

## The City's Infrastructure

Approximately two-thirds of the City of Richmond is served by a Municipal Separate Storm Sewer System (MS4). This mixture of underground storm sewer systems and open channels are separate from the sanitary sewer system.

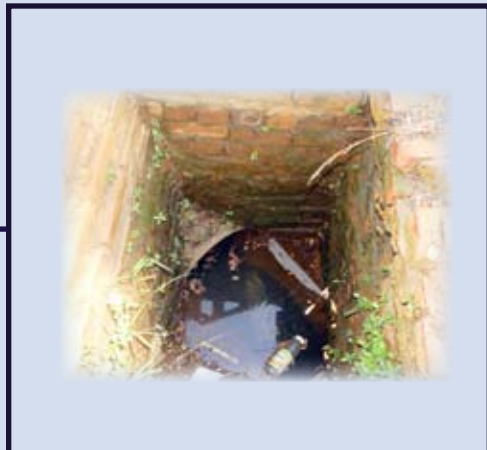
The central portion of the city, which encompasses the other one-third, is served by a Combined Sewer System (CSS). The Department of Public Utilities operates and maintains the Combined Sewer Overflow (CSO) system.

The drainage system includes man-made components (ditches, pipes, inlets, catch basins, and ponds) and natural components (streams, flood plains, wetlands) that control the quantity of flow and enhance the quality of stormwater.

There are approximately 22,000 catch basins, 600 miles of ditches and 180 miles of separate storm drainage pipe in the city. Annual maintenance includes cleaning catch basins and ditches and repairing storm drains.

## Stormwater Utility Goals

- Protect people and property from flood hazards
- Prevent infrastructure failures
- Improve water quality by reducing non-point source pollution
- Prevent stream bank erosion
- Collect, transport and treat stormwater runoff in the combined sewer system



## FOR MORE INFORMATION

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CITY OF RICHMOND

DEPARTMENT OF PUBLIC UTILITIES



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**STORMWATER  
UTILITY  
Keeping  
Richmond  
Waterways Clean**



# The City of Richmond Department of Public Utilities Stormwater Utility

Anyone living in Richmond knows the problems a heavy rainfall or severe thunderstorm can create. Roads become impassable and standing water remains long after the storm passes.

The City of Richmond Department of Public Utilities implemented a Stormwater Utility in July 2009 to manage the stormwater that runs off the properties of city residents and business owners. These funds will be used to implement a comprehensive stormwater quality management plan as required by the U.S. Environmental Protection Agency and the Virginia Department of Conservation and Recreation.

Although these agencies mandate stormwater regulations, funding is not provided and localities must fund their own stormwater programs. The city collects stormwater utility fees for this purpose. There are approximately 400 stormwater utilities nationwide and several in Virginia, including the cities of Portsmouth, Norfolk, Virginia Beach, Hampton, Chesapeake and Newport News.



## What is Stormwater Runoff?

Stormwater runoff is precipitation from rain or snow that does not soak into the ground. Impervious surfaces such as driveways, parking lots, roads, sidewalks, streets and roofs prevent stormwater runoff from naturally soaking into the ground. Urban stormwater is the number one source of surface water pollution in the U.S. and causes public safety hazards, health risks and environmental threats.

## Stormwater Issues:

- **Flooding** – Stormwater runoff from intense rainfall can at times exceed the carrying capacity of the stormwater piping system, creating a backup in the system, flooding of roads, yards and basements.
- **Pollution** – When rain falls, stormwater flows across impervious surfaces such as roadway pavement, driveways, parking lots and rooftops. It mobilizes contaminants and animal waste, and picks up chemicals such as oil, pesticides, trash and sediment and transports it all to bodies of water.
- **Water Quality** – Stormwater runoff is a leading cause of nutrient contamination, leading to algae blooms and low oxygen levels, which can result in fish kills.
- **Soil Erosion** – Uncontrolled stormwater rapidly increases the amount of water flowing into a stream, which, over time, can wash away stream banks.

## Benefits of a Stormwater Utility

Even if you do not have ditches or drain inlets on or near your property, the runoff water that leaves your property either from rainfall or irrigation ultimately drains into a city-maintained drainage facility. The Stormwater Utility is responsible for managing this runoff.

The city of Richmond Stormwater Utility regularly cleans and clears 178 miles of city-managed drainage pipes by following a bi-yearly cleaning schedule. Some pipes are cleaned monthly. Even though storm drain inlets may not have debris on or around them, clogged underground pipes can cause water to back up, resulting in standing water and flooding.

## What You Can Expect from the Stormwater Utility

As with any new program, it will take time for the full effect of the Stormwater Utility to be realized. However, substantial improvements in maintenance services and better drainage should be visible shortly after implementation of the utility.

The Stormwater Utility welcomes calls from the public notifying us of problem storm drains and encourages residents to help by keeping storm drains near their homes and businesses clear of debris. Email [stormwaterutility@richmondgov.com](mailto:stormwaterutility@richmondgov.com) or call 646-3000.

## Stormwater Utility - A Fee for Service

All owners of developed properties that contribute to stormwater runoff and pollution will be charged a fee for service much like utility fees for natural gas, water and sewage.

Richmond's fee is set up as a three-tiered rate structure for single family residential (SFR) parcels based on the amount of impervious surface area that a parcel

<u>Rates per SFR parcel</u>	<u>Annual Fee</u>
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- |   |             |
|---|-------------|
| 1. SFR parcels – up to 1,000 sq. ft           | \$25 per yr |
| 2. SFR parcels – between 1,001 – 2,399 sq. ft | \$45 per yr |
| 3. SFR parcels – greater than 2,400 sq. ft.   | \$70 per yr |

Rates for non-residential parcels are calculated per ERU (Equivalent Residential Unit) 1 ERU = 1,425 sq. ft.

<u>Rates per ERU</u>	<u>Annual Fee</u>
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|--------------------------|--------------|
| 4. Multi-Family          | \$45 per ERU |
| 5. Commercial/Industrial | \$45 per ERU |
| 6. Non-profit            | \$45 per ERU |

Example: If you are a commercial organization with 14,250 sq. ft. of impervious area, your annual stormwater fee would be \$700 per year.  
 $14,250 \text{ sq. ft.} / 1,425 \text{ sq. ft.} = 10 \text{ ERUs}$ ,  $10 \text{ ERUs} \times \$70 = \$700$

Exemptions and Credits:

- Non-residential properties are eligible for partial credits that meet defined criteria
- Adjustment based on income levels are prohibited
- Undeveloped properties are exempt
- State law does not provide adjustments based on income levels or credits for residential parcels