



COMMONWEALTH of VIRGINIA

Department of Health Division of Shellfish Safety

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OCCOHANNOCK CREEK Growing Area # 084 Accomack and Northampton Counties Shoreline Sanitary Survey

Date: 24 January 2019

Survey Period: May 18, 2018 – January 23, 2019

Total Number of Near Shore Samples Collected and properties Surveyed: 153

Surveyed By: B.T. Charnock and R.C. Snead

SECTION A: GENERAL

This survey area extends from Reference Point 84 at Poles (or Powells) Bluff to Reference Point 85 at Nassawadox Point, including the Chesapeake Bay shoreline between these two points, Occohannock Creek and its tributaries of Tawes Creek, Scarborough Gut, Shields Cove (Shields Creek), Taylor Branch, Wescott Cove, Fisher Cove, Mt. Airy Cove, Johnson Cove, and Killmon Cove.

Elevations in the area consistently rise from 5'-10' very near the shoreline to heights of 30'-40' in the outer reaches of the watershed. There is very little marshland. The economy of the area is based primarily upon agriculture, seasonal recreational activities, and commerce. The population is relatively sparse, except for moderate concentrations in Belle Haven, Exmore, and Silver Beach.

Meteorological data indicated that the area received a total rainfall of 48.05" for the survey period, with tropical storms Florence, and Michael making rainfall impacts in the early fall of 2018. A monthly breakdown is as follows:

May 18-31, 2018	2.87"	August	3.84"	November	4.83"
June	5.53"	September	15.53"	December	3.63"
July	6.42"	October	2.66"	January 1-23, 2019	2.74"

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 established 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. 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. Certain stations at the head of Occohannock Creek were sampled a 3rd time on 12/11/2018 for additional data. Stations T27.5 and T32.5 were added for additional data between station locations. Hydrographic data and Ebb current windows are shown in the table below. Maps of the enterococcus sampling are shown at the conclusion of this report.

Rainfall and Tide Data for Sampling Dates

Sample Date	Run #	High Tide	Low Tide	Previous 24 Hours	Previous 48 Hours	Previous 72 Hours
5/31/2018	1	12:54 PM	7:20 PM	0.00	0.00	0.36
8/8/2018	1	8:22 AM	3:03 AM	0.00	0.00	0.02
8/24/2018	1	10:22 AM	4:51 PM	0.00	0.02	0.26
9/6/2018	2	8:11 AM	2:52 PM	0.00	0.00	0.33
11/6/2018	2	9:35 AM	4:24 PM	0.04	0.25	0.25
11/9/2018	2	11:39 AM	6:39 PM	0.86	0.86	0.86
12/11/2018	3	1:11 PM	8:13 PM	0.04	0.42	1.11

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.

[illegible]

SECTION C: NONSEWAGE WASTE SITES

[illegible]

SECTION D: BOATING ACTIVITY

[illegible]

[illegible]

SUMMARY

Growing Area # 084
Occohannock Creek
24 January 2019

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

0 – DIRECT – None.
1 – INDIRECT – # R7
1 – B.1. TOTAL

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

0 – CONTRIBUTES POLLUTION, DIRECT – None
1 – CONTRIBUTES POLLUTION, INDIRECT – # R23
1 – CP (Kitchen or Laundry Wastes), DIRECT – # R5
4 – CP (Kitchen or Laundry Wastes), INDIRECT – # R2, R3, R20, R21
0 – NO FACILITIES, DIRECT – None.
9 – NO FACILITIES, INDIRECT – # R8, R9, R10, R11, R12, R13, R14, R15, R16
15 – B.2. TOTAL

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

1 – POTENTIAL POLLUTION – # R24

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 – # R18
1 – C.2. TOTAL

SECTION D: BOATING ACTIVITY

1 – MARINAS – # R1
0 – OTHER PLACES WHERE BOATS ARE MOORED – None.
1 – UNDER SURVEILLANCE – # R17
2 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

1 – DIRECT – # R4
4 – INDIRECT – # R2, R3, R20, R21
5 – E. TOTAL

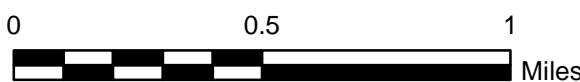
Virginia Department of Health
Division of Shellfish Sanitation

Occohannock Creek
084

Shoreline Sanitary Survey

Accomack & Northampton Counties

Date: 24 January 2019
Survey By: R.C. Snead, B.T. Charnock
& E.M. Yeagan
Number of Properties Surveyed and
Near Shore Samples Collected: 153



Legend

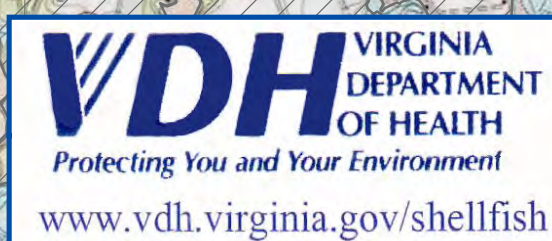
Seawater Sampling Stations

- Active (blue star)
- Inactive (grey star)

Shoreline Survey Deficiencies

- Sewered areas (hatched box)
- DIGF Boat Ramps (blue circle with 'D')
- Sewage Treatment Facility - Direct (red star)
- Sewage Treatment Facility - Indirect (black star)
- Contributes Pollution - Direct (red square)
- Contributes Pollution - Indirect (black square)
- Contributes Pollution (Kitchen or Laundry wastes) - Direct (red triangle)
- Contributes Pollution (Kitchen or Laundry wastes) - Indirect (black triangle)
- No Facilities - Direct (red circle)
- No Facilities - Indirect (black circle)
- Potential Pollution (black diamond)
- Industrial Wastes, Direct (red circle with 'I')
- Industrial Wastes, Indirect (black circle with 'I')
- Solid Waste Dumpsite - Direct (red circle with 'S')
- Solid Waste Dumpsite - Indirect (black circle with 'S')
- Boating Activity (red circle with 'B')
- Contributes Animal Pollution - Direct (red circle with 'A')
- Contributes Animal Pollution - Indirect (black circle with 'A')

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



Aerial Imagery © 2002 Commonwealth of Virginia



Near Shore Enterococcus Sampling GA # 084 - Occohannock Creek

* Highest value was 933 collected on November 9, 2018.

083
Craddock
Creek

084
Occohannock
Creek

085
Nassawadox
Creek

Legend

Enterococcus spp. (MPN/100ml)

- 0 - 10
- 11 - 100
- 101 - 1000
- 1001 - 10000
- > 10001



7 January 2019