

# Annual Update

## Integrated Plan/Regional Wet Weather Management Plan (IP/RWWMP)

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#### Affiliate Information

Visit [askhrgreen.org](http://askhrgreen.org) for information on everything green in Hampton Roads.

Visit [elizabethriver.org](http://elizabethriver.org) to learn how to make restoration a reality.

## HRSD Breaks Ground on First Full-Scale SWIFT Facility

Written by Leila Rice, HRSD Director of Communications



On July 21, 2022 HRSD Commissioners and staff, joined by the Honorable Andrew Wheeler, Director of the Virginia Office of Regulatory Management, and several state and local representatives gathered today at the HRSD James River Treatment Plant in Newport News to break ground on the first full-scale SWIFT (Sustainable Water Initiative for Tomorrow) facility.

The James River SWIFT facility is expected to be online in 2026 and will be able to replenish the Potomac aquifer with up to 16 million gallons of drinking-water quality SWIFT Water™ per day using advanced treatment processes. The project also includes advanced nutrient reduction improvements for the James River Treatment Plant and will provide significant nature-based shoreline stabilization and other land improvements, along with several park amenities to benefit the community, including approximately two miles of new walking trails providing public access to river views and the nearby marina, additional park restrooms and reservable public meeting space.

"Governor Youngkin is committed to restoring the Bay and to ensuring that all Virginians have access to clean, safe drinking water. This project, and other innovative approaches like SWIFT are key to achieving this objective," remarked Director Wheeler.

HRSD General Manager, Jay Bernas added, "With the benefit of the research data we've gained from more than four years of replenishing the aquifer at our SWIFT Research Center, I am confident this facility will be one of the most advanced water treatment facilities in the Commonwealth, featuring a robust multiple barrier approach to water treatment."

# How Individual Actions Can Help Make a Difference: Celebrating the Value of Water

Written by Lacie Wever, HRSD Community Educator

We're raising a glass (of water) to the 8th annual Imagine a Day Without Water. Imagine a Day Without Water is a National Day of Action that raises awareness about the value of water. This year, The Value of Water is challenging communities to increase water awareness.

Aldous Huxley famously quoted, "The more you know, the more you see." By coming together to educate, communities can find solutions to combat a rapidly changing climate and aging infrastructure. As an individual, it can seem like your minor actions won't make a difference. This couldn't be further from the truth! In fact, here are some ways you can take individual action to make a real, lasting impact. Try one or more of the following!



## Learn where your local drinking water comes from

Have you ever considered how water travels to your tap or where it comes from? Over 2 million Americans live without basic access to safe drinking water and sanitation. In Hampton Roads, we don't often stop to consider the value of tap water, but it plays an important role in our everyday lives. Access to safe, clean tap water is essential to protect our health, allowing our economy to thrive and provide the quality of life we all enjoy. The EPA requires water utilities to routinely test the drinking water for certain contents like bacteria, pesticides, and heavy metals. To learn more about what happens to the water you drink and use, be sure to read your water/wastewater bill and your city/county's annual water quality report. Annual water quality reports are required by law and can be found on your city/county's website.

## Understand where your dirty water goes

What happens to the water when you flush the toilet or clean the dishes? Dirty water travels down the drain and is carried to HRSD's wastewater treatment plants throughout the region. HRSD has 8 larger treatment plants and 6 smaller treatment plants serving almost 2 million Hampton Roads residents. Unlike your drinking water, which is specific to your locality (see above), our wastewater system is regional. HRSD's mission is to protect public health and waters of Hampton Roads through effective wastewater treatment. This is one of my [favorite videos to simply explain the wastewater treatment plant process.](#)



## Learn about climate issues in our area

According to research, one of the largest threats to our region is sea level rise. [Check out this article](#) about assessing climate vulnerability in Hampton Roads to learn more about climate change in Hampton Roads.

## Sign the one water pledge

By signing the one water pledge by the US Water Alliance, you are committing to take immediate, measurable action to increase their water knowledge, learn how to ensure all members of their community have access to drinking water and sanitation. Take the pledge [here](#).



**Imagine a Day Without Water**  
October 20, 2022

# Sanitary Sewer Overflow Report

FY 2022 (July 1, 2021 - June 30, 2022)

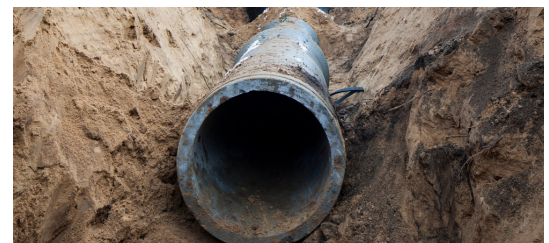
A Sanitary Sewer Overflow (SSO) is a release of untreated sanitary sewage, also referred to as “wastewater”, into the environment. Hampton Roads Sanitation District (HRSD) is required to track all SSOs within the HRSD system. HRSD officially reports SSOs through Department of Environmental Quality’s (DEQ) Sanitary Sewer Overflow Reporting System (SSORS) and maintains an internal database.

HRSD takes environmental protection very seriously and our record of permit compliance is unparalleled among wastewater treatment agencies in the United States. HRSD has won numerous awards related to permit compliance. The HRSD system currently carries about 134 million gallons per day to the various treatment plants throughout the Hampton Roads region. HRSD successfully conveyed and treated 99.998% of wastewater in 2021. This is literally equivalent to a drop in the bucket! 5 gal bucket \* 0.0000156 (FY22 SSO volume) = 0.000078 gal or 0.01 ounces or 5 drops of water.

The pipelines and pumps that convey wastewater to treatment plants are designed to carry the daily volume of wastewater generated for the area. The design includes extra capacity for some precipitation entering the sanitary sewer system; the sanitary sewer system is not designed to accommodate excessive precipitation entering the system. Excessive precipitation entering the sanitary sewer system is called “infiltration and inflow” (I&I). I&I is the cause of most SSO events in the HRSD system. Due to the impact of wet weather and storms, the number of SSOs varies dramatically from year to year based on the weather. The following table summarizes past HRSD overflows:

## SSO History 2011 - 2022

Year	# of SSOs	SSO Volume (gal)	Total Inches of Rain at Norfolk Airport
CY2011	35	1,880,086	55
CY2012	40	22,850,543*	52
CY2013	14	722,237	50
CY2014	29	2,250,915	45
CY2015	18	516,704	53
CY2016	49**	6,148,239**	69**
CY2017	21	259,057	42
FY2018	20	1,006,196	47
FY2019	14	1,366,725	53
FY2020	17	277,521	47
FY2021	44	37,918,968***	58
<b>FY2022</b>	<b>10</b>	<b>768,133</b>	<b>38</b>



\*Included single SSO at Wilroy Road of 18,352,000 gallons. Remaining volume ~4,500,000 gallons for CY 2012

\*\*Included two major weather events from Hurricane Matthew and Tropical Storm Hermine

\*\*\* Included one infrastructure failure related SSO of 29,068,057 gallons.

FY 2022 - Conveyed 49.3 billion gallons  
Total volume lost 0.00156%

# By the Numbers: FY 2022 HRSD SSOs

## HRSD Capacity Related SSO Summary

### Causes for SSOs

- Capacity - Weather Related
- 3rd Party
- Damaged by Others
- Aging Infrastructure
- Maintenance - Debris
- Maintenance - Grease
- Other
- Power Outage
- Power Outage (Storm Event)

**FY 2022- Conveyed 49.3 billion gallons  
Total Volume Lost (capacity) 0.00156%**

Year	Total # of SSOs	Total Volume Of SSOs (gal)	Volume for Capacity SSO (Gals)	# of Capacity SSOs	Named Storm
2011	35	1,880,086	1,409,796	16	Hurricane Irene
2012	40	22,850,543	4,249,483	31	Hurricane Sandy
2013	14	722,237	584,784	5	Remnants of Hurricane Andrea (1)
2014	29	2,250,915	681,392	15	None
2015	18	516,704	207,177	15	None
2016	49	6,148,239	2,133,775	35	TS Julia & Hurricane Matthew
2017	21	259,057	145,221	13	None
FY2018	20	1,006,196	134,886	10	None
FY2019	14	1,366,725	72,775	8	None
FY2020	17	277,521	16,530	2	None
FY2021	44	37,918,968	8,371,781	30	Remnants of Isaias & Sally
<b>FY2022</b>	<b>10</b>	<b>768,133</b>	<b>0</b>	<b>0</b>	<b>TS Elsa</b>



Learn more about HRSD sanitary sewer overflows [here](#).

**FY 2022 - Conveyed 49.3 billion gallons  
Total volume lost 0.00156%**

### HRSD Program Highlight: Microbial Source Tracking (MST)



HRSD is one of the first entities in the country to use Microbial Source Tracking (MST). Through MST, HRSD is able to pinpoint sources of bacteria impairments. We use DNA markers to determine if the bacterial impairment is due to human waste or something else such as bird or dog poop. We are able to partner with localities and track the human signals back to the source! This program helps us to efficiently find SSOs. You can think of our MST team as "CSI" detectives. For these scientists however, the suspect is usually sewage.

# How Can You Help Protect Our Waterways?

## Public Participation Opportunities

Report Sanitary Sewer Overflows



Reduce Stormwater Runoff



Limit Fertilizer and Lawn Chemical Applications



What NOT to Flush



Pick Up Animal Waste



Use our FREE Boater Pump Out program



Capture Kitchen Grease in a Can



Properly Dispose of Medications



### Other Public Participation Opportunities

- Viewing [Integrated Plan Documents](#)
- [HRSD News Releases](#)
- Social Media
  - [Facebook](#)
  - [Twitter](#)
  - [LinkedIn](#)
  - [NextDoor](#)
- Open House Meetings
- [Construction Progress and Updates](#)
- [Tours/Presentations](#) for Community Groups



## DID YOU KNOW?

Did you know nature also helps to keep our waterways clean? Our waterways contain a number of microorganisms which naturally break down waste! When there is an SSO, our data consistently shows that once the SSO has been fixed, the dissolved oxygen and bacterial levels of the waterway return to normal in a few days. This is because breaking down waste is a part of nature's biological process!



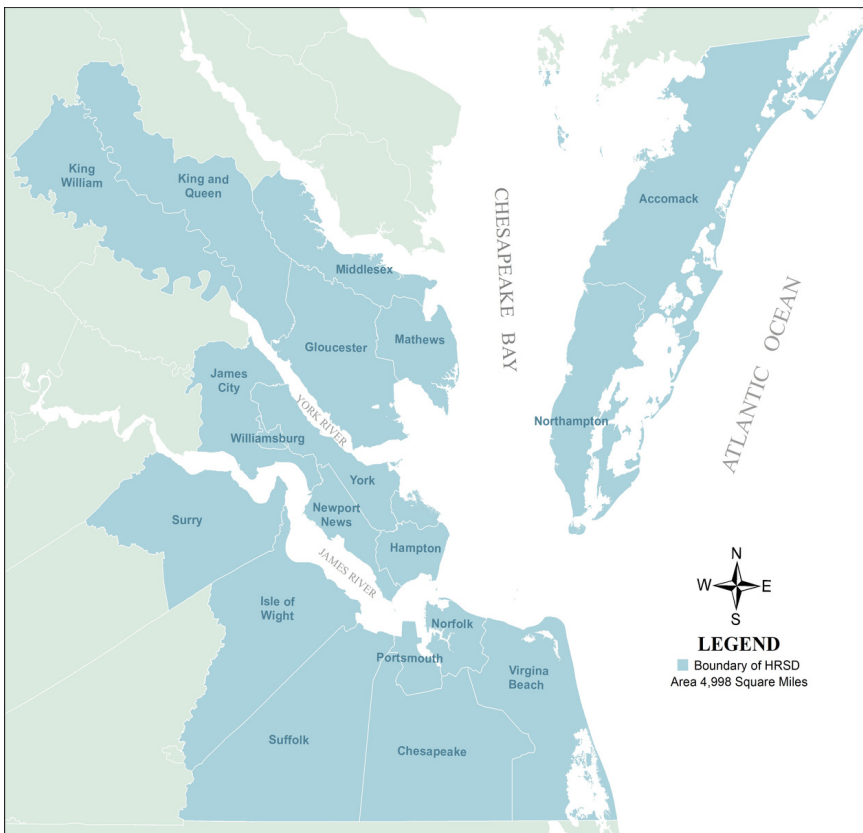
Please call the number listed for your Locality if you observe an SSO.

# Help Protect Our Waterways by Reporting Suspected Sanitary Sewer Overflows (SSOs)



Locality	During Business Hours	After Business Hours
Chesapeake Public Utilities	757-382-2489	757-382-3550
Gloucester Public Utilities	804-693-4044	804-693-3890
Hampton Public Works	757-727-8311	757-727-8311
Isle of Wight Public Utilities	757-365-6284	757-357-2151
James City Service Authority	757-229-7421	757-566-0112
Newport News Public Works	757-933-2311	757-234-4800
Norfolk Public Utilities	757-823-1000	757-823-1000
Poquoson Public Works	757-868-3590	757-868-3501
Portsmouth Public Utilities	757-393-8561	757-393-8561
Suffolk Public Utilities	757-514-7000	757-514-7000
Town of Smithfield	757-365-4200	757-357-2151
Virginia Beach Public Utilities	757-385-1400	757-385-3111
Williamsburg Public Works	757-220-6140	757-220-2331
York County Public Works	757-890-3750	757-890-3773

## HRSD SERVICE AREA MAP



Political subdivision of the Commonwealth of Virginia



Governing body: Governor-appointed commission



14<sup>th</sup> largest wastewater utility in the US  
Population served: 1.9 million



Combined wastewater treatment capacity: 225 million gallons/day



Operate 8 major and 6 smaller treatment plants and 500 miles of pipelines



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