



COMMONWEALTH of VIRGINIA

Department of Health

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WARWICK RIVER AND DEEP CREEK Growing Area # 058 Shoreline Sanitary Survey City of Newport News

Date: 20 June 2024

Survey Period: March 11 – June 7, 2024

Total Number of Properties Visited and Near-shore Samples Collected: 28

Surveyed By: I. Geeson

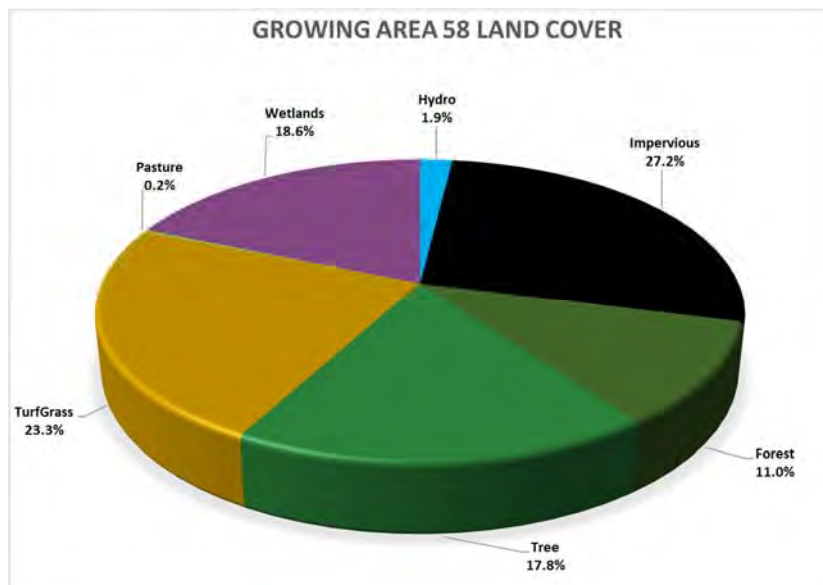
SECTION A: GENERAL

This survey area extends from Reference Point 58 at Blunt Point to Reference Point 59 at Mulberry Point, including the James River shoreline between these two points, Warwick River, Fisher's Creek, Deep Creek (Yoder Pond), Thorofare, Lucas Creek, Stony Run Creek, Butler's Gut, Jail Creek, Swash Hole, Morrisons Creek, Fort Creek and all of their tributaries. Topography of the area is characterized by elevations ranging from 5' in the area west of the Warwick River (Mulberry Island) to about 35' east of the Warwick River.

The 2020 census reported that there are an estimated 59,943 residents across 24647 housing units in Growing Area 58.

<https://www.census.gov/geographies/reference-maps/2020/geo/2020-census-block-maps.html>

Within Growing Area 58 there are 18029 land parcels. Land Cover data are shown below.





Source: https://gismaps.vdem.virginia.gov/Download/Land_Cover/County_Report.pdf

Meteorological data indicated that 4.02" of rain fell during the survey period. A monthly breakdown is as follows:

Date Range	Cumulative Rainfall	Average Monthly rainfall 2013-2023
March 11-31, 2024	4.8"	N/A (partial month)
April 2024	1.27"	4.26"
May 2024	4.35"	4.09"
June 1-7, 2024	0.19"	N/A (partial month)

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. Navigable shoreline within the primary survey boundary was visually inspected to identify potential pollution sources requiring further investigation.

Nearshore seawater stations were established to survey the 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. During this survey, nearshore samples were analyzed for the FIB enterococcus as well as the human-associated molecular marker gene HF183, which may indicate the presence of recent human-source fecal pollution.

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 # 58 Nearshore Sampling						Rainfall in inches	
Sample dates	High Tide*	Ebb Current**	Sampling times	Enterococcus range (MPN/100ml)	Day of	Previous 24 hours	Previous 7 days
5/6/24	09:20	11:55	10:41-12:00	<10 - 364	0.15"	0.21"	0.21"
Total rainfall for nearshore sampling period 0.15"							

* High tide estimated from Menchville (NOAA ID 8638407).

** Slack ebb current estimated from North End (NOAA ID ACT5321).

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-virginiapollutant-discharge-elimination-system>.

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.

Copies of the current condemnation notices and maps are available via the Internet at <https://www.vdh.virginia.gov/environmental-health/environmental-health-services/shellfish-safety/>.

SECTION B: SEWAGE POLLUTION SOURCES

[illegible]

Shoreline Survey # 058

SECTION C: NONSEWAGE WASTE SITES

[illegible]

Shoreline Survey # 058

SECTION D: BOATING ACTIVITY

[illegible]

SECTION E: ANIMALS PRESENT

[illegible]

SUMMARY

Growing Area # 058
Warwick River and Deep Creek
20 June 2024

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

1 – DIRECT – # G2
1 – INDIRECT – # G1
2 – 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.

0 – POTENTIAL POLLUTION – None

SECTION C: NON-SEWAGE WASTE SITES

1. INDUSTRIAL WASTE SITES

0 – DIRECT – # 13
0 – INDIRECT – None.
0 – C.1. TOTAL

2. SOLID WASTE DUMPSITES

0 – DIRECT – None.
1 – INDIRECT – # G4
1 – C.2. TOTAL

3. STORMWATER

1 – DIRECT – # 327
0 – INDIRECT – None.
1 – TOTAL

SECTION D: BOATING ACTIVITY

6 – MARINAS, INDIRECT – # 8, 132, 167, 175, 179, G3
1 – UNDER SURVEILLANCE, INDIRECT – # 252
7 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

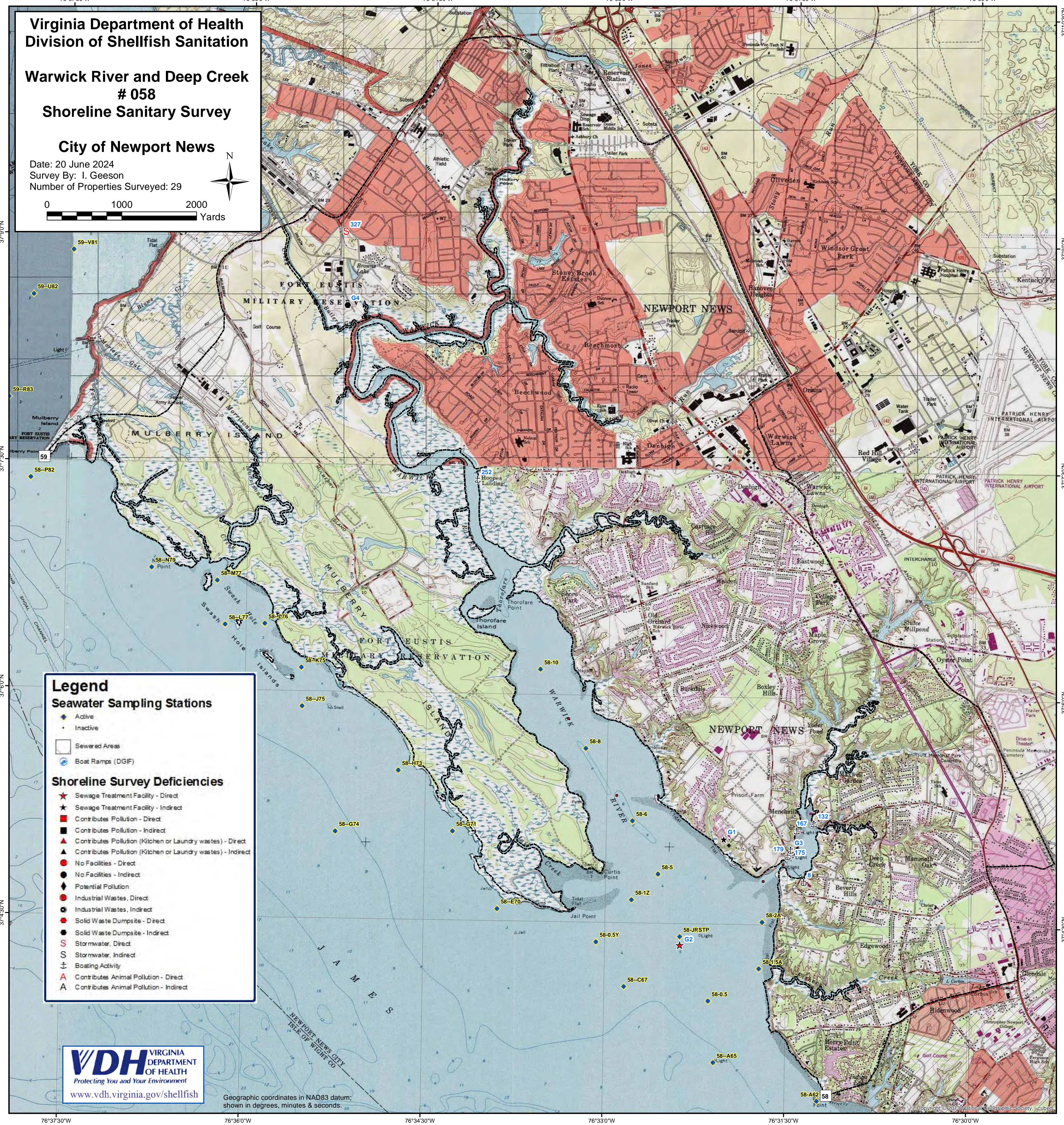
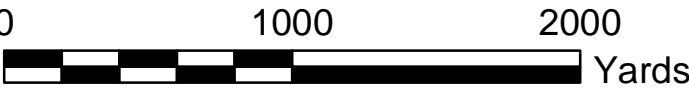
0 – DIRECT – None.
0 – INDIRECT – None.
0 – E. TOTAL

Virginia Department of Health
Division of Shellfish Sanitation

Warwick River and Deep Creek
058
Shoreline Sanitary Survey

City of Newport News

Date: 20 June 2024
Survey By: I. Geeson
Number of Properties Surveyed: 29



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

**Near Shore Enterococcus
Sampling
Growing Area # 058
- Warwick River and Deep Creek
Newport News**

* Highest Enterococcus value of 364
collected at station # DC2 on 5/6/24.

0 2000 4000
Yards



Legend

Enterococcus spp. (MPN/100ml)

Sampling Date: 5/6/24

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