VIRGINIA BEACH
Growing Area # 073
City of Virginia Beach
Shoreline Sanitary Survey

Date: 29 June 2022
Survey Period: March 31 – May 26, 2022
Total Number of Properties Surveyed and Near Shore Samples Collected: 20
Surveyed By: I. Geeson

SECTION A: GENERAL

This survey area extends from Reference Point 73 at the east end of the Lesner Bridge to Reference Point 74A on the Atlantic Ocean, at the southeastern most point of the U.S. Naval Reservation at Dam Neck, including the Atlantic Ocean between these points; Rudee Inlet, Lake Rudee, Owls Creek, Lake Wesley, and Lake Christine; and all of their tributaries. Outside of Fort Story and First Landing State Park, the population is dense. Gentle hills and dunes in First Landing Park and on Fort Story reach heights of 30-50'. Low swamps, marshes and wetlands are found throughout the park and in sections of the fort. The northern part of this survey area is connected to the HRSD collection system for final treatment at the Chesapeake-Elizabeth Wastewater Treatment Plant. The southern portion of this survey is connected to the HRSD Atlantic Treatment Plant with discharges to Lake Tecumseh, Chowan & Dismal Swamp, and the Atlantic Ocean offshore of Dam Neck Road.

At the time of this writing there are no shellfish leases or public harvest grounds in this survey area. Virginia Marine Resource Commission retains the authority to issue leases within Rudee Inlet and up to the colregs boundary 3 nautical miles offshore of the Atlantic coast upon request.

Meteorological data indicated that 6.64” or rain fell during the period from March 31 to May 26. A monthly breakdown is as follows:

March 31, 2022  0.42”  April  2.05”  May 1-26  4.17”

Rudee Inlet has heavy recreational boating activity during the warm weather months and there are commercial animal watching and fishing excursions year round. While there are pump out facilities at several of the marinas in this watershed, some of the larger commercial tour boats use a US Coast Guard Approved Type 1 or Type 2 Marine Sanitation Device and are allowed to discharge their treated waste into the growing area. VDH Marina Program Inspections indicate that there are no formal liveaboard agreements at any of the inspected facilities. During this survey the shoreline was visually inspected for evidence of liveaboards at marinas and private piers and none were observed. There is a large floating
structure in the tributary that feeds into the Northwest section of Lake Rudee, but there is no
evidence that this houseboat is currently habitable.

A large tract of land located on the south side of the survey area between Rudee Inlet and
Birdneck Road is owned by the federal government and the City of Virginia Beach and
undeveloped. The Rudee Inlet complex drains stormwater south from approximately 19th
Street and east from Birdneck Road.

Nearshore seawater stations were established in Rudee Inlet to survey waters beyond
routine classification stations. Stations were created in closer proximity to the shoreline and
farther upstream than routine stations.

Hydrographic data, sampling times and range of enterococcus concentrations measured
are shown in the table below. Maps of the enterococcus sampling and are shown at the
conclusion of this report.

<table>
<thead>
<tr>
<th>Sample Dates</th>
<th>Tidal stage*</th>
<th>Current**</th>
<th>Sampling Times</th>
<th>Enterococcus range (MPN/100ml)</th>
<th>Day of</th>
<th>Previous 24 hours</th>
<th>Previous 7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/31/22*</td>
<td>1.8' rising</td>
<td>slack flood 17:14</td>
<td>16:59-17:41</td>
<td>&lt;10-30</td>
<td>0.42”</td>
<td>0”</td>
<td>0.31”</td>
</tr>
<tr>
<td>4/11/22</td>
<td>1.9’ rising</td>
<td>ebbing to a 14:51 slack</td>
<td>14:02-14:32</td>
<td>all samples below detection (&lt;10)</td>
<td>0”</td>
<td>0”</td>
<td>1.11”</td>
</tr>
</tbody>
</table>

Total Rainfall for sampling period: 6.64”

* Tide station mouth of Rudee Inlet.
** Current station Virginia Beach Southside.
3/31/22 Sample prioritized wet weather sampling over Tide and Current stage.

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:

Copies of the current condemnation notices and maps are available via the Internet at:

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.
The Virginia Department of Health’s Beach Monitoring Program conducts water sampling along 45 public beaches in Virginia which are analyzed weekly for enterococci during the recreational swimming season (May-September). Included within the Growing Area 73 survey boundary are 20 recreational beach monitoring sites along the Atlantic Ocean and Shore Drive. At these stations the three most recent seasons of data were reviewed. Each site had a geometric mean of less than 35 MPN/100ml and the percentage of exceedances to the swimming advisory threshold of ≥104 MPN/100ml was between 0-5%. Taken together this indicates that there are not significant or persistent impairments to water quality.

A map of this analysis is included at the end of this report. A real time interactive map of beach monitoring sites can be found online at: https://www.vdh.virginia.gov/waterborne-hazards-control/swimming-advisories-and-monitored-beaches-map/
<table>
<thead>
<tr>
<th>GA #</th>
<th>Field #</th>
<th>Inspection Date</th>
<th>Deficiency or Pollution Type</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Pollutant Remarks</th>
<th>Septic System Type</th>
<th>Structure Type</th>
<th>Contact</th>
<th>Overall Site Remarks</th>
<th>Locality</th>
<th>DSS Staff</th>
<th>Date of Correction</th>
<th>Correction Notes</th>
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<tbody>
<tr>
<td>4963</td>
<td>73</td>
<td>5/5/2022</td>
<td>SEWAGE TREATMENT FACILITY, direct</td>
<td>36.782576</td>
<td>-75.929002</td>
<td>Outfall for Atlantic STP.</td>
<td>NA</td>
<td>N</td>
<td>Offshore outfall for HRSD Atlantic STP, # VA0081248.</td>
<td>Virginia Beach</td>
<td>IG</td>
<td></td>
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<td>1878</td>
<td>73</td>
<td>5/9/2022</td>
<td>SEWAGE TREATMENT FACILITY, indirect</td>
<td>36.772868</td>
<td>-75.974366</td>
<td>Design Flow 57 MGD, Average Flow 43 MGD, Max Flow 57 MGD.</td>
<td>NA</td>
<td>Business</td>
<td>Atlantic Wastewater Treatment Plant, HRSD. VPDES permit # VA0081248 outfall # 001.</td>
<td>Virginia Beach</td>
<td>IG</td>
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<tr>
<td>OBJ #</td>
<td>GA #</td>
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<td>Septic System Type</td>
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<td>4975</td>
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<td>11</td>
<td>5/19/2022</td>
<td>INDUSTRIAL WASTES, indirect</td>
<td>36.810234</td>
<td>-75.984555</td>
<td>Superfund site see EPA.gov for site specifics.</td>
<td>NA</td>
<td>Public</td>
<td>N</td>
<td>Camp Pendleton. EPA ID: VA1170090012</td>
<td>Virginia Beach</td>
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<td>12</td>
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<td>36.778884</td>
<td>-75.957114</td>
<td>Superfund site see EPA.gov for site specifics.</td>
<td>NA</td>
<td>Public</td>
<td>N</td>
<td>USN Fleet Combat Training Center. EPA ID: VA5170022938</td>
<td>Virginia Beach</td>
<td>IG</td>
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<td>4964</td>
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<td>33</td>
<td>5/19/2022</td>
<td>INDUSTRIAL WASTES, indirect</td>
<td>36.926291</td>
<td>-76.024421</td>
<td>Superfund site see EPA.gov for site specifics.</td>
<td>NA</td>
<td>Public</td>
<td>N</td>
<td>Fort Story. EPA ID: VA6210020875</td>
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<td>Longitude</td>
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<td>Septic System Type</td>
<td>Structure Type</td>
<td>Contact</td>
<td>Overall Site Remarks</td>
<td>Locality</td>
<td>Boating Activity Type</td>
<td>Number of Wet Slips</td>
<td>NUM BOATS &lt;26'</td>
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<td>5/4/2022</td>
<td>BOATING ACTIVITY</td>
<td>36.832193</td>
<td>-75.973623</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Virginia Beach Fishing Center. Inspected by LHD April 2022.</td>
<td>Virginia Beach</td>
<td>Marina</td>
<td>50</td>
<td>11</td>
<td>22</td>
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<td>73 2</td>
<td>5/4/2022</td>
<td>BOATING ACTIVITY</td>
<td>36.831531</td>
<td>75.976444</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Fishermans Wharf Marina. Marina program inspection April 2022.</td>
<td>Virginia Beach</td>
<td>Marina</td>
<td>92</td>
<td>36</td>
<td>4</td>
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<tr>
<td>1871</td>
<td>73 3</td>
<td>5/4/2022</td>
<td>BOATING ACTIVITY</td>
<td>36.831106</td>
<td>75.977069</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Inlet Station Marina. LHD inspection April 2022.</td>
<td>Virginia Beach</td>
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<td>61</td>
<td>10</td>
<td>14</td>
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<td>1872</td>
<td>73 4</td>
<td>5/4/2022</td>
<td>BOATING ACTIVITY</td>
<td>36.831317</td>
<td>75.977749</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Virginia Beach Marlin Club. Marina LHD inspection April 2022.</td>
<td>Virginia Beach</td>
<td>Marina</td>
<td>0</td>
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<td>1876</td>
<td>73 8</td>
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<td>BOATING ACTIVITY</td>
<td>36.830406</td>
<td>75.974844</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Harbor Point Marina. Marina LHD inspection April 2022.</td>
<td>Virginia Beach</td>
<td>Marina</td>
<td>62</td>
<td>8</td>
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<td>73 9</td>
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<td>BOATING ACTIVITY</td>
<td>36.828636</td>
<td>75.971543</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Southside Marina Extension of VB Fishing Center for boats that don't fit under bridge. 1 portable toilet at site.</td>
<td>Virginia Beach</td>
<td>Marina</td>
<td>14</td>
<td>0</td>
<td>6</td>
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<tr>
<td>1873</td>
<td>73 5</td>
<td></td>
<td>BOATING ACTIVITY</td>
<td>36.824569</td>
<td>75.985123</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Virginia Beach Municipal Dredge Operations. Staging wharf for dredge operations. Fire and Police vessels present.</td>
<td>Virginia Beach</td>
<td>Under Surveillance</td>
<td>6</td>
<td>0</td>
<td>4</td>
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<td>1874</td>
<td>73 6</td>
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<td>BOATING ACTIVITY</td>
<td>36.824246</td>
<td>75.984334</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>U.S. Army (Rudee Inlet). LHD visit March 2022. Gated facility, no public access.</td>
<td>Virginia Beach</td>
<td>Under Surveillance</td>
<td>4</td>
<td>0</td>
<td>2</td>
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<tr>
<td>1875</td>
<td>73 7</td>
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<td>BOATING ACTIVITY</td>
<td>36.823131</td>
<td>75.981340</td>
<td>NA</td>
<td>Marine</td>
<td>N</td>
<td>Owl Creek Public Boat Ramp. LHD inspection March 2022</td>
<td>Virginia Beach</td>
<td>Under Surveillance</td>
<td>0</td>
<td>0</td>
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<tr>
<td>4998</td>
<td>73 G1D</td>
<td>7/5/2022</td>
<td>BOATING ACTIVITY</td>
<td>36.822172</td>
<td>75.982319</td>
<td>Marine</td>
<td>Y</td>
<td></td>
<td>Virginia Aquarium Boat Tour dock.</td>
<td>Virginia Beach</td>
<td>Under Surveillance</td>
<td>0</td>
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<tr>
<td>OBJECT</td>
<td>GA #</td>
<td>Field #</td>
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</table>
SUMMARY

Growing Area # 073
Virginia Beach
29 June 2022

SECTION B: SEWAGE POLLUTION SOURCES
1. SEWAGE TREATMENT FACILITIES
   1 – DIRECT – # 10A
   1 – INDIRECT – # 10
   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.
   0 – POTENTIAL POLLUTION – None

SECTION C: NON-SEWAGE WASTE SITES
1. INDUSTRIAL WASTE SITES
   0 – DIRECT – None
   3 – INDIRECT – # 11, 12, 33
   3 – C.1. TOTAL

2. SOLID WASTE DUMPSITES
   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
   6 – MARINAS – # 1, 2, 3, 4, 8, 9
   0 – OTHER PLACES WHERE BOATS ARE MOORED – None.
   4 – UNDER SURVEILLANCE – # 5, 6, 7, G1D
   10 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION
   0 – DIRECT – None
   0 – INDIRECT – None
   0 – E. TOTAL
Near-Shore Enterococcus Sampling
Growing Area #073 - Virginia Beach
City of Virginia Beach

* Beach Monitoring Program (Enterococcus)
GeoMean 2019-2021

Rudee Inlet
* Highest value was 30 collected on April 1, 2022.

Legend
Enterococcus spp. (MPN/100ml)
Sampling Dates: 4/1/22 - 4/12/22

- <10
- 10 - 100
- 101 - 1000
- 1001 - 10000
- >10000

Beach Monitoring GeoMean Average 2019-2021

- <10 (BDL)
- 10 - 20
- 10 - 20
- >20

**Beach Monitoring Program (Enterococcus)**
GeoMean 2019-2021