



# COMMONWEALTH of VIRGINIA

## Department of Health Division of Shellfish Safety

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### **POQUOSON RIVER AND BACK CREEK Growing Area # 053 York County and City of Poquoson Shoreline Sanitary Survey**

**Date:** August 25, 2021

**Survey Period:** January 2020 to July 2021

**Total Number of Properties Surveyed and Near-shore Samples Collected:** 784

**Surveyed By:** F. Monis, L. Sakach, E. Yeargan, W. Barrack, A. Roach, T. Egerton, J. Dickerson, H. Isiminger, I. Geeson

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

This survey extends from Reference Point 53 at the northwest mouth of Thorofare, (triangulation marker "Sandbox") to Reference Point 54 at Thorofare Creek, northwest mouth, including the Chesapeake Bay shoreline between these two points: Thorofare, Back Creek, Claxton Creek, Bay Tree Creek, Chisman Creek, (Cabin Creek, Goose Creek, and Boathouse Creek), Hodges Creek, Poquoson River (Patrick Creek, Quarter March Creek, Moores Creek, and Lambs Creek), Roberts Creek, Bennett Creek (Lyons Creek, White House Cove, Floyds Bay, and Easton Cove), Lloyd Bay, Sandy Bay, Rock Creek, Big Salt Marsh, Fire Pine Creek, Gum Hammock Creek, and all their tributaries.

The topography of the area is characterized by large marshes in the eastern section, with elevations of less than 5' including the Goodwin Islands group, Crab Neck, Cow Island, and Big Salt Marsh. Elevations rise to between 5' and 15' forming a plateau, which extends several miles westward near U.S. Route 17 before rising to approximately 50' near the eastern edge of Harwood's Mill Reservoir and U.S. Route 17. The economy of the area is dependent primarily upon light industry, local commerce and services, a declining seafood industry, and military installations in the surrounding parts of the Lower Peninsula and Hampton Roads. Recreational boaters and commercial fishermen use the Poquoson River watershed. Large numbers of waterfowl are found in the river and marsh areas.

Most but not all homes in the region are served by the Hampton Roads Sanitation District, York River Treatment Plant. In September 2020, heavy rains associated with the remnants of Hurricane Sally coincided with a transport pipe failure at the treatment facility resulting in an approximate 6.8 million gallon release of raw sewage into Growing Area 53. An emergency closure was put in place from September 18 to October 2, 2020. Water quality and shellfish tissue samples were evaluated at multiple locations before the closure was lifted.

Meteorological data indicated that the area received a total rainfall of 95.2" for the survey period. A monthly breakdown is as follows:

Mar. 2020	3.3"	April	4.98"	May	2.95"	June	4.58"
July	3.32"	August	12.8"	September	9.02"	October	3.15"
November	6.69"	December	5.1"	Jan. 2021	4.21"	February	5.91"
March	3.69"	April	2.84"	May	2.23"	June	5.39"
July	5.77"						

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 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 # 53 Nearshore Sampling					Rainfall in inches		
Sampling Dates	High Tide *	Ebb Current**	Sampling Time	Enterococcus range (MPN/100mL)	Day of	Previous 24 hours	Previous 7 days
1/13/2020	10:43	12:36	10:43-13:57	<10 - 3255	0.39	0.03	0.29
1/14/2020	11:33	13:20	11:06-14:39	<10 - 8664	0.75	0.39	0.68
1/15/2020	12:24	14:05	12:20-14:45	<10 - 9208	0.00	0.75	1.17
1/22/2020	7:12	9:09	9:35-10:48	<10 - 279	0.00	0.00	0.12
3/9/2020	9:31	11:12	9:56-13:47	<10 - 96	0.00	0.00	0.00
3/10/2020	10:20	11:56	10:28-13:05	<10 - 282	0.01	0.00	0.00
3/11/2020	11:08	12:40	11:02-14:00	<10 - 52	0.00	0.00	0.00
7/20/2020	9:30	10:28	9:35-11:33	<10 - 2187	0.00	0.06	1.24
7/21/2020	10:16	11:20	10:48-13:25	<10 - 488	0.03	0.00	0.82
7/22/2020	11:01	12:15	11:20-12:46	<10 - 185	0.22	0.03	0.67
1/27/2021	7:56	12:32	10:39-11:01	31 -109	0.00	0.9	1.37
2/11/2021	8:49	10:34	9:08-10:33	<10 - 10	0.38	0.00	0.30
Total Rainfall for sampling Period (Jan 13,2020 to July 1, 2021)							87.73

\* High Tide estimate at Messick Point

\*\*Slack Ebb Current estimate at Tue Marshes Light

The large geographic extent of the Growing Area as well as workflow disruptions caused in part by the novel coronavirus SARS-CoV-2 played a factor in the delay between sampling dates.

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 [www.vdh.virginia.gov/shellfish/](http://www.vdh.virginia.gov/shellfish/). Information in this report is gathered by and primarily for use of 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.

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. 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. Data in the report is also made available to local health departments and other agencies to address items that may be out of compliance with their regulatory programs.

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[illegible]

## SECTION D: BOATING ACTIVITY

OBJECT ID	GA #	Field #	Inspection Date	Deficiency or Pollution Type	Latitude	Longitude	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
1644	53	F7	7/13/2021	BOATING ACTIVITY	37.141633	-76.376761		NA	Marine	N	Whitehouse Cove Marina. Commercial marina.	Poquoson	Marina	156	20	10	Y	FM
1645	53	F9	7/15/2021	BOATING ACTIVITY	37.140427	-76.381343		NA	Marine	N	Islander Marina. Commercial marina.	Poquoson	Marina	32	10	4	N	FM
1648	53	F10	7/15/2021	BOATING ACTIVITY	37.145993	-76.375949		NA	Marine	N	York Haven Marina. Commercial marina.	Poquoson	Marina	79	23	15	N	FM
1651	53	L1	8/4/2021	BOATING ACTIVITY	37.220930	-76.422147		NA	Marine	N	Goodwin Island Marina. Private dock used for aquaculture.	York	Marina	15	1	0	N	LS
1655	53	L2	6/11/2021	BOATING ACTIVITY	37.205793	-76.436693		Conv	Marine	N	Seaford Yacht Club. Commercial marina.	York	Marina	28	5	3	N	LS
1656	53	L3	7/2/2021	BOATING ACTIVITY	37.205404	-76.437749		Conv	Marine	N	Back Creek Park. Public boat ramp.	York	Marina	0	0	0	N	LS
1659	53	L4	6/11/2021	BOATING ACTIVITY	37.202920	-76.425140		NA	Marine	N	Mills Marina. Commercial Marina. Sewage system connected to HRSD.	York	Marina	63	13	0	N	LS
3067	53	L5	8/19/2021	BOATING ACTIVITY	37.205421	-76.418270		Conv	Marine	N	Seaford Scallop Company Inc., Seafood processing facility.	York	Marina	17	6	0	N	LS
1664	53	L6	6/11/2021	BOATING ACTIVITY	37.182438	-76.408095		Conv	Marine	N	Aqua Marina. Commercial marina.	York	Marina	26	0	0	N	LS
1665	53	L7	6/11/2021	BOATING ACTIVITY	37.184181	-76.410880		Conv	Marine	N	Thomas Marina. Commercial marina.	York	Marina	39	9	8	N	LS
1667	53	L8	7/2/2021	BOATING ACTIVITY	37.180352	-76.438406		NA	Marine	N	Robanna Shores. Private community pier and ramp.	York	Marina	12	0	0	N	LS
1676	53	L10	8/4/2021	BOATING ACTIVITY	37.181458	-76.422223		NA	Marine	N	Dare Marina. Commercial marina. Sewage disposal is to HRSD. 6/16/21 - FM conducted a follow-up site visit. Assessed new pumpout station and disposal system. New station installed in March or April 2021.	York	Marina	52	137	0	N	LS
1650	53	B92	8/19/2021	BOATING ACTIVITY	37.140437	-76.379575		NA	Dwelling	N	Private residence provides some some slips.	Poquoson	Under Surveillance	6	2	0	N	IG
1640	53	F2	7/2/2021	BOATING ACTIVITY	37.140128	-76.364413	1 house boat, 1 pleasure boat <26', 1 privy. House boat waste is being contained and may be disposed of in privy.	NA	Marine	N	Dock with corrugated sheet metal building.	Poquoson	Under Surveillance	1	1	0	N	FM
1641	53	F3	7/2/2021	BOATING ACTIVITY	37.139116	-76.366492	Landing site for aquaculture.	NA	Marine	N	Property gated and locked.	Poquoson	Under Surveillance	5	1	0	N	FM
1647	53	F4	6/12/2020	BOATING ACTIVITY	37.136840	-76.372278		NA	Marine	Y		Poquoson	Under Surveillance	0	2	0	N	FM
1642	53	F5	6/11/2021	BOATING ACTIVITY	37.140052	-76.368919		NA	Marine	N	Private pier.	Poquoson	Under Surveillance	0	3	2	N	FM
1643	53	F6	6/15/2020	BOATING ACTIVITY	37.141951	-76.375854		NA	Marine	N		Poquoson	Under Surveillance	4	1	0	N	FM
1690	53	F8	6/15/2020	BOATING ACTIVITY	37.136656	-76.382535		NA	Marine	N		Poquoson	Under Surveillance	6	1	0	N	FM
1646	53	F11	6/25/2020	BOATING ACTIVITY	37.143814	-76.379190		NA	Marine	N		Poquoson	Under Surveillance	3	0	1	N	FM
1649	53	F12	7/17/2020	BOATING ACTIVITY	37.146291	-76.375022		Conv	Marine	N		Poquoson	Under Surveillance	4	2	0	N	FM

## SECTION D: BOATING ACTIVITY

[illegible]

# Shoreline Survey # 053

## SECTION E: CONTRIBUTES ANIMAL POLLUTION

[illegible]



## SUMMARY

Growing Area # 053  
Poquoson River and Back Creek  
25 August 2021

### SECTION B: SEWAGE POLLUTION SOURCES

#### 1. SEWAGE TREATMENT FACILITIES

1 – DIRECT – # A15  
0 – INDIRECT – None.  
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.  
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.

1 – POTENTIAL POLLUTION – # M1

### SECTION C: NON-SEWAGE WASTE SITES

#### 1. INDUSTRIAL WASTE SITES

1 – DIRECT – # A19  
3 – INDIRECT – # A16, L21, L22  
4 – C.1. TOTAL

#### 2. SOLID WASTE DUMPSITES

0 – DIRECT – None  
1 – INDIRECT – # F1  
1 – C.2. TOTAL

#### 3. STORMWATER OUTFALLS

5 – DIRECT – # FB1, FB2, FC1, FC2, FD5  
5 – INDIRECT – # FA1, FD1, FD2, FD3, FD4  
10 – E. TOTAL

### SECTION D: BOATING ACTIVITY

12 – MARINAS – # F7, F9, F10, L1, L2, L3, L4, L5, L6, L7, L8, L10  
12 – UNDER SURVEILLANCE – # B92, F2, F3, F4, F5, F6, F8, F11, F12, F16, L9, L11  
24 – D. TOTAL

### SECTION E: CONTRIBUTES ANIMAL POLLUTION

1 – DIRECT – # T14A  
2 – INDIRECT – # F17, L20  
3 – E. TOTAL



Virginia Department of Health  
Division of Shellfish Sanitation

Poquoson River and Back Creek  
Growing Area # 053  
Shoreline Sanitary Survey

York County & City of Poquoson

Date: 25 August 2021  
Survey By: F. Monis, L. Sakach, E. Yeargan,  
W. Barrack, A. Roach, T. Egerton,  
J. Dickerson, H. Isiminger, & I. Geeson  
Number of Properties Surveyed and  
Near-shore Samples Collected: 784

0 1000 2000  
Yards

Legend

Seawater Sampling Stations (History)

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 # 053 - Poquoson River and Back Creek Enterococci Sampling

- Highest Sample: 9208 at G696 on 1/15/20

## Legend

Enterococcus spp. (MPN/100ml)

Sampling Dates: 1/13/20 - 7/2/21

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

0 4000 8000  
Feet



18 August 2021