NOAA's Role in Coastal Zone Management in the Chesapeake Region

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Overview

- Who I am and what do I do at NOAA?
- The CZMA and State Coastal Programs
- Connections to NCBO and EPA
- National and state priorities and initiatives
- Some examples of project implementation related to TMDLs

Who am I, and what do I do?

- **Regional Coastal Management Specialist**
  - Federal liaison to State Coastal Management Programs (DE, MD, VA)
  - Provide financial, technical, and policy assistance
  - Provide linkages to NOAA resources and expertise
  - Foster inter-office coordination
  - Support regional collaboration and Regional Ocean Governance

National CZM Program

- Voluntary partnership program between the federal government and coastal states and territories
- Authorized by the Coastal Zone Management Act (CZMA) of 1972
- Comprehensive approach to coastal resource management using enforceable policies, coordination, and planning
- Balancing act between coastal resource use, economic development, and conservation

Program Goals

- Preserve, protect, and develop the nation's coastal resources
- Resolve conflicts among competing users
- Develop, approve and use comprehensive state management programs
- Improve cooperation and coordination among federal, state, and local governments
- Encourage public participation

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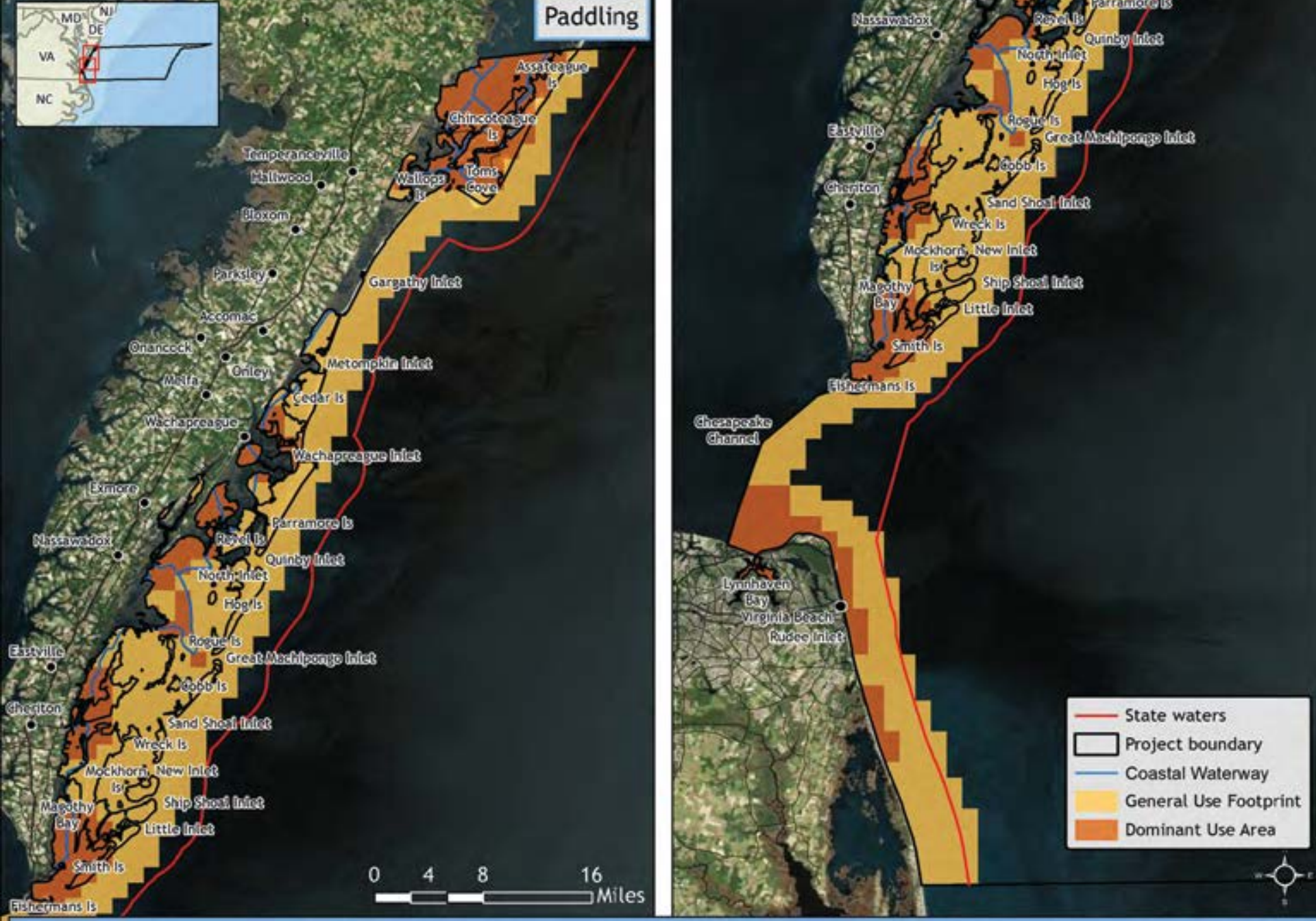


Virginia Atlantic Coast Recreational Uses Mapping Project

Date: 9/21/2012

DRAFT


ARMADILLO'S

Many Issues – Many Responses

- Smart growth – Coastal smart growth incorporating resilience, Blue-green infrastructure planning
- Climate change - Vulnerability assessments and adaptation plans
- CWA/TMDLs - Water quality BMPs and planning assistance
- Pollution - Marine debris reduction
- Habitat loss - Land acquisition and conservation
- Managing specific geographies - SAMPs
- Shoreline erosion - Living shorelines
- Public access – New sites and water trails
- Fisheries declines - Oyster protection and restoration

NOAA's Coastal Office

- Administers the National CMP and the National Estuarine Research Reserve System (NERRs)
- Approves State Programs and changes to the programs
- Negotiates annual work plans/grants with the states
- Conducts evaluations of State CMPs and NERRs
- Formulates national coastal and ocean policy
- Provides management & technical assistance to all CZMA stakeholders
- Mediates disputes between states and federal agencies
- Provides training, geospatial tools, facilitation, and other services to partners

State Coastal Programs

- Implement Federally-approved Management Programs
- Establish and enforce state policies through federal consistency
- Coordinate with other state agencies & local governments
- Ensure public involvement
- Assess and update Management Programs
- Identify gaps and emerging issues
- Undertake pilot projects/test new approaches
- Develop Best Management Practices and inform national policies

NCBO and EPA Connections

- **NCBO Authorization:** *"Coordinate the programs and activities of the various organizations within the National Oceanic and Atmospheric Administration, the Chesapeake Bay Regional Sea Grant Programs, and the Chesapeake Bay units of the National Estuarine Research Reserve System, including programs and activities in…coastal management and habitat conservation and restoration."*

  * Habitat Blueprint
  * Fisheries-Land Use Connections
  * CELCP Program
  * Section 306A Public Access Projects

- **EPA Connections:**

  * Water quality planning (6217, TMDLs)
  * Coastal smart growth
  * Auto-incorporation of CWA regulations
  * Marine Debris/TFWs

Structure of the CZMA

- **Section 306 –** Program Implementation
- **Section 306A –** Small-scale Construction
- **Section 307 –** Federal Consistency
- **Section 309 –** Program Enhancement
- **Section 313 –** Program Evaluation
- **Section 6217 (of CZARA of 1990) –** Coastal Nonpoint Pollution Control Program jointly administered with EPA
- **Other facets:** NERRS (315), CELCP (307A)

CZMA "Enhancement Areas" → Program Changes

1. Public Access
2. Wetlands
3. Coastal Hazards
4. Energy Facility Siting
5. Ocean Governance
6. Special Area Management Plans (SAMPs)
7. Cumulative and Secondary Impacts (Water Quality)
8. Marine Debris
9. Aquaculture

Current CMP Priorities

- **Coastal Resiliency (Climate and Hazards)**
- **Ocean Management and Planning**
  - Focus on offshore renewable energy development
- **Habitat Management and Protection**
- *For each priority, we work to:*
  - Formulate management strategies and national guidance
  - Support capacity building and training
  - Serve as a conduit for the exchange of strategies, tools, information and resources between federal, regional state and local managers, and other key partners

The Federal Consistency Provision

- **It's An "Effects Test". . .**
- Federal Consistency is the requirement that *Federal actions*, in or outside the coastal zone, that *affect* any land or water *use* or natural *resource* of a State's coastal zone must be consistent with the *enforceable policies* of State Coastal Management Programs.

(CZMA Section 307 (16 U.S.C. §1456))

The Federal Consistency Provision

- Federal actions and federal permits and licenses must be consistent with a state CMP's enforceable policies
- Important incentive for states to participate in the National CZM Program
- Requires that states regularly update their enforceable policies (laws, regulations, etc.) and obtain NOAA approval
- Primacy of State CZMA decisions is balanced with national interest components
  - Must give priority consideration to coastal dependent national interest activities: defense, energy, ports, transportation

National Ocean Policy

Nine National Priority Objectives

CZMA and CMSP

- NOAA engages in individual state ocean management and planning efforts as well as all of the regional, multi-State efforts, such as the Mid-Atlantic Council on the Ocean (MARCO) and the Mid-Atlantic Regional Planning Body (RPB)
  - NOAA participates on work groups, facilitates and promotes regional coordination
  - Provide information on the use of Federal Consistency, tribal consultation, interstate coordination, and data & tools, such as support for mapping portals
- CMSP will not replace state coastal management programs, but existing state efforts and Federal Consistency will inform regional CMSP processes

CZMA Results

- **States receive between $1M – 2.3M annually to implement their programs.**
- **What has this provided?**
  - Better land use plans and control of coastal development to protect coastal resources, maintain scenic qualities, manage polluted run-off, beneficial use of dredged material, etc.
  - Mitigation for coastal hazards (hurricanes, storms, erosion) – building codes, evacuation plans, building setback requirements, protection of dunes and beaches
  - Increased public access to coastal and ocean areas
  - A stronger State voice in Federal decisions affecting a State's coastal uses and resources – *Federal Consistency*

Water Quality Initiatives Maryland

- Watershed Assistance Collaborative

Catalyst for improved coordination and capacity building among many partners providing services and technical assistance to local governments to advance implementation projects.

  - Funding the Watershed Restoration Specialists
  - Financing strategies from UMD Environmental Finance Center
  - Many partners, including EPA, CBT, and Sea Grant

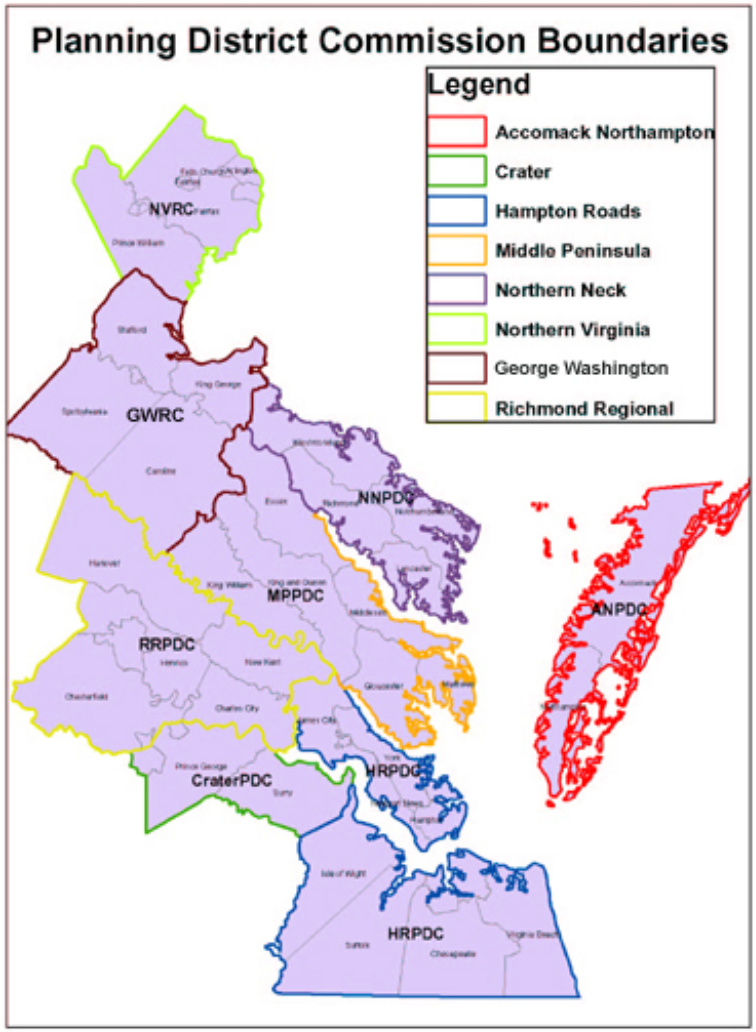
Water Quality Initiatives Maryland

- Support of Local/Regional Planning Specialists
  - Assist counties and towns in meeting state planning mandates, such as the WREs and WIPs
- Oversight of Trust Fund NPS Projects
  - Accelerating Bay restoration by focusing limited financial resources on the most effective NPS pollution control projects

Water Quality Initiatives Virginia

- The Virginia CZM Program works with Planning District Commissions (PDCs) to support local efforts to manage coastal resources
- PDCs are state enabled, regionally created planning agencies
  - Purpose: "*to encourage and facilitate local government cooperation and state-local cooperation in addressing on a regional basis problems of greater than local significance*" (Code of Virginia, Section 15.2-4207)

Water Quality Initiatives: Virginia



Water Quality Initiatives: Virginia

- Regional Planning for Water Quality through the VCZMP
  - Annual Technical Assistance Grants to PDCs
  - Competitive Grants available for PDCs if funds are available
  - Section 309 Grants to PDCs
    - Hampton Roads PDC
    - Middle Peninsula PDC
- CZM funding has helped prepare local governments for requirements stemming from the Chesapeake Bay TMDL

Water Quality Initiatives: Virginia

- **Local stormwater program implementation**
  - Section 309 Grant (2011 – present)
  - Assessment of impacts on local governments from changes to stormwater management regulations
  - Coastal Plain Stormwater BMP Guidance
  - Guidance on Runoff Reduction Method

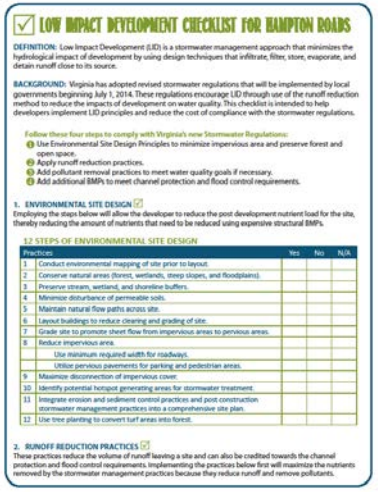
Practice	Preferred	Accepted	Restricted	Phosphorus Removal Efficiency (%)
Rooftop Disconnection	X			25
Sheet flow to open space	X			50-75
Rainwater Harvesting	X			Up to 90
Permeable Pavement	X			59-81
Bioretention	X			55-90
Dry Swales	X			52-76
Wet Swales	X			20-40
Constructed Wetlands	X			50-75
Small Scale Infiltration	X			63-93
Soil Amendments		X		
Vegetated Roofs		X		45-60
Filtering Practices		X		60-65
Wet Ponds		X		45-65
Grass Channels			X	23
Extended Detention Ponds			X	31
Large Scale Infiltration			X	63-93

Water Quality Initiatives: Virginia

- **Local WIP enhancement**
  - Competitive Grant (FY11)
  - Incentivizing voluntary BMPs on private property
    - Partnerships with local and regional non-governmental organizations
  - Analysis of promoting urban redevelopment as a strategy for the Chesapeake Bay TMDL

Water Quality Initiatives: Virginia

- **Policy Guidance**
  - Section 309 Grant (2011-present)
  - Review of local codes and ordinances to identify opportunities for improvement
    - Environmental site design
    - Transfer of Development Rights
    - Cluster Development
  - Modeling of development impacts to inform local decision making



LOW IMPACT DEVELOPMENT CHECKLIST FOR HAMPTON ROADS

DEFINITION: Low Impact Development (LID) is a stormwater management approach that minimizes the hydrological impact of development by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source.

BACKGROUND: Virginia has adopted revised stormwater regulations that will be implemented by local governments beginning July 1, 2014. These regulations encourage LID through use of the runoff reduction method to reduce the impacts of development on water quality. This checklist is intended to help developers implement LID principles and reduce the cost of compliance with the stormwater regulations.

Follow these four steps to comply with Virginia's new Stormwater Regulations:

1. Use Environmental Site Design Principles to minimize impervious area and preserve forest and open space.
2. Apply runoff reduction practices.
3. Add pollutant removal practices to meet water quality goals if necessary.
4. Add additional BMPs to meet channel protection and flood control requirements.

1. ENVIRONMENTAL SITE DESIGN

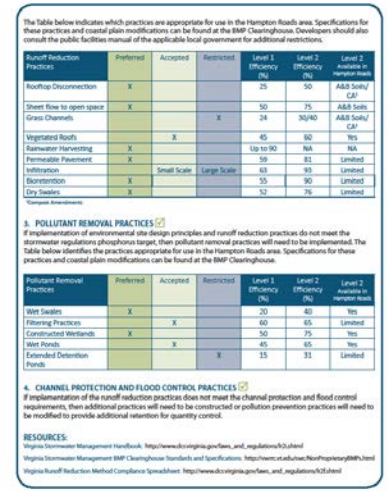
Employing the steps below will allow the developer to reduce the post development nutrient load for the site, thereby reducing the amount of nutrients that need to be reduced using expensive structural BMPs.

12 STEPS OF ENVIRONMENTAL SITE DESIGN

Practices	Yes	No	N/A
1 Conduct environmental mapping of site prior to layout.			
2 Conserve natural areas (forest, wetlands, steep slopes, and floodplains).			
3 Preserve stream, wetland, and shoreline buffers.			
4 Minimize disturbance of permeable soils.			
5 Maintain natural flow paths across site.			
6 Layout buildings to reduce clearing and grading of site.			
7 Grade site to promote sheet flow from impervious areas to pervious areas.			
8 Reduce impervious area.			
Use minimum required width for roadways.			
Utilize pervious pavements for parking and pedestrian areas.			
9 Maximize disconnection of impervious cover.			
10 Identify potential hotspot generating areas for stormwater treatment.			
11 Integrate erosion and sediment control practices and post construction stormwater management practices into a comprehensive site plan.			
12 Use tree planting to convert turf areas into forest.			

2. RUNOFF REDUCTION PRACTICES

These practices reduce the volume of runoff leaving a site and can also be credited towards the channel protection and flood control requirements. Implementing the practices below first will maximize the nutrients removed by the stormwater management practices because they reduce runoff and remove pollutants.



The Table below indicates which practices are appropriate for use in the Hampton Roads area. Specifications for these practices and coastal plain modifications can be found at the BMP Clearinghouse. Developers should also consult the public facilities manual of the applicable local government for additional restrictions.

Runoff Reduction Practices	Preferred	Accepted	Restricted	Level 1 Efficiency (%)	Level 2 Efficiency (%)	Level 2 Available in Hampton Roads
Rooftop Disconnection	X			25	50	A&B Soils/ CA*
Sheet flow to open space	X			50	75	A&B Soils
Grass Channels			X	34	30/40	A&B Soils/ CA*
Vegetated Roofs		X		45	60	Yes
Rainwater Harvesting	X			Up to 90	NA	NA
Permeable Pavement	X			59	81	Limited
Infiltration		Small Scale	Large Scale	63	93	Limited
Bioretention	X			55	90	Limited
Dry Swales	X			52	76	Limited

*Compost Amendments

3. POLLUTANT REMOVAL PRACTICES

If implementation of environmental site design principles and runoff reduction practices do not meet the stormwater regulations phosphorus target, then pollutant removal practices will need to be implemented. The Table below identifies the practices appropriate for use in the Hampton Roads area. Specifications for these practices and coastal plain modifications can be found at the BMP Clearinghouse.

Pollutant Removal Practices	Preferred	Accepted	Restricted	Level 1 Efficiency (%)	Level 2 Efficiency (%)	Level 2 Available in Hampton Roads
Wet Swales	X			20	40	Yes
Filtering Practices		X		60	65	Limited
Constructed Wetlands	X			50	75	Yes
Wet Ponds		X		45	65	Yes
Extended Detention Ponds			X	15	31	Limited

4. CHANNEL PROTECTION AND FLOOD CONTROL PRACTICES

If implementation of the runoff reduction practices does not meet the channel protection and flood control requirements, then additional practices will need to be constructed or pollution prevention practices will need to be modified to provide additional retention for quantity control.

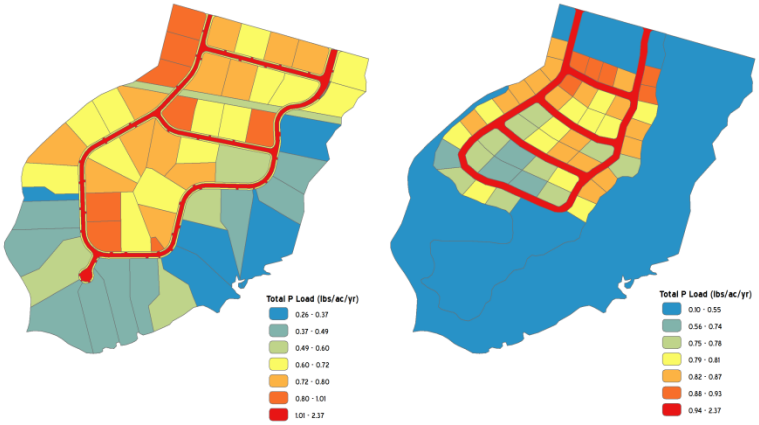
RESOURCES:

Virginia Stormwater Management Handbook http://www.dcr.virginia.gov/laws_and_regulations/fr2.shtml

Virginia Stormwater Management BMP Clearinghouse Standards and Specifications http://vwrrc.vt.edu/swc/NonProprietaryBMPs.html

Virginia Runoff Reduction Method Compliance Spreadsheet http://www.dcr.virginia.gov/laws_and_regulations/fr2.shtml

Phosphorus Runoff Comparison



Existing Subdivision

Hypothetical Cluster Subdivision

Contacting State CMPs

- Call me or use your Google machine

- State CMP Managers:
  - Delaware: Bob Scarborough
  - Maryland: Matt Fleming
  - Virginia: Laura McKay