

Annual Update

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

IN THIS ISSUE

A look at an HRSD Sustainable Infrastructure Project: Cambi THP **2**

Seriously, Can You Imagine A Day Without Water? **3**

Sanitary sewer overflow report **4**

By the numbers: 2021 HRSD SSOs **5**

How to report SSOs

Participating localities **6**

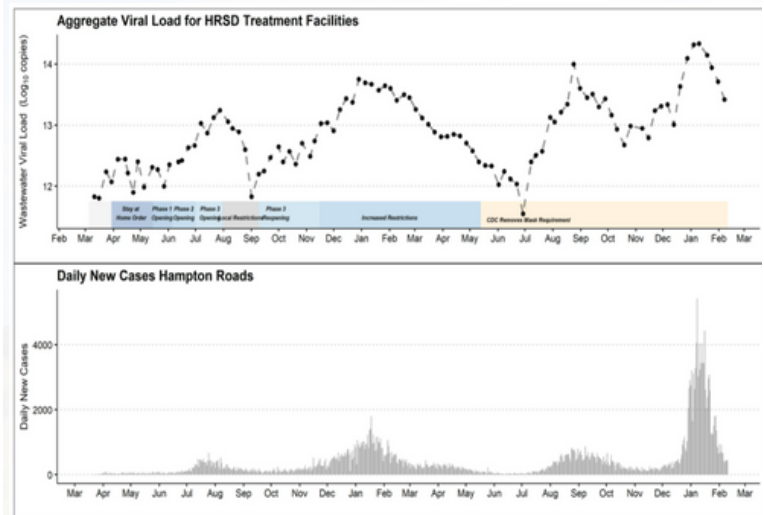
HRSD service area map

HRSD Continues Tracking COVID-19 in Wastewater

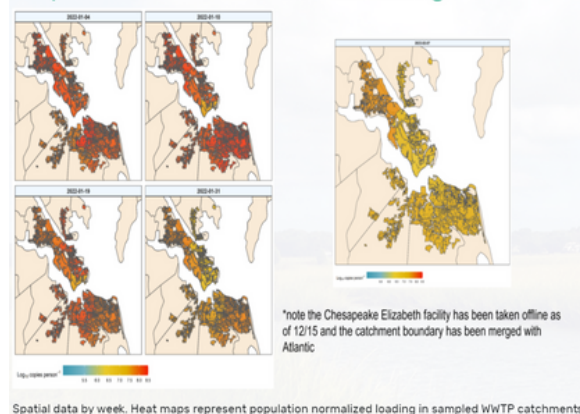
HRSD continues to track COVID-19 in wastewater. The intention for data generation is to supplement other public health information. The data on our website will continually be updated with new data as results are made available. More information [here](#).

Graphs of HRSD Surveillance captured 2/15/22

Regional SARS-CoV-2 Loading



A Spatial Look at Normalized Loading



Spatial data by week. Heat maps represent population normalized loading in sampled WWTP catchments.

Affiliate Information

Visit askhrgreen.org for information on everything green in Hampton Roads.

Visit elizabethriver.org to learn how to make restoration a reality.

A look at an HRSD Sustainable Infrastructure Project: Cambi THP

Written by Lacie Wever, HRSD Community Educator



There is more to infrastructure than roads and bridges.

According to United for Infrastructure, infrastructure includes America’s roads, bridges, rail, ports, airports, water and sewer systems, energy grid, and more.

As a wastewater treatment facility, infrastructure is critical to providing over 1.9 million Hampton Roads residents an essential service – cleaning wastewater. HRSD receives over 150 million gallons of wastewater per day and must ensure that water is cleaned efficiently before placing it back out in the environment.

We realize however, that cleaning wastewater in a way that nurtures our delicate ecosystem is only part of our job; we also have a responsibility, as stewards of the environment, to allow future generations to be able to inherit clean waterways and keep them clean.

One way we accomplish this vision is by investing in sustainable infrastructure. One of our latest sustainable infrastructure updates is called Thermal Hydrolysis Process, or THP. This project is created by an organization named Cambi. During THP, HRSD is creating Class A biosolids.

Completed in March 2021, the Atlantic Treatment Plant THP was engineered by HDR Engineering, Inc. and Brown and Caldwell with Crowder Construction Company acting as the Construction Manager. Cambi was designed in Norway, constructed in the U.K., and shipped to the United States for installation!

How Does THP Work?

Think of a pressure cooker! Yup, our THP project is much like the kitchen gadget you use at home to cook meals in half the time.

Much like a pressure cooker, Cambi THP uses pressure and temperature to break down solids at the Atlantic Treatment Plant. Solids are materials like coffee grounds, expelled food waste from your body, and other products that make their way down your drain or toilet. Remember, there are several items that should NEVER go down your drain or toilet.

Cambi THP is beneficial because the plant will be able to take in twice the number of solids. With our Chesapeake-Elizabeth Treatment Plant closing at the end of 2021, most of its flow will travel to the Atlantic Treatment Plant. This means the Atlantic Treatment Plant can handle its current flow as well as the additional flow increase from the Chesapeake-Elizabeth Treatment Plant closure.

A True Example of Sustainable Infrastructure

Methane is a common byproduct at wastewater treatment plants. This methane can be captured, cleaned, and turned into electricity. At the Atlantic Treatment Plant, that electricity is then used to operate the wastewater treatment plant. What makes Cambi THP an example of sustainable infrastructure is that it produces 10% more methane! With Cambi THP, the Atlantic Treatment Plant will now be able to use this methane gas to produce more electricity.



Happy Infrastructure Week!

To create a sustainable future, we are challenged to continue to invest in infrastructure that is beneficial to our communities. Cambi THP is an excellent example of the advantages of investing in infrastructure that can provide a sustainable solution in the water utility industry.

“Cambi is an innovative process that produces Class A Biosolids for beneficial use. The pathogen-free, nutrient dense and soil-like end product is then land applied for agriculture and land restoration beneficial use, maximizing the value of this recovered resource.” – Drew Zirkle, HDR Engineering, Inc.

Seriously, Can You Imagine A Day Without Water?

Written by Lacie Wever, HRSD Community Educator



Imagine a Day Without Water
October 21, 2021

This year on October 21, groups all over the country came together to educate their communities and find solutions to combat a rapidly changing climate and aging infrastructure. For most people, the systems that bring us this valuable resource are generally reliable and remain out of sight, out of mind. For others, a day without water is a frustrating reality with seemingly few solutions.

Imagine a Day Without Water is a national day of action on October 21 and raises awareness about the value of water. Have you ever thought about where your drinking water comes from? What about where your wastewater goes? For its seventh annual day, we urge you to take a few steps beyond imagining the reality of going without a resource as vital as water. We would like you to take action by learning about the systems that deliver water to your homes and businesses each day.

As an individual, you may wonder where you fit into ensuring a day without water doesn't become a reality in your community. It's a daunting task, but our collective voice can make a real, lasting impact.

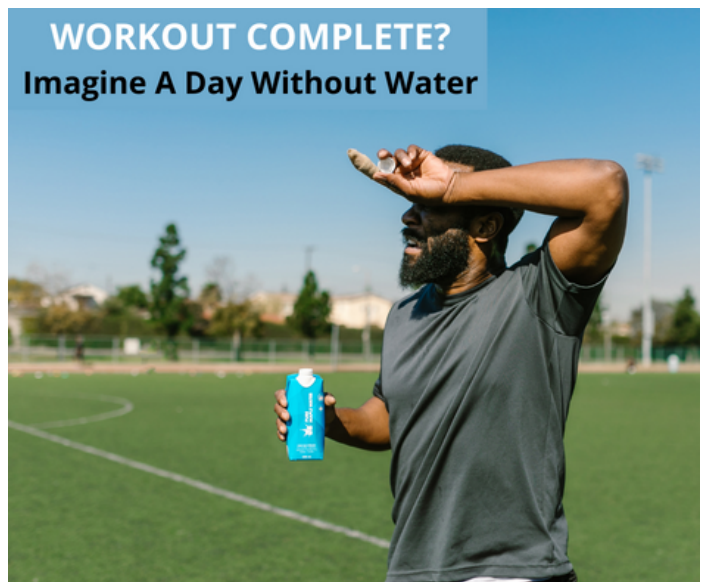
Here are some ways you can celebrate Imagine A Day Without Water:

- Take a [SWIFT Research Tour](#) to learn how we are bringing wastewater to drinking water standards.
- Visit <https://imagineadaywithoutwater.org/resources> to learn about the Value of Water
- Consider ditching your single-use water bottles and drinking tap water in a reusable bottle instead.
- Share one of our social media photos on your social media, be sure to tag us @HRSDVA on [Facebook](#) or [Twitter](#)
- Visit a body of water (the beach, the Chesapeake Bay, or a nearby river)

Seriously, can you imagine a day without water?

No matter your reason for participating in Imagine a Day Without Water, continue the conversation with your friends, family, and co-workers about the value of water. A day without water doesn't have to be inevitable. Let's work toward a reality in which a day without water is something we only imagine.

For information on Imagine a Day Without Water and how you can participate, visit the event website.



Sanitary Sewer Overflow Report

FY 2021 (July 1, 2020 - June 30, 2021)



Hampton Roads Sanitation District (HRSD) is required to track all Sanitary Sewer Overflows (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.

FY 2021 Overview

- Over 56.3 billion gallons of wastewater treated
- 44 SSOs which released ~37,918,968 gallons of wastewater to state waters
- Untreated water released is equal to 0.06739% of what HRSD treated

SSO History 2011 - 2021

FY 21 - Conveyed 56.3 billion gallons
Total volume lost 0.06739%

HRSD SSOs

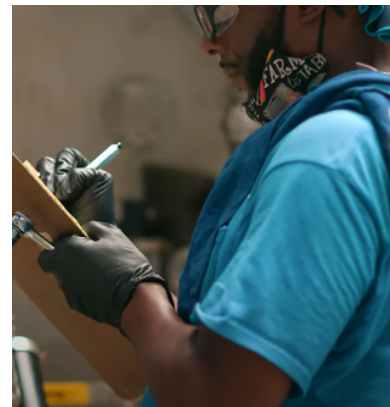
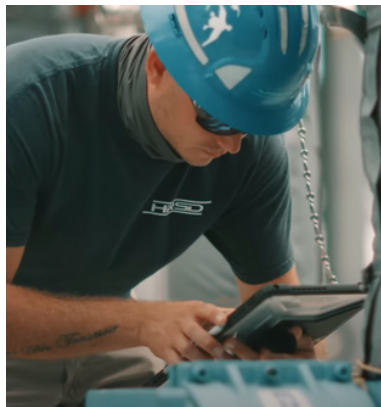
Year	# of SSOs	Volume (gal)	# of Unknown SSO Volumes (during wet weather)	Total Inches of Rain near ORF
CY2011	35	1,880,086	13	55
CY2012	40	22,850,543*	6	52
CY2013	14	722,237	2	50
CY2014	29	2,250,915	10	45
CY2015	18	516,704	3	53
CY2016	49**	6,148,239**	23**	69**
CY2017	21	259,057	4	42
FY2018	20	1,006,196	3	47
FY2019	14	1,366,725	2	53
FY2020	17	277,521	0	47
FY2021	44	37,918,968***	0	58

*Included single SSO at Wilroy Road of 18,352,000 gallons. Remaining volume ~4,500,000 gallons for 2012
 **Included two major weather events in Hurricane Matthew and Tropical Storm Hermine
 *** Included one infrastructure failure related SSO of 29,068,057 gallons.



By the Numbers: FY 2021 HRSD SSOs

HRSD Capacity Related SSO Summary



FY 21 - Conveyed 56.3 billion gallons
Total volume lost (capacity) 0.06739%

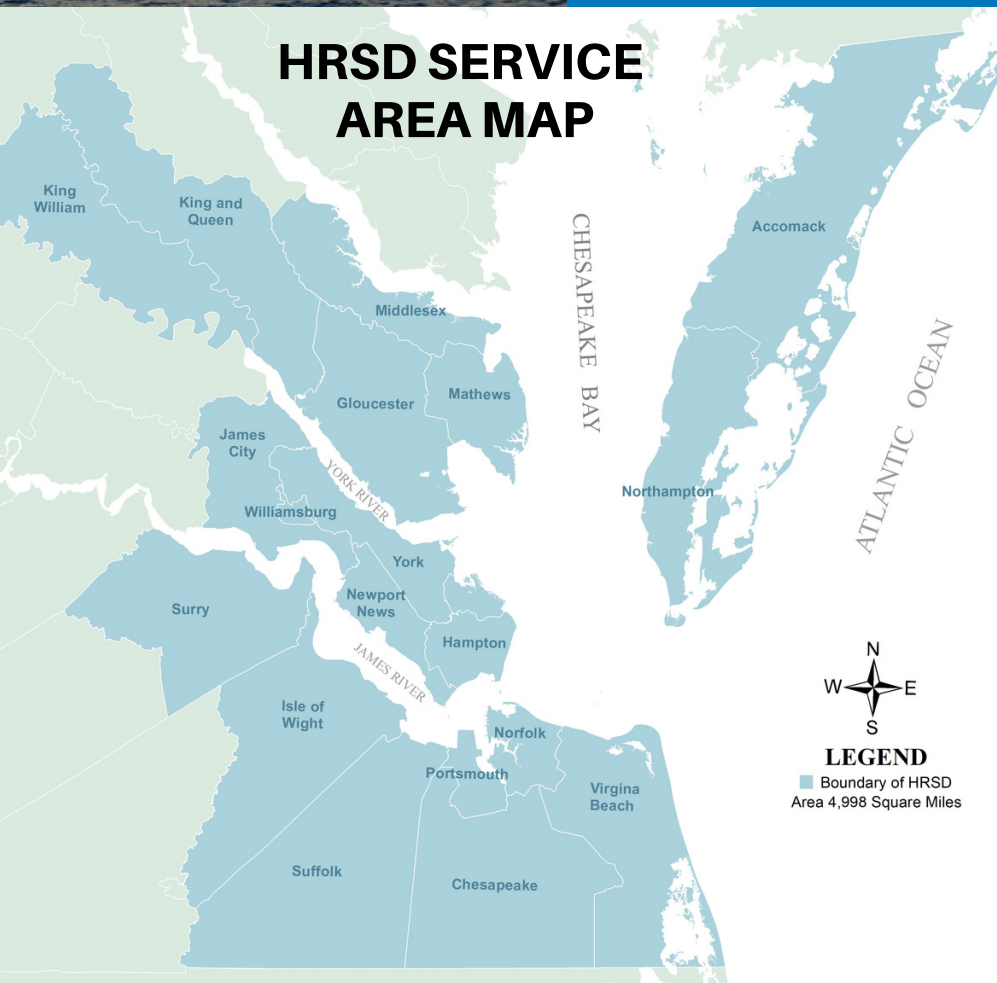
Capacity Related SSOs

Year	Total # of SSOs	Total Volume Of SSOs (gal)	Volume for Capacity (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

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



This newsletter is published by HRSD
 Communications Division
 PO BOX 5911
 Virginia Beach, VA 23471-0911

For more information, contact:
 Lacie Wever, Editor
 (757) 460-7064
 lwever@hrsd.com