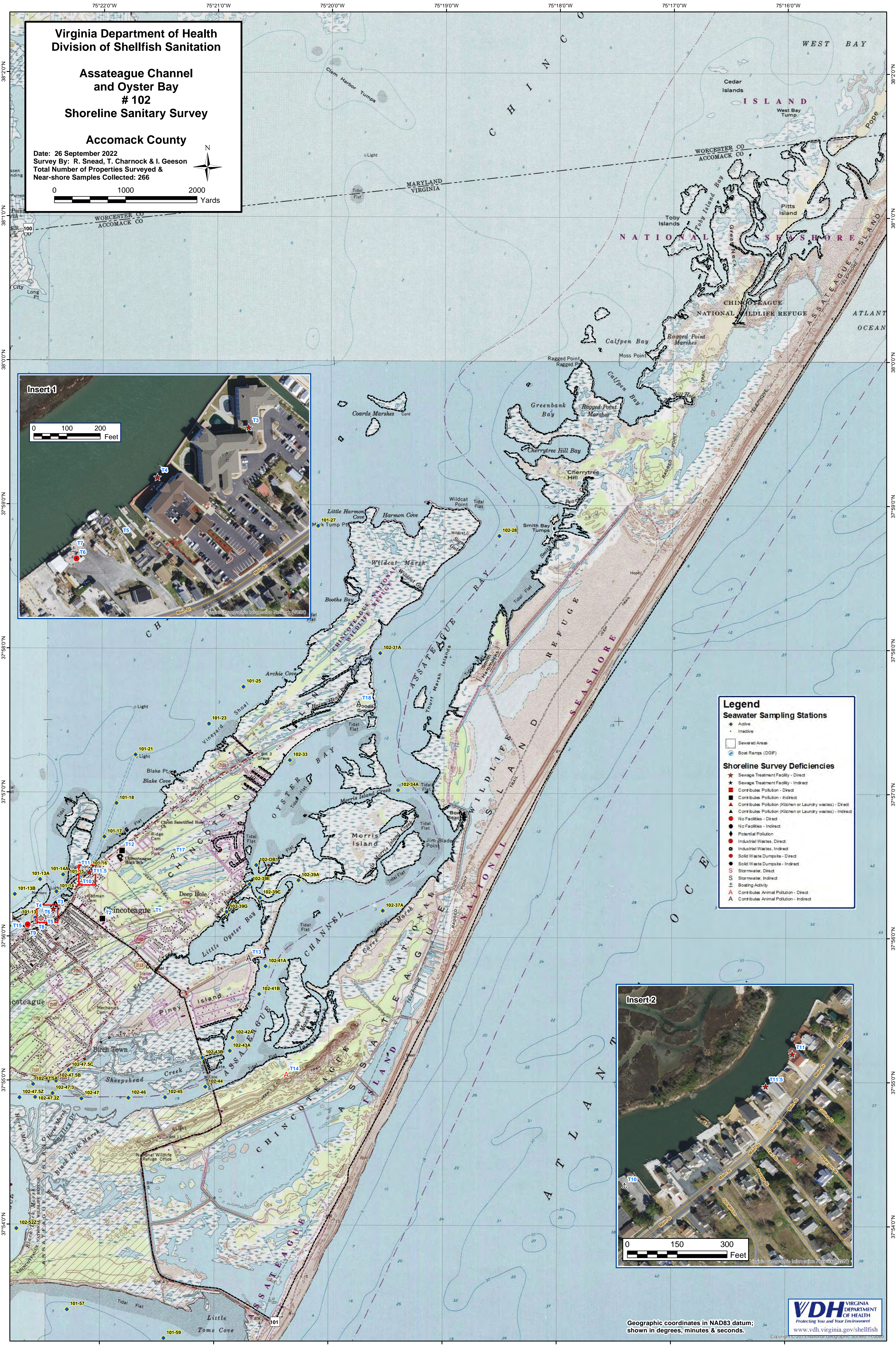
5 – D. TOTAL

### SECTION E: CONTRIBUTES ANIMAL POLLUTION

1 – DIRECT – # T14

3 – INDIRECT – # T13, T17, T18

4 – E. TOTAL



Virginia Department of Health  
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Assateague Channel  
and Oyster Bay  
# 102  
Shoreline Sanitary Survey

Accomack County

Date: 26 September 2022  
Survey By: R. Sneed, T. Charnock & I. Geeson  
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0 1000 2000  
Yards

Insert1

0 100 200  
Feet

Legend

Seawater Sampling Stations

- Active
  - Inactive
  - Sewered Area
  - Boat Ramps (DGF)
- 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

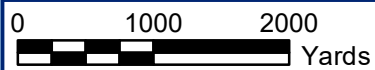
Insert2

0 150 300  
Feet

Geographic coordinates in NAD83 datum;  
shown in degrees, minutes & seconds.

# GA # 102 - Assateague Channel and Oyster Bay Enterococci Sampling

- Highest Sample: 1314 at A18 on 6/13/22.



## Legend

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

**Sampling Dates: 10/15/21 - 9/7/22**

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