

Annual Update

February 2012

Volume 4, Issue 1

Visit the RWWMP Web page at www.HRSD.com for:

- Background information
- Related news articles
- Public presentations and
- Other related information

Inside this issue:

- Tips to Prevent Overflows and Runoff **2**
- How You Can Help HRSD Protect Area Waterways **3**
- How to Report SSOs **4**
- Capacity Team Participants **4**
- HRSD Service Area Map **4**

For more information on litter prevention, recycling and environmental awareness, visit:

- www.hrclean.org
- www.elizabethriver.org

HRSD Reports Progress on Sanitary Sewer Overflow (SSO) Reduction Program

HRSD held its annual meeting to review the status of the Regional Wet Weather Management Plan (RWWMP) on January 24, 2012. The public was invited to attend this session, which included information about the extensive cooperation between HRSD and the localities it serves.

HRSD is engaged in a multi-year effort to reduce sanitary sewer overflows (SSOs) in the Hampton Roads area. SSOs can occur when the system is overloaded with excess flow during rain events, or when pipes or pumps fail due to unexpected mechanical problems or pipe breaks.

The SSO reduction program includes wide-scale monitoring of

wastewater flows, pressures and rainfall; development of a computer model of the pipe network; and inspection of the system's many pipes and pump stations.

The Flow, Pressure and Rainfall (FPR) Monitoring Program involved installing hundreds of measuring devices in the sewer system from Suffolk to Virginia Beach and up to Williamsburg and Gloucester County. The monitoring period was completed in March 2011 after 12 months of data collection. HRSD continues to operate nearly the entire monitoring network, which provides vital information on system performance.

Continued on Page 2

HRSD Uses Extensive Data Collection System to Evaluate Sewers

As technology has improved, the ability to monitor what is happening inside our sewer system has also improved. HRSD has previously collected data on flow rates, pump operation and pressures in the pipelines. New tools that allow more near real-time monitoring with higher levels of accuracy have now allowed HRSD to implement a

more comprehensive data collection network. This system not only includes the flow, pressure and rainfall measurements for the SSO Reduction Program, but also information on sewer levels, pump runtimes and other system operation points.

Continued on Page 2

HRSD Reports Progress on Sanitary Sewer Overflow (SSO) Reduction Program

Continued from Page 1

Tips to Prevent Overflows and Runoff

- **Inspect home, yard and sewer pipes to ensure separation between storm water drainage and sanitary sewer systems.** *Our sanitary sewer systems were not designed to remove ponding water from rain storms or to capture runoff from roof downspouts. Sanitary sewers must be kept separate from storm water drainage to prevent overloading the pipes and creating SSOs.*
- **Reduce storm water runoff by using rain barrels, planting rain gardens and establishing a buffer zone.** *Runoff from homes and businesses into rivers, lakes and the ocean is the largest contributor to water quality problems following a rain event. The amount of runoff can be limited through landscape design and collection devices such as rain barrels. This win-win situation also reduces the need for watering between rainfalls.*

Concurrently with the FPR Monitoring Program, HRSD has worked closely with representatives from all the localities since early 2008 to develop a Regional Hydraulic Model (RHM) that can simulate actual conditions in the sewer system. The RHM, which was completed in July 2011, now estimates the capacity of the sewer system to see how much flow can be accepted by the pipes and pump stations without creating an SSO. Alternatives and solutions to the capacity limitations will be identified and compiled into the RWWMP to be completed in November 2013.

The other component of the SSO reduction program is assessment of the condition of the many parts of the wastewater collection system. HRSD has been performing these inspections on a routine basis.

The comprehensive assessment of the system that began in 2008 will continue through 2013. A major milestone met in November 2011 included inspection of all pumping facilities to identify worn equipment, as well as inspection of miles of pipe and 1,300 manholes in the system.

HRSD Uses Extensive Data Collection System to Evaluate Sewers

Continued from Page 1

HRSD began installation of remote data loggers to collect information from its extensive pipe network in 2008. These loggers, which can report information to a main database every six minutes, are located at all of HRSD's 81 pumping facilities and many intermediate sites. This network, including flow meters, pressure sensors and rainfall gauges measuring more than 360 data points, was completed in 2010 at a cost of more than \$15 million. Invaluable system operation data gathered since then has been used in calibration of the Regional Hydraulic Model (RHM). HRSD's wastewater system operators also use the data collected to detect changes and anomalies in the system that may require maintenance.

This comprehensive network generates a very large volume of digital records that are reviewed for quality control. HRSD has assigned a team of staff to review the data from every one of the collection points to ensure the quality remains high and the data can be useful. These data reviews also identify when a sensor may require maintenance or replacement. HRSD also conducts a sensor calibration and inspection program to keep each unit in good condition.

This new data collection system is an important step in implementing the SSO Reduction Program and continuing HRSD's mission to protect public health and the waters of Hampton Roads.

You Can Help HRSD Protect Area Waterways By Doing What River Star Homes Do

Factories are not the only potential sources of pollution that affects the quality of area waterways. Every private home can be a polluter. Added together, they become a significant source of harmful nutrients and bacteria.

River Star Homes, a program established by the Elizabeth River Project (ERP), is a way for people who live in the Elizabeth River area to help reduce pollution and restore the river. The participants are concerned residents who have agreed to take **7 Easy Steps**. The benefits to all of our waterways will be significant if families throughout Hampton Roads engage in these practices.

You may already be doing some of these simple things in and around your home:

1. **"SCOOP the POOP"** after your dogs. When pet waste washes into waterways, bacteria levels make swimming unsafe.
2. **REDUCE FERTILIZERS** on your lawn. Over-fertilized lawns lead to algae blooms that can choke aquatic life.
3. **PROTECT STORM DRAINS** from grass clippings, leaves and oil. Storm drains lead to waterways. Even leaves add excess nutrients.
4. **NO GREASE DOWN THE DRAIN.** Pouring grease into the kitchen sink or a toilet can cause clogged drains, leading to sewer overflows.

5. **HELP GEESE MIGRATE** by not feeding them. Overpopulations of geese mean too much poop washing into waterways and unsafe swimming.
6. **PUMP OUT** boat sewage at proper facilities. When boats dump directly into waterways, it adds to unswimmable conditions.
7. **DON'T FLUSH UNUSED MEDICATIONS.** Treatment facilities are not designed to remove medicines from sewage. Keep unused pharmaceuticals and personal care products out of our waterways by following safe disposal methods.

These simple activities can have a huge impact on the overall health of our waterways. To learn more about these practices and other things you can do to be a responsible environmental steward, visit the ERP website: www.elizabethriver.org.

If you reside in the Elizabeth River watershed, please sign up to become a River Star Home. It's free and it's easy! You will receive a beautiful yard flag, a decal and a welcome packet plus invitations to fun outdoor outings and workshops in the river restoration community! You will be joining other Hampton Roads residents in making small changes that add up to a big difference.



Regional Wet Weather Management Plan

Annual Update

This newsletter is published by:
 HRSD
 Communications Division
 P.O. Box 5911
 Virginia Beach, VA 23471-0911

For additional information, contact:
 Amy Seron, Editor
 (757) 460-7056
aseron@hrsd.com

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

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

Locality	During Business Hours	After Business Hours
Chesapeake Public Utilities	757-382-6352	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	757-269-2700	757-247-2500
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	757-220-6196
York Environmental & Development Services	757-890-3773	757-890-3773

WE'RE ON THE WEB

www.HRSD.com/EPAWWCD.SHTML

Locality Team Participants

- Chesapeake
- Gloucester
- Hampton
- Hampton Roads Planning District Commission
- HRSD
- Isle of Wight
- James City Service Authority
- Newport News
- Norfolk
- Poquoson
- Portsmouth
- Smithfield
- Suffolk
- Virginia Beach

