



COMMONWEALTH of VIRGINIA
DEPARTMENT OF HEALTH
DIVISION OF SHELLFISH SANITATION

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RAPPAHANNOCK RIVER: TOWLES POINT TO DEEP CREEK
Growing Area # 022
Lancaster County
Shoreline Sanitary Survey

Date: 31 January 2018

Survey Period: September 25, 2017- January 3, 2018

Total Number of Properties Surveyed: 142

Surveyed By: R.M. Thomas, W.A. McCarty III, W.I. Barrack III

Section A: GENERAL

This survey area extends from Reference Point 22 at Towles Point to Reference Point 23 at the end of State Route 653 (extended to the shoreline), including the Rappahannock River shoreline between these two points, Wyatt Creek, Beach Creek, Paynes Creek, Belmont Creek, Greenvale Creek, Midway Creek, and all of their tributaries.

The topography of the area varies in elevations from 5' or less along the shoreline to a maximum of 90' at the northeastern edge of the survey boundary. The economy is based primarily on construction, agriculture, forestry, fishing, hunting, accommodations and food services. The 2016 US Census Bureau study reported that the population showed a decrease of 3.7 percent between 2009 and 2016. The Lancaster County Board of Supervisors has required implementation of a Septic System Pump-out/Inspection Program, requiring all private septic systems to be pumped out at least once every 5 years. This program is in accordance with the County's Chesapeake Bay Preservation Ordinance and mandated by the Chesapeake Bay Local Assistance Board of the Department of Conservation and Recreation (DCR).

Meteorological data indicated that the area received a total rainfall of 8.52" for the survey period. A monthly breakdown is as follows:

Sep 25-30, 2017	0.00"	October	5.28"	November	1.37"
December	1.86"	Jan 1-3, 2018	0.01"		

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.

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

Area 22 Nearshore Sampling					Rainfall in Inches		
Sample dates	Run #	High Tide	Ebb Current	Sampling time	Day of	Previous 24 hours	Previous 72 hours
10/2/17	1	8:05 am	11:41 am - 5:57	11:48-2:12	0.00	0.00	0.00
10/3/17	1	8:47 am	12:29 pm - 6:39	12:31-2:44	0.00	0.00	0.00
10/12/17	1	3:47 am	7:23 am - 1:27	8:56-11:46	0.03	2.57	2.57
10/16/17	SS	8:05 am	11:53 am - 6:15	12:57-2:39	0.29	0.29	0.29
10/23/17	SS	12:53 am	4:35 am - 10:21	9:12-10:19	0.00	0.00	0.00
10/30/17	2	6:53 am	10:17 am - 4:27	10:24-1:38	0.66	1.80	1.80
10/31/17	2	7:35 am	11:17 am - 5:27	11:20-2:07	0.00	0.66	1.80
11/1/17	2	8:17 am	12:11 pm - 6:09	12:14-2:36	0.00	0.00	0.66
11/7/17	SS	12:17 pm	4:11 pm - 10:15	12:11-1:21	0.33	0.33	0.39
11/9/17	SS	1:41 am	5:05 am - 11:03	8:27-10:35	0.11	0.11	0.44
*12/6/17	GMSS	11:59 am	3:59 pm - 9:57	2:15-2:35	0.00	0.00	0.00
*12/14/17	GMSS	7:17 am	11:35 am - 5:33	11:50-12:10	0.00	0.00	0.00
*12/21/17	GMSS	12:11 pm	4:23 pm - 10:39	1:55-2:15	0.00	0.00	0.00
*1/3/18	GMSS	10:53 am	2:53 pm - 8:51	1:25-1:45	0.00	0.00	0.00

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/.

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 # 022
Rappahannock River: Towles Point to Deep Creek
31 January 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

0 – DIRECT – None

0 – INDIRECT – None

0 – C.1. TOTAL

2. SOLID WASTE SITES

0 – DIRECT – None

0 – INDIRECT – None

0 – C.2. TOTAL

SECTION D: BOATING ACTIVITY

2 – MARINAS – # W3, W5

2 – OTHER PLACES WHERE BOATS ARE MOORED – # W1, W6

2 – UNDER SURVEILLANCE – # W2, W4

6 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

1 – DIRECT – # W8

4 – INDIRECT – # W7, W9, W10, W11

5 – E. TOTAL

SECTION F: STORMWATER OUTFALLS

0 – DIRECT – None

0 – INDIRECT – None

0 – E. TOTAL

Virginia Department of Health
Division of Shellfish Sanitation

Rappahannock River:
Towles Point to Deep Creek
022
Shoreline Sanitary Survey

Lancaster County

Date: 31 January 2018
Survey By: R.M. Thomas, W.A. McCarty III,
& W.I. Barrack III
Number of Properties Surveyed: 142

0 750 1,500
Yards



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

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

GA # 022 - Enterococcus Sampling
Rappahannock River: Towles Pt to Deep Cr
Oct10, 2017 - Jan3, 2018



Enterococcus spp. (MPN/100ml)

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