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CHERRYSTONE INLET

Growing Area # 088 Northampton County Shoreline Sanitary Survey

Date: 28 September 2023

Survey Period: April 4, 2023 - September 28, 2023

Total Number of Properties Surveyed and Near-Shore Samples Collected: 107

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

SECTION A: GENERAL

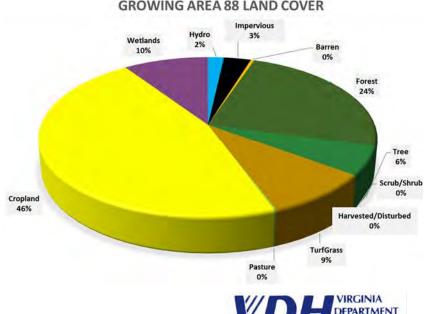
This survey area extends from Reference Point 88 at Wescoat Point to Reference Point 89 at the west end of Washington Ave. in the town of Cape Charles, including Cherrystone Inlet, Remus Creek, Wescoat Cove, Old Castle Creek, Eyreville Creek, Eyrehall Creek, Mill Creek, and Kings Creek and all their tributaries.

The topography of the area is relatively low with elevations ranging from less than 5' along the shoreline and marshy areas to 25' in the eastern portion of the survey area.

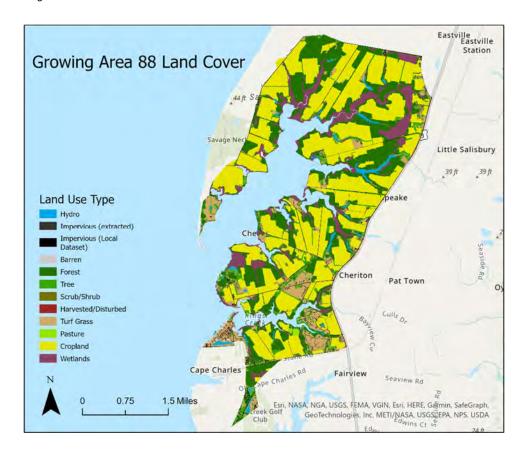
The survey area falls within Northampton County. The population in the 2022 census is an estimated 11,900 residents. This is a decrease of 4 percent since the 2010 census. Data from 2022 indicate there are 7517 housing units. In 2022, 122 building permits were issued. https://www.census.gov/quickfacts/fact/table/US/PST045221

Within Growing Area 88, there are 1209 land parcels. Land Cover data are shown below.

GROWING AREA 88 LAND COVER







Meteorological data indicated that a total rainfall of 21.83" during the survey period. A monthly breakdown is as follows:

Date Range	Cumulative Rainfall (inches)	Average Monthly rainfall 2012-2022
April 4-30, 2023	3.49	N/A Partial Month
May 2023	2.49	3.9
June 2023	5.43	3.85
July 2023	4.7	4.74
August 2023	2.98	4.11
September 1-28, 2023	2.73	N/A Partial Month

Most properties in the survey area are served by individual onsite sewage disposal systems. The exception are those homes in the town of Cape Charles connected to that town's sewage treatment plant. There is also a small, non-discharging wastewater treatment plant for the campground at the mouth of Cherrystone Inlet.

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 # 88 Nearshore Sampling Rainfall in inches										
Sample dates	High Tide*	Ebb Current**	Sampling Enterococcus range (MPN/100ml)		Day of	Previous 24 hours	Previous 7 days			
5/24/23	13:06	15:50	13:01 - 14:39	9-10	0	0	0.92			
5/25/23	13:52	16:49	12:01 - 14:39	9-10	0	0	0.06			
6/29/23	05:44	08:26	8:20 -10:25	9-63	0	0.02	2.62			
7/19/23	10:56	13:41	11:22 -13:06	9-142	0.59	0	1.66			
9/14/23	08:41	11:50	9:55 -11:23	9-20	0	0	0.9			
Total rainfall for nearshore sampling period (5/24/23 - 9/11/23) 14.76"										

^{*}High Tide estimated form Cape Charles Harbor NOAA ID 1917.

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/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/.

^{*}Slack Ebb Current estimated from Cape Charles City, 3.3 n mi wet of NOAA ID 4571.

SECTION B: SEWAGE POLLUTION SOURCES

	GA #	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Septic System Type	Structure Type	Contact	Overall Site Remarks	Locality	DSS Staff	Date of Correction	Correction Notes
2689	88		SEWAGE TREATMENT FACILITY, indirect	37.287094	-76.007410	DEQ permit # VPA01022. ~20 septic tanks. Effluent is pumped to a sewage lagoon with two lined cells. After treatment, effluent goes through chlorinator then spray irrigated onto fields.	Alt	Business		Campground with 700+ sites.	Northampton	TC		

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SECTION C: NONSEWAGE WASTE SITES

	GA #	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Septic System Type	Structure Type	Contact	Overall Site Remarks	Locality	DSS Staff
2690	88	I 15	INDUSTRIAL WASTES, direct	37.282916	I - 76 010094	Wash down waste from shellstock grading. DEQ permit # VAG523000	Conv	Business			Northampton	тс

SECTION D: BOATING ACTIVITY

	GA#	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Septic System Type	Structure Type	Contact	ontact Overall Site Remarks		Number of Wet Slips	NUM BOATS <26'	NUM BOATS >26'	Evidence of Live- Aboards	Locality	DSS Staff
26	2 88	T6	BOATING ACTIVITY	37.276215	l -75 987080	Private marina for residents. 89 Slips. Electricity and water provided.	NA	Marine		Home owners assossiation docks.	Marina	89	7	0	N	Northampton	TC
26	4 88	T7	BOATING ACTIVITY	37.279167		Marina with 159 slips. Electric, fresh water, pump out station, fuel dock and restrooms at end of dock and near tackle store.	Conv	Marine		Large marina/ restaurant.	Marina	159	38	39	Υ	Northampton	тс
26	6 88	T1	BOATING ACTIVITY	37.309903	-75.986654	In and out ramp with 9 slips.	Conv	Marine	N	In and out ramp with dock slips at end of lane.	Under Surveillance	9	0	1		Northampton	TC
26	7 88	T2	BOATING ACTIVITY	37.307172	-76.002770	Long dock for aquaculture work.	Privy	Marine	N		Under Surveillance	4	1	0	N	Northampton	тс
26	3 88	- 13	BOATING ACTIVITY	37.291108	-76.014575	Day use, rental boats only.	NA	Marine	N	Bait and tackle shop with rental Carolina Skiffs (16ft).	Under Surveillance	0	0	9	N	Northampton	тс
1																	

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SECTION E: ANIMALS PRESENT

	GA#	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Septic System Type	Structure Type	Contact	Overall Site Remarks	Locality	DSS Staff
5184	88	T8	ANIMAL PRESENT, direct	37.320662	- /5 987683	Several horses inside fenced pasture. Fenced area is very close to shoreline.	NA	Agri	N	Multiple horses on farm.	Northampton	TC

SUMMARY

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SECTION B: SEWAGE POLUTIN SOURCES

- 1. SEWAGE TREATMENT FACILITIES
 - 0 DIRECT None
 - 1 INDIRECT # T5
 - 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.
 - 0 POTENTIAL POLLUTION None.

SECTION C: NON-SEWAGE WASTE SITES

- 1. INDUSTRIAL WASTE SITES
 - 1 DIRECT # T5
 - <u>0</u> INDIRECT None.
 - 1 C.1. TOTAL
- 2. SOLID WASTE DUMPSITES
 - 0 DIRECT None
 - 0 INDIRECT None
 - 0 C.2. TOTAL
- 3. STORMWATER OUTFALLS
 - 0 DIRECT None.
 - <u>0</u> INDIRECT None.
 - 0 E. TOTAL

SECTION D: BOATING ACTIVITY

- 2 MARINAS # T6, T7
- 3 UNDER SURVEILLANCE # T1, T2, T3
- 5 D TOTAL

SECTION E: ANIMALS PRESENT

- 1 DIRECT # T8
- <u>0</u> INDIRECT None.
- 1 E. TOTAL

