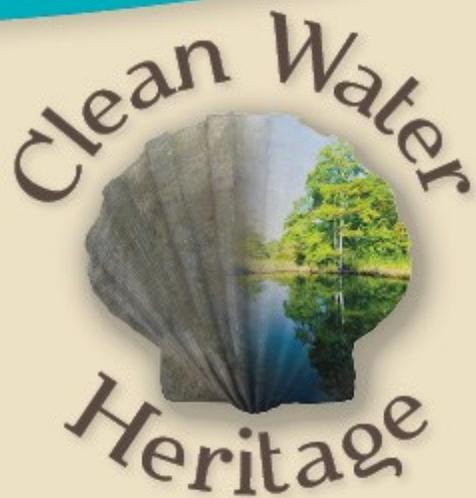


2016 College Creek Watershed



Water Quality Report



Restore & Protect

www.jamescitycountyva.gov/857/Stormwater

James City County Water Quality Strategies

As part of a long term commitment to environmental stewardship, James City County volunteers and staff have been gathering information about stream health throughout the County since 2008. The goal of collecting water quality information is to be able to identify emerging water quality problems, target areas for restoration and preservation, document improvements from citizen and County actions and provide educational and volunteer opportunities for the public.

Volunteers and staff collect two types of data: one looks at the types of small creatures that live in streams and the other provides an indication of the amount of harmful bacteria present in a stream. Together, this information provides evidence of the overall health of the County's waterways.

The following information is a summary of known water quality conditions in the County, gleaned from data collected by the Virginia Department of Environmental Quality, from the County's volunteer water monitoring program and from completed James City County watershed management plans. As more information becomes available, this report will be updated.

College Creek Watershed

The College Creek Watershed runs from James City County through the City of Williamsburg and The College of William and Mary before it reaches James City County again and then the James River. It drains Lake Matoaka located on William and Mary's campus. The various land uses within the James City County lower drainage area include residences and neighborhoods, the airport, the Williamsburg Winery, golf courses and the County government complex.

Water Quality Conditions

The tidal portion of College Creek is on the Virginia Department of Environmental Quality (VADEQ) impaired waters list for: enterococcus bacteria, dissolved oxygen, and polychlorinated biphenyls (PCB)s. Pollutants like these could make people or aquatic organisms who live in the stream sick. There are swimming and fishing advisories in effect for College Creek at this time.

In 2006, VADEQ listed College Creek as impaired for recreation use based on the high bacteria counts at their monitoring station. Overall water quality conditions are being monitored at 23 stations by the College Creek Alliance, and administered by the Keck Environmental Lab at the College of William and Mary. Their monitoring results are consistent with VADEQ, intermittently showing high levels of bacteria with no identifiable hotspots at this time. Although low, overall dissolved oxygen appears to be within standards most of the time, with areas of concern occasionally giving unacceptable results.

James City County biomonitoring efforts began in 2011 in the College Creek watershed. The 2012 samplings from the headwater site east of Ironbound Road in the Ironbound Village neighborhood have provided results that are considered to be marginally acceptable for water quality standards. Further monitoring in the more downstream neighborhood of Kingsmill has produced results that indicate a stressed stream environment. Continued sampling should allow us to see water quality trends here in the future.

Problems in the Watershed

- Bacteria levels in College Creek are too high for contact recreation.
- Within the James City County portion of the watershed, many aging neighborhoods have poor drainage and non-existent or failing stormwater infrastructure, resulting in ponding water in streets and yards.

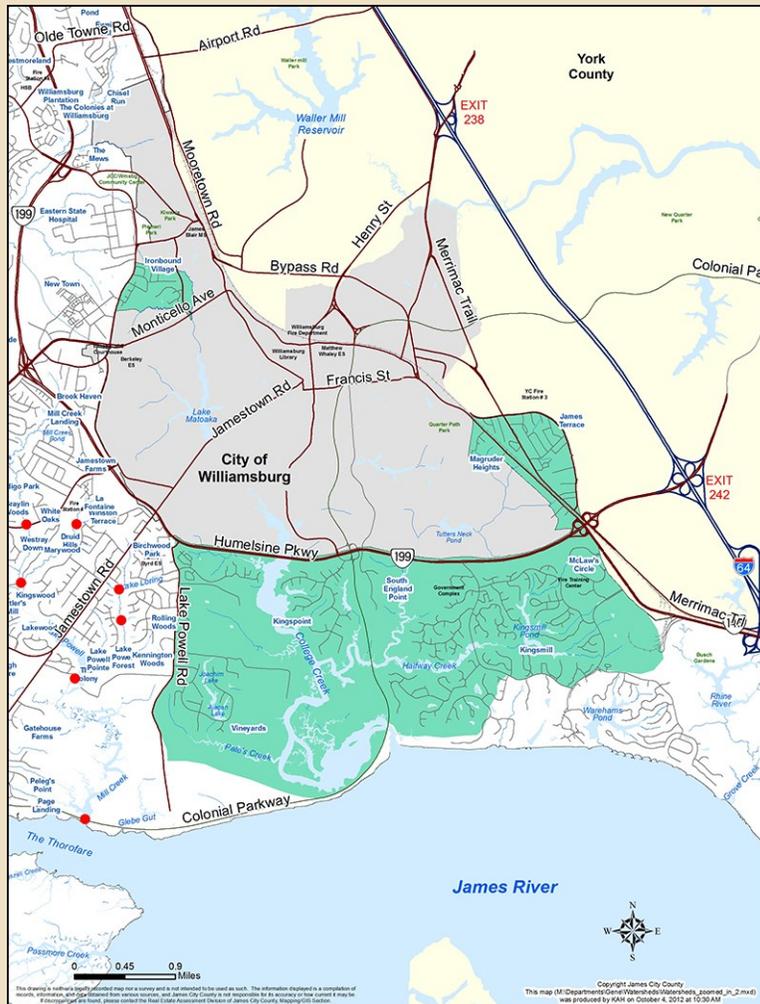
Completed Studies and Plans

- James Terrace Drainage Study (WEG, 2008)

What Can Citizens Do?

- Clean up after your pet. Pet waste contains bacteria and viruses that are harmful to people and the environment.
- Fertilize properly. Learn about your soil and the type of grass in your yard to make a responsible fertilizing plan. Contact Turf Love at 757-564-2170 for help in identifying your yard needs.
- Leave a natural plant buffer around streams or stormwater ponds. Vegetation filters pollutants before they get to the water.
- Don't put fats and oils down the drain. Fatty deposits build up in the sewer system and can lead to sanitary sewer overflows, leaving harmful bacteria and viruses in the environment.
- Wash your car on the grass, not on pavement. Soap and grease will be filtered through the grass and soil before getting into groundwater.
- Plant a rain garden. These beautiful landscaped areas can act as a trap for rain water and can prevent erosion in areas where there is a lot of stormwater run-off.
- Power-wash with care. Look for cleaning products with environmentally friendly ingredients.
- Don't put leaves and yard clippings in road ditches or on top of storm-drain inlets. Collect leaves and clippings for compost or drop off at a County transfer station.
- Go to askhrgreen.org for more helpful ideas.

College Creek Watershed Map



For More Information

If you are interested in more information, go to jamescitycountyva.gov/857/stormwater or call 757-259-1446.

James City County continues to be proactive in the protection and preservation of natural resources in its commitment to create and sustain a quality community. Remember...caring for our natural resources requires a team effort. Together, we can make sure that water quality in the College Creek Watershed is protected for generations to come.