

Department of Health P O BOX 2448 RICHMOND, VA 23218

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# PAGAN RIVER Growing Area # 061 Isle of Wight County Shoreline Sanitary Survey

Date: 23 December 2024

Survey Period: September 11 – October 24, 2024

**Total Number of Properties Surveyed and Near-Shore Samples Collected:** 86 **Surveyed by:** F. Monis I. Geeson, L. Sakach, C. Turner, E. Yeargin, & T. Egerton

**SECTION A: GENERAL** 

This survey area extends from Reference Point 62 at Route 703 extended to the Burwell Bay shore at Rushmere to Reference Point 63 at Ballard Marsh, including the James River shoreline between these two points, Pagan River, Williams Creek, Tormentor Creek (excluding Tormentor Lake), Lawson Creek south of Old Stage Highway, Canal Run, Blairs Creek, Mount Holly Creek, Cypress Creek, Little Creek, portions of Champion Swamp (excluding Scotts Factory Pond), Moon Creek, Jones Creek (Town Farm Creek, Carrollton Branch, and Titus Creek), and all of their tributaries.

Early in 2024, the boundaries of the Growing Areas along the James River were revised to better align with the natural shape of its bays and tributaries. The fieldwork for this survey follows the 2023 boundaries to complete the mapping of all significant properties within the James River watershed since 2019. Future surveys will adhere to the 2024 Growing Area boundaries.

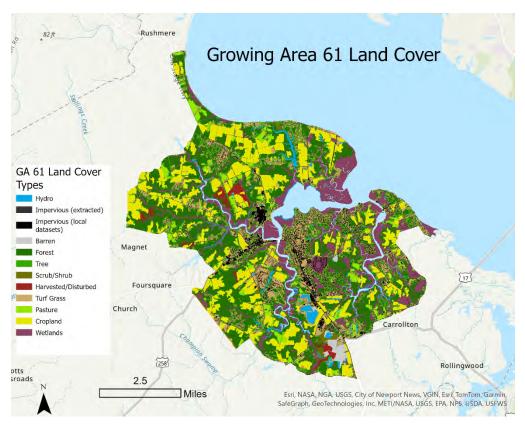
Meteorological data indicated that 4.19" of rain fell during the survey period. A monthly breakdown follows:

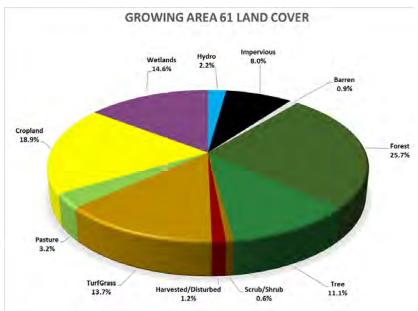
Date range	Cumulative Rainfall (inches)					
September 11 – 30, 2024	3.95"					
October 1 – 24, 2024	0.24"					

The 2020 census reported that there are an estimated 18578 residents across 7820 housing units in Growing Area 61. The population density is 432 residents per square mile. <a href="https://www.census.gov/geographies/reference-maps/2020/geo/2020-census-block-maps.html">https://www.census.gov/geographies/reference-maps/2020/geo/2020-census-block-maps.html</a>



Within GA 61 there are 8,975 land parcels. Land Cover data are shown below:





Source: https://gismaps.vdem.virginia.gov/Download/Land Cover/County Report.pdf

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 samples were also

tested for the human-associated molecular marker gene HF183, which could indicate recent human-source fecal pollution. However, all HF183 results were below detectable levels.

The table below shows hydrographic data, sampling times, and the range of enterococcus concentrations measured. Maps of the enterococcus sampling locations are provided at the end of this report.

Growing Area	Growing Area # 61 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					
10/15/24	09:17	11:01	10:06 – 13:10	<10-987	0"	0"	0"					
10/16/24	10:09	11:59	09:58 –11:38	<10 - 173	0"	0"	0"					
10/17/24	10:59	12:55	11:01	30	0"	0"	0"					
10/22/24	02:50	03:32	10:27 - 13:01	10 - 84	0"	0"	0"					
Total Rainfall for	Total Rainfall for Sampling period: (10/15/24 to 10/22/24) = 0"											

<sup>\*</sup>High Tide predicted from Smithfield, Pagan River NOAA ID 2247.

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 <a href="https://www.deq.virginia.gov/permits/water/surface-waters-vpdes">https://www.deq.virginia.gov/permits/water/surface-waters-vpdes</a> and <a href="https://geohub-vadeq.hub.arcgis.com/pages/Water%20Datasets">https://geohub-vadeq.hub.arcgis.com/pages/Water%20Datasets</a>

Copies of Bacteriological, Hydrographic and Shellfish Closure data are available at the area office for review. Copies of the current condemnation notices and maps are available via the Internet at <a href="https://www.vdh.virginia.gov/environmental-health/environmental-health-services/shellfish-safety/">https://www.vdh.virginia.gov/environmental-health-services/shellfish-safety/</a>

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.

<sup>\*\*</sup>Slack Ebb current predicted from James River, South end NOAA ID ACT5311.

# **SECTION B: SEWAGE POLLUTION SOURCES**

	GA #	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Overall Site Remarks	Locality	DSS Staff	Date of Correction	Correction Notes
1	61	G31	SEWAGE TREATMENT FACILITY, direct	36.960394	I -/b.5b39b8		Nike Park Recreational Facility. Satisfactory DEQ Inspection Report.	Isle of Wight	IG		
2	61	X48	SEWAGE TREATMENT FACILITY, direct	36.963800	-76.560678		Capehart Homes WWTP. Package Plant serving approx 14 homes, 25 people.	Isle of Wight	IG		
3	61	(:1\/11	CONTRIBUTES POLLUTION, indirect	36.957722		Site visit 10/17/24. No contact. Unable to access rear part of house.	Sanitary notice issued during previous survey. Local Health follow up in 2016 but home not inhabited and without discharge, so no regulatory authorty for repair.	Isle of Wight	СТ		

## **Shoreline Survey # 061**

# **SECTION C: NONSEWAGE WASTE SITES**

	GA #	Field #	Deficiency or Pollution Type	Latitude Longitude		Y I Latitude I Longitude I Pollutant Remarks I		Overall Site Remarks	Locality	DSS Staff
4	61	FM6	INDUSTRIAL WASTES, direct			•	Smithfield Fresh Meats Corporation.	Isle of Wight	FM	
5	61	1 (2//	SOLID WASTE DUMPSITE, indirect	36.996070	-76.549703	Approximately 25 scrap and restored cars in yard with farm equipment.		Isle of Wight	IG	

## **SECTION D: BOATING ACTIVITY**

	GA #	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Overall Site Remarks	Boating Activity Type	Number of Wet Slips	Evidence of Live- Aboards	Locality	DSS Staff
6	61	<b>⊢</b> N/11 I	BOATING ACTIVITY	36.982901	-76.629586	Satisfactory Marina Program inspection 2024	Pagan River Townhouses.	Marina	19	N	Isle of Wight	FM
7	61		BOATING ACTIVITY	36.982369	-76.622454	Satisfactory Marina Program Inspection 2024	Smithfield Station.	Marina	100	N	Isle of Wight	FM
8	61	1 2 1	BOATING ACTIVITY	36.994957	-76.562236	Satisfactory Marina Program insection 2024.	Rescue Yacht Basin.	Marina	19	N	Isle of Wight	LS
9	61	10	BOATING ACTIVITY	36.998318	-76.566039	Satisfactory Marina Program Inspection 2024	Brown's Marina.	Marina	70	N	Isle of Wight	LS
10	61	1 10	BOATING ACTIVITY	36.995273	-76.582431	Satisfactory Marina Program inspection 2024.	Gatling Pointe Marina.	Marina	68	N	Isle of Wight	LS
11	61		BOATING ACTIVITY	36.973342	-76.560565	Small community dock seen from boat on 10/22/24. Dock is in disrepair and only accessible through residential backyards.	Small dock with ~ 6 slips seen from boat on 10/22/24. Dock is in disrepair and only accessible through residential backyards. No boats moored.	Under Surveillance	6	N	Isle of Wight	СТ
12	61	(:1\/16	BOATING ACTIVITY	36.974610		Jones Creek Boat Ramp. Site visit 10/17/24. Two boat ramps and fishing pier(dockage not allowed), bathroom provided (1 men, 1 women). No issues noted around bath house.	Jones Creek Boat Ramp.	Under Surveillance	4	N	Isle of Wight	СТ
13	61	15	BOATING ACTIVITY	36.997786	-76.575888	Satisfactory Shellfish Program inspection 2024.	Dockside Oyster Farms.	Under Surveillance	2	N	Isle of Wight	LS
14	61	1 / 1	BOATING ACTIVITY	36.994606	I = /h hh 31hll	site visit 10/16/24. pier in disrepair, space for 4 boats.	Unamed boating facility in community of Rescue.	Under Surveillance	4	N	Isle of Wight	LS

# **SECTION E: ANIMALS PRESENT SITES**

	GA #	Field #	Deficiency or Pollution Type	Latitude	Longitude	Pollutant Remarks	Overall Site Remarks	Locality	DSS Staf
15	61	CW/	ANIMALS PRESENT, indirect	36.971021	-76.553424	Horses observed in fenced pasture.		Isle of Wight	СТ
16	61	FM3	ANIMALS PRESENT, indirect	37.031048	-76.644727	Site visit 10/18/24. 7 horses observed.		Isle of Wight	FM
17	61	I FIV14	ANIMALS PRESENT, indirect	37.015008	-76.657848	1 horse observed in pasture.		Isle of Wight	FM
18	61	FM5	ANIMALS PRESENT, indirect	36.998390	-76.638034	DEQ VAR050348022020 permits active. Hog waste lagoon and nitrogen management plan via DEQ.		Isle of Wight	FM
19	61	1 FIVI /	ANIMALS PRESENT, indirect	36.949151	-76.564121	1 horse observed. Manure is collected and offered free to public.		Isle of Wight	FM
20	61	1 1/1/19	ANIMALS PRESENT, indirect	37.040937	-76.663159	>20 cows observed in pasture		Isle of Wight	FM
21	61	1 F M11()	ANIMALS PRESENT, indirect	37.006387	-76.696822	3 horses observed		Isle of Wight	FM
22	61	G1	ANIMALS PRESENT, indirect	36.983536	-76.600144	Fenced pasture observed from waterway.		Isle of Wight	IG
23	61	L1	ANIMALS PRESENT, indirect	36.992764	-76.575509	2 rabbits, 2 pigs, 2 goats. No access to creek.		Isle of Wight	LS
24	61	L3	ANIMALS PRESENT, indirect	36.993550	-76.573070	Site visit 10/3/24. No contact. 1 Emu observed.		Isle of Wight	LS

#### **SUMMARY**

Growing Area # 061 Pagan River 23 December 2024

### **SECTION B: SEWAGE POLLUTION SOURCES**

- 1. SEWAGE TREATMENT FACILITIES
  - 2 DIRECT # G31, X48
  - 0 INDIRECT None.
  - 2 B.1. TOTAL
- **2. ONSITE 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 # CM1
  - 0 CP (Kitchen or Laundry Wastes), DIRECT None.
  - 0 CP (Kitchen or Laundry Wastes), INDIRECT None.
  - 0 NO FACILITIES, DIRECT None.
  - <u>0</u> 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
  - 1 DIRECT # FM6
  - <u>0</u> INDIRECT None.
  - 1 C.1. TOTAL
- 2. SOLID WASTE DUMPSITES
  - 0 DIRECT None.
  - <u>1</u> INDIRECT # G77
  - 1 C.2. TOTAL
- 3. STORMWATER OUTFALLS
  - 0 DIRECT None.
  - <u>0</u> INDIRECT None.
  - 0 E. TOTAL

## **SECTION D: BOATING ACTIVITY, INDIRECT**

- 4 MARINAS # CM5, CM6, L5, L7
- 5 UNDER SURVEILLANCE # FM1, FM2, L8, L9, L10
- 9 D. TOTAL

#### **SECTION E: ANIMALS PRESENT**

- 0 DIRECT None.
- 10 INDIRECT # CM7, FM3, FM4, FM5, FM7, FM9, FM10, G1, L1, L3
- 10 E. TOTAL

