

# Public Meeting to Discuss No Discharge Zone (NDZ) Draft Application

Waterbodies in Westmoreland County  
June 14, 2011



# *Public Meeting Agenda*

***Introduction to No Discharge Zones  
(NDZs)***

Liz McKercher  
Watershed Coordinator  
**VA Department of  
Environmental Quality**

***Overview of NDZ Application  
for Waterbodies in Westmoreland  
County***

Stuart McKenzie  
Environmental Planner  
**Northern Neck Planning  
District Commission**

***Question and Answer Session***

*Please write questions or remarks on note cards.*

*Your facilitators will address each card after the presentations.*

***Public Comments for Public Record***

***June 15 to July 15***

# *Clean Water Act (1972)*

- The Clean Water Act (CWA) prohibits the discharge of untreated waste into United States territorial waters
- §312 (33 U.S.C. 1322):
  - mandates all commercial and recreational vessels *with an installed toilet* be equipped with a United States Coast Guard (USCG) certified *Marine Sanitation Device (MSD)*
  - designates EPA with responsibility of setting MSD performance standards
  - allows states to apply for complete prohibition of vessel sewage for waters requiring greater environmental protection
  - allows the US Coast Guard or any other Federal or state government entity to enforce the provision

# A No Discharge Zone...



...is a federally designated body of water where discharge of *treated* vessel waste is prohibited (MSD I/II)

**NOTE** ? NDZs do NOT apply to discharges incidental to operation (gray water, bilge water, weather deck runoff)  
? Treated sewage from certified MSDs can still be discharged outside of the NDZ boundary

# Standards for Marine Sanitation Devices

40 CFR Part 140.3

- **Type I MSD** must produce an effluent having a fecal coliform bacteria count  $\leq 1,000$  per 100 milliliters and no visible floating solids
- **Type II MSD** must produce an effluent having a fecal coliform bacteria count  $\leq 200$  per 100 milliliters and suspended solids  $\leq 150$  milligrams per liter
  - Required on boats > 65 ft
- **Type III MSD** holding tank (with or without discharge capability)



MSDs include any equipment for installation on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage.

# *NDZs in the United States*

- California (10)
- Connecticut (4)
- Florida (3)
- Maine (5)
- Maryland (2)
- Massachusetts (16)
- Michigan (1)
- Minnesota (2)
- Missouri (1)
- New Hampshire (1)
- New Jersey (5)
- New Mexico (1)
- New York (12)
- North Carolina (2)
- Rhode Island (2)
- Texas (1)
- Vermont (1)
- Virginia (3)
- Wisconsin (1)

<http://water.epa.gov/polwaste/vwd/vsdnoz/one.cfm> (Source)

# *Why is Treated Overboard Discharge (MSD I/II) an Issue?*

- MSDs (I/II) may not be capable of destroying enough bacteria in waterways with bacteria impairments (shellfish and recreational uses impaired)
- EPA certification to a performance standard is designed to meet recreational uses (swimming)
  - Performance Standard
    - MSD Type I: 1000 (Fecal coliform/100 ml)
    - MSD Type II: 200 (Fecal coliform/100 ml)
    - MSD Type I/II: No standard for Enterococci bacteria
  - Water Quality
    - Recreational Standard: 235 (E. coli/100 ml), 104 (Enterococci/100 ml)
    - Shellfish Consumption : 14 (Fecal coliform/100 ml)

# *Why is Treated Overboard Discharge (MSD I/II) an Issue?*

- Nutrients only minimally removed by MSDs (I/II) (Nitrogen/Phosphorus) and contribute to:
  - Depletion of dissolved oxygen in water
  - Algal blooms as well as harmful algal blooms such as Red Tide and Pfiesteria
  - Low or no dissolved oxygen affects aquatic organisms such as fish, oysters, and crabs
  - Impairments of submerged aquatic vegetation (SAV) due to decreased light infiltration

# *Why is a NDZ Beneficial?*

- Can improve water quality and allow re-opening of shellfish beds
- NDZ addresses boats as a source, allowing stakeholders to focus on “land based” source reductions
- Improves attractiveness of water bodies for marina owners & local businesses
- Encourages overall watershed stewardship

# *Federal NDZ Guidance*

## **Water Criteria for Designation**

- Certain fresh waters
- Waters where the presence of adequate alternatives (i.e. sewage pump-outs) can be established
- Waters of particular environmental significance, regardless of pump-out availability (i.e. sensitive species)
- Areas surrounding drinking water intakes regardless of pump-out availability

For more information see,

<http://www.epa.gov/reg3wapd/nodischarge/index.htm>



# *Federal NDZ Guidance*

## Key elements of an application for NDZ designation:

1. *Certification of need*
2. *A map and written description of pump-out facilities*
  - a. *operational hours*
  - b. *accessibility*
  - c. *waste disposal*
3. *Information on vessel population and vessel usage of the subject waters (EPA Guidance 842-B-94-004)*

# *Federal Requirements of MSDs in a NDZ Reiterated in Virginia State Law*

## In a no-discharge zone:

- *“A physical barrier to the use of the y-valve or toilet” is required.*
  - *Closing the seacock or discharge valve and padlocking it*
  - *Using a non-releasable wire tie*
  - *Removing the seacock handle (with the seacock closed)*
  - *Lock door leading to toilet*

# *Factors Driving NDZ Designations in Virginia*

- Chesapeake Bay Clean-up Plan
- VA Code §62.1-44.33
  - *“The tidal creeks of the Commonwealth are hereby established as no discharge zones for the discharge of sewage and other wastes from documented and undocumented boats and vessels... “*
  - The intent in Virginia is to protect low flushing, impaired growing areas, not main stems of the Bay or major rivers
- Other local pollution budgets, known as TMDLs, that identify human bacteria in proximity of boats

Note: TMDL stands for Total Maximum Daily Load

# *Extent of VA Bacteria Impairments*



*Most tidal tributaries of Bay have a shellfish or recreation use impairment and are more sensitive to pollution due to less volume and flushing than larger waterbodies*

Map of bacteria impairments - VADEQ Integrated Assessment Report 2008

# Virginia Application Process

- Initiated by
  - Local Stakeholder
  - State Agency
- Development
  - Determination of necessity
  - pump-out availability
  - draft application is prepared in collaboration with stakeholders
- Public meeting and comment period
- Submit to EPA (lengthy public comment process as well)
- Present approved designation to SWCB

# *NDZs in Virginia*

## Approved VA NDZs

- Smith Mountain Lake, Bedford, Franklin, & Pittsylvania Counties (2000)
- Lynnhaven River, Virginia Beach (2007)
- Broad and Jackson Creeks, Fishing Bay, Middlesex County (2009)

## Application under development

- Owl Creek / Rudee Inlet, Virginia Beach

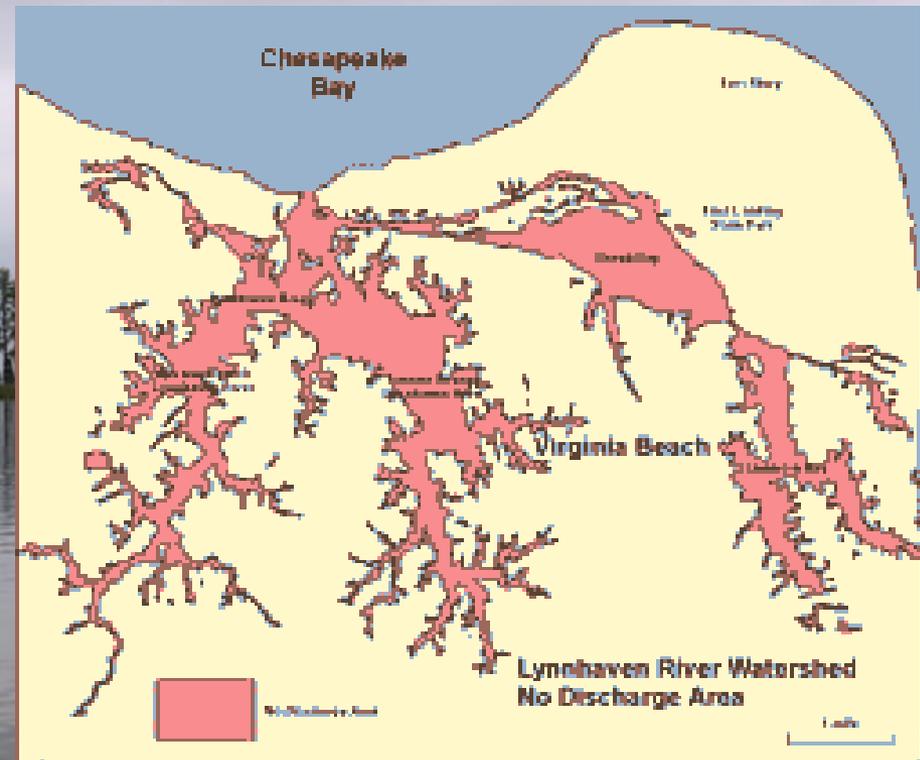
## Applications in preparation

- Northern Neck counties – Farnham Creek to Rosier Creek from Richmond to Westmoreland Counties
  - Applications to be submitted for waterbodies for each County

Other nearby counties have requested information ☺

# Virginia NDZ Experience - Lynnhaven

- Huge stakeholder involvement throughout implementation of the pollution budget (*aka* TMDL)
  - *Lynnhaven River Now* (non-profit group)
- Positive impact of NDZ outreach:
  - Shellfish growing areas closed since 1930's now re-opened
  - Cavalier Golf & Yacht Club reported more pump-outs
    - FYY 2006 - 154 pump outs (pre NDZ)
    - FYY 2007 - 299 pump-outs (post NDZ)

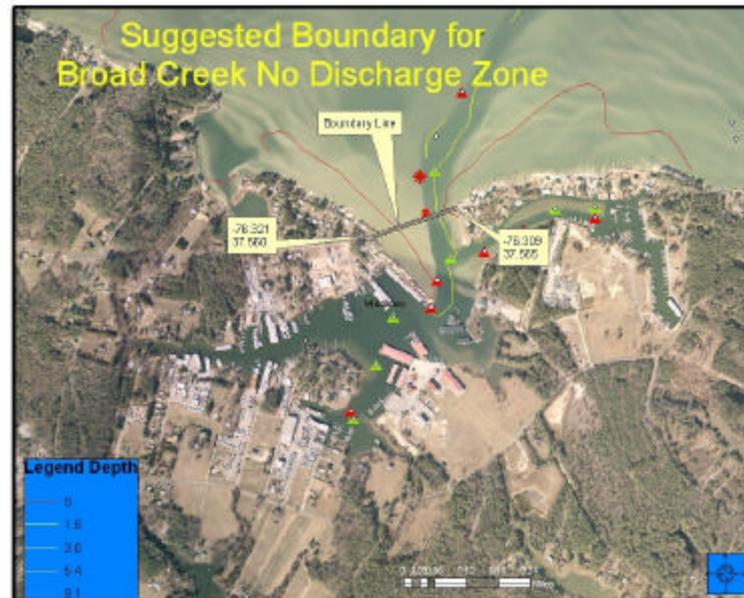


**Doubled the # of pump-outs**

# Virginia Experience – Deltaville

## Including Broad & Jackson Creeks and Fishing Bay

- Local citizen interest prompted NDZ application development
- EPA approved 2009; will need time to assess effectiveness of NDZ on water quality
- Three major marinas report double number of pump-outs in first year of NDZ designation

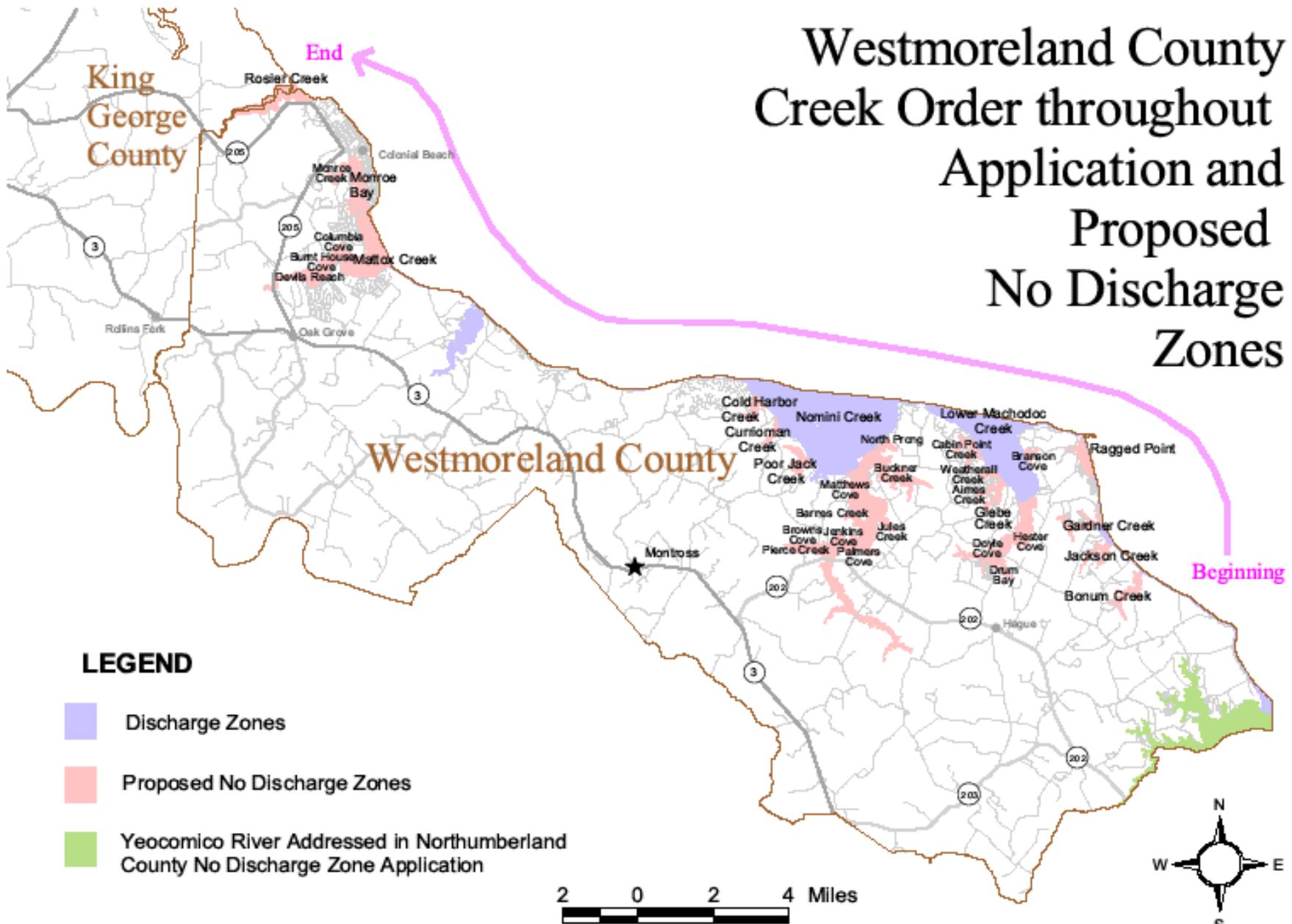


# *NDZs in Virginia – Northern Neck*

Focus area includes

- Low flushing tidal tributaries in Richmond (Farnham & Lancaster Creeks), Lancaster, Northumberland, & Westmoreland Counties (Farnham Creek to Rosier Creek)
- ~40 stream segments that are impaired for shellfish/recreation use, meaning they do not meet water quality standards for shellfish consumption and/or recreation

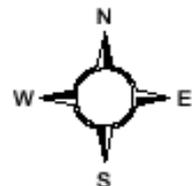
# Westmoreland County Creek Order throughout Application and Proposed No Discharge Zones



## LEGEND

-  Discharge Zones
-  Proposed No Discharge Zones
-  Yeocomico River Addressed in Northumberland County No Discharge Zone Application

2 0 2 4 Miles



*Waterbodies proposed for NDZ designation in current draft application:*

**Westmoreland County**

**Bonum, Jackson, and Gardner Creeks, Ragged Point, Lower Machodoc, Glebe, Cabin Point, Nomini, Buckner, Poor Jack, Currioman, Cold Harbor, Popes, and Mattox Creeks, Monroe Bay, Rosier**

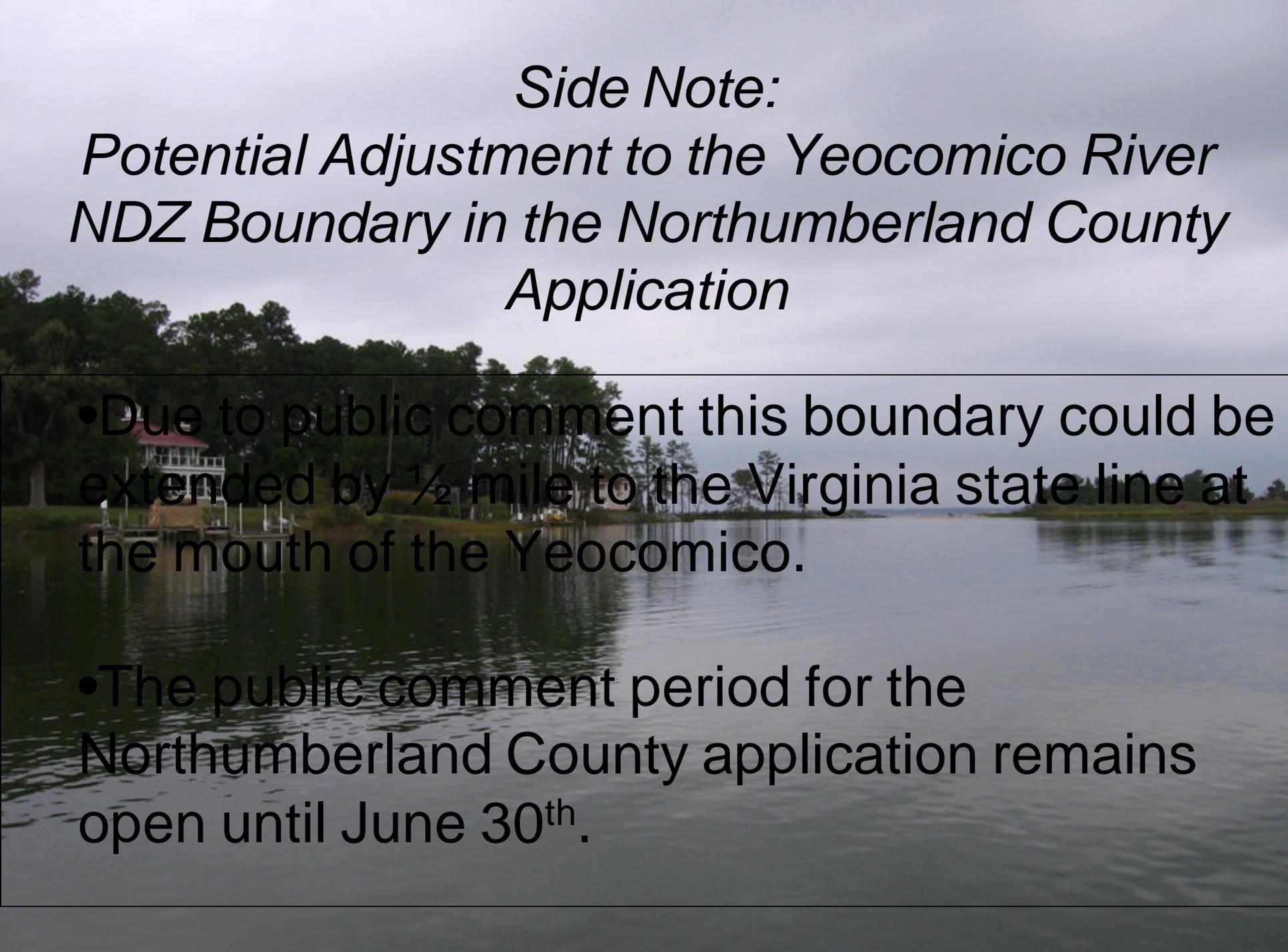
**King George/Westmoreland counties**

**Rosier Creek**

**Northumberland County application**

**included a portion of Yeocomico River in Westmoreland County**

See, <http://www.deq.virginia.gov/tmdl/ndz.html> to review this application

The background of the slide is a photograph of a wide river. On the left bank, there is a large, multi-story house with a red roof and white siding, partially obscured by trees. The water is calm, reflecting the sky and the surrounding greenery. The sky is overcast and grey.

*Side Note:*  
*Potential Adjustment to the Yeocomico River  
NDZ Boundary in the Northumberland County  
Application*

- Due to public comment this boundary could be extended by  $\frac{1}{2}$  mile to the Virginia state line at the mouth of the Yeocomico.
- The public comment period for the Northumberland County application remains open until June 30<sup>th</sup>.

# Yeocomico River Shellfishing Grounds



## Legend

-  Baylor Grounds (Public Oyster Grounds)
-  Private Oyster Leases
-  State Constructed Oyster Reefs
-  Commercial Shellfish Aquaculture Sites
-  Hard clam
-  Soft clam
-  Oyster
-  Crab shed



From:  
<http://www.deq.virginia.gov/coastal/coastalgems.html>

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# Public Comment Period for draft NDZ Application for waterbodies in Westmoreland County

Draft Application Online:

<http://www.deq.virginia.gov/tmdl/ndz.html>

Send Comments by Friday, July 15, 2011 to:

Mail: Liz McKercher

P.O. Box 1105

Richmond, VA 23219

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Liz McKercher – Watershed Coordinator (804)698-4291

David Lazarus – Watershed Program Manager (804)698-4299

To report a non-working pump-out contact Preston Smith at VDH (804)864-7468

