COMMONWEALTH of VIRGINIA
Department of Health
P O BOX 2448
RICHMOND, VA 23218

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

**Growing Area # 086**
**CHESAPEAKE BAY: HUNGARS AND MATTAWOMAN CREEKS**
**Northampton County**
**Shoreline Sanitary Survey**

**Date**: 12/4/25
**Survey Period**: 10/18/24-9/22/25
**Total Number of Properties Surveyed and Near-Shore Samples Collected**: 158
**Surveyed By**: T. Springer, T. Charnock, R. Snead

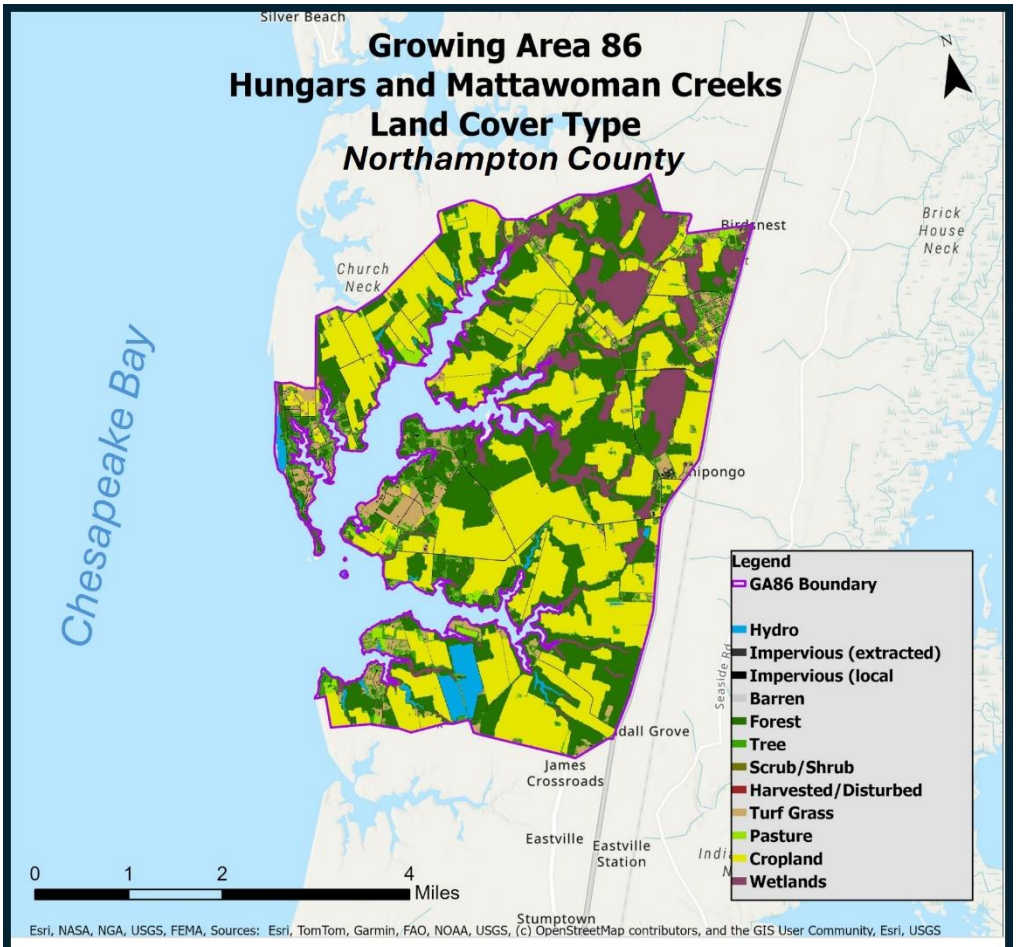
## SECTION A: GENERAL

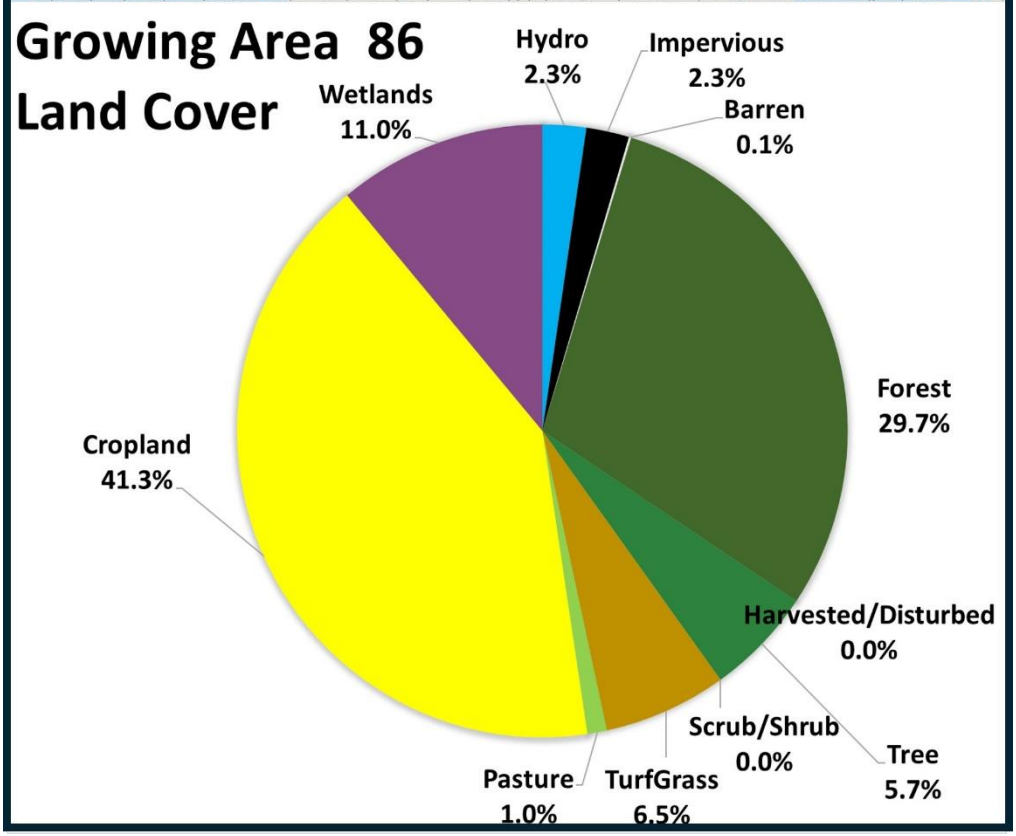
This survey area includes the entirety of Hungars Creek and its tributaries (including Masden Gut, Jacobus Creek, Paraplane Cove and others), and Mattawoman and Barlow Creeks and their tributaries. The area also includes the Chesapeake Bay shoreline from the mouth of Hungars Creek at Great Neck north approximately 2 miles to the Vaucluse Shores neighborhood, and from the mouth of Mattawoman Creek approximately 0.3 miles south to Hungars Beach. Inland, the survey area extends east to Route 13 Lankford Highway.

For the most up-to-date Classification map, see Virginia Shellfish Classification Map
For the Growing Area Boundary Map, see: Virginia Shellfish Growing Area Boundary Map

***Population and Landcover:***
The topography of the area surveyed begins at the shoreline of Chesapeake Bay and increases to 40 feet along the eastern edge of the survey boundary line at Route 13.

The 2020 census reported that there are an estimated 1,235 residents in Growing Area 86 with a population density is 67 residents per square mile. Within Growing Area 86 there are 703 housing units. The area is generally agricultural and sparsely populated, with most homes located in the Vaucluse Shores and Hungars Beach neighborhoods. Land Cover data are shown in the map below and summarized and in the following pie chart.




Source: [Virginia Geographic Information Network Land Cover Dataset]

***Rainfall Data:***
Meteorological data indicated that 32.08” of rain fell during the survey period. A monthly breakdown is as follows:

| Date range | Cumulative Rainfall (inches) | Avg. Monthly rainfall (2015-2024) |
|---|---|---|
| January 2025 | 1.95 | 3.56 |
| February 2025 | 5.37 | 3.23 |
| March 2025 | 3.43 | 3.87 |
| April 2025 | 3.94 | 3.09 |
| May 2025 | 5.09 | 3.93 |
| June 2025 | 3.14 | 4.30 |
| July 2025 | 2.74 | 5.19 |
| August 2025 | 6.42 | 4.02 |

***Nearshore Water Sampling:***
For this survey, nearshore seawater stations were established to assess navigable waters beyond the routine classification stations. These stations were positioned closer to the shoreline and farther upstream than the regular stations, with the goal of evaluating drainage entry points for potential point and nonpoint source pollution. Data from these stations were analyzed to compare fecal indicator bacteria (FIB) concentrations in the waterway and identify possible onshore contamination sources.

The table below shows hydrographic data, sampling times, and the range of enterococci concentrations measured.

| Growing Area #86 Nearshore Sampling | | | | Rainfall in inches | | |
|---|---|---|---|---|---|---|
| Sample dates | High Tide* | Sampling time | Enterococci range (MPN/100ml) | Day of | Previous 24 hours | Previous 7 days |
| 1/30/25 | 9:28 AM | 11:06 AM-11:48AM | <10-31 | 0 | 0 | 0 |
| 4/30/25 | 11:47 AM | 11:25 AM-12:28 PM | <10-51 | 0 | 0 | 0.03 |
| 5/1/25 | 12:42 PM | 1:09 PM-2:20 PM | <10-20 | 0 | 0 | 0 |
| 5/16/25 | 12:10 PM | 12:09 PM-1:38 PM | <10-20 | 0.11 | 0.1 | 1.65 |
| 5/22/25 | 5:01 AM | 8:58 AM-10:21 AM | 30-355 | 0.35 | 0.88 | 1.09 |
| 7/24/25 | 9:22 AM | 10:05 AM-12:29 PM | <10-970 | 0 | 0 | 0.54 |
| 7/25/25 | 10:11 AM | 10:29 AM-12:30 PM | <10-20 | 0 | 0 | 0.54 |
| 8/18/25 | 5:06 AM | 9:21 AM | 20 | 0.4 | 0 | 1.41 |
| *High Tide estimated from: CAPE CHARLES HBR (U.S. G. WHARF), VA – NOAA Station ID: 8632366 | | | | Total rainfall for nearshore sampling period: 27.15” | | |

***Nearshore Sampling Summary:***

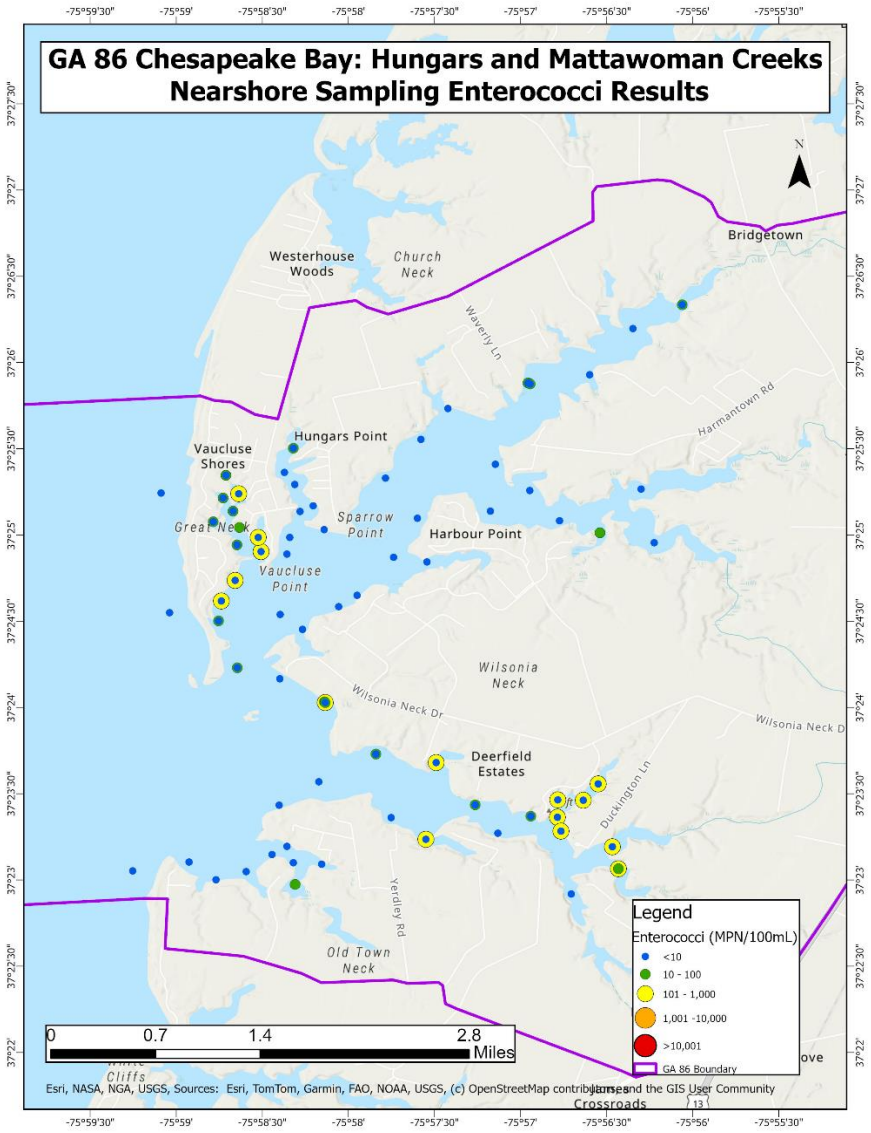
There were two full rounds of nearshore samples collected from this growing area between 1/30/25 and 8/18/25. During round one of sampling, all samples were below 100 (MPN/100mL) except for 5 sample sites all located in the Mattawoman Creek. When the second round of nearshore sampling was completed those 5 sample sites had enterococci results of 10 or below (MPN/100mL). But, during the second full round of samples 6 samples located in Hungars and Mattawoman Creeks) did increase ranging from 246-970 (MPN/100mL).

Two sampling sites in the “Vaucluse Shore” area and one off the shoreline of Wilsonia Neck Dr. were collected a third time. This third targeted sampling round was conducted to determine if the slightly elevated enterococci results from the second round of sampling repeated at the same sites while also taking a closer look at that section of the shoreline. During the follow up sampling there were not any noted pollution sources identified visually and the follow up sampling results came back low <20 (MPN/100mL).

The sampling station off the shoreline of Wilsonia Neck Dr., which had an elevated enterococci result (970 MPN/100mL) relative to the rest of the sampling station results, was resampled on 8/18/25. This follow up sample was also tested for the human-associated molecular marker gene HF183, which can indicate recent human-source fecal pollution. The follow up sample came back below the limit of detection for HF183 and did not indicate there is an ongoing sewage related deficiency in this area.

Across all of the samples collected there were no enterococci sample results above 1,000 (MPN/100mL). The nearshore sampling results during this sampling period did not identify any point sources of pollution directly impacting the growing area waters.

The Hungars’ Creek ramp was closed during the months of February until March due to construction of new ramp and docks. Sampling started after the completion of the new ramp in April.




***Marinas and Additional Marine Structures:***

All marine structures (docks, piers, bulkheads) with a total length of 200' (double sided) or 330' (single side) within Growing Area 86 were measured and evaluated to determine whether they meet the NSSP definition for a "Marina". This evaluation was conducted using field observations from the boat and/or with current and historic satellite imagery to determine whether these structures are used for docking and constructed to provide temporary or permanent docking space for more than ten (10) boats. If these structures meet the NSSP Marina definition they are documented and evaluated as a Marina (Section D). There are 2 Marinas in GA 86.

If they meet the size criteria but are determined in the field to either not be used for docking or are not constructed to accommodate more than 10 boats, then they are documented as "Additional Marine Structures" on the Shoreline Survey Field Map Application. For the GA86 survey, there are a total of 23 of these Additional Marine Structures.

***Condemnations and Deficiencies:***
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 VPDES Permit Map

Copies of bacteriological, hydrographical, and shellfish closure data are available at the area field office for review. Copies of the current condemnation notices and maps are available via the internet at www.vdh.virginia.gov/shellfish/.

This report lists only those properties that have sanitary deficiencies or have other environmental significance. "***DIRECT***" indicates that the significant activity or deficiency has a direct impact on the shellfish growing area 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 survey of the area. Data in the 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.

## SECTION B: SEWAGE POLLUTION SOURCES

### SEWAGE TREATMENT FACILITIES

| Field ID | Survey Date | Facility Name | Type | DEQ VPDES Permit # | Outfall Lat/ Long | Site Remarks |
|---|---|---|---|---|---|---|
| STP-1 | 11/13/24 | Northampton County Public Schools | Wastewater Treatment Plant | VA0023817 | 37.4061, -75.9115<br><br>Discharge coordinates estimated based on permit description | Site Address: 7207 Young Street, Machipongo, 23405.<br>Owner: Northampton County School Board. The plant previously serviced a school and associated administrative building, but the school has closed and now the facility services only the offices with around 30 employees. Treatment plant consists of grease trap, 2 bar screens, influent pump station, stabilization pond, and holding pond. Solids are shipped off site to Pocomoke City, MD WWTP. Final effluent is designed to leave the holding pond through an overflow pipe which flows into an emergency chlorination tank and dechlorination tank before discharging treated effluent into an unnamed ephemeral stream leading to Jacobus Creek. The discharge is still permitted as administratively continued by VA DEQ.<br><br>Design flow 0.0208 MGD. With the reduced usage of this facility the treatment system has not discharged in over 15 years. No direct impact to shellfish growing area. |

### ON-SITE AND SEWER INFRASTRUCTURE DEFICIENCIES
-None-

## SECTION C: NON-SEWAGE WASTE SITES

### INDUSTRIAL SITES
-None-

### SOLID WASTE SITES
-None-

## SECTION D: MARINAS

| Field ID | Survey Date | Type | Lat/Long | Facility Name | Number of Wet Slips | Over 7 boats present (Y/N) | Evidence of Overnight Boaters (Y/N) | Site Remarks |
|---|---|---|---|---|---|---|---|---|
| M1 | 7/28/25 | Seafood Landing Site | 37.4174, -75.9702 | Cherrystone Aquafarms Co-Op pier | 12 | N | N | Private pier over 200' long with docking space on both sides. No boating services or sanitary facilities provided. |
| M2 | 11/12/24 | Community Pier w/ Boat Ramp | 37.4313, -75.9492 | Waverly Community Dock | 16 | N | N | Private community boat ramp and pier over 300' long. The only boating service provide was an in-out ramp. |

## SECTION E: ANIMALS

| Field ID | Survey Date | Type | Lat/Long | Direct Impact to Shellfish waters (Y/N) | Actual/ Potential | Contact (Y/N) | Site Remarks |
|---|---|---|---|---|---|---|---|
| A1 | 12/5/25 | Livestock | 37.4080, -75.9684 | N | Actual | N | 1 Horse present in pen. |
| A2 | 12/5/25 | Livestock | 37.3885, -75.9449 | N | Actual | N | 1 Horse present in pen. |
| A3 | 12/5/25 | Mixed | 37.4419, -75.9252 | N | Actual | Y | Present at time of survey were 12 cows, 3 sheep, 2 goats, 20 chickens, 5 pigs, 2 dogs, and 12 cats. Owner stated that he gives the manure to local farmers as fertilizer. |
| A4 | 12/5/25 | Livestock | 37.4172, -75.9561 | N | Actual | Y | Present at time of survey were 5 Horses in pen. Manure is composted and is used as fertilizer in the fields. |

## SUMMARY

Growing Area # 086
Chesapeake Bay: Hungars and Mattawoman Creeks
22 September 2025

**SECTION B: SEWAGE POLLUTION SOURCES**

**1. SEWAGE TREATMENT FACILITIES**

0 – DIRECT – None
1 – INDIRECT – STP1
1 – B.1. TOTAL

**2. ON-SITE SEWAGE DEFICIENCES** – 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

**SECTION C: NON-SEWAGE WASTE SITES**

**1. INDUSTRIAL SITES**

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

**2. SOLID WASTE SITES**

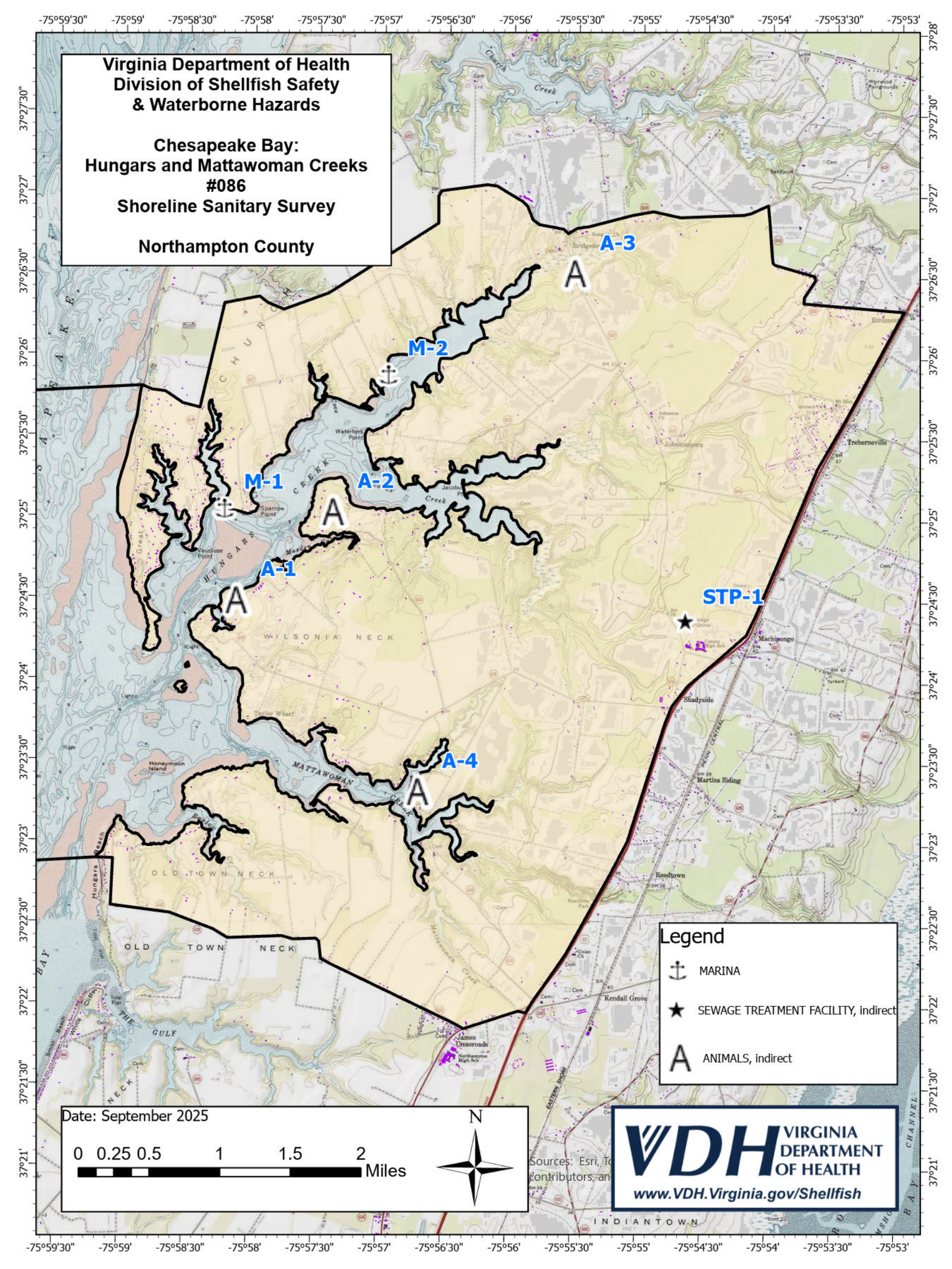
0 – DIRECT – None
0 – INDIRECT – None
0 – C.2. TOTAL

**SECTION D: BOATING ACTIVITY**

2 – MARINA – **M1, M2**
2– D. TOTAL

**SECTION E: ANIMALS**

0 – DIRECT – None
4 – INDIRECT – **A1, A2, A3, A4**
4 – E. TOTAL


Virginia Department of Health
Division of Shellfish Safety
& Waterborne Hazards
Chesapeake Bay:
Hungars and Mattawoman Creeks
#086
Shoreline Sanitary Survey
Northampton County
A-3
M-2
M-1
A-2
A-1
STP-1
A-4
Legend
MARINA
SEWAGE TREATMENT FACILITY, indirect
ANIMALS, indirect
Date: September 2025
0 0.25 0.5 1 1.5 2 Miles
N
VDH VIRGINIA DEPARTMENT OF HEALTH
www.VDH.Virginia.gov/Shellfish