



COMMONWEALTH of VIRGINIA
DEPARTMENT OF HEALTH
DIVISION OF SHELLFISH SANITATION

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SARAH CREEK AND PERRIN RIVER
Growing Area # 046
Gloucester County
Shoreline Sanitary Survey

Date: 30 September 2017

Survey Period: March 1 – July 24, 2017

Total Number of Properties Surveyed: 215

Surveyed By: I.M. Geeson, L.Z. Sakach, F.P. Monis, E.M. Yeargan

SECTION A: GENERAL

This survey area extends from Reference Point 46, the southernmost point of Jenkins Neck on the York River to Reference Point 47 at the northern end of the George F. Coleman Memorial Bridge at Gloucester Point, including the York River shoreline between these two points, Perrin River, Sarah Creek and their tributaries.

The topography of the area varies in elevations from 5' or less along the shoreline to a maximum of 25' near the western edge of the survey boundary. Gloucester Point, Bena, and most of the shoreline are divided into suburban parcels. Achilles and the surrounding area are semirural with some marsh and forested land. The economy is based on local service businesses, the seafood industry, surrounding military installations and the *Virginia Institute of Marine Science* (VIMS). Both Sarah Creek and Perrin River have large marinas that serve recreational and small commercial vessels. Several neighborhoods in the survey area are connected to municipal drinking water. Portions of the survey area are served by Hampton Roads Sanitation District (HRSD). These areas include commercial shopping centers and service businesses located along Route 17, the VIMS campus and surrounding properties.

Meteorological data indicated that the area received a total rainfall of 16.98" for the survey period. A monthly breakdown is as follows:

March 2017	4.08"	April	3.31"	May	5.05"	June	3.42"	July 1-24	1.12"
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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 be evaluate drainage entry points of potential pollution sources. Station data were analyzed to compare relative concentrations of fecal indicator bacteria within the waterway to identify potential onshore sources of contamination. Areas with elevated concentrations of fecal indicator bacteria were surveyed onshore using a property by property approach. Surveyors interviewed occupants and examined properties for evidence of pollution sources within the immediate watershed.

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.

Area 46 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
3/8/2017	5:47	7:40 - 14:13	9:32 - 11:15	<10- 52	0.10	0.00	0.24
4/18/2017	2:38	4:32 - 12:00	9:39 - 12:32	<10- 645	0.02	0.58	0.58
5/9/2017	9:30	10:31 - 17:08	10:24 - 13:09	<10- 74	0.00	0.00	0.92
5/24/2017	8:43	9:44 - 16:21	9:30 - 11:14	<10- 2,143	0.38	0.35	1.16
6/12/2017	12:04	13:38 - 20:08	13:00 - 15:15	<10- 41	0.00	0.00	1.58
6/20/2017	6:23	8:00 - 14:39	8:50 - 10:40	<10- 6,488	0.57	0.15	1.36
7/6/2017	8:15	9:06 - 16:16	10:05 - 12:08	<10-4,611	0.42	0.21	0.33
7/24/17	10:48	12:32 - 6:43	10:40 - 11:46	<10- 302	0.00	0.05	0.05

Copies of Bacteriological and Shellfish Closure data are available at the area office for review. This report lists only those properties that have a sanitary deficiency or other environmental significance. "***DIRECT***" indicates that the significant activity or deficiency has a direct impact on shellfish waters. Data in this 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. Copies of VPDES Permits and inspections are available at the Department of Environmental Quality, Tidewater Regional Office (DEQ/TRO).

Copies of the current condemnation notices and maps are available via the Internet at www.vdh.virginia.gov/shellfish/.

SECTION B: SEWAGE POLLUTION SOURCES

[illegible]

SECTION C: NONSEWAGE WASTE SITES

[illegible]

SECTION D: BOATING ACTIVITY

FID_1	GA #	Field #	Inspection Date	Deficiency or Pollution Type	Latitude	Longitude	Address	Pollutant Remarks	Septic System Type	Structure Type	Contact	Overall Site Remarks	Locality	Boating Activity Type	Number of Wet Slips	NUM BOATS <26'	NUM BOATS >26'	Evidence of Live-Aboards	DSS Staff
90	46	F29	9/29/2017	BOATING ACTIVITY	37.256605	-76.479724	8109 Yacht Haven Road, Gloucester, VA 23062		Conv	Marine	Y	York River Yacht Haven	Gloucester	Marina	290	80	205	Y	FM
15	46	F30	6/8/2017	BOATING ACTIVITY	37.265324	-76.422689	9725 York River Seafood Lane, Gloucester, VA 23061		Conv	Business	Y	Rappahannock River Oyster Company	Gloucester	Marina	0	0	0	N	FM
14	46	F42	9/29/2017	BOATING ACTIVITY	37.267628	-76.421815	9737 Cooks Landing Road, Gloucester, VA 23072		Conv	Marine	Y	Crown Pointe Marina	Gloucester	Marina	225	53	76	Y	FM
12	46	F46	9/29/2017	BOATING ACTIVITY	37.268162	-76.425240	9658 Ban Road, Gloucester, VA 23061		Conv	Marine	N	Bennie Belvin Pier	Gloucester	Marina	0	5	2	N	FM
3	46	L2	6/8/2017	BOATING ACTIVITY	37.264249	-76.489931	Jordan Marine, 7804 Jordan Road, Gloucester Point, VA 23062		Conv	Marine	Y	Jordan Marine owner: G C Tillage, 7775 Tillage Estate Ln, Gloucester Pt. 23062	Gloucester	Marina	0	0	0	N	LS
4	46	L5	9/28/2017	BOATING ACTIVITY	37.264838	-76.487330	Gloucester Point Marina, Marina Way, Hayes, VA 23072		Conv	Marine	Y	Marina for Sale	Gloucester	Marina	41	9	15	N	LS
7	46	L6	9/28/2017	BOATING ACTIVITY	37.262198	-76.483835	Dockside Condominiums, Sunset Drive, Hayes, VA 23072		Conv	Marine	N	Marina	Gloucester	Marina	76	18	2	N	LS
5	46	L7	9/28/2017	BOATING ACTIVITY	37.261850	-76.481190	Sawgrass Pointe Community Association, Sawgrass Pointe Drive, Hayes, VA 23072		Conv	Marine	N	Marina	Gloucester	Marina	32	2	8	N	LS
6	46	L8	9/27/2017	BOATING ACTIVITY	37.260817	-76.477885	Holly Cove Marina, 1772 Lillaston Lane, Hayes, VA 23072		Conv	Marine	N	Two work boats observed.	Gloucester	Marina	7	2	0	N	LS
9	46	L9	9/27/2017	BOATING ACTIVITY	37.260901	-76.468099	Cooks Seafood, Yacht Club Road, Hayes, VA 23072	Marina. No activity since 2009.	NA	Marine	N	DEQ closed file 1/6/2011. Marina Owner: E N Cook, 1778 Yacht Club Rd, Hayes, 23072	Gloucester	Marina	0	0	0	N	LS
13	46	F23	9/28/2017	BOATING ACTIVITY	37.268644	-76.424498	Perrin Creek Road, Gloucester, VA 23072		NA	Marine	N	Perrin Creek Public Landing (Wharf), Commonwealth of Virginia	Gloucester	OPWBAM	0	1	1	N	FM
2	46	F28	9/29/2017	BOATING ACTIVITY	37.245492	-76.504270	George Washington Highway, Gloucester Point, VA 23061		NA	Marine	N	Public boat ramp. End of Route 1208 under Coleman Bridge.	Gloucester	Under Surveillance	0	0	0	N	FM

SECTION E: CONTRIBUTES ANIMAL POLLUTION

[illegible]

SUMMARY

Growing Area # 046
Sarah Creek and Perrin River
30 September 2017

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

- 0 – DIRECT – None
- 0 – INDIRECT – None
- 0 – 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
- 1 – CONTRIBUTES POLLUTION, INDIRECT – # F38
- 0 – CP (Kitchen or Laundry Wastes), DIRECT – None
- 1 – CP (Kitchen or Laundry Wastes), INDIRECT – # F31
- 0 – NO FACILITIES, DIRECT – None
- 0 – NO FACILITIES, INDIRECT – None
- 2 – B.2. TOTAL

3. POTENTIAL POLLUTION – Periodic surveillance of these properties will be maintained to determine any status change.

- 2 – POTENTIAL POLLUTION – # F25, I54

SECTION C: NON-SEWAGE WASTE SITES

1. INDUSTRIAL WASTE SITES

- 1 – DIRECT – # F30
- 0 – INDIRECT – None
- 1 – C.1. TOTAL

2. SOLID WASTE DUMPSITES

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

3. STORMWATER

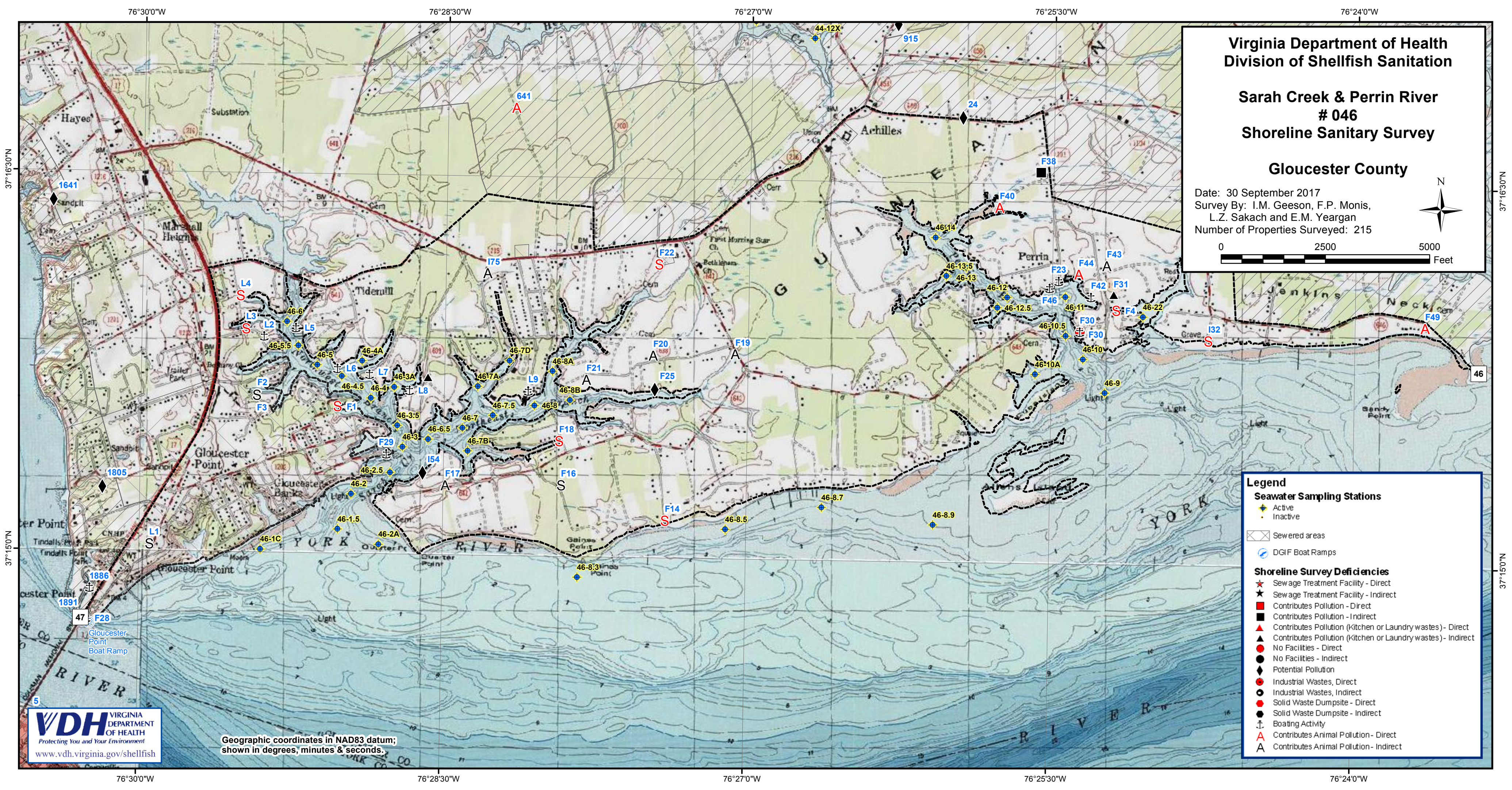
- 8 – DIRECT – # F1, F14, F18, F22, I32, L3, L4
- 4 – INDIRECT – # F2, F3, F16, L1
- 0 – C.2. TOTAL

SECTION D: BOATING ACTIVITY

- 10 – MARINAS – # F29, F30, F42, F46, L2, L5, L6, L7, L8, L9
- 1 – OTHER PLACES WHERE BOATS ARE MOORED – # F23
- 1 – UNDER SURVEILLANCE – # F28
- 12 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

- 3 – DIRECT – # F40, F44, F49
- 6 – INDIRECT – # F17, F19, F20, F21, F43, I75
- 9 – E. TOTAL



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046
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0 2500 5000
Feet

Legend

Seawater Sampling Stations

- Active
- Inactive

Sewered areas

DGIF Boat Ramps

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
- Boating Activity
- Contributes Animal Pollution - Direct
- Contributes Animal Pollution - Indirect

Sample 1 of 5



GA # 046 Sarah Creek Enterococcus Near-Shore Sampling March 8 - July 24, 2017

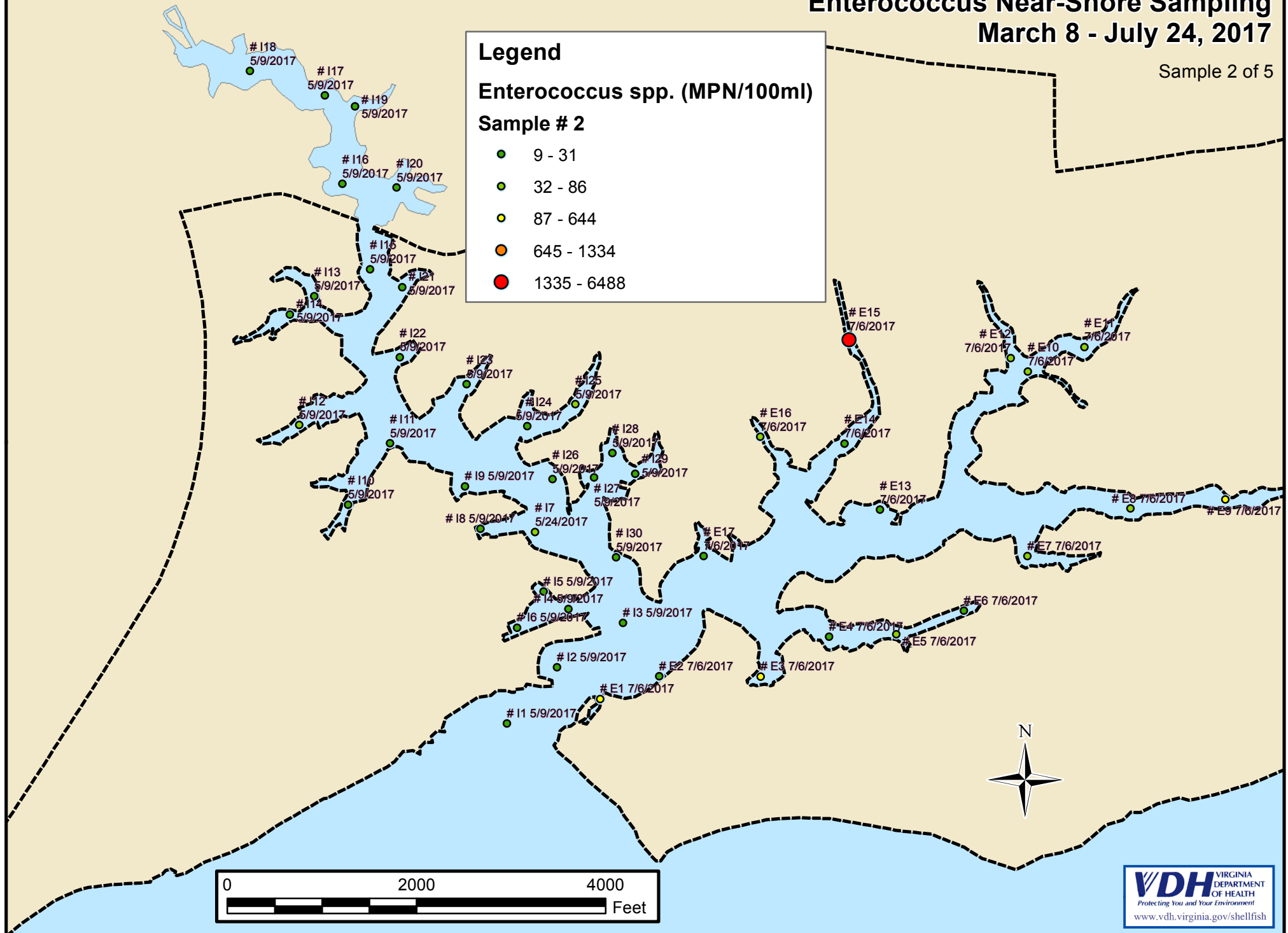
Sample 2 of 5

Legend

Enterococcus spp. (MPN/100ml)

Sample # 2

- 9 - 31
- 32 - 86
- 87 - 644
- 645 - 1334
- 1335 - 6488



GA # 046 Sarah Creek
Enterococcus Near-Shore Sampling
March 8 - July 24, 2017

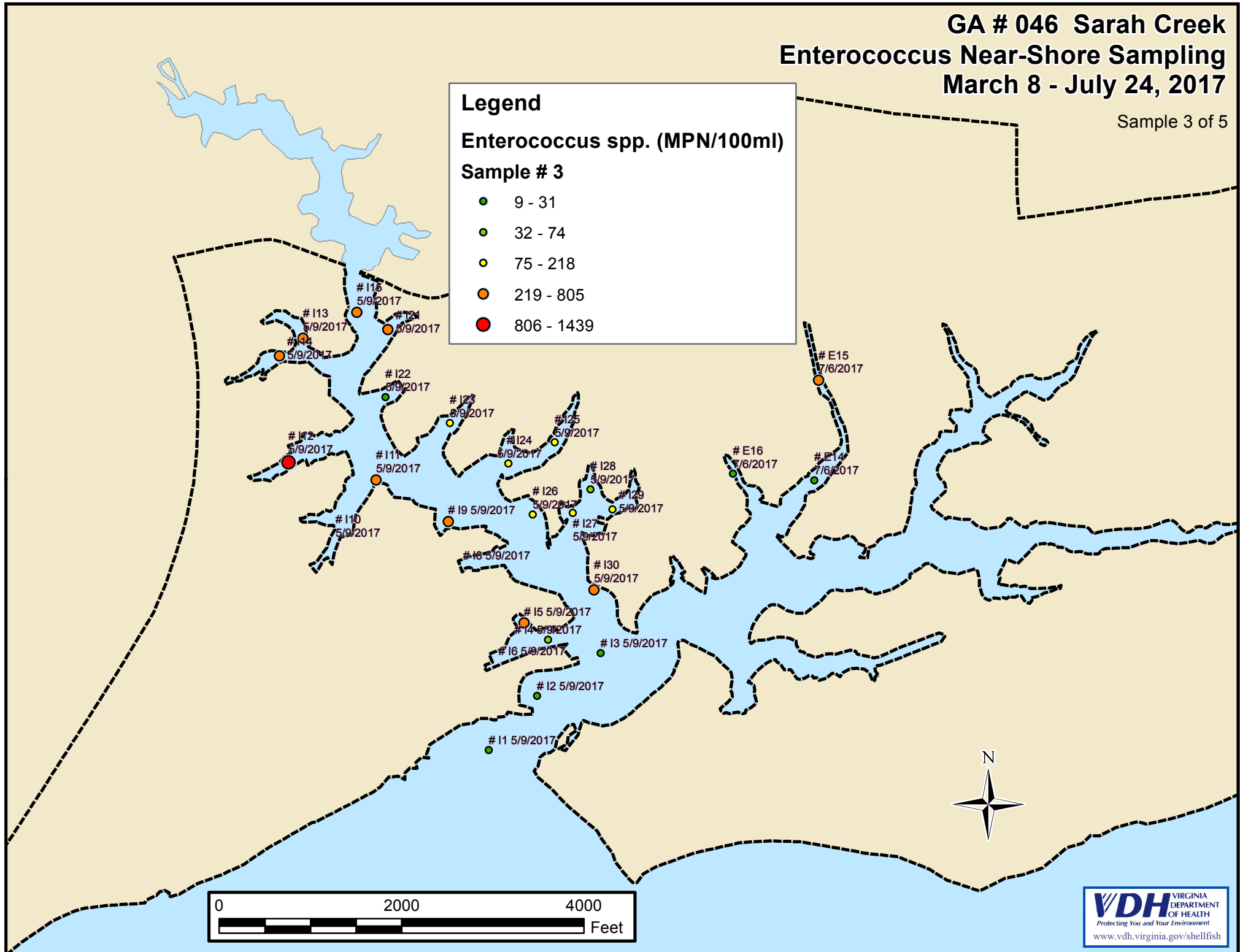
Sample 3 of 5

Legend

Enterococcus spp. (MPN/100ml)

Sample # 3

- 9 - 31
- 32 - 74
- 75 - 218
- 219 - 805
- 806 - 1439



Sample 4 of 5



GA # 046 Perrin River
Enterococcus Near-Shore Sampling
March 8 - July 24, 2017

Sample 5 of 5

Legend

Enterococcus spp. (MPN/100ml)

Sample # 2

- 9 - 31
- 32 - 86
- 87 - 644
- 645 - 1334
- 1335 - 6488

