

# COASTAL ZONE MANAGEMENT GRANTS

FY12-13

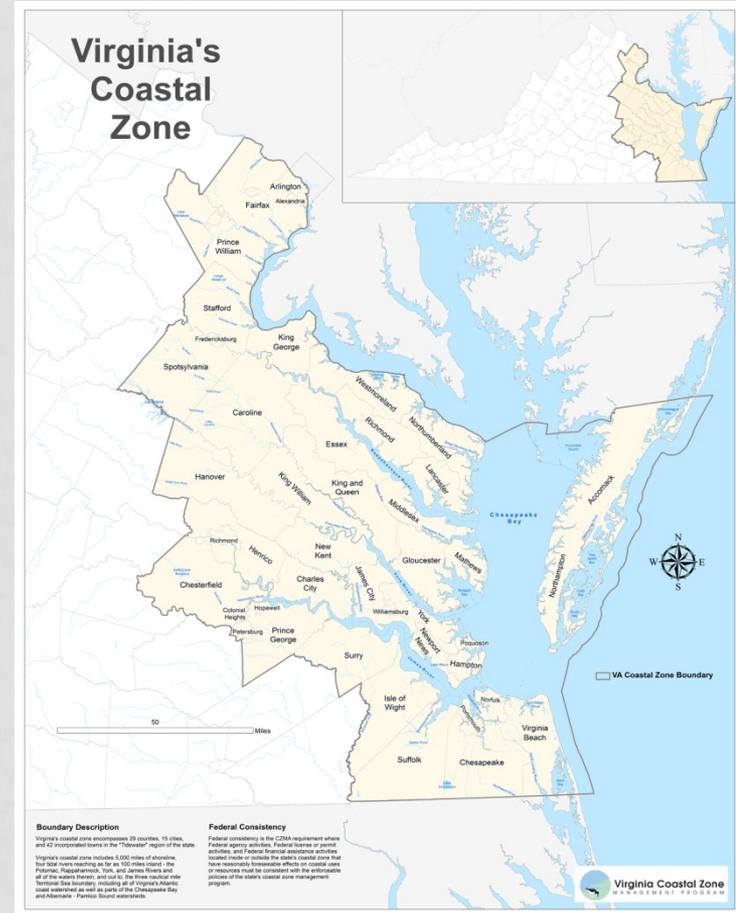
Benjamin J. McFarlane, AICP  
Regional Planner

HRPDC Executive Committee Meeting  
11/21/2013



# THE VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM

- HRPDC has worked with the Virginia CZM Program since its inception in 1986.
- In FY12-13, HRPDC received two grants from the Virginia CZM Program:
  - Coastal Resources Technical Assistance (Section 306)
  - Land and Water Quality Protection in Hampton Roads (Section 309)



# COASTAL RESOURCES TECHNICAL ASSISTANCE PROGRAM

- Six Components
  1. Regional Coordination Process
  2. Environmental Impact and Project Review
  3. Public Information and Education
  4. Training
  5. Technical Studies
    1. Continued support for Working Waterfronts Planning
    2. Support for VACo Coastal Insurance Task Force
  6. Technical Assistance

# COASTAL INSURANCE ISSUES

- The Virginia Association of Counties (VACo) requested assistance from the Virginia Association of Planning District Commissions (VAPDC) to study availability and affordability of property insurance in coastal areas.
- Wind/general coverage (NOT flood insurance)
- Concerns:
  - Restrictions on availability
  - Increasing rates

# COASTAL INSURANCE ISSUES

- Potential impacts on localities:
  - Home sales falling due to higher premiums
  - Unavailability of insurance for coastal areas
  - Decreased revenue for localities if property values fall
- HRPDC assistance:
  - Collecting GIS data from affected localities across the coastal zone
  - GIS analysis of affected areas (2,500' and 5,280' from tidal waters) and properties
  - Mapping of affected areas

Locality	Total Number of Properties	Total Assessed Value of Improvements	Total Number of Properties within 2,500' of the Shoreline	Total Assessed Value of Properties within 2,500' of the Shoreline	% of Total Value	Total Number of Properties within One Mile of the Shoreline	Total Assessed Value of Properties within One Mile of the Shoreline	% of Total Value
Chesapeake	82,603	\$17,564,929,896	25,068	\$4,955,190,200	28.2%	47,574	\$9,081,554,696	51.7%
Gloucester	24,733	\$2,967,694,700	11,497	\$1,314,672,600	44.3%	15,199	\$1,659,414,600	55.9%
Hampton	50,921	\$10,986,533,468	21,327	\$5,150,785,172	46.9%	33,424	\$7,069,926,972	64.4%
Isle of Wight	21,104	\$3,501,133,104	7,549	\$1,192,262,800	34.1%	11,620	\$1,974,695,000	56.4%
James City	32,818	\$9,166,352,000	4,634	\$1,520,647,496	16.6%	9,449	\$2,941,643,796	32.1%
Newport News	54,387	\$13,633,153,765	14,803	\$4,557,314,274	33.4%	27,945	\$7,016,463,808	51.5%
Norfolk	68,777	\$13,514,528,803	42,150	\$9,278,394,000	68.7%	64,639	\$13,036,810,203	96.5%
Poquoson	5,531	\$935,184,800	4,143	\$731,817,700	78.3%	5,475	\$926,730,500	99.1%
Portsmouth	36,210	\$11,654,687,464	16,323	\$7,796,066,187	66.9%	28,399	\$10,461,502,899	89.8%
Suffolk	39,292	\$6,467,878,900	8,428	\$1,962,008,300	30.3%	16,815	\$3,656,326,200	56.5%
Surry	6,515	\$510,594,300	1,273	\$115,635,100	22.6%	1,873	\$154,310,300	30.2%
Virginia Beach	159,361	\$31,699,927,585	46,641	\$10,468,936,061	33.0%	72,075	\$17,169,030,357	54.2%
Williamsburg	4,466	\$1,605,552,996	109	\$37,295,500	2.3%	425	\$148,087,000	9.2%
York	26,090	\$7,313,566,208	7,808	\$2,836,965,400	38.8%	12,951	\$4,062,218,400	55.5%
<b>Total</b>	<b>612,808</b>	<b>\$131,521,717,989</b>	<b>211,753</b>	<b>\$51,917,990,790</b>	<b>39.5%</b>	<b>347,863</b>	<b>\$79,358,714,731</b>	<b>60.3%</b>

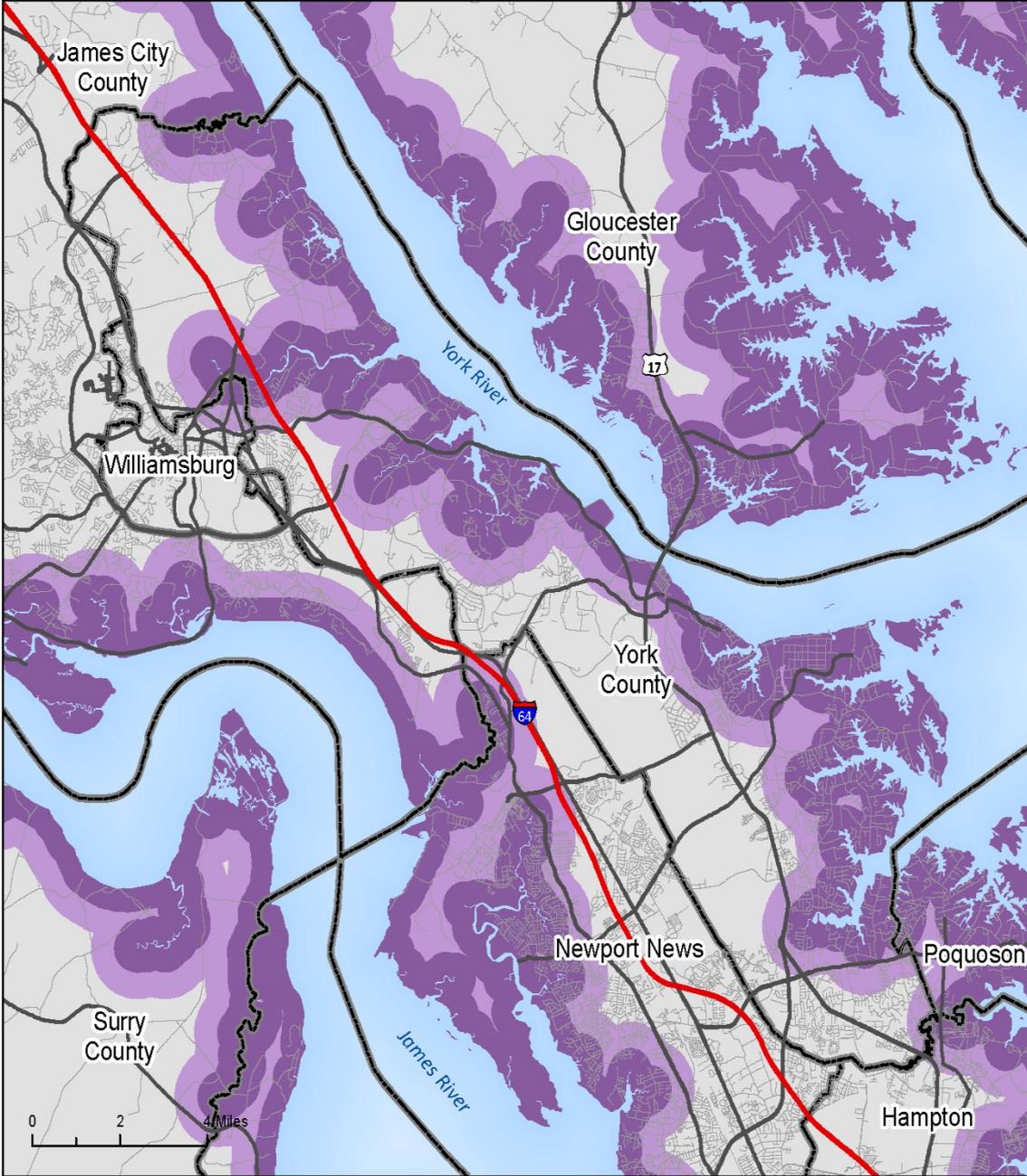
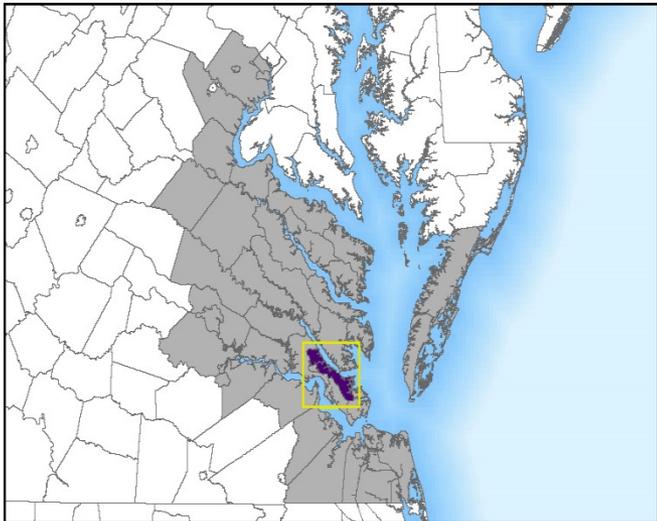
# York County

York County is located on the Virginia Peninsula on the southern bank of the York River. The County's estimated population as of July 2012 was 66,428. As of April 2011, the County's total assessed value of improvements was approximately \$7.3 billion. Nearly thirty-eight percent of the County's total land area is located within 2,500 feet of tidal waters, and nearly fifty-eight percent is located within one mile of tidal waters.

- # of parcels within 2,500 feet of tidal waters: **7,808\***
- Total assessed value: **\$2,836,965,000\***
- # of parcels within one mile of tidal waters: **12,951\***
- Total assessed value: **\$4,062,218,000\***

\* As of April 2011

-  Area Within 2,500 Feet of Tidal Waters
-  Area Within One Mile of Tidal Waters



# LAND AND WATER QUALITY PROTECTION IN HAMPTON ROADS

PHASE II

# PROJECT OVERVIEW

- The goal of this project is to identify and develop implementable policies and practices that local governments in Hampton Roads can use to address the requirements of the Chesapeake Bay Total Maximum Daily Load (TMDL) and the new Virginia Stormwater Management Regulations.
- Two pilot localities (Norfolk and Suffolk)
- Three components
  1. Coastal Plain Stormwater Best Management Practice (BMP) Guidance
  2. Review of existing ordinances and policies for possible changes in pilot localities
  3. Modeling of example development scenarios in pilot localities

# COASTAL PLAIN BMP GUIDANCE

- New regulations increase stormwater management requirements and change the way pollutant loads are calculated.
- Localities asked for an assessment of which BMPs worked best in Hampton Roads, since some do not work as well as in other areas.
  - High water table
  - Flat terrain
  - Low soil permeability

# COASTAL PLAIN BMP GUIDANCE

- Guidance includes:
  - Summary of Stormwater Regulations
  - Obstacles to stormwater management in the coastal plain
  - Overview of Environmental Site Design (including design examples)
  - Review of the Runoff Reduction Method
  - BMP Descriptions and Specifications (including coastal plain design limitations and modifications)
    - Runoff Reduction
    - Pollutant Removal
    - Preferred, Accepted, Restricted

# COASTAL PLAIN BMP SUITABILITY

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

# REVIEW OF LOCAL ORDINANCES

- Evaluation of local ordinances from Norfolk and Suffolk to:
  - Identify barriers to meeting stormwater and Chesapeake Bay requirements
  - Identify opportunities for new policies or changes to existing policies
- Primary barriers are ordinances and regulations that require minimum amounts of impervious surfaces
  - Parking
  - Setbacks
  - Road and sidewalk standards

# REVIEW OF LOCAL ORDINANCES

- Findings:
  - Many opportunities to reduce impervious cover requirements
  - Multiple benefits possible
  - Having an ordinance is not always enough; it must be implemented and utilized
- Examples
  - Parking and road standards
  - Transfer of Development Rights (TDR) and Cluster Ordinances
  - Landscaping standards

# MODELING OF DEVELOPMENT SCENARIOS

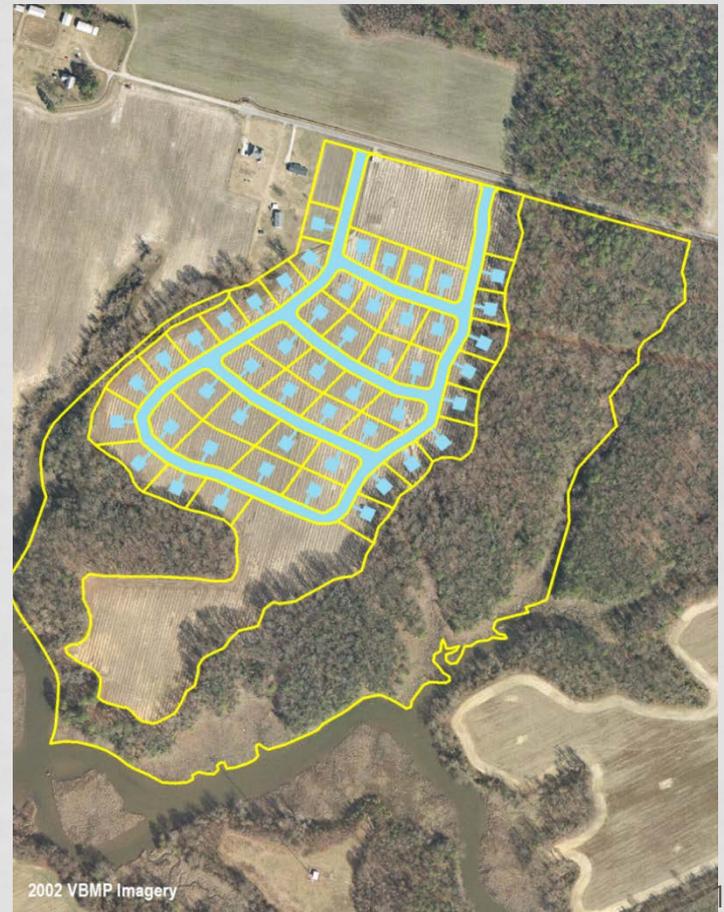
- Demonstration of using Geographic Information Systems (GIS) Analysis to model development scenarios
- Two examples
  - Norfolk: Redevelopment
  - Suffolk: New Development

# MODELING OF DEVELOPMENT SCENARIOS - SUFFOLK

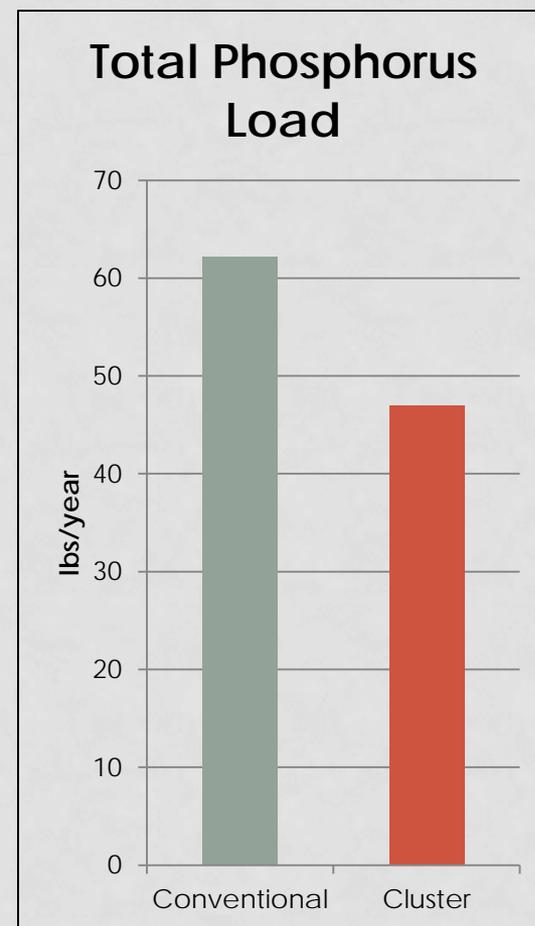
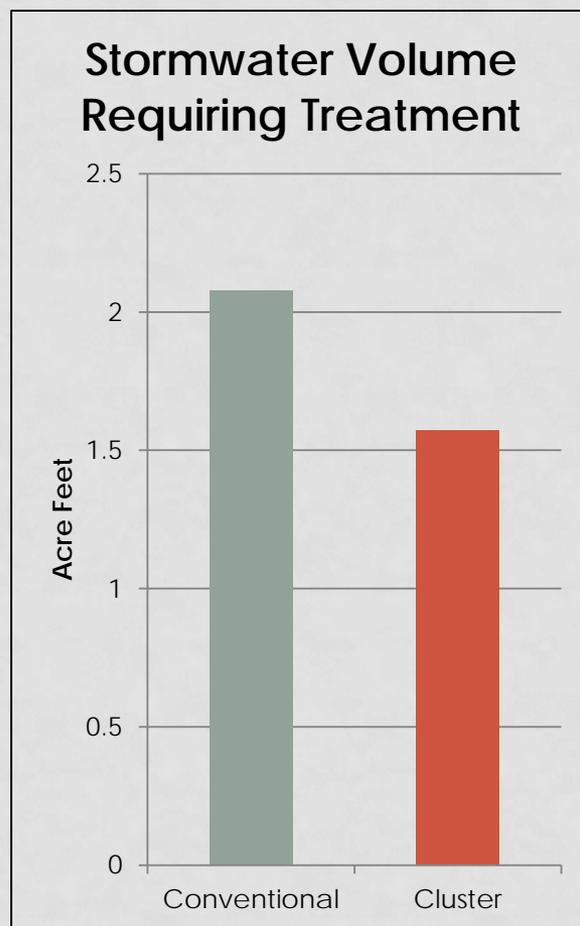
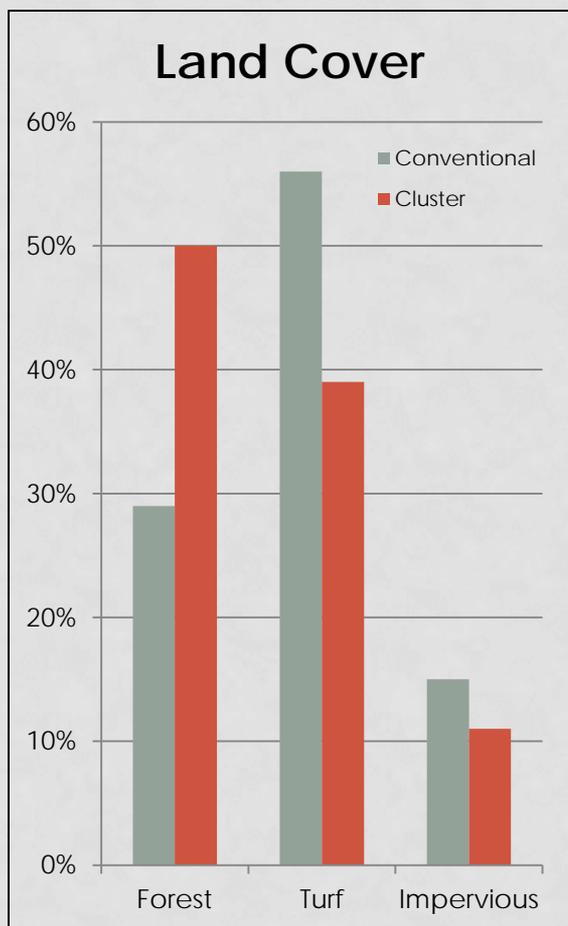
## Existing Conditions



## Alternative Scenario



# MODELING DEVELOPMENT SCENARIOS - SUFFOLK



# QUESTIONS?



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM

