

Total Maximum Daily Loads and Implementation Plans in Hampton Roads

Presentation to

Hampton Roads Planning District Commission

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Cleaning Up Impaired Waters

1. 303d List : Identify Impaired Waters
2. TMDL: Determine allowable load of pollutant in order to obtain water quality standards
3. Implementation Plan: Identify ways to reduce pollutant loads to meet the TMDL

TMDL Overview

- Pathogens #1 cause of impairment in VA
- Consent decree based on Virginia's 1998 303d list
- Water Quality Standards for Bacteria
 - Shellfishing
 - 30 sample geometric mean = 14 MPN
 - 30 sample 90th percentile = 49 MPN
 - Recreation
 - Enterococci (salt water) =104 cfu/100mL
 - E coli (freshwater) =235 cfu/100mL
- Implementation plans for all TMDLs required by the Commonwealth

History of PDC Involvement in TMDL Development

- DEQ did not involve local governments in TMDL process
- TMDL pollutant limits incorporated into MS4 permits
- PDC contracted with DEQ to improve outreach for TMDL development plans and lead Implementation Plan efforts.

TMDL and IP Status

Waterbodies	Location	Pollutant	TMDL Status	Implementation Plan Status
Upper Piankatank	Gloucester	Bacteria	Under Development	
Chuckatuck Creek	Isle of Wight County, Suffolk	Bacteria	2009-2010	
Ware and Taskinas Creeks	James City County	Bacteria	Under Development	
Lawnes Creek and Tylers Beach	Isle of Wight County	Bacteria	Under Development	
Elizabeth River	Norfolk, Portsmouth, Chesapeake, Virginia Beach	Bacteria	Under Development	
Nawney, West Neck, and Milldam Creeks	Virginia Beach	DO	Under Development	
Browns Bay and Monday Creek	Gloucester	Bacteria	Complete	
North River	Gloucester	Bacteria	Complete	
Severn River Watershed	Gloucester	Bacteria	Complete	
Ware River	Gloucester	Bacteria	Complete	
Back River Watershed	Hampton, York County, Poquoson	Bacteria	Complete	Under Development
Poquoson River	York County, Poquoson	Bacteria	Complete	Under Development
King and Queen Creeks	York County	Bacteria	Complete	
Chowan River Watershed - non tidal	Southampton County, Isle of Wight	Bacteria	Complete	Complete
Pagan River and Jones Creek	Isle of Wight County, Smithfield	Bacteria	Complete	
Lynnhaven River	Virginia Beach	Bacteria	Complete	Complete
Chowan River Watershed - tidal	Virginia Beach	Bacteria	Complete	Complete
Upper Nansemond River	Suffolk	Bacteria	Complete	Under Development
James and Warwick Rivers	Newport News, York County, James City County	Bacteria	Complete	
Mill and Powhatan Creeks	James City County	Bacteria	Complete	Under Development
Poropotank River and Adams Creek	Gloucester	Bacteria	Complete	
Northwest River	Chesapeake, Virginia Beach	DO	2010	
Northlanding River	Chesapeake, Virginia Beach	DO	2010	

HRPDC Contract with DEQ

Implementation Plans in FY 2010

Back River Watershed

Poquoson River and Back Creek

North Landing River Watershed

Back Bay Watershed

Upper Nansemond River

Mill and Powhatan Creeks

Outreach for TMDL Development FY 2010

Elizabeth River

Ware and Skimino Creeks

Lawnes Creek



TMDL IP Process

- Review TMDL Study
- Identify and involve stakeholders
- Update land use and source information
- Identify existing programs
- Identify contributing sources
- Identify source reduction activities

Back Bay Watershed TMDL

- Nanney Creek Bacteria Impairment
- TMDL completed 2005
- Wildlife and Land use data 2001
- Major source livestock
- No Waste Load Allocation (WLA) for Virginia Beach MS4

Back Bay Watershed IP

- URS watershed and land use study
- WLA will be recalculated using new data.
- Septic system pump out and education program
- Horse education and manure management
- Ditch cleanouts
- Additional monitoring by City

Northlanding River Watershed TMDL and IP

- Milldam Creek and Middle West Neck Creek
- Watershed study July 2010
- TMDL identified livestock and wildlife as primary sources
- Additional monitoring and source identification needed.
- Programs from Back Bay watershed will be expanded.

Recommended Actions

- Approve the Implementation Plans for Bacterial TMDLs in the Back Bay and North Landing River Watersheds as meeting the contract requirements.
- Authorize submittal of the two Implementation Plans to DEQ and the City of Virginia Beach.