

June 2017

Highlights

Internal Audit Report to the Board of Supervisors/School Board



Environmental Engineering Water Quality

What We Found

Background

The Water Quality (WQ) section of Environmental Engineering ensures that development projects within Chesterfield County meet the regulatory requirements of the Chesapeake Bay Preservation Act. Pursuant to Chesapeake Bay Preservation Area Designation and Management Regulations, the Department of Environmental Quality (DEQ) conducts periodic reviews to ensure program compliance.

TMDL Program Summary

In 2010, the Environmental Protection Agency established the Chesapeake Bay Total Maximum Daily Load (TMDL) to restore water quality in the Chesapeake Bay by reducing nitrogen, phosphorous, and sediment pollution discharged into the bay from tributaries within the watershed. The Department of Environmental Engineering (DEE) is responsible for overall implementation of the related Municipal Separate Stormwater Sewer System (MS4) permit and reporting requirements. Within DEE, the Water Quality section performs ambient water quality monitoring, while the Stormwater section is responsible for MS4 permit compliance and management.

In 2016, Environmental Engineering developed the required TMDL Action Plan. This Plan is the first of three Chesapeake Bay TMDL Action Plans to be developed by the County during three five-year permit terms (FY15 – FY29). The plan provides a framework for Chesterfield County’s efforts to reduce discharges of nutrients and sediment from MS4 sources. During this first permit cycle (FY15 – FY19) as of FY16, the County has implemented or expects to implement a combination of projects and practices to achieve the required reductions. The projects include regional stormwater treatment facilities, stream restoration and stabilization projects, existing structural Best Management Practice (BMP) enhancements and outfall retrofits, and installation of new treatment facilities.

Commendations

RPA program testing was completed with no findings; we commend the Water Quality section for:

- Their program to ensure RPA construction projects obtain Resource Protection Area Designation (RPAD) and Water Quality Impact Assessment (WQIA) required for Chesapeake Bay Preservation Act compliance, and
- Implementing a Soil and Water Quality Conservation assessment plan for all active agriculture lands within the County’s Chesapeake Bay RPAs.

Required Resource Protection Area Application Not on File for Approved Building Permit

A test of 25 projects requiring a building permit located in an RPA revealed 1 project did not have a required RPAD application on file. Chesapeake Bay RPA violations can lead to court action requiring payment of fines and/or an individual RPA restoration plan.

Management concurred with 1 of 1 recommendations to be by May 1, 2018.

We appreciate the cooperation received from management and staff while conducting this audit.

Why We Did This Review

Internal Audit conducted this review as part of our FY17 audit plan approved by the County Administrator and School Board Superintendent.

The audit focused on reviewing Water Quality section records for security, accuracy, and compliance. In particular, our objectives were to:

- Verify Resource Protection Area (RPA) compliance with Chesapeake Bay Preservation Act.
- Verify action plan is present for June 2016 DEQ audit recommendation.
- Provide TMDL program summary.
- Report results to County Administrator.

What We Recommend

- Environmental Engineering implement a control to determine if a project requires additional Water Quality Impact Assessment (WQIA) application, review, and inspection.



For more information, please contact
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