



COMMONWEALTH of VIRGINIA

Department of Health Division of Shellfish Safety

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SEVERN RIVER Growing Area # 044 Shoreline Sanitary Survey Gloucester County

Date: 8 September 2021

Survey Period: November 4, 2021 – August 18, 2021

Total Number of Properties Surveyed and Near-shore Samples Collected: 502

Surveyed By: I. Geeson, F. Monis, L. Sakach & E. Yeargan

SECTION A: GENERAL

This survey area extends from Reference Point 44 at Tow Stake Point to Reference Point 45 at Bush Point, including the Mobjack Bay shoreline between these two points and the Severn River and its tributaries within a designated boundary line drawn by the Division of Shellfish Safety.

The topography of the area includes low and marshy areas along the shoreline in the eastern section adjacent to the mouth of the Severn River with elevations rising to 10' along the outer reaches of the watershed.

The economy is based on construction, administrative services and businesses in the surrounding localities as well as seasonal recreational activity.

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 shorelines within the survey boundary were visually inspected to identify potential pollution sources requiring further investigation.

Department of Environmental Quality reports significant infrastructure improvements to the <1000 GPD Sewage Treatment Facility on Stump Point. An 18,000 GPD Sewage Treatment Facility was installed in Waterview Mobile Home Park to serve each of the residences there. Samples of treated wastewater were collected from the facility and were non-detect for Fecal coliform, E. coli and Enterococcus. Because the treated effluent drains to an approved subsurface drainfield, this facility is regulated by the local health department and E. coli samples are submitted quarterly.

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.

Meteorological data indicated that the area received a total precipitation of 46.17" for the survey period. A monthly breakdown is as follows:

| | | | | | | | |
|-----------|-------|----------|-------|-----------|-------|----------|-------|
| Nov. 2020 | 4.64" | December | 5.49" | Jan. 2021 | 3.48" | February | 5.54" |
| March | 3.72" | April | 2.47" | May | 1.37" | June | 5.97" |
| July | 7.34" | August | 6.15" | | | | |

| Growing Area 44 Nearshore Sampling | | | | | Rainfall in inches | | |
|------------------------------------|-----------|-------------|---------------|--------------------|--------------------|-------------------|-----------------|
| Sampling Dates | High Tide | Ebb Current | Sampling Time | Enterococcus range | Day of | Previous 24 hours | Previous 7 days |
| 11/4/2020 | 10:50 | 6:11 | 11:02-13:02 | <10-135 | 0.00 | 0.00 | 1.25 |
| 12/15/2020 | 9:09 | 0:33 | 10:54-13:58 | 809-6131 | 0.00 | 0.85 | 0.92 |
| 1/5/2021 | 13:25 | 5:21 | 12:51-14:30 | 52-650 | 0.00 | 0.00 | 1.5 |
| 1/6/2021 | 14:24 | 6:39 | 12:51-14:30 | <10-134 | 0.00 | 0.00 | 1.5 |
| 1/11/2021 | 7:13 | 11:41 | 9:20-11:07 | <10-52 | 0 | 0 | 0.00 |
| 1/13/2021 | 8:57 | 12:21 | 9:05-12:26 | <10-134 | 0.00 | 0.00 | 0.00 |
| 1/14/2021 | 9:44 | 1:10 | 9:43-12:10 | <10-31 | 0.00 | 0.00 | 0.00 |
| 2/8/2021 | 6:07 | 10:40 | 9:17-11:57 | 31-1187 | 0.00 | 0.18 | 0.3 |
| 2/9/2021 | 7:04 | 11:33 | 9:07-11:50 | 10-530 | 0.00 | 0.00 | 0.3 |
| 2/10/2021 | 7:56 | 12:19 | 9:12-11:34 | <10-75 | 0.00 | 0.00 | 0.18 |
| 2/24/2021 | 6:37 | 11:14 | 9:03-11:13 | <10-63 | 0.00 | 0.00 | 2.13 |

| | | | | | | | |
|---|-------|-------|-------------|---------|------|------|------|
| 2/25/2021 | 7:25 | 11:53 | 8:40-11:43 | <10-41 | 0.00 | 0.00 | 2.13 |
| 2/26/2021 | 8:09 | 12:31 | 8:50-11:03 | <10-30 | 0.05 | 0.00 | 1.03 |
| 3/1/2021 | 10:21 | 14:24 | 10:08-11:53 | <10-75 | 0.18 | 0.00 | 1.3 |
| 3/3/2021 | 11:55 | 3:56 | 12:10-12:56 | <10-31 | 0.00 | 0.00 | 0.94 |
| 3/10/2021 | 6:52 | 11:19 | 8:58-11:00 | <10-120 | 0.00 | 0.00 | 0.00 |
| 3/11/2021 | 7:40 | 12:02 | 8:52-9:59 | <10-10 | 0.00 | 0.00 | 0.00 |
| 3/30/2021 | 11:01 | 14:52 | 10:07-12:16 | <10-52 | 0.00 | 0.09 | 1.12 |
| 4/8/2021 | 7:30 | 11:52 | 8:50-9:33 | <10-51 | 0.00 | 0.00 | 0.13 |
| 8/5/2021 | 7:25 | 10:45 | 11:35-11:45 | <10-441 | 0.00 | 0.67 | 1.44 |
| 8/9/2021 | 10:19 | 14:04 | 13:31-13:41 | <10-121 | 0.00 | 0.00 | 1.99 |
| Total Rainfall for sampling Period (November 4, 2020 to August 9, 2021) | | | | | | | 4.38 |

*High Tide estimated from Browns Bay

** Ebb Slack Current estimated from 2 miles WSW of New Point Comfort

Copies for Bacteriological, Hydrographic and Shellfish Closure data are available at the White Stone 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 a sanitary deficiency or may have other environmental significance. "***DIRECT***" indicates that the significant activity or deficiency may have a direct impact on shellfish waters.

SECTION B: SEWAGE POLLUTION SOURCES

[illegible]

SECTION C: NONSEWAGE WASTE SITES

[illegible]

SECTION D: BOATING ACTIVITY

[illegible]

Shoreline Survey # 044

SECTION E: CONTRIBUTES ANIMAL POLLUTION

[illegible]

SUMMARY

Growing Area # 044
Severn River
8 September 2021

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

- 0 – DIRECT – None.
- 2 – INDIRECT – # 346, GSTP1
- 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.

- 3 – POTENTIAL POLLUTION – # 363, 376, 758

SECTION C: NON-SEWAGE WASTE SITES

1. INDUSTRIAL WASTE 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

3. STORMWATER OUTFALLS

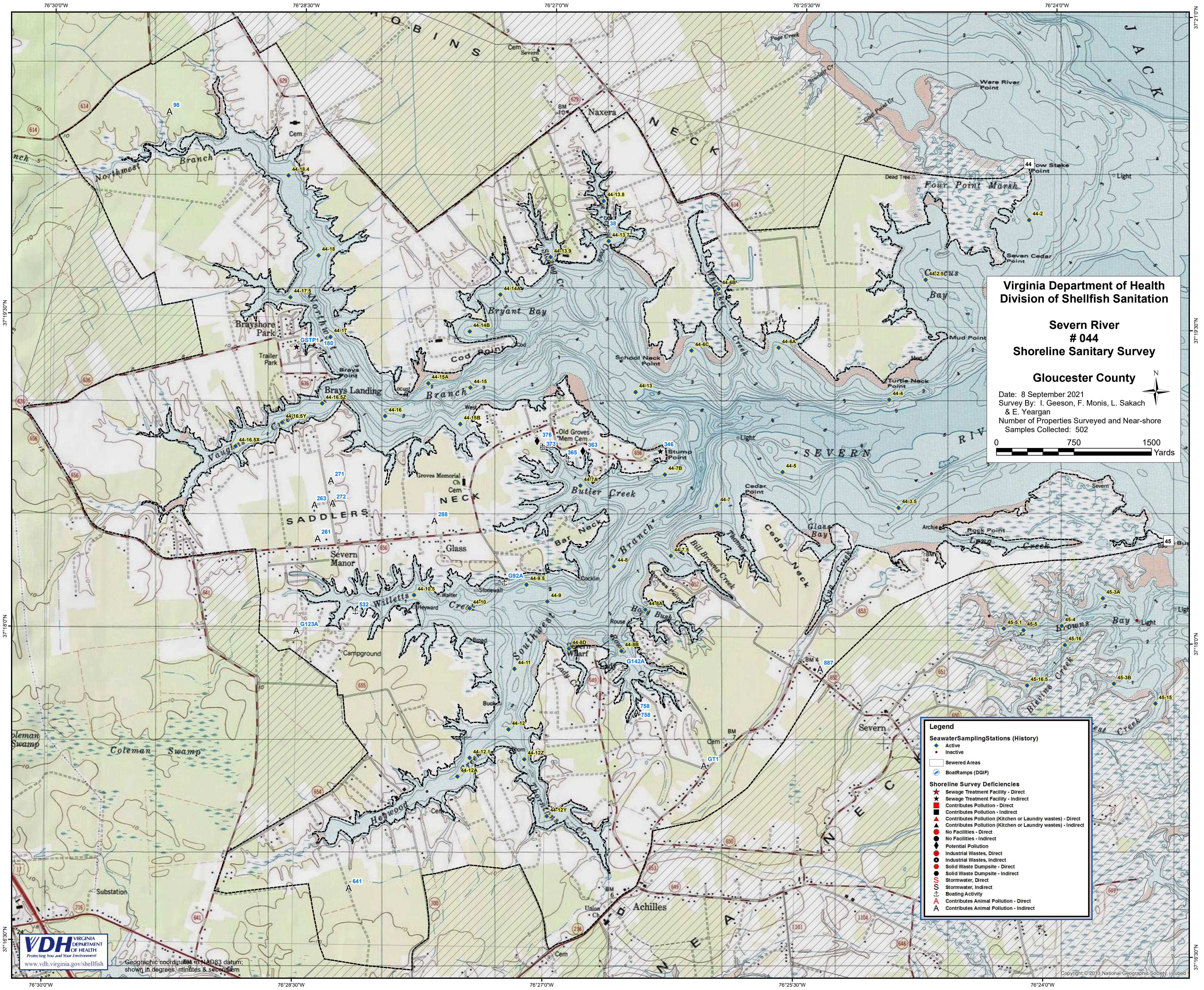
- 0 – DIRECT – None.
- 0 – INDIRECT – None.
- 0 – E. TOTAL

SECTION D: BOATING ACTIVITY

- 2 – MARINAS – # G92A, G142A
- 0 – OTHER PLACES WHERE BOATS ARE MOORED – None.
- 5 – UNDER SURVEILLANCE – # 38, 180, 365, 373, 532
- 7 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

- 0 – DIRECT – None.
- 11 – INDIRECT – # 98, 263, 271, 272, 288, 641, 758, 887, G123A, GT1
- 11 – E. TOTAL



Virginia Department of Health
Division of Shellfish Sanitation

Severn River
044
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Gloucester County

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& E. Yeargan
Number of Properties Surveyed and Near-shore
Samples Collected: 502

07501500

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

VDH

VIRGINIA
DEPARTMENT
OF HEALTH

Protecting You and Your Environment

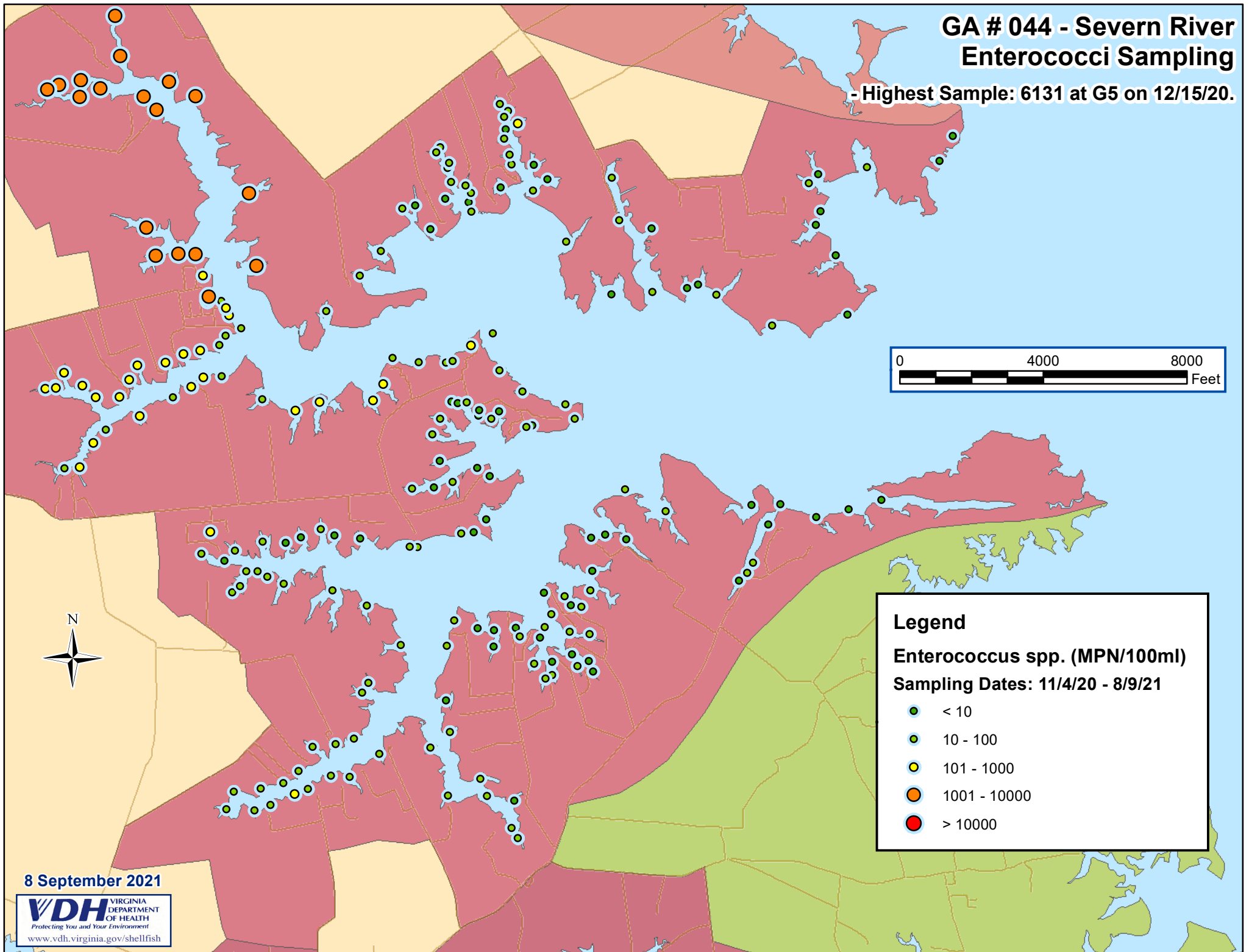
www.vdh.virginia.gov/shellfish

Geographic coordinates in NAD83 datum:
shown in degrees, minutes & seconds

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GA # 044 - Severn River Enterococci Sampling

- Highest Sample: 6131 at G5 on 12/15/20.



8 September 2021