POTOMAC RIVER: MATTOX CREEK TO CURRIOMAN BAY
Growing Area # 003
Westmoreland County
Shoreline Sanitary Survey

Date:  3 February 2018
Survey Period:  November 13, 2017 - January 19, 2018
Total Number of Properties Surveyed:  40
Surveyed By:  R.M. Thomas, W.A. McCarty III, & W. I. Barrack III

Section A: GENERAL

This survey area extends from Reference Point 3 at Church Point to Reference Point 4 at Nomini Cliffs, including the Potomac River shoreline between these two points, Bridges Creek, Digwood Swamp, Popes Creek, Popes Creek Swamp, Big Meadow Run, Little Meadow Run and all of their tributaries (within the designated boundary line drawn by the Division of Shellfish Sanitation).

The topography of the area varies in elevations from 10’ or less along the shoreline to a maximum of 150’ inland. The economy is based primarily on retail trade, professional/technical services and construction. The population is mostly sparse with moderate concentrations in the various residential subdivisions along the shoreline. The US Census Bureau reported that the population of Westmoreland County showed a 1 percent increase between 2009 and 2017. Two historic sites, George Washington’s birthplace and Stratford Hall Plantation (birthplace of Robert E. Lee), are located within the boundary line. Also located in this survey area is Westmoreland State Park. Cabins at Stratford Hall and Westmoreland State Park offer overnight lodging. Additional information about Westmoreland County can be found on the county website at: www.co.westmoreland.va.us.

Meteorological data indicated that the area received a total rainfall of 3.91” for the survey period. A monthly breakdown is as follows:
Nov 13-30, 2017  0.71”  December  0.92”  Jan 1-19, 2018  2.28”

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 established 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 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 and sampling times are shown in the table below. Maps of the enterococcus sampling are shown at the conclusion of this report.

<table>
<thead>
<tr>
<th>Sample dates</th>
<th>Run #</th>
<th>High Tide</th>
<th>Ebb Current</th>
<th>Sampling time</th>
<th>Day of</th>
<th>Previous 24 hours</th>
<th>Previous 72 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/7/17</td>
<td>SS</td>
<td>8:44 am</td>
<td>11:32 am – 4:38</td>
<td>11:43-2:16</td>
<td>0.00</td>
<td>0.08</td>
<td>0.01</td>
</tr>
<tr>
<td>12/15/17</td>
<td>PC</td>
<td>3:49 am</td>
<td>6:14 am – 11:48</td>
<td>9:41-11:37</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12/20/17</td>
<td>PC</td>
<td>7:41 am</td>
<td>10:22 am – 3:09</td>
<td>10:33-12:51</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1/16/18</td>
<td>PC</td>
<td>5:51 am</td>
<td>8:22 am – 1:24</td>
<td>9:53-12:11</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tbody>
</table>

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/](http://www.vdh.virginia.gov/shellfish/).
<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>Address</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>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>W10</td>
<td>1/23/2018</td>
<td>CONTRIBUTES POLLUTION, indirect</td>
<td>38.1594</td>
<td>-76.8786</td>
<td>485 Tobacco Road, Montross, VA 22520</td>
<td>White camping trailer on site appears to be used as residence. 3&quot; flex hose exiting from under structure and is lying on ground surface not hooked to septic tank. No discharge at time of inspection.</td>
<td>NA</td>
<td>Dwelling</td>
<td>N</td>
<td></td>
<td>Westmoreland</td>
<td>WB</td>
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<td>Locality</td>
<td>DSS Staff</td>
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<tr>
<td>3</td>
<td>W11</td>
<td>1/23/2018</td>
<td>STORMWATER, direct</td>
<td>38.1864</td>
<td>-76.8948</td>
<td>Adjacent to Popes Creek Avenue, Montross, VA 22520</td>
<td>15” corrugated culvert which drains neighborhood ditches out to Potomac River.</td>
<td>NA</td>
<td>NA</td>
<td>N</td>
<td>Westmoreland</td>
<td>WB</td>
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<td>Pollutant Remarks</td>
<td>Septic System Type</td>
<td>Structure Type</td>
<td>Contact</td>
<td>Overall Site Remarks</td>
<td>Località</td>
<td>Boating Activity Type</td>
<td>Number of Wet Slips</td>
<td>NUM BOATS &lt;26'</td>
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<tr>
<td>1</td>
<td>3 W2</td>
<td>1/23/2018</td>
<td>BOATING ACTIVITY</td>
<td>38.1770</td>
<td>-76.8833</td>
<td>End of Potomac Ave., Montross 22520</td>
<td>Available on site are seasonal slips/moorings, electricity and water.</td>
<td>NA Marine Y</td>
<td>Westmoreland OPWBAM</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>WB</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3 W4</td>
<td>1/23/2018</td>
<td>BOATING ACTIVITY</td>
<td>38.1734</td>
<td>-76.8775</td>
<td>Osprey boathouse. Available on site are restrooms, solid waste containers, boat rentals and a dump station.</td>
<td>NA Marine Y</td>
<td>Westmoreland OPWBAM</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>NA</td>
<td>WB</td>
<td></td>
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<tr>
<td>3</td>
<td>3 W1</td>
<td>11/16/2017</td>
<td>BOATING ACTIVITY</td>
<td>38.1873</td>
<td>-76.8976</td>
<td>Adjacent to Popes Creek Avenue, Montross, VA 22520</td>
<td>Available on site are 2 seasonal slips/moorings, an in-out concrete ramp and solid waste containers for use by members.</td>
<td>NA Marine Y</td>
<td>Westmoreland Under Surveillance</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>WB</td>
<td></td>
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<tr>
<td>4</td>
<td>3 W3</td>
<td>1/23/2018</td>
<td>BOATING ACTIVITY</td>
<td>38.1776</td>
<td>-76.8841</td>
<td>Adjacent to 959 Riverview Rd., Montross 22520</td>
<td>Community in-out ramp.</td>
<td>NA Marine N</td>
<td>Westmoreland Under Surveillance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>WB</td>
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<tr>
<td>5</td>
<td>3 W5</td>
<td>1/23/2018</td>
<td>BOATING ACTIVITY</td>
<td>38.1741</td>
<td>-76.8791</td>
<td>Westmoreland State Park, 1650 State Park Rd, Montross, VA 22520</td>
<td>Public in-out ramp.</td>
<td>NA Marine Y</td>
<td>Westmoreland Under Surveillance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>WB</td>
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<td>9</td>
<td>3</td>
<td>1/23/2018</td>
<td>CONtributes Animal Pollution, direct</td>
<td>38.1787</td>
<td>-76.9226</td>
<td>1152 Popes Creek Road, Montross, VA 22520</td>
<td>Present at the time of the survey were 50+ cows located in pasture less than 100 ft from Popes Creek. Neighbors state cows periodically are seen in the Creek. Manure is left on ground surface.</td>
<td>Conv</td>
<td>Agri</td>
<td>N</td>
<td></td>
<td>Westmoreland</td>
<td>WB</td>
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<td>4</td>
<td>3</td>
<td>1/23/2018</td>
<td>CONtributes Animal Pollution, indirect</td>
<td>38.1851</td>
<td>-76.9175</td>
<td>George Washington Birthplace National Monument, 610 Bridges Creek Road, Montross, VA 22443</td>
<td>Present at the time of the survey were 6+ cows, 2 horses, 2 oxen, 2+ hogs, and 5+ sheep. Manure is left on ground surface.</td>
<td>Conv</td>
<td>Public</td>
<td>Y</td>
<td></td>
<td>Westmoreland</td>
<td>WB</td>
<td></td>
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<tr>
<td>5</td>
<td>3</td>
<td>1/23/2018</td>
<td>CONtributes Animal Pollution, indirect</td>
<td>38.1488</td>
<td>-76.8414</td>
<td>Stratford Hall Plantation, 485 Great House Road, Montross, VA 22520</td>
<td>Present at the time of the survey were 4 cows, 5 chickens, 2 horses, 9 sheep, and 1 llama. Manure is left on ground surface.</td>
<td>Conv</td>
<td>Public</td>
<td>Y</td>
<td></td>
<td>Westmoreland</td>
<td>WB</td>
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<tr>
<td>6</td>
<td>3</td>
<td>1/23/2018</td>
<td>CONtributes Animal Pollution, indirect</td>
<td>38.1446</td>
<td>-76.8332</td>
<td>Stratford Hall Plantation, 485 Great House Road, Montross, VA 22520</td>
<td>Pasture is leased out. Present at the time of the survey were 60+ cattle. Manure is left on ground surface. Pasture is partially within boundary.</td>
<td>Conv</td>
<td>Public</td>
<td>Y</td>
<td></td>
<td>Westmoreland</td>
<td>WB</td>
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</tbody>
</table>
SUMMARY

Growing Area # 003
Potomac River: Mattox Creek to Currioman Bay
3 February 2018

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 the deficiencies in this section is the responsibility of the local health department.
   0 – CONTRIBUTES POLLUTION, DIRECT – None
   1 – CONTRIBUTES POLLUTION, INDIRECT – # W10
   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
   1 – 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
   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
   0 – MARINAS – None
   1 – OTHER PLACES WHERE BOATS ARE MOORED – # W2
   4 – UNDER SURVEILLANCE – # W1, W3, W4, W5
   5 – D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION
   1 – DIRECT – # W6
   3 – INDIRECT – # W7, W8, W9
   4 – E. TOTAL

SECTION F: STORMWATER OUTFALLS
   1 – DIRECT – # W11
   0 – INDIRECT – None
   1 – E. TOTAL