



COMMONWEALTH of VIRGINIA

Department of Health
P O BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

CAPE CHARLES Growing Area # 089 Northampton County Shoreline Sanitary Survey

Date: 30 November 2023

Survey Period: September 28, 2023 – November 30, 2023

Total Number of Properties Surveyed and Near-shore Samples Collected: 55

Surveyed By: T. Charnock, R. Snead, T. Wagner & I. Geeson

SECTION A: GENERAL

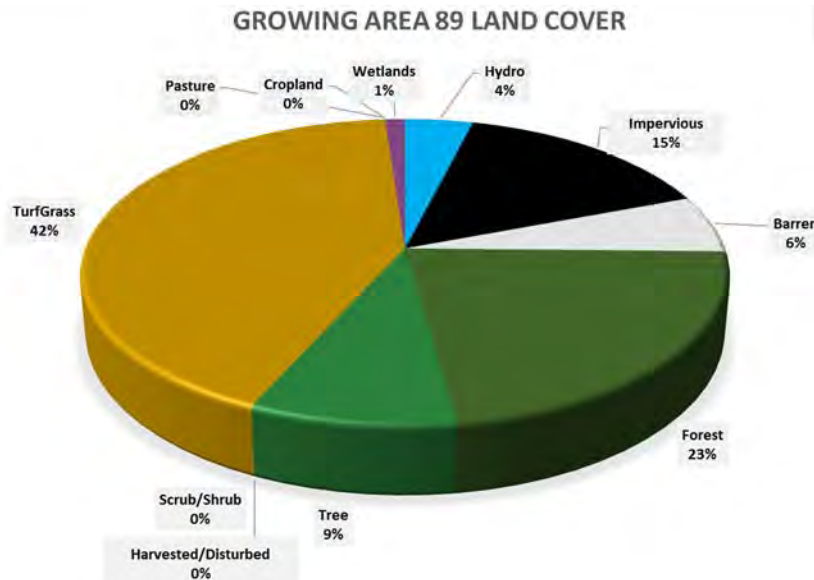
This survey area extends from Reference Point 89 at Washington Avenue in the town of Cape Charles to Reference Point 90 at the Cherrystone Channel south shore light, including the Chesapeake Bay shoreline between these two points, Cape Charles harbor, and all of their tributaries.

Elevations rise sharply from the shore to a maximum of 12', with most regions at 5-10'.

The survey area falls within Northampton County. The population in the 2022 census is an estimated 11,900 residents. This is a decrease of 4 percent since the 2010 census. Data from 2022 indicate there are 7517 housing units. In 2022, 122 building permits were issued.

<https://www.census.gov/quickfacts/fact/table/US/PST045221>

Within Growing Area 89 there are 1294 land parcels. Land Cover data are shown below.





Meteorological data indicated that a total rainfall of 3.91” during the survey period. A monthly breakdown is as follows:

Date Range	Cumulative Rainfall (inches)	Average Monthly rainfall 2012-2022
September 28-30 2023	0.01	N/A Partial Month
October 2023	1.83	3.94
November 2023	2.07	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 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.

Growing Area # 89 Nearshore Sampling						Rainfall in inches	
Sample dates	High Tide*	Ebb Current**	Sampling time	Enterococcus range (MPN/100ml)	Day of	Previous 24 hours	Previous 7 days
9/28/2023	08:41	11:50	10:35-11:19	9-31	0	.01	1.75
10/13/2023	08:51	12:14	10:26-11:13	9-10	0	0	0.05
10/19/2023	12:37	16:20	13:20-13:59	9-10	0	0	1.44
Total rainfall for nearshore sampling period (9/28/23 - 10/19/23) 1.5"							

*High Tide estimated from Cape Charles Harbor NOAA ID 1917.

*Slack Ebb Current estimated from Cape Charles City, 3.3 n mi west of NOAA ID 4571.

Information in this report is gathered by and primarily for use by the Division of Shellfish Safety, Virginia Department of Health, 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/water/surface-waters-vpdes> and <https://geohub-vadeq.hub.arcgis.com/pages/Water%20Datasets>.

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]

SECTION C: NONSEWAGE WASTE SITES

[illegible]

SECTION D: BOATING ACTIVITY

[illegible]

SECTION E: ANIMALS PRESENT

[illegible]

SUMMARY

Growing Area # 089
Cape Charles
30 November 2023

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

1 – DIRECT – # G3
1 – INDIRECT – # CC2
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 – D.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.
0 – INDIRECT – None.
0 – C.2. TOTAL

3. STORMWATER OUTFALLS

1 – DIRECT – # G3
0 – INDIRECT – None.
1 – E. TOTAL

SECTION D: BOATING ACTIVITY

2 – MARINAS – # CC1, G1
0 – OTHER PLACES WHERE BOATS ARE MOORED – None.
0 – UNDER SURVEILLANCE – None.
2 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

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

Virginia Department of Health
Division of Shellfish Sanitation

Cape Charles
089
Shoreline Sanitary Survey

Northampton County

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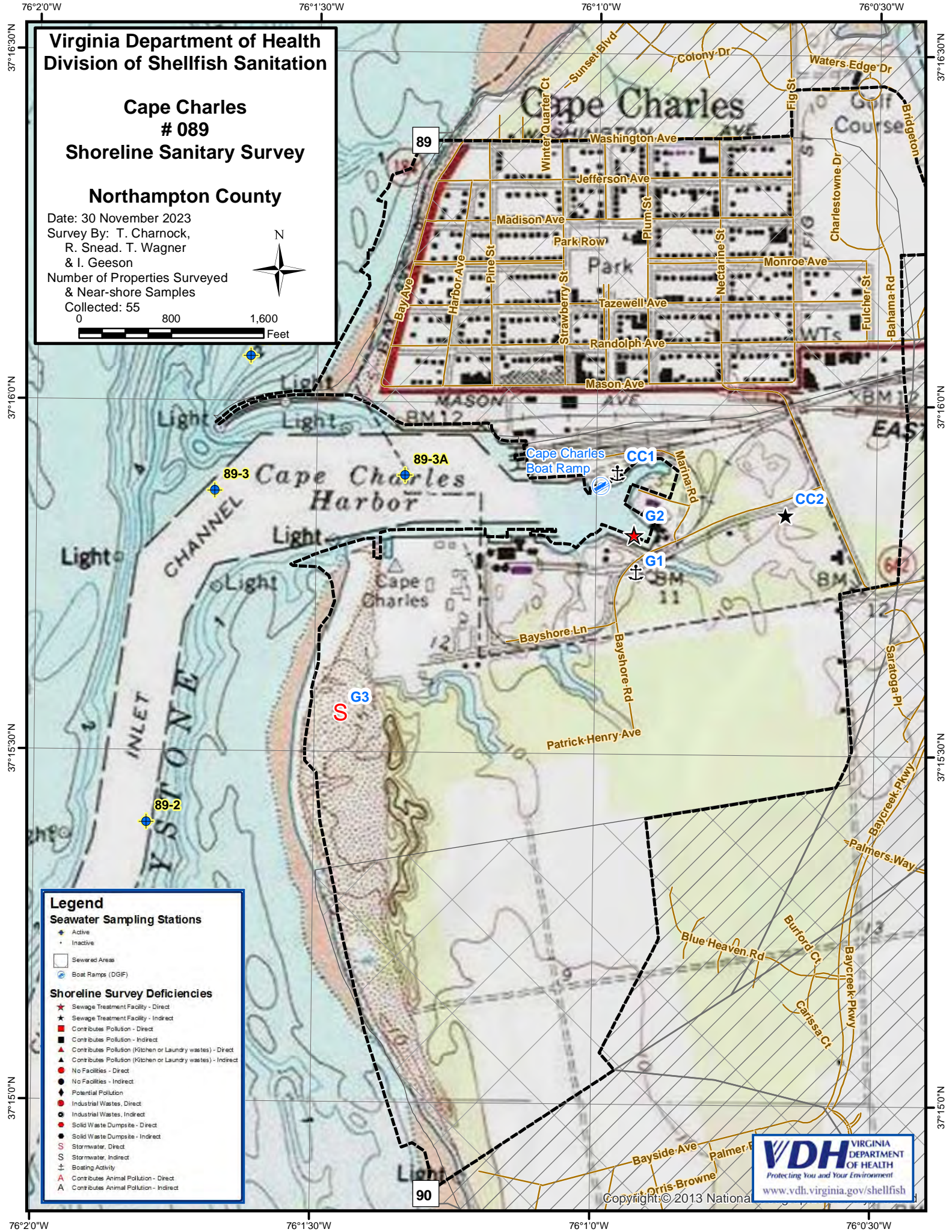
Number of Properties Surveyed

& Near-shore Samples

Collected: 55



0 800 1,600
Feet



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 # 089 - Cape Charles Northampton County

* Highest value was 31 collected at
T2 on 9/28/23.

0 250 500
Yards



Legend

Enterococcus spp. (MPN/100ml)

Sampling Dates: 9/28/23 - 10/19/23

- < 10
- 10 - 100
- 101 - 1000
- 1001 - 10000
- > 10000
- Roads (RCL)