



# COMMONWEALTH of VIRGINIA

## Department of Health Division of Shellfish Safety

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### **CHESAPEAKE BAY: OLD PLANTATION CREEK TO CAPE CHARLES POINT Growing Area # 090 Shoreline Sanitary Survey Northampton County**

**Date:** June 30, 2021

**Survey Period:** November 19, 2020 – June 30, 2021

**Total Number of Properties Surveyed and Samples Analyzed:** 89

**Surveyed By:** B.T. Charnock and I. Geeson

#### **SECTION A: GENERAL**

*Special announcement: In August 2018, Growing Area # 091, "Chesapeake Bay: Elliotts Creek to Cape Charles Point" was merged into GA # 090 "Old Plantation and Elliotts Creek" with all aspects reflected with the 2016 growing area evaluation. This merger renames Growing Area # 090 now as "Chesapeake Bay: Old Plantation Creek to Cape Charles Point."*

This survey area extends from Reference Point 90 at Cherrystone Channel South Shore Light to Reference Point 92 at the center of the Chesapeake Bay Bridge Tunnel at Wise Point, including the Chesapeake Bay shoreline between these two points, Allegood Pond, Old Plantation Creek (Long Pond), Costin Pond, Elliott's Creek, Pond Drain, Devils Ditch, and all of their tributaries. The survey boundary has been revised. See map for current boundary. The topography of the area varies from 5' or less along the shoreline to a maximum of 40' along the southeastern edge of the survey boundary. The population is primarily sparse and the economy relies mainly on agriculture, seafood, and tourism.

A large residential golfing community, is located at 1 Clubhouse Way, Cape Charles, VA, to the northeast of Old Plantation Creek. There are two golf courses and five homesite areas. Approximately 332 of the 656 available lots are developed. In the adjacent waters there are substantial hard clam and oyster aquaculture operations. The sewerage system for the community is connected to the Cape Charles Wastewater Treatment Facility, which is located in Growing Area # 089.

The 0.04 MGD Sewage Treatment plant that serves the campground, waterpark and restaurant at 32246 Lankford Highway, Cape Charles VA has been significantly upgraded following fair-poor performance inspections in 2014 by DEQ. Prior to upgrades, sludge was hauled away from the terminal wetland for disposal at a municipal sewage treatment plant. After upgrades, this plant meets tertiary limitations with the addition of a biological nutrient removal (BNR) infiltration basin. This VPA-permitted sewage facility, by definition, has no discharge to waterways. A change in ownership occurred in 2016. A satisfactory inspection by DEQ was performed in 2018. The Recreational Vehicle camping area with

sewage connections that resulted in several Onsite Sewage Deficiencies in the 2013 survey (due to some missing sewer caps) was inspected by DSS during the current survey and found to be in good condition.

Meteorological data indicated that there was 21.13" total rainfall during the survey period. This includes a 5.09" 24-hour rain event on November 12, 2020. A monthly breakdown is as follows:

Nov. 2020	6.47"	December	2.94"	Jan. 2021	3.06"	February	5.1"
March	1.98"	April	1.79"	May	1.48"	June	3.97"

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.

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.

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 # 90 Near-Shore Sampling, Rainfall in inches.								
Sample dates	High Tide	Ebb Current	Sampling time	Enterococcus range (MPN/100ml)	Day of	Previous 24 hours	Previous 7 days	Monthly
4/27/2021	9:38	1:55 – 8:00	9:39 - 12:08	<10 - 279	0	0	0.43	1.79
4/28/2021	10:28	2:45 – 8:54	11:00 - 14:30	<10 - 30	0	0	0.43	
5/25/2021	8:24	12:14 – 6:17	9:02 - 11:52	<10 - 243	0.01	0.01	0.01	1.48
5/26/2021	9:18	1:05 – 7:08	9:02 - 11:52	<10 - 20	0	0.01	0.02	
Total rainfall for nearshore sampling period (April 1 – May 26, 2021)								2.19

The current restriction on shellfish harvesting is Condemned Shellfish Area # 090-152, Old Plantation Creek. Copies of bacteriological, hydrographical, and shellfish closure data are available at the area field office for review. 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/).

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

Report copies are provided to the local health department for corrective action of deficiencies listed on the summary page in Section B.2. and the Department of Environmental Quality for possible action at properties listed on the summary page in Sections C.1. and C.2. The Division of Soil and Water Conservation is provided information on possible sources of animal pollution found in Section E.

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. Individual field forms with full information on properties listed in this report are on file in the Richmond Office of the Division of Shellfish Safety and are available for reference until superseded by a subsequent resurvey of the area.

## SECTION B: SEWAGE POLLUTION SOURCES

[illegible]

## SECTION C: NONSEWAGE WASTE SITES

[illegible]

## SECTION D: BOATING ACTIVITY

[illegible]

## SECTION E: CONTRIBUTES ANIMAL POLLUTION

[illegible]

## SUMMARY

Growing Area # 090  
Old Plantation and Elliotts Creeks  
30 June 2021

### SECTION B: SEWAGE POLLUTION SOURCES

#### 1. SEWAGE TREATMENT WORK

0 – DIRECT – None.  
1 – INDIRECT – # T5  
1 – B.1. TOTAL

#### 2. ONSITE 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

0 – DIRECT – None.  
0 – INDIRECT – None.  
0 – 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

0 – MARINAS – None.  
1 – OTHER PLACES WHERE BOATS ARE MOORED –T4  
0 – UNDER SURVEILLANCE – None.  
1 – D. TOTAL

### SECTION E: CONTRIBUTES ANIMAL POLLUTION

0 – DIRECT – None.  
2 – INDIRECT – # T2, T3  
2 – E. TOTAL

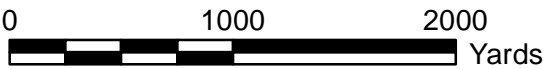


Virginia Department of Health  
Division of Shellfish Sanitation

Chesapeake Bay:  
Old Plantation Creek to  
Cape Charles Point  
# 090  
Shoreline Sanitary Survey

Northampton County

Date: 30 June 2021  
Survey By: T. Charnock & I. Geeson  
Number of Properties Surveyed &  
Near Shore Samples Collected: 89



Legend

SeawaterSamplingStations (History)

- Active
- Inactive

Sewered Areas

BoatRamps (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 # 090 - Chesapeake Bay:  
Old Plantation Creek -  
Cape Charles Point**

**Enterococci Sampling**

**- Highest Sample: 243 at T16 on 5/25/21**



**Legend**

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

**Sampling Dates: 4/27/21 - 5/25/21**

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

29 June 2021