

AGENDA NOTE – HRPDC QUARTERLY COMMISSION MEETING

ITEM #9H: REGIONAL BACTERIA STUDY

SUBJECT:

The HRPDC, Hampton Roads Sanitation District (HRSD) and several of the region's localities contracted academic researchers to develop a bacterial identification methodology for the Hampton Roads region. The methodology will help localities target the source of bacteria causing water impairments and develop more effective plans to eliminate impairments.

BACKGROUND:

A number of Hampton Roads waterways have been classified as impaired because levels of fecal bacteria exceed water quality standards for shellfishing and recreation. Total Maximum Daily Load (TMDL) studies and implementation plans must be prepared for these waterways. However, the bacteria data in the TMDLs is typically not specific enough to help localities target the sources of bacteria and effectively reduce the bacteria levels. Bacteria impairments may be caused by sewer leaks, failing septic tanks, and stormwater runoff with high concentrations of wildlife or pet waste.

The HRPDC staff led a regional effort to develop a bacterial identification methodology for the Hampton Roads region. Proven genetic techniques were used to differentiate bacteria sources so TMDL implementation plans can be designed to address the cause of the bacterial impairment. University researchers from Virginia Tech, University of South Florida, and University of North Carolina conducted the study, which was funded by the Hampton Roads Sanitation District and the following localities: Isle of Wight County, James City County, Norfolk, Virginia Beach, Portsmouth, Suffolk, Williamsburg and York County.

Three watersheds were selected as case study locations to test the usefulness of various methodologies in the Hampton Roads area. The HRPDC staff coordinated with the study team and locality staff to conduct reconnaissance sampling in Shingle Creek, Suffolk; Moores Creek, York County; and Mill Dam Creek, Virginia Beach. Sampling began in the Spring of 2010 and concluded in January of 2012.

The HRPDC staff has reviewed the enclosed report, *Assessing Sources of Fecal Contamination in High Priority Creeks in the Hampton Roads Region*, which summarizes the results of the analyses and contains recommendations for future studies.

The HRPDC Joint Environmental Committee reviewed the report at its meeting in January 3, 2013 and recommended the Commission approve the report.

Enclosure

RECOMMENDED ACTION:

The HRPDC staff recommends the Commission approve the report.