

Water Quality: Chesapeake Bay Preservation Act

Polecat Creek Watershed Project

Polecat Creek, located in Caroline County, Virginia, is a small watershed in the Chesapeake Bay drainage. This site was selected for a ten-year water quality monitoring project, begun in 1991 by the Chesapeake Bay Local Assistance Department and the Council on the Environment (now the Department of Environment of Environmental Quality). At the start of this monitoring project, this watershed was predominately rural and undeveloped but likely to see a substantial increase in urban development during the ten year project period. About two-thirds of the watershed was designated as primary growth area in the County's Comprehensive Plan. In addition, a regional wastewater treatment plant was going on-line, and is currently servicing much of the area. In the last two years a number of development projects have been proposed, and three have begun production. The primary goal of the project is to describe the efficacy of emerging land use regulations and policies in protecting adjacent water quality from nonpoint source pollution during urban development activities.

The three components of the monitoring program include: 1) a system of water quality monitoring networks that provide quantitative information about chemical, physical, and biological parameters of surface and rain water. (temperature, pH, dissolved nitrogen, conductivity, nutrients, sediment, and bacteria. Biological communities are assessed using EPA's Rapid Bioassessment Protocol III (benthic macro invertebrate community structure) and an index of Biotic Integrity (fish community structure). 2) a database of land use activities and land cover characteristics in the watershed is maintained, and updated annually, and 3) a geographic information system (GIS) has been developed, and provides a link between the water quality data, the land use and land cover data and a digital geographic base map has been developed, which is being used to assess monitoring data sets, and will be used to develop a nonpoint source pollution model for the watershed. The GIS also provides a way to identify potential links between water quality trends and activities on adjacent land.

Thus far, the project has shown that the water quality of the streams in the watershed is generally high. As the watershed experiences development activity, the project will track any changes in water quality which will help to determine the effect of the Bay Act Program. The agency produces an annual newsletter to provide citizens in the Polecat Creek Watershed and the general public with updates on the progress of the project.

Chesapeake Bay Local Assistance Department

Contact: C. Scott Crafton, 804.225.4330

*December 1993 (Digital Color Ortho Photos); September 1994, September 1995, October 1996 (Biological Monitoring Report); September 1995, October 1996 (Chemical Monitoring Report); March 1995 (Completion of surface water monitoring network and installation of rain gages); October 1996 (Land Use/Land Cover Report)
1991 Task 8; 1992 Task 5.2; 1993 Task 3; 1994 Task 10 & 82; 1995 Task 9, 14 & 82; 1996 Task 7*



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Chesapeake Bay Preservation Area Maps

These maps provide a general description of the a locality's Chesapeake Bay Preservation Areas. They are consulted by regional resource managers and others prior to engaging in a regulated activity.

Resource Preservation Areas (RPAs) are areas that are close to the shoreline, help to protect water quality, and are easily damaged by the impact of development. RPAs include tidal wetlands, tidal shores, nontidal wetlands connected by surface flow, and an any adjacent 100-foot vegetated buffer area.

Resource Management Areas (RMAs) include additional floodplains, highly erodible soils, steep slopes, highly permeable soils, nontidal wetlands, and similarly sensitive lands not included in the RPA. Intensely Developed Areas (IDAs) are also indicated where appropriate.

Chesterfield County
804.748.1035
September 1990
1989 Task 18.5
❖

Essex County
804.443.4331
December 1990
1989 Task 18.7
❖

The City of Fredericksburg
540.372.1179
December 1990
1989 Task 18.32
❖

Hanover County
804.537.6181
October 1990
1989 Task 18.10
❖

City of Hampton
804.727.6142
November 1990
1989 Task 18.9
❖

New Kent County
804.966.9690
October 1990
1989 Task 18.22
❖

Mathews & King and Queen County Preservation Maps can be obtained from the Middle Peninsula Planning District Commission, 804.758.2311

King and Queen County
December 1990
1989 Task 18.17
❖

City of Newport News
757.247.8761
September 1990
1989 Task 18.23
❖

Northumberland County
804.580.8910
September 1990
1989 Task 18.2
❖

City of Poquoson
757.868.3535
December 1990
1989 Task 18.29
❖

City of Richmond
804.780.6313
October 1990
1989 Task 18.33
❖

Spotsylvania County
540.582.7172
October 1990
1989 Task 18.32b
❖

City of Virginia Beach
757.427.4621
December 1990
1989 Task 18.38
❖

Mathews County
December 1990
1989 Task 18.20
❖



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Chesapeake Bay Preservation Area Programs

These documents provide information to the public on the City ordinance and zoning map amendments being considered to meet the requirements under the Chesapeake Bay Preservation Act and Regulations. Included in these reports are Chesapeake Bay Preservation Areas maps, summaries of the overlay district and regulations, and the revised city ordinances.

Isle of Wight
757.357.3191 ext.316
October 1990
1989 Task 18.13



City of Norfolk
757.441.2152
September 1990
1989 Task 18.24



In addition to presenting the model ordinance and justification materials, these documents elaborate on the implementation of several provisions of the Chesapeake Bay Preservation Act. They discuss the challenge presented in meeting the performance criteria of the Act and the solutions proposed in the model ordinance. These reports also briefly review other state and federal regulations that are similar to the Chesapeake Bay Regulations that potentially overlap.

This report outlines the environmental resources used to delineate the Chesapeake Bay Preservation Area in the James River watershed of Surry County. This environmental inventory is based upon existing maps and data relating to key environmental resources where alteration could impact the water quality of the Chesapeake Bay and its tributaries. A description of the sources of information used to map each resource is given.

*Northern Virginia
Planning District Commission*
703.642.0700
October 1990
1989 Task 18.26



Surry County
757.294.5297
February 1990
1989 Task 18.37



The purpose of these projects was to develop the major ordinances necessary to implement Virginia's Chesapeake Bay Preservation Act. These implementing ordinances are designed to protect and improve the water quality of the Bay, its tributaries, buffer areas, and other sensitive environmental lands by minimizing the potential adverse effect of human activity. This project also details performance guidelines for use by the City in granting, denying or modifying requests to subdivide, use and develop land in the Chesapeake Bay Preservation Areas.

Caroline County
804.633.4303
December 1990
1989 Task 18.2



The City of Portsmouth
757.393.8836
September 1990
1989 Task 18.30



Charles City County
804.829.9217
November 1990
1989 Task 18.3



Stafford County
540.659.8668
September 1990
1989 Task 18.35



The City of Chesapeake
757.547.6176
October 1990
1989 Task 18.4



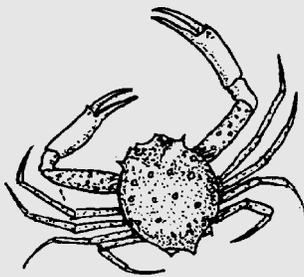
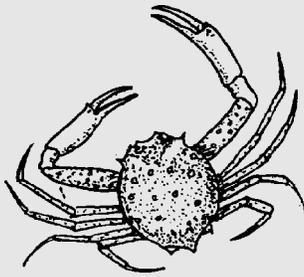
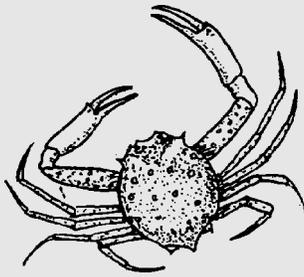
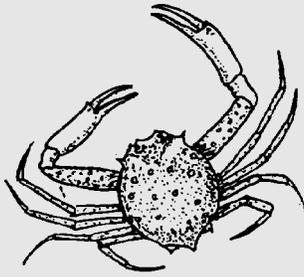
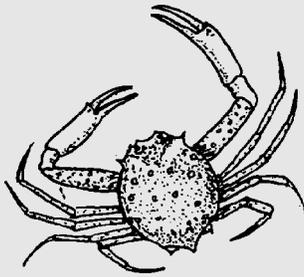
City of Williamsburg
757.220.6130
December 1990
1989 Task 18.40



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Regulations

These regulations are intended to promote the proper use, management, and protection of the vast, sensitive and unique lands which contribute to the economy of Tidewater and especially the Chesapeake Bay. The effect of these provisions is not necessarily to deter development or the use of such areas, but rather to ensure that the type of development permitted by the district will be undertaken with a recognition of the particular environmental qualities and conditions of a proposed development site.



Gloucester County

804.693.4040

October 1990

1989 Task 18.8



City of Hopewell

804.541.2220

July 1990

1989 Task 18.12



Lancaster County

804.462.5220

October 1990

1989 Task 18.19



City of Petersburg

804.733.2308

September 1990

1989 Task 18.28



City of Suffolk

757.925.6485

March 1991

1989 Task 18.36



York County

757.890.3300

September 1990

1989 Task 18.41



Chesapeake Bay Preservation Area Overlay Districts

Colonial Heights

757.253.6678

August 1990

1989 Task 18.14



City of Portsmouth

757.393.8836

September 1990

1989 Task 18.30



King George County

540.775.7111

October 1990

1989 Task 18.16



Richmond County

804.333.3415

September 1990

1989 Task 18.34



King William County

804.769.4933

November 1990

1989 Task 18.18



Westmoreland County

804.493.0120

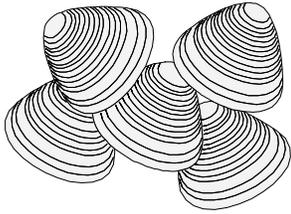
September 1990

1989 Task 18.39



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Comprehensive Town Plans and Zoning Ordinances on the Eastern Shore



The following Town Plans and Zoning Ordinances, necessary to implement Virginia's Chesapeake Bay Preservation Act, were developed and adopted by Eastern Shore Towns with assistance from the Accomack-Northampton Planning District Commission technical assistance program:

Town Zoning Ordinances

Town of Belle Haven
November 1992

Town of Bloxom
December 1992

Town of Nassawadox
May 1993

Town of Hallwood
December 1993

Town of Melfa
March 1994

Town of Painter
June 1994

Town of Cheriton
August 1994

Town of Exmore
August 1994

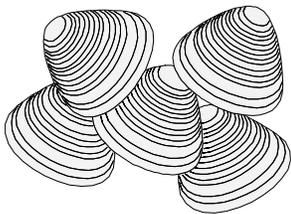
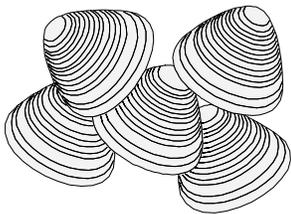
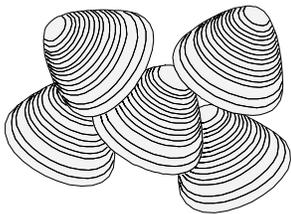
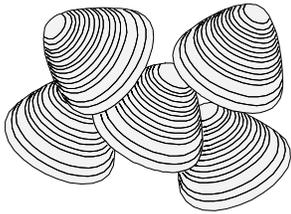
Town of Eastville
March 1995

Town of Parksley
April 1995

Town of Nassawadox
(Amendment)
January 1994

Town of Cheriton
(Amendment)
May 1995

Town of Exmore
(Amendment)
November 1995



Comprehensive Town Plans

Town of Cheritan
August 1991

Town of Saxis
July 1992

Town of Hallwood
November 1992

Town of Parksley
November 1992

Town of Onley
December 1992

Town of Melfa
October 1992

Town of Exmore
March 1993

Town of Eastville
May 1994

Cheriton Town Plan
(Amendment)
August 1995

Accomack-Northampton Planning
District Commission

Contact: Paige Mayo, 757.787.2936
1992 - 1994 Task 52, 1995 Task 51



See Also:

Shoreline Management, page 61:
Hampton Roads Regional Shoreline
Element of Comprehensive Plans
Public Education, page 49:
A Guide to the Bay Act
Coastal Technical Assistance, page 1:
Local Environmental Planning
Assistance Program