CHESAPEAKE BAY PRESERVATION PROGRAM
CITY OF SUFFOLK, VIRGINIA

REVISED DRAFT

JANUARY 26, 1990

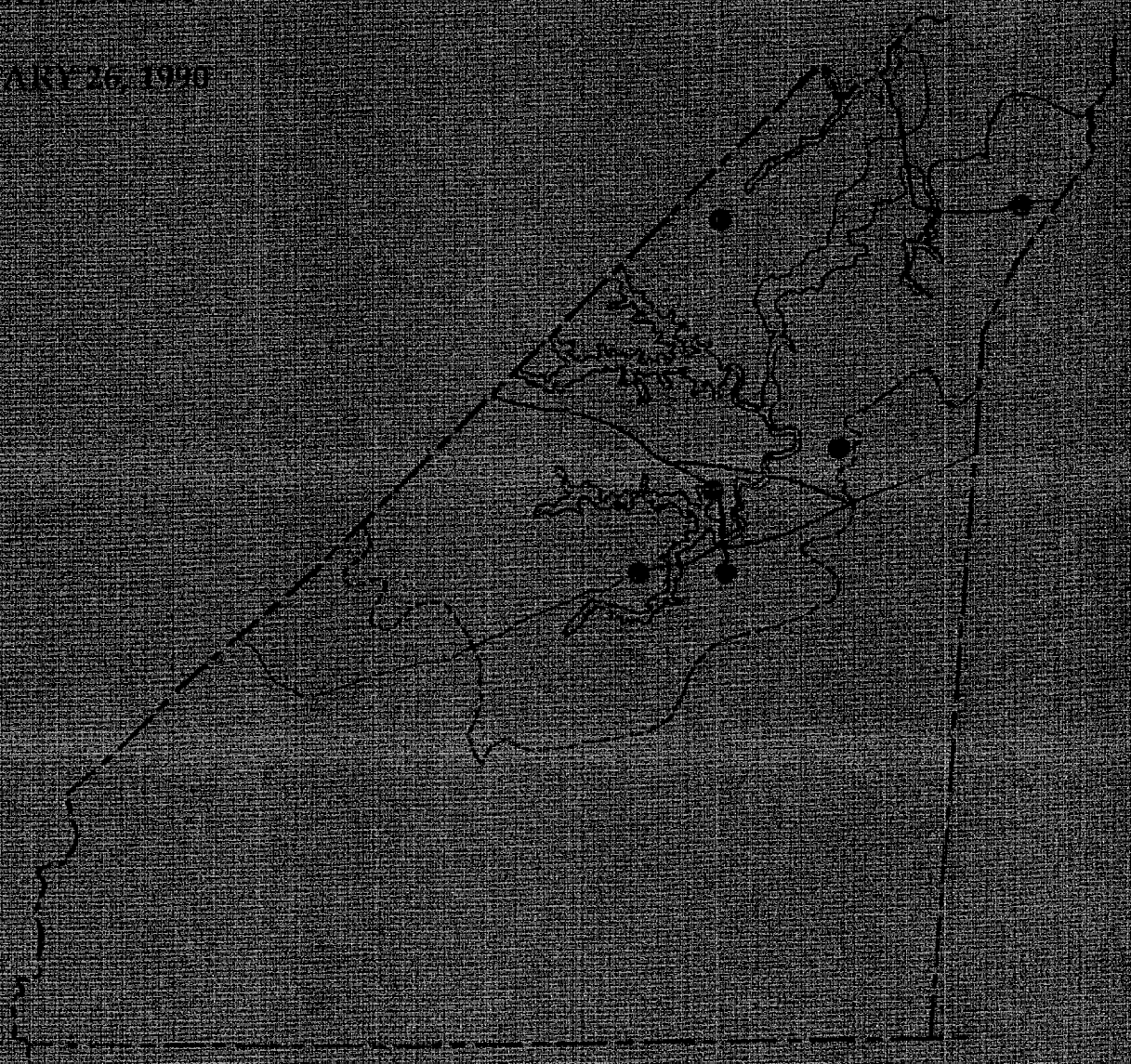

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TABLE OF CONTENTS

CHAPTER I

Introduction 1

CHAPTER II

The Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations 3

Purpose 3

Goals 3

Local Program Elements 3

Chesapeake Bay Preservation Area Designation Criteria and Maps 4

Resource Protection Areas (RPA) 5

Resource Management Areas (RMA) 6

Intensely Developed Areas (IDA) 6

Land Use and Development Performance Criteria 7

General Performance Criteria 8

Performance Criteria for Resource Protection Areas 10

Allowable Development 10

Buffer Areas Requirements 11

Administrative Waivers and Exemptions 13

Nonconforming Uses and Development Waivers 13

Public Utilities, Railroads and Facilities Exemptions 13

Exemptions in Resource Protection Areas 14

Exceptions to the Criteria 14

CHAPTER III

Program Development 15

Shoreline Area Management Alternatives 15

Proposed Chesapeake Bay Preservation Area Ordinance 22

Article I. Purpose, Applicability and Jurisdiction 22

Article II. District Maps and Land Management Classifications 23

Article III. Definitions 23

Article IV. Grandfather Provisions 27

Article V. Development Standards 28

Article VI. Administrative Procedures 37

CHAPTER IV

Definitions 40

CHAPTER I

INTRODUCTION

The coastal and maritime resources of the Chesapeake Bay have for many generations been a valuable economic, environmental and recreational resource to Virginians and many others. As populations have grown in the Bay region, and pressures on these resources have intensified, stresses on this fragile ecosystem have mounted.

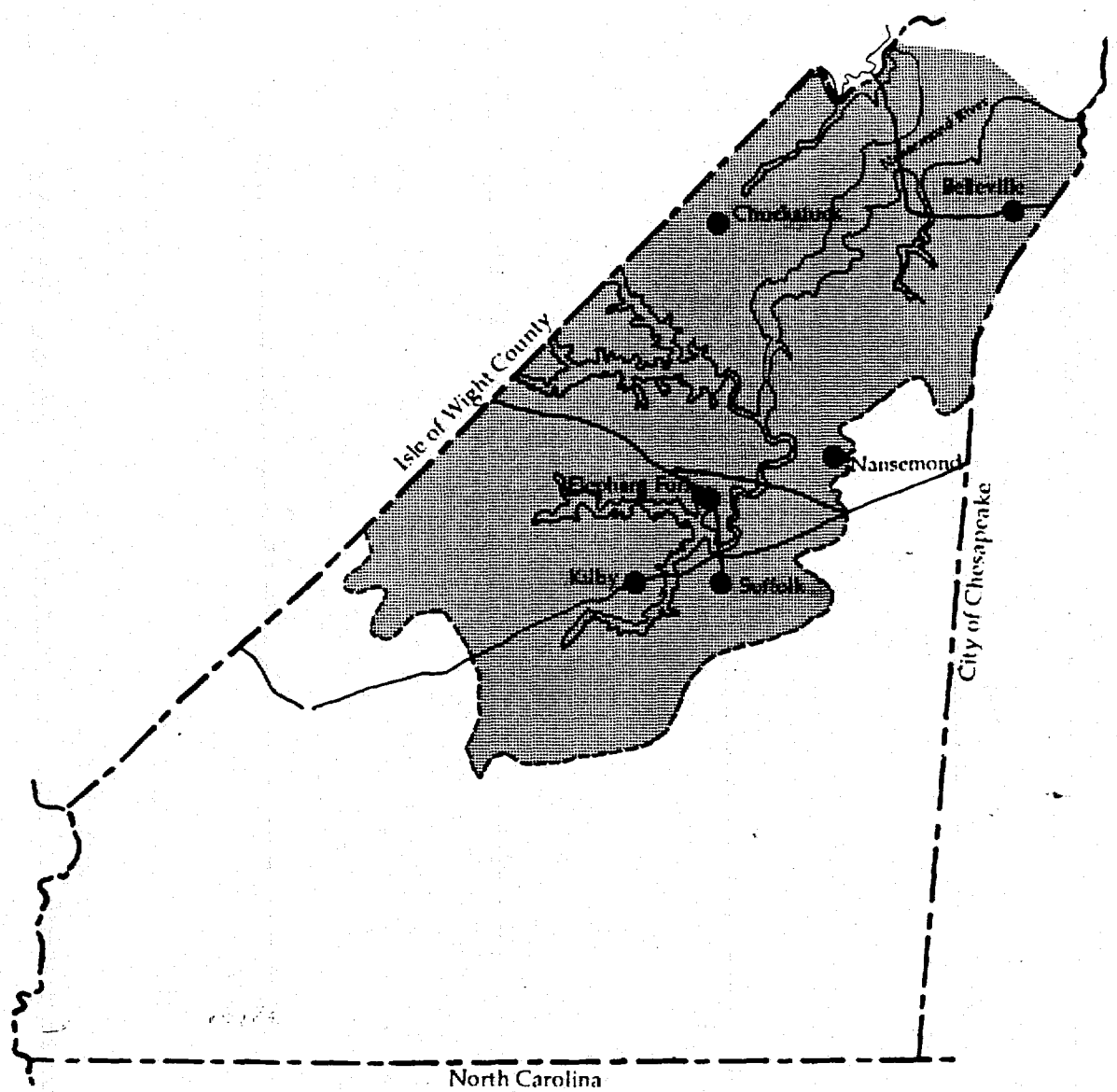
The deteriorating conditions in the Bay - its lowered productivity, its algal blooms, increased concentrations of toxins - were documented in a seven-year study conducted by the Environmental Protection Agency and finished in 1983. This study confirmed that these conditions were caused by point and nonpoint sources of pollution. The Chesapeake Bay Agreement, entered into by Virginia, Maryland, Pennsylvania, the District of Columbia, the U. S. Environmental Protection Agency, and, the Chesapeake Bay Commission, acknowledges the stake each participant has in the Bay's resources and accepts responsibility for reversing the decline of Bay water quality. Included in its goals are the reduction and control of point and nonpoint sources of pollution to attain water quality conditions necessary to support the living resources of the Bay.

The Chesapeake Bay Agreement marked the formal beginning of action by both public and private agencies at local, state, regional and national levels to protect water quality in the Bay and ensure its continued productivity for future generations. One of the most significant actions for Virginians was the enactment of the Chesapeake Bay Preservation Act, which provides for the local administration of programs to include water quality protection measures into land use planning in the Tidewater region.

This plan, which includes maps, proposed ordinances and other implementation tools, presents the local program for the City of Suffolk in establishing the land use regulations for its Chesapeake Bay Preservation Areas, pursuant to the Chesapeake Bay Preservation Act, Section 10.1-21-3 and 10.1-2107 of Chapter 21, Title 10.1 of the Code of Virginia.

This plan is intended to be consistent with the guidelines of the Commonwealth of Virginia as presented in the Chesapeake Bay Local Assistance Manual. The Manual contains technical information and should be used as a guidance document in implementing or revising this plan.

City of Suffolk, Virginia



Chesapeake Bay Watershed

CHAPTER II

THE CHESAPEAKE BAY PERSERVATION ACT
THE CHESAPEAKE BAY PERSERVATION AREA DESIGNATION AND MANAGEMENT REGULATIONS

The Chesapeake Bay Preservation Act mandates all Tidewater Virginia localities to establish programs, plans, and ordinances to protect and improve Bay water quality. These local programs must conform with the Chesapeake Bay Preservation Area Designation and Management Regulations adopted by the Virginia Legislature in September, 1989.

PURPOSE

The purpose of the Act is to protect and improve the water quality of the Chesapeake Bay, its tributaries, and other state waters by minimizing the effects of human activity upon these waters. The Chesapeake Bay Preservation Act provides for the definition and protection of certain lands called Chesapeake Bay Preservation Areas, which if improperly used or developed may result in substantial damage to water quality of the Chesapeake Bay and its tributaries.

GOALS

Local governments are required to develop measures, or local programs, necessary to comply with the Chesapeake Bay Preservation Act and Regulations. In conjunction with other state water quality programs, local programs shall encourage and promote:

- protection of existing high quality state waters and restoration of all other state waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them;
- safeguarding the clean waters of the Commonwealth from pollution;
- prevention of any increase in pollution;
- reduction of existing pollution; and
- promotion of water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the Commonwealth.

The Regulations establish the criteria that local governments shall use to determine the extent of the Chesapeake Bay Preservation Areas within their jurisdictions. The Regulations establish criteria for use by local governments in granting, denying, or modifying requests to rezone, subdivide, or to use and develop land in Chesapeake Bay Preservation Areas. The Regulations identify the requirements for changes which local governments shall incorporate into their comprehensive plans, zoning ordinances, and subdivision regulations to protect the quality of state waters pursuant to the Chesapeake Bay Preservation Act.

LOCAL PROGRAM ELEMENTS

The Regulations require that the City of Suffolk establish a local program which

will contain the elements listed below. Elements A and B shall be adopted concurrently and no later than September 20, 1990. Elements C through G shall be in place by September 20, 1991.

A. A map delineating Chesapeake Bay Preservation Areas.

B. Performance criteria for land use and development within Chesapeake Bay Preservation Areas.

C. A comprehensive plan or revision that incorporates the protection of Chesapeake Bay Preservation Areas and of the quality of state waters.

D. A zoning ordinance or revision that (i) incorporates measures to protect the quality of state waters in Chesapeake Bay Preservation Areas, and (ii) requires compliance with all performance criteria for land use and development.

E. A subdivision ordinance or revision that (i) incorporates measures to protect the quality of state waters in Chesapeake Bay Preservation Areas, and (ii) assures that all subdivisions in Chesapeake Bay Preservation Areas comply with the performance criteria for land use and development.

F. An erosion and sediment control ordinance or revision that requires compliance with performance criteria for land use and development.

G. A plan of development process prior to the issuance of a building permit to assure that use and development of land in the Chesapeake Bay Preservation Areas is accomplished in a manner that protects the quality of state waters.

CHESAPEAKE BAY PRESERVATION AREA DESIGNATION CRITERIA AND MAPS

As part of its Local Program for Chesapeake Bay Preservation, The City of Suffolk designates lands in the James River watershed as Chesapeake Bay Preservation Areas (PA). These Preservation Areas include, but are not limited to the following waterbodies and their tributary streams:

James River	Nansemond River
Hoffler Creek	Streeter Creek
Knotts Creek	Bennett Creek
West Creek	Shingle Creek
Cohoon Creek	Burnetts Mill Creek
Cedar Creek	Campbell Creek
Lake Meade	Lake Kilby
Lake Cahoon	Chuckatuck Creek
Lake Prince	Lake Burnt Mills
Cedar Lake	Quaker Neck Creek
Lone Star Lakes	Speights Run
Western Branch Reservoir	

Chesapeake Bay Preservation Areas in the City of Suffolk have been delineated on overlays of U. S. G. S. 7.5 minute quadrangles, at a scale of 1:24,000, or 1"=2,000'. The quadrangles mapped are: Buckhorn, Windsor, Benn's Church, Newport News South, Bower's Hill, Suffolk and Chuckatuck. These maps have been designed to be used in

conjunction with the U. S. G. S. quadrangles and with National Wetlands Inventory overlays as land planning tools. The City of Suffolk may exercise judgement in determining site-specific boundaries of Chesapeake Bay Preservation Area components and in making determinations of the application of the Act's regulations, based on more reliable or specific information gathered from actual field evaluations of the parcel, in accordance with development plan review requirements. An accurate delineation of site specific elements of the Chesapeake Bay Preservation Area shall be made during site development review, as provided for in the Proposed Chesapeake Bay Preservation Area Ordinance.

The seven Map Overlays which delineate the Chesapeake Bay Preservation Areas in the City of Suffolk are an integral part of this Local Program. Adoption of this Program shall include adoption of these Map Overlays.

Land designated as Chesapeake Bay Preservation Areas are further classified as either Resource Protection Areas (RPAs), Resource Management Areas (RMAs), or Intensely Developed Areas (IDAs). Technical descriptions and other information pertaining to these areas and their components are described in the Chesapeake Bay Local Assistance Manual. This Manual should be used as a resource with this Plan.

Resource Protection Areas

Resource Protection Areas (RPAs) consist of sensitive lands at or near the shoreline that have an intrinsic water quality value due to the ecological and biological processes they perform, or are sensitive to impacts which may cause degradation to the quality of State waters. In their natural condition, these lands provide for the removal, reduction, or assimilation of sediments, nutrients, and potentially harmful or toxic substances in runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources.

The Resource Protection Areas (RPA) include:

1. Tidal wetlands;

2. Non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams;

3. Tidal shores;

4. Such other lands necessary to protect the quality of state waters;

5. A buffer area not less than 100 feet in width located adjacent to and landward of the components listed in items 1 through 4 above, and along both sides of any tributary stream. The full buffer area shall be designated as the landward component of the RPA notwithstanding the presence of permitted uses or equivalent measures in compliance with performance criteria for land

use and development. Designation of these areas shall not be subject to reduction unless based on site-specific information.

Resource Management Areas

Resource Management Areas (RMAs) include land types that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. RMAs shall encompass a land area large enough to provide significant water quality protection through the employment of performance criteria for land use and development.

The Regulations have stipulated that a Resource Management Area shall be provided contiguous to the entire inland boundary of the Resource Protection Area and that the following land categories will be considered by the City for inclusion in the RMAs:

1. Floodplain;
2. Highly erodible soils, including steep slopes;
3. Highly permeable soils;
4. Non-tidal wetlands not included in the Resource Protection Areas;
5. Such other lands necessary to protect the quality of state waters.

Water quality protection objectives shall be satisfied in the City of Suffolk by designating as Resource Management Areas all lands in the James River watershed not designated as Resource Protection Areas. The five elements above were analyzed for the City. The soil types which can be considered highly erodible, highly permeable or hydric are shown in Tables 1-3. Because they comprise a signficant portion of the City's land area, effective protection of water quality and implementation of this plan will be best achieved by including the entire watershed of the James River in a Chesapeake Bay Preservation Area district. As provided in the Ordinance, an accurate delineation of site specific elements shall be provided during site development review.

Intensely Developed Areas

The City designates Intensely Developed Areas (IDAs) as an overlay of Chesapeake Bay Preservation Areas within its jurisdiction. IDAs shall serve as redevelopment areas in which development has existed as of September 20, 1989. Areas so designated shall comply with established performance criteria for redevelopment.

In exercising this option, the City of Suffolk has examined the pattern of residential, commercial, industrial, and institutional development within Chesapeake Bay Preservation Areas. Areas of existing development and in-fill sites where little of the natural environment remains may be designated as IDAs provided at least one of the following conditions exists:

1. Development has severely altered the natural state of the areas such that it has more than 50 percent impervious surface.

(2) HIGHLY ERODIBLE SOILS — TABLE 1

Soil Map Unit	Slope (%)	Length Slope (ft)
Alaga loamy sand	5.0%	100
Dogue fine sandy loam	3.0%	50
Emporia fine sandy loam	3.0%	50
Eunola loamy fine sand	4.0%	200
Goldsboro fine sandy loam	4.0%	250
Kalmia fine sandy loam	3.5%	100
Nansemond loamy fine sand	3.0%	100
Nansemond fine sandy loam	3.0%	100
Rumford loamy fine sand	4.5%	150
State fine loamy sand	3.0%	50
Suffolk loamy sand	3.0%	50
Tetotum fine sandy loam	3.0%	50

Source: Suffolk Soil Conservation District 1989

(3) HIGHLY PERMEABLE SOILS — TABLE 2

Soil Map Unit	Symbol	Permeability (in/hr)	Depth of Perm Layer (in)
Alaga	1B	>6.0	0 - 80
Dragston	6	>6.0	37 - 66
Kalmia	10A 10B	6.0 - 20	34 - 72
Kenansville	11	6.0 - 20 6.0 - 20	0 - 23 48 - 72
Nansemond	15B 15D	2.0 - 20	0 - 19
	15E	6.0 - 20	66 - 70
Nansemond	16A 16B	6.0 - 20	66 - 70
Pactolus	17	6.0 - 20	0 - 80
Rumford	20A 20B	>6.0 >2.0	0 - 10 36 - 72
Suffolk	22A 22B	2.0 - 20 2.0 - 20	0 - 11 38 - 65
Tetotum	23A 23B	0.6 - 20	65 - 85
Torhunta	25	6.0 - 20	30 - 65

Source: City of Suffolk Soil Survey 1981

(5) OTHER LANDS HYDRIC SOILS — TABLE 3

Soil Map Unit	Hydric Soil Criteria	
	Frequent Flooding	Saturated Soils
Bohicket	X	X
Levy	X	X
Rains		X
Tomotley		X
Weston		X

Source: National Technical Committee for Hydric Soils, 1987

2. Public sewer and water is constructed and currently serves the area by October 1, 1989. This condition does not include areas planned for public sewer and water.

3. Housing density is equal to or greater than four dwelling units per acre.

The City of Suffolk establishes Intensely Developed Areas as mapped in the Cheapeake Bay Preservation Area Maps.

LAND USE AND DEVELOPMENT PERFORMANCE CRITERIA

The purpose of these performance criteria is to achieve the goals of the Chesapeake Bay Preservation Act and to implement the following objectives:

- prevent a net increase in nonpoint source pollution from new development;

- achieve a 10 percent reduction in nonpoint source pollution from redevelopment;

- and, achieve a 40 percent reduction in nonpoint source pollution from agricultural and silvicultural uses.

In order to achieve these goals and objectives, these criteria establish performance standards to minimize erosion and sedimentation potential, reduce land application of nutrients and toxics, maximize rainwater infiltration, and ensure the long-term performance of the measures employed.

These criteria will become mandatory upon the City of Suffolk Local Chesapeake Bay Preservation Program adoption date. They are supplementary to the various planning and zoning concepts employed by the City in granting, denying, or modifying requests to rezone, subdivide, or to use and develop land in Chesapeake Bay Preservation Areas.

General Performance Criteria

It must be demonstrated to the satisfaction of the City of Suffolk that any use, development, or redevelopment of land in Chesapeake Bay Preservation Areas meets the following performance criteria:

1. No more land will be disturbed than is necessary to provide for the desired use or development.

2. Indigenous vegetation will be preserved to the maximum extent possible consistent with the use and development allowed.

3. Where the best management practices utilized require regular or periodic maintenance in order to continue their functions, such maintenance will be ensured by the City through a maintenance agreement with the owner or developer or some other mechanism that achieves an equivalent objective.

4. All development exceeding 2,500 square feet of land disturbance will be accomplished through a plan of development review consistent with the Code of Virginia.

5. Land development will minimize impervious cover consistent with the use of development allowed.

6. Any land disturbing activity that exceeds an area of 2,500 square feet (including construction of all single-family houses, septic tanks and drainfields, but otherwise as defined in Section 10.1-560 of the Code of Virginia) will comply with the requirements of the local sediment and erosion control ordinance.

7. On-site sewage treatment systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit will:

   a. Have pump-out accomplished for all such systems at least once every five (5) years;

   b. For new construction, provide a reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site. This reserve sewage disposal site requirement will not apply to any lot or parcel

recorded prior to the effective date of these regulations, and which lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local Health Department. Building will be prohibited on the area of all sewage disposal sites until the structure is served by public sewer or an on-site sewage treatment system which operates under a permit issued by the State Water Control Board. It is a policy of the Southeastern Virginia Planning District Commission to discourage private package plants which discharge to surface waters. All sewage disposal site records will be administered to provide adequate notice and enforcement.

8. Stormwater management criteria which accomplish the objectives of these regulations will apply. For development, the post-development nonpoint source pollution runoff load will not exceed the pre-development load based upon average land cover conditions. Redevelopment of any site not currently served by water quality best management practices will achieve at least a 10 percent reduction of nonpoint source pollution in runoff compared to the existing runoff load from the site. Post development runoff from any site to be redeveloped that is currently served by water quality best management practices will not exceed the existing load of nonpoint source pollution in surface runoff.

   a. The following stormwater management options will be considered to comply with this subsection of these regulations:

      (1) Incorporation on the site of best management practices that achieve the required control;

      (2) Compliance with a locally adopted regional stormwater management program incorporating pro-rata share payments pursuant to the authority provided in Section 15.1-466(j) of the Code of Virginia that results in achievement of equivalent water quality protection;

      (3) Compliance with a state or locally implemented program of stormwater discharge permits pursuant to Section 402(p) of the federal Clean Water Act, as set forth in 40 C.F.R. Parts 122, 123, 124, and 504, dated December 7, 1988;

      (4) For a redevelopment site that is completely impervious as currently developed, restoring a minimum 20 percent of the site to vegetated open space.

b. Any maintenance, alteration, use, or improvement to an existing structure which does not degrade the quality of surface water discharge, as determined by the City, may be exempted from the requirements of this subsection.

c. Stormwater management criteria for redevelopment will apply to any redevelopment, whether or not it is located within an Intensely Developed Area designated by the City.

9. Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, will have a soil and water quality conservation plan. Such a plan will be based upon the Field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service and accomplish water quality protection consistent with the Preservation Act and regulations. Such a plan will be approved by the local Soil and Water Conservation District by January 1, 1995.

10. Silvicultural activities in Chesapeake Bay Preservation Areas are exempt from these regulations provided that silvicultural operations adhere to water quality protection procedures prescribed by the Department of Forestry in its "Best Management Practices Handbook for Forestry Operations." The Department of Forestry will oversee and document installation of best management practices and will monitor the in-stream impacts of forestry operations in Chesapeake Bay Preservation Areas. In the event that, by July 1, 1991, the Department of Forestry programs are unable to demonstrate equivalent protection of water quality consistent with the Act and regulations, the Department of Forestry will revise its programs to assure consistency of results and may require implementation of best management practices.

11. The City of Suffolk will require evidence of all wetlands permits required by law prior to authorizing grading or other on-site activities to begin.

Performance Criteria For Resource Protection Areas

The following criteria will apply specifically within Resource Protection Areas (RPAs) and supplement the general performance criteria.

Allowable Development

A water quality impact assessment will be required for any proposed development in accordance with the provisions of the Chesapeake Bay Preservation Act and regulations. Land development may be allowed only if it (i) is water dependent or, (ii) constitutes redevelopment.

1. A new or expanded water-dependent facility may be allowed provided that:

(a) It does not conflict with the Comprehensive Plan;

(b) It complies with the performance criteria set forth in this part;

(c) Any non-water dependent component is located outside of Resource Protection Areas;

(d) Access will be provided with the minimum disturbance necessary. Where possible, a single point of access will be provided.

2. Redevelopment will conform to applicable stormwater management and erosion and sediment control criteria in this part.

Buffer Area Requirements

To minimize the adverse effects of human activities on the other components of the Resource Protection Area, State waters, and aquatic life, a 100 foot buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff will be retained if present and established where it does not exist. The 100 foot buffer area will be deemed to achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients. Except as noted in this subsection, a combination of a buffer area not less than 50 feet in width and appropriate best management practices located landward of the buffer area which collectively achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100 foot buffer area may be employed in lieu of the 100 foot buffer. The following additional performance criteria will apply:

1. In order to maintain the functional value of the buffer area, indigenous vegetation may be removed only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices, as follows:

(a) Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they will be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff.

(b) Any path will be constructed and surfaced so as to effectively control erosion.

(c) Dead, diseased, or dying trees or shrubbery may be removed at the discretion of the landowner, and silvacultural thinning may be conducted based upon the recommendation of a professional forester or aborist.

(d) For shoreline erosion control projects, trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in ac-

cordance with the best available technical advice and applicable permit conditions or requirements.

2. When the application of the buffer area would result in the loss of buildable area on a lot or parcel recorded prior to the effective date of these regulations, modifications to the width of the buffer area may be allowed in accordance with the following criteria:

   (a) Modifications to the buffer area will be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;

   (b) Where possible, an area equal to the area encroaching the buffer area will be established elsewhere on the lot or parcel in a way to maximize water quality protection;

   (c) In no case will the reduced portion of the buffer area be less than 50 feet in width.

3. Redevelopment within Intensely Developed Areas may be exempt from the requirements of this subsection. However, while the immediate establishment of the buffer area may be impractical, the City will give consideration to implementing measures that would establish the buffer in these areas over time in order to maximize water quality protection, pollutant removal, and water resource conservation.

4. On agricultural lands the agricultural buffer area will be managed to prevent concentrated flows of surface water from breaching the buffer area and noxious weeds (such as Johnson grass, kudzu, and multiflora rose) from invading the buffer area. The agricultural buffer area may be reduced as follows:

   (a) To a minimum width of 50 feet when the adjacent land is enrolled in a federal, state, or locally-funded agricultural best management practices program, and the program is being implemented, provided that the combination of the reduced buffer area and best management practices achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100 foot buffer area.

   (b) To a minimum width of 25 feet when a soil and water quality conservation plan, as approved by the local Soil and Water Conservation District, has been implemented on the adjacent land, provided that the portion of the plan being implemented for the Chesapeake Bay Preservation Area achieves water quality protection at least the equivalent of that provided by the 100 foot buffer area in the opinion of the local Soil and Water Conservation District Board. Such plan

will be based upon the Field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service and accomplish water quality protection consistent with the Act and these regulations.

(c) The buffer area is not required for agricultural drainage ditches if the adjacent agricultural land has in place best management practices in accordance with a conservation plan approved by the local Soil and Water Conservation District.

Administrative Waivers and Exemptions

Nonconforming Use and Development Waivers.

1. The City may permit the continued use, but not necessarily the expansion, of any structure in existence on the date of local program adoption. The City may establish an administrative review procedure to waive or modify the criteria of this part for structures on legal nonconforming lots or parcels provided that:

   (a) There will be no net increase in nonpoint source pollutant load;

   (b) Any development or land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

2. It is not the intent of these criteria to prevent the reconstruction of pre-existing structures within Chesapeake Bay Preservation Areas from occurring as a result of casualty loss unless otherwise restricted by City ordinances

Public Utilities, Railroads, and Facilities Exemptions.

1. Construction, installation, operation, and maintenance of electric, gas, and telephone transmission lines, railroads, and public roads and their appurtenant structures in accordance with the Erosion and Sediment Control law (Section 10.1-560 et. seq. of the Code of Virginia) or an erosion and sediment control plan approved by the Virginia Soil and Water Conservation Board will be deemed to constitute compliance with these regulations.

2. Construction, installation, operation, and maintenance of water, sewer and local gas lines will be exempt from the criteria in this part provided that:

   (a) To the degree possible, the location of such utilities and facilities should be outside Resource Protection Areas.

   (b) No more land will be disturbed than is necessary to provide for the desired utility installation.

   (c) All such construction, installation, and maintenance of such utilities and facilities will be in compliance with all applicable state and federal permits and designed and conducted in a

manner that protects water quality.

(d) Any land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

Exemptions in Resource Protection Areas.

The following land disturbance activities in Resource Protection Areas may be exempt from the criteria of this part provided that they comply with items 1 and 2 below: (i) water wells; (ii) passive recreation facilities such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities.

1. The City will establish administrative procedures to review such exemptions;

2. Any land disturbance exceeding an area of 2,500 square feet will comply with the erosion and sediment control requirements of this part.

Exceptions to the Criteria

Exceptions to the requirements of these criteria may be granted, provided that: (i) exceptions to the criteria will be the minimum necessary to afford relief, and (ii) reasonable and appropriate conditions upon any exception granted will be imposed as necessary so that the purpose and intent of the Act is preserved. The City will design an appropriate process or processes for the administration of exceptions.

CHAPTER III

PROGRAM DEVELOPMENT

This Chesapeake Bay Preservation Program shall be amended to the City of Suffolk Comprehensive Growth Management Plan. Designation of Chesapeake Bay Preservation Areas as mapped and performance criteria will be incorporated into The City of Suffolk Zoning Ordinance, Subdivision Regulations, and Erosion and Sediment Control Ordinance. The City will also establish a plan of development review and approval process for building permit issuance for development within designated Chesapeake Bay Preservation Areas. Finally, the City will also establish administrative and enforcement procedures as part of its overall Local Program for Chesapeake Bay Preservation.

SHORELINE AREA MANAGEMENT ALTERNATIVES

Three tests may be considered for land use management approaches and regulatory tools:

Will the regulations gain political acceptibility?

Are they legally defensible?

Do they have administrative feasibility?

The following are the regulatory approaches which may be considered for the City of Suffolk.

Intensity and Use Restrictions

Density Restrictions

Conventional zoning and subdivision ordinances can regulate development densities on or near sensitive natural resources. This specific application of zoning and subdivision ordinances is as easy to administer and enforce as the everyday process of these regulations. The more densities are reduced, however, the less palatable this option becomes because property values are affected.

While density restrictions will tend to reduce the total amount of impervious surface and lower the total concentration of on-site wastewater disposal areas, it can be argued that in many instances, increasing lot sizes does nothing to preserve resources or limit adverse impacts. In waterfront areas, the most desirable locations for residential building are often the most sensitive areas; hence the size of the lot affords no protection to sensitive shoreline areas. Roads need to be longer, and the disturbance of resources in building these, may in fact result in higher impacts than with small lots. In addition, as lot sizes increase, areas cleared for lawns and outside activities often increase, which eliminates the habitat diversity of wetlands and woodlands. In most cases, therefore, while this is easy to implement, this option can be subjected to charges of exclusionary zoning, with little resulting protection of local resources.

Land Use Classification

Natural resources may be protected not only by the intensity of development, as regulated in densities, but also in the types of development. Land Use Categories, such as Conservation, may be delineated to guide zoning and other land use regulations.

The effectiveness of this approach in protection of sensitive natural areas or resources depends on the specific requirements or allowable activities, such as recreational use, in the protection zone. This requires careful attention to detail in drafting ordinances. Effectiveness also depends on adherence to these land use classifications in zoning decisions and appeals.

Urban Growth Boundaries and Urban Service Districts

Intensive uses and future growth require public facilities - water and sewer. These can be planned within specified service districts and phased to promote orderly development in a compact pattern which can be efficiently served with these facilities.

This technique protects natural resources indirectly through attracting growth away from delineated sensitive areas located outside the service districts. To be effective, it should be combined with other protection measures, such as reducing allowable densities outside the service areas, in order to deter development which would affect sensitive areas.

As discussed before, this alternative requires a high commitment to planning and constructing the needed public services, and allowing the higher densities which help to make them pay. The locations and extent, both present and future, of development service districts are difficult to designate equitably. Once this designation is made, however, they are easy to enforce through zoning procedures. Urban Service Districts have been designated as Urban Development Areas by the City's Comprehensive Plan.

Resource Overlay Zones

These zones are superimposed on existing zones, and follow the boundaries of natural resources which require protection. They therefore add an extra layer of regulations within the overlay zone, which can be cumbersome in enforcement review and administration. Proposed development in the overlay zone should conform to use and density restrictions applying in the base zone and to the added restrictions or performance standards such as extra setbacks, clustering or buffers.

The effectiveness of these overlay zones in protecting natural resources will depend on the restrictions or performance standards, and on the correct delineation of boundaries. Because development will probably not be absolutely restricted from these zones, but regulated in its location, form or quality, this alternative is usually highly acceptable to

landowners. These regulations would be implemented by an addition to the current codes, instead of a revision or restructuring, and are therefore easier to adopt. Maryland's Critical Area Programs have been implemented, using this approach, through an overlay zoning amendment to local jurisdictions' zoning and subdivision ordinances.

Clustering

This technique controls the location of development, shifting overall permitted density on a parcel to a small portion of the parcel, leaving the remainder in open space. The open space would contain the natural resource targeted for protection, such as wetlands, large forested areas, or stream valleys with steep slopes. Clustering provisions may either be voluntary or mandatory. A voluntary clustering provision can use a density bonus (see below) to encourage its use and create site designs which will protect natural resources in the designated open space area.

The effectiveness of clustering as a protection technique depends on its use - if it is voluntary, what promotes its use - and on its design - what are the overall densities permitted that allocate sufficient area to open space and still make a development project viable? This can very effectively protect shorelines and water resources, steep slopes and other linear features because of the setbacks which can be achieved, as long as performance standards for open space activities are strictly adhered to. However, because of the intrusion of people into the open space, even if it is designated for passive forms of recreation, this will not effectively protect habitats sensitive to disturbance, such as critical species habitats. This is also a localized form of protection, limited to the extent of the parcel boundaries, and will not effectively protect environmental resources which are affected by regional development.

Density Bonuses and Development Incentives

These provisions are voluntary incentives to developers to incorporate natural resource protection features into project location, as in clustering, and design. A developer who meets these criteria would be allowed densities above those permitted for the site. The design criteria may include: setbacks from sensitive features, preservation of forest tracts, and management of natural vegetation in buffer zones. These criteria may also include those which enhance use by the community at-large, such as community piers and dock facilities or parks.

The stringency and specification of design criteria which must be met to allow higher densities will determine the viability of this alternative. Percentage remaining in open space is easy to calculate and apply to increased densities. The more complex the criteria are, the more difficult this alternative will be to administer and enforce. If the market for the higher

earned densities is not present, there will be no incentive for applying these criteria. Furthermore, the cost of providing specialized design or construction techniques must be met by the increased value of added density. There is also a trade-off between the localized protection of natural resources and the higher impacts associated with higher densities of development.

Performance Approaches

These alternatives are standards against which impacts can be measured.

Stormwater Drainage Standards

Runoff from developed areas during storms can degrade water quality because of the decreased potential for infiltration and purification by natural processes. The longer stormwater can be retained, more of it can infiltrate into ground water systems. When performance standards for stormwater are applied, they can specify that the size of retention structures should be based on the statistical frequency of a certain storm size. Alternatively, these standards may specify an absolute quantity of water which must be retained during a specified period at the beginning of the storm, since it is the first flush which removes the most pollutants and contains the highest water quantities. These standards are being increasingly modified by local jurisdictions to attain water quality improvement objectives as well as reduction of water quantity. Such standards require qualified review of engineering applications for compliance with the standards. Enforcement will require financial resources since noncompliance is difficult to detect and quantify.

Buffers

Natural vegetation can be maintained and managed in buffer zones to achieve the objective of protecting natural resources by controlling nonpoint water pollution, enhancing scenic vistas, or screening habitats from development. These buffers are usually located between the developed area and the sensitive feature, and may entirely screen one from the other, provide limited views, but not physical access, or allow limited physical entrance. Their effectiveness will be determined by their placement, components and especially width. Specified widths may be fixed or variable; fixed widths are easiest to implement and enforce, but variable widths, defined by the presence of critical features, may be more functionally effective. The minimum width necessary to protect certain features such as water resources has been extensively researched, but few generalizations have been successfully tested. Examples of widths which have been implemented in various states range from 25 feet to 1000 feet. Virginia's Chesapeake Bay Preservation Act Criteria ask for a 100 foot buffer adjacent to tidal wetlands and tributary streams as part of Resource Protection Areas.

Buffers are similar to setbacks, which is a concept well accepted in zoning regulations. Buffers differ from setbacks in that their effectiveness depends on how well they are managed in natural vegetation which has the greatest potential for satisfying water quality and habitat protection objectives. Residents may object to buffers because they feel that this natural vegetation is unsightly, or that it screens scenic views. Landowners may object because the size and location of natural buffers may restrict development potential.

Erosion and Sediment Controls

Erosion and sediment control programs require that before development disturbs a site, a plan be prepared which controls the loss of soil from runoff and the sedimentation of nearby surface waters. When these plans are implemented as approved, and the erosion control measures maintained, this performance technique can be very effective. However, ensuring compliance requires close monitoring during the construction period and after when soil stabilizing vegetation, if planted, is being established. One common problem in rural areas is the breaching of sediment fences by off-road vehicles.

The City of Suffolk has adopted an Erosion and Sedimentation Ordinance which requires an erosion and sedimentation control plan for any development disturbance of greater than 10,000 square feet of land area.

Clearing Controls

Preserving forested areas, especially old-growth forests, is essential to preserving wildlife habitat and promoting water quality in watersheds where nonpoint source pollution is a problem. Forests also contribute to rural character. Performance controls can limit the amount of land that is cleared for development, and can require replanting to replace cut over areas or to increase the absolute amount of forest cover. This standard is easy to impose, review and monitor. Bonding may guarantee compliance by developers. Removal of trees which have been planted and allowed to mature for at least 15 years is expensive enough to deter disturbance unless there is immediate financial profit from their harvest.

Impact Assessments and Mitigation

During the site plan review process, applicants may be required to submit statements which quantify impacts from development on features such as water quality or forested land. Truly objective quantified analysis can be a financial burden which will ultimately be transferred to the buyer of developed property. Unfortunately the means for objectively evaluating impacts of development on complex ecological systems have not been sufficiently refined to be useful in all development projects. Appointed or elected officials must then sort through all the data testimony and accept, modify or reject statements of impact.

These impact assessments can be linked to prescriptions for mitigative measures, which then become the performance standards for the project. An example of this is the estimation of the number of acres of emergent nontidal wetland which will be disturbed by road construction, and as a mitigative prescription, the creation of an equal area of emergent wetland which performs the same habitat and water quality protection functions. Such standards require capable technical review of the impact analysis and proposed mitigation measures. Bonding will help to guarantee compliance.

The Virginia Code provides for environmental protection advisory commissions to be established at the local level. These have the power to review any development proposal to determine whether it will cause environmental degradation and to advise the local board or planning commission on environmental problems.

Design Guidelines

While not strictly a performance standard, this alternative provides measures against which a developer's site design may be compared and states the jurisdiction's expectations for the quality or appearance of development. An example of this applied to natural resource protection would be the maintenance of hedgerows in drawing lot lines, which would retain existing wildlife corridors or cover in abandoned agricultural fields, and provide property owners with existing buffers. This guideline approach requires an atmosphere of negotiation between City reviewers and developers, since it suggests that quality development can be obtained by negotiation. The guidelines can also become the basis for revising subdivision regulations to incorporate them as site design standards which may not only satisfy natural resource protection objectives, but also agricultural and rural character preservation and protect aesthetic standards.

Land Acquisition

Conservation Easements and Purchase of Development Rights

An increasingly popular approach to natural resource preservation is the purchase of less than fee simple interests in land or the acceptance of donations of these interests. These programs often involve a state or local plan, often administered by private non-profit agencies such as The Nature Conservancy, to acquire or accept these development rights to certain classes of land, allowing the owner to retain basic ownership but relinquishing the right to develop or intensify its use.

Conservation easements can very effectively protect natural resources for enjoyment by future generations, since the easement is attached to the land. Since it is voluntary, it is however not a systematic protection of resources throughout a jurisdiction. When easements are purchased, the financial expense is high, particularly since

speculative pressures are often intense where protection is most needed.

Fee Simple Acquisition

Land on which sensitive natural resources are located may be purchased by government or by a specialized organization which owns and manages this type of resource. Although this can be very effective in protecting natural resources on specific sites, and can satisfy recreation and open space objectives as well, it is a very high cost alternative. Additionally, this land must be managed to perform functional resource protection objectives if it is too small to maintain high quality habitats by natural processes. Unless fee simple acquisition by government agencies is coupled with conservation easements and a management program, the land may represent a public burden and may be sold at any time to recoup losses.

Conservation Incentives

Transfer of Development Rights

This incentive, which usually operates on the open market, and has not yet been codified in Virginia's planning enabling legislation, can also be applied to natural resource protection. This alternative can either require or permit transfer of allowable densities from one location where development is undesirable to receiving locations where development is desirable. Features such as stream valleys and special habitats would be TDR sending areas. Landowners of these areas would be allowed to sell development rights to someone wishing to develop elsewhere. The receiving area for the transferred development rights would allow higher densities with proof of purchase of the rights and documentation that the seller had placed a conservation easement on the land from which the rights were sold. TDR mainly operates to offset the devaluation of land as a result of downzoning, whether it is used for agricultural protection, natural resource protection or other growth management objectives.

Implementation of a TDR program requires substantial public education since the concept is relatively untested, and applies with varying amounts of success in different communities. Detailed studies of sending and receiving areas and political and financial support for the increased densities and public services they require are also necessary.

Several of these techniques are recommended to achieve water quality protection objectives for the City of Suffolk. They are:

Resource Overlay Zones

Performance Standards, including those for Stormwater Management, Buffers, and Forest Clearing

Impact Assessments and Mitigation

Adoption of an interim standalone zoning ordinance is recommended to implement these changes.

PROPOSED CITY OF SUFFOLK CHESAPEAKE BAY PRESERVATION AREA ORDINANCE

Article I. Title, Purpose, Authority, Applicability and Jurisdiction

Section 1000. Title

This Ordinance shall be known as and may be referred to as the "City of Suffolk Chesapeake Bay Preservation Area Ordinance."

Section 1001. Purpose

The purpose of the Preservation Area Ordinance is to establish the Preservation Area District and to provide special regulatory protection for the land and water resources located within the Chesapeake Bay Preservation Area in the City of Suffolk. Land use development standards and requirements are established herein for the purpose of implementing the goals, objectives, criteria and standards set forth in the City of Suffolk Preservation Area Program.

Section 1002. Authority

This Ordinance is adopted pursuant to VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations, under the authority of Sections 10.1-2103 and 10.1-2107 of Chapter 21, Title 10.1 of the Code of Virginia, known as the Chesapeake Bay Preservation Act, and implements the City of Suffolk Preservation Area Program.

Section 1003. Relationship to Other City Ordinances

The requirements of this Ordinance supplement the City's land development codes, including existing zoning and subdivision ordinances and regulations. It imposes specific regulations for development and other land use within the City of Suffolk Preservation Area. In the event of inconsistency between the provisions of this Ordinance and the provisions established in other applicable ordinances, the more restrictive or stringent provisions shall apply.

Section 1004. Applicability

A. No person shall develop, alter, or use any land for residential, commercial, industrial, or institutional uses, nor conduct agricultural, fishery or forestry activities in the City of Suffolk Preservation Area except in compliance with the City of Suffolk Preservation Area Program and the applicable provisions contained herein.

B. No development or resource utilization activity shall be permitted until the applicable approving authority shall make findings that the proposed development or activity is consistent with the goals and objectives of the City of Suffolk Preservation Area Program.

Section 1005. Jurisdiction - The Chesapeake Bay Preservation Area

A. This Ordinance shall only apply to the City of Suffolk Preservation

Area, hereafter referred to as the Preservation Area District.

B. The Preservation Area District shall include all lands and waters within the James River watershed, as delineated on official maps as stated below in Section 2000.

Article II. Establishment of Official Preservation Area District Maps and Land Management Classifications

Section 2000. Official Preservation Area District Maps

The City of Suffolk Preservation Area shall be delineated on Official Preservation Area District Maps, prepared as part of the City of Suffolk Preservation Area Program. The Preservation Area District Maps shall be maintained in force as Official Maps of the City. The Preservation Area District maps shall delineate the extent of the Preservation Area District in the City of Suffolk which is as defined in the City of Suffolk Preservation Area Program.

Section 2001. Establishment of the Preservation Area Land Use Management District Classifications

A. All land within the City of Suffolk Preservation Area District shall be assigned one of the following land use management classifications as determined in the City of Suffolk Preservation Area Program which shall be shown on the Preservation Area District Maps.

1. Intensely Developed Area (IDA);
2. Resource Management Area (RMA); or
3. Resource Protection Area (RPA).

B. Maps delineating the Preservation Area Boundary and the Land Use Management Classifications of all properties in the City of Suffolk Preservation Area shall be maintained in the Department of Planning and Zoning.

C. **(Optional)** Except as provided in **Section **** the land use management classification shall be based on the actual land-use as of October 1, 1989 and mapped according to rules for making such determination as established in the City of Suffolk Preservation Area Program.

Article III. Definitions

Section 3000. Purpose

It is the purpose of this Article to define words, terms and phrases contained in this Ordinance and other applicable terms. For the purpose of this Ordinance, the following definitions describe the meaning of the terms used in the Ordinance. Definitions applicable to terms used in the Preservation Area District not already contained herein shall be the same as those contained in the Chesapeake Bay Preservation Area Designation and Management Regulations, Section 1.4.

Section 3001. Word Usage

In the interpretation of this Ordinance, the provisions and rules of this section shall be observed and applied, except when the context clearly requires otherwise:

A. Words used or defined in one tense or form shall include other tenses and derivative forms.

B. Words in the singular number shall include the plural number, and words in the plural number shall include the singular number.

C. The masculine gender shall include the feminine, and the feminine gender shall include the masculine.

D. The word "shall" is mandatory.

E. The word "may" is permissive.

F. The word "person" includes individuals, firms, corporations, associations, trusts, and any other similar entities.

G. The word "City" shall mean City of Suffolk, Virginia.

H. The word "Board" shall mean the Board of Zoning Appeals of City of Suffolk.

I. The word "Department" shall mean the City of Suffolk Department of Community Development.

J. The words "Planning Commission" shall mean the City of Suffolk Planning Commission.

K. The words "Recorder" and "Recorder of Deeds" shall mean the City Clerk of Court.

L. In case of any difference of meaning or implication between the text of this Ordinance and any caption, illustration, or table, the text shall control.

M. All provisions of this Ordinance shall be construed to be in addition to all other applicable laws, ordinances and rules of the federal government, the Commonwealth of Virginia or City of Suffolk; and in case of any conflict between this Ordinance and any such other law, ordinance or rule, the more restrictive shall prevail. Reference in this Ordinance to any law, statute, ordinance, rule or regulation in force on the date of enactment of this Ordinance or as amended and in force at the time to which such reference relates.

N. The words "include" and "including" mean include or including by way of illustration and not by way of limitation.

Section 3002. Definitions

When used in this Ordinance, the following terms shall have the meaning herein ascribed to them:

A. Best management practice. A practice, or combination of practices, that is determined by a state or designated area wide planning agency to be the most effective, practicable means of preventing or

reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

B. Buffer Area. An area of natural or established vegetation managed to protect other components of a Resource Protection Area and state waters from significant degradation due to land disturbances.

C. Buffer Management Plan. A prescribed course of action to be followed by the developer of any site within the Resource Protection Area when disturbance to the 100 foot buffer area is proposed. Such a plan must be written in accordance with the standards outlined in the buffer requirements subsection of this ordinance. It should include a description of what is being proposed as well as an explanation of why such action is necessary.

D. Chesapeake Bay Preservation Area. Any land designated by the City pursuant to Part III of the Chesapeake Bay Preservation Area Designation and Management Regulations 10.1-2107 of the Chesapeake Bay Preservation Act. A Chesapeake Bay Preservation Area shall consist of a Resource Protection Area and a Resource Management Area.

E. Development or Development Activities (includes the term "develop"). Any construction, modification, extension or expansion of buildings or structures; placement of fill or dumping; storage of materials; land excavation; land clearing; land improvement; or any combination thereof, including the subdivision of land or action that results in construction, modification, extension or expansion of buildings or structures; placement of fill or dumping; storage of materials; land excavation; land clearing; land improvement; or any combination thereof, including the subdivision of land.

F. Development Review. A process for site plan review as described in Section 6004 of this Ordinance designed to ensure compliance with subsection 10.1-2109 of the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations prior to the approval of any plan for development or redevelopment.

G. Floodplain. All lands that would be inundated by flood water as a result of a storm event of a 100-year return interval.

H. Grandfathered. The term describes the status accorded certain properties and development activities that are of record prior to the date of adoption of this Ordinance or provisions of this Ordinance.

I. Highly erodible soils. Soils (excluding vegetation) with an erodibility index (EI) from sheet and rill erosion equal to or greater than eight. The erodibility index for any soil is

defined as the product of the formula RKLS/T, as defined by the "Food Security Act (F.S.A.) Manual" of August, 1988 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Soil Conservation Service, where K is the soil susceptibility to water erosion in the surface layer; R is the rainfall and runoff; LS is the combined effects of slope length and steepness; and T is the soil loss tolerance.

J. Highly permeable soils. Soils with a given potential to transmit water through the soil profile. Highly permeable soils are identified as any soil having permeability equal to or greater than six inches of water movement per hour in any part of the soil profile to a depth of 72 inches (permeability groups "rapid" and "very rapid") as found in the "National Soils Handbook" of July, 1983 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Soil Conservation Service.

K. Intensely Developed Areas (IDA). Those areas designated by the City of Suffolk as an overlay of Chesapeake Bay Preservation Areas within the City's jurisdiction. IDA's shall serve as redevelopment areas in which development is concentrated as of the local program adoption date.

L. Impervious cover. A surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to; roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surface.

M. Nontidal wetlands. Those wetlands other than tidal wetlands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U. S. Environmental Protection Agency pursuant to section 404 of the federal Clean Water Act, in 33 C.F.R. 328.3b, dated November 13, 1986.

N. Redevelopment. The process of developing land that is or has been previously developed.

O. Resource Management Area (RMA). That component of the Chesapeake Bay Preservation Area that is not classified as the Resource Protection Area.

P. Resource Protection Area (RPA). That component of the Chesapeake Bay Preservation Area comprising lands at or near the shoreline that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters. In their natural condition, these lands provide for the removal, reduction, or

asimilation of sediments, nutrients, and potentially harmful or toxic substances in runoff entering the Bay and its tributaries, and minimize the adverse effects of human activites on state waters and aquatic resources. The Resource Protection Area includes tidal wetlands, nontidal wetlands connected by surface flows and contiguous to tidal wetlands or tributary streams, tidal shores, such other lands under the provisions of subsection 3.2 A of the Chesapeake Bay Preservation Area Designation and Management Regulations (VR 173-02-01) necessary to protect the quality of state waters, and a buffer area not less than 100 feet in width located adjacent to and landward of any of these components and along both sides of any tributary stream.

Q. Substantial alteration. Expansion or modification of a building or development which would result in a disturbance of land exceeding an area of 2500 square feet in the Resource Management Area only.

R. Tidal shore or shore. Land contiguous to a tidal body of water between the mean low water level and the mean high water level.

S. Tidal wetlands. Vegetated and nonvegetated wetlands as defined in 62.1-13.1 of the Code of Virginia.

T. Tributary stream Any perennial stream that is so depicted on the most recent U.S. Geological Survey 7-1/2 minute topographic quadrangle map (scale 1:24,000).

U. Use. An activity on the land other than development, including, but not limited to agriculture, horticulture, and silviculture.

V. Water-dependent facility. A development of land that cannot exist outside of the Resource Protection Area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include, but are not limited to (i) ports; (ii) the intake and outfall structures of power plants, water treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas, and (v) fisheries or other marine resources facilities.

Article IV. Lots of Record in the Preservation Area District - Grandfather Provisions

Section 4000. Qualifying Lots or Parcels

A. An individual lot or parcel of land located within the City of Suffolk Preservation Area District may be improved with a single family dwelling, if a dwelling unit does not already exist on the site, in the Resource Protection Area (RPA) and otherwise developed in accordance with the uses and standards applicable in the Resource Management (RMA) or the Intensely Developed Area (IDA) provided

they meet one of the following criteria:

1. Any legally buildable residential single lot or parcel of record established and recorded in City Land Records prior to September 20, 1989 may be improved or developed with a single family residence if a dwelling unit does not already exist on the lot or parcel. Any other new development on lots recorded prior to September 20, 1989 will be for water dependent facilities in the RPA.

2. Any lot on which development activity has legally progressed to the point of pouring foundation footing or installation of structural members, prior to the effective date of this ordinance will be permitted to complete construction as per existing development approvals (e.g., building permit).

3. Development may take place on lots created prior to adoption of this ordinance subject to the limitations on permitted uses contained in this ordinance. Development on land legally subdivided prior to adoption of this ordinance must comply with the provisions of Section 6000.

4. The effective date for lots of record to establish sewage reserve capacity as specified in Section 5001 C.4 and for certain conditional modifications to the Buffer, as specified in Section 5003 C.2, is October 1, 1989.

B. The provisions of this ordinance do not apply to building permits approved by the Department of Planning that have not expired.

Article V. Development Standards in the Preservation Area District

The following standards shall apply to all development activities in the Preservation Area District.

Section 5000. General Provisions

A. In those zones and under all conditions as may be specified elsewhere in this Ordinance, timber harvesting activities or other cutting or clearing of forested land are permitted in the Preservation Area provided such activities are conducted in accordance with all applicable provisions and standards set forth in the City of Suffolk Preservation Area Program.

B. In those zones and under all conditions as may be specified elsewhere in this Ordinance, agriculture activities are permitted in the Preservation Area provided all agriculture activities and land management practices are conducted in accordance with all applicable provisions and standards set forth in the City of Suffolk Preservation Area Program.

C. All development, alteration, or use of any land for residential, commercial, industrial, or institutional purposes, or agricultural, fishery or

forestry activities in the Preservation Area shall only be done in compliance with the City of Suffolk Chesapeake Bay Preservation Area Program.

Section 5001. Development Standards in Intensely Developed Areas

A. Permitted uses

Uses permitted within areas designated Intensely Developed shall be those permitted within the applicable underlying base zoning district. All uses shall be subject to the following development standards and/or conditions in addition to those established in other sections of this ordinance.

B. Density

The density of development and minimum lot sizes permitted within Intensely Developed Areas shall be governed by provisions within the underlying base zoning district.

C. Site Development Performance Standards

Development and redevelopment in those areas designated Intensely Developed shall be subject to the following standards.

1. All development exceeding a disturbed land area of 2,500 square feet shall be accomplished through a development review as stated in Section 6004.

2. All land disturbance activities exceeding an area of 2,500 square feet, including construction of single family houses, installation of septic drainfields but otherwise as defined in Section 10.1-560 of the Code of Virginia, shall comply with the City of Suffolk Erosion and Sediment Control Ordinance.

3. On-site sewage treatment systems in development and redevelopment which do not require a Virginia Pollutant Discharge Elimination System (VPDES) permit shall:

   a. Ensure through such instruments as decided by the Planning Commission that pump out shall be performed at least once every five years.

   b. For development proposals, a reserve sewage disposal area with a capacity not less than that of the primary sewage disposal area shall be provided.

   Any lot or parcel recorded prior to October 1, 1989 is not subject to this requirement.

4. No structure or uses associated with development within Intensely Developed Areas shall be permitted within 100 feet of the shorefront or tributary stream, or within 50 feet where appropriate best management

practices are used landward of the Buffer, and no removal of natural vegetation shall be permitted in the Buffer, except for permitted water-dependent facilities or except as provided for in Section 5003 C.2.

5. Development and redevelopment shall be required to identify stormwater management practices appropriate to site development which achieve the following standards.

   a. Redevelopment proposals shall demonstrate that the best management practices for stormwater assure a 10 percent reduction of pre-development pollutant loadings.

      1. Where appropriate best management practices are already in place at pre-development, it shall be demonstrated that post-development runoff does not exceed the existing load of non-point source pollution in surface water runoff.

      2. Where a redevelopment site is currently developed in impervious surfaces, a minimum of 20% of the site restored to vegetated open space shall be considered to comply with the above standard. A planting plan, indicating placement of planted areas and species shall be submitted for approval as part of the development review, Section 6004.

   b. New development shall demonstrate that practices for stormwater management will produce pollutant loadings equal to or less than pre-development pollutant loadings.

   c. Redevelopment or development projects which cannot demonstrate they meet the requirements of a. or b. above may be approved only if it can be demonstrated that mitigation measures or offsets will be provided to achieve equivalent water quality benefits elsewhere in the same watershed. A mitigation plan shall be submitted as part of development review as specified in Section 6004.

   d. Methods of determining mitigation measures necessary to achieve compliance outlined in a. and b. above or in determining alternative offsets required in c. above shall be consistent with methodologies such as that

outlined by the Chesapeake Bay Local Assistance Department when applicable.

e. Where best management practices are used, their maintenance in operating condition shall be ensured through the use of appropriate instruments such as recorded restrictive covenants and maintenance agreements as approved by the City.

6. All development and redevelopment projects shall delineate those site areas not covered by impervious surfaces to be maintained or established in vegetation. Where vegetation is not proposed the developer shall demonstrate why plantings for such portions of the site are impracticable. Types of planting and vegetation proposed shall be in accordance with guidelines established by the City.

7. Where needed on the site for development vegetative shore erosion control measures (where feasible and where appropriate) shall be installed. Where control of shore erosion cannot be accomplished by vegetative measures the use of structural measures may be approved by the City. Completion of shore erosion control work must be guaranteed by a Public Works Agreement as a condition of recordation of development. A shore erosion protection plan, containing complete specification for proposed shore erosion work, including information on design storm, calculated wave runup, required stone weight, and/or data as required by the Department of Community Development, shall accompany all development proposals where applicable.

8. A minimum twenty five (25) foot buffer shall be established around non-tidal wetlands outside Resource Protection Areas. The Planning Commission may require that this buffer be expanded to include contiguous sensitive areas on the parcel if it is determined that development or disturbance may impact the wetlands. The expanded buffer must be shown on plans required for such development.

9. Proposed development shall be done so as to protect the hydrologic regime and water quality of identified non-tidal wetlands, either on or off the site, by providing that development activities and other land disturbances in the drainage area of the wetlands will minimize alterations to the surface or subsurface flow of water into and from the wetland and not cause impairment of water quality or the plant and wildlife and habitat value of the wetland.

Section 5002. Development Standards in Resource Management Areas

A. Permitted Uses

Uses permitted within areas designated Resource Management shall be those permitted within the applicable underlying base zoning district except as provided below. All uses shall be subject to the development standards and/or conditions of this section, unless otherwise noted.

B. Density

Uses permitted shall be those permitted in the underlying base zoning District. The density of development and minimum lot sizes permitted within Resource Management Areas shall be governed by prescriptive densities and lot size within the applicable underlying base zoning districts.

C. Site Development Performance Standards

Development and redevelopment in those areas designated Resource Management shall be subject to the following standards.

1. All sites for which development activities are proposed shall be subject to the requirements in Intensely Developed Areas.

2. Forest and developed woodlands shall be created or protected in accordance with the following standards:

a. When forests or developed woodlands exist on the site and proposed development requires the cutting or clearing of trees, areas proposed for clearing shall be identified on the proposed development plan. These plans shall be submitted as part of the development review process as outlined in section 6004. A grading permit shall be required prior to any clearing or cutting associated with proposed development.

b. Total site disturbance shall not exceed the percentage as follows:

Size of Property	Maximum Allowable Site Disturbance
<.25 acres	75%
.25 ac - .50 ac	50%
.51 ac - 1 ac	40%
1.1 ac - 2 ac	30%
2.1 ac - 5 ac	20%
> 5 acres	15%

unless the developer demonstrates that the underlying base zoning densities permitted cannot be achieved with these limitations.

c. Surety in the form of a performance bond or other means acceptable to the Department of Community Development shall be

provided in an amount suitable to assure forest replacement as required.

d. Forests and developed woodlands required to be retained or created through afforestation shall be maintained through restrictive covenants, easements, or similar instruments in a form approved by the Planning Commission.

3. Development on slopes greater than 15 percent shall be prohibited unless such development is demonstrated to be the only effective way to maintain or improve slope stability.

4. Impervious surfaces shall be limited to 20 percent of the gross site area. If the developer demonstrates that the underlying base zoning density permitted cannot be achieved with the 20 percent impervious surface limitataion, he shall meet the requirements of section 5001 C.6.

Section 5003. Development Standards in Resource Protection Areas

A. Permitted Uses

All uses are prohibited in the RPA with the exception of the following:

1. Water dependent facilities.

2. Redevelopment of a site.

B. Density

The density of redevelopment and minimum lot sizes permitted within Resource Protection Areas shall be governed by prescriptive densities and lot size within the applicable underlying base zoning districts. Only site redevelopment or development of new water dependent facilities will be allowed.

C. Site Development Performance Standards

In addition to the general performance criteria outlined in Section 5000, development and redevelopment in those areas designated Resource Protection shall be subject to the following standards:

1. Allowable Development

Land development in the Resource Protection Area may be allowed only if it (i) is water dependent or, (ii) constitutes redevelopment. A Water Quality Impact Assessment will be required in accordance with the provisions of the Chesapeake Bay Preservation Act and regulations. This assessment should, as a minimum, include the following information: a description of the proposed development, an inventory of any potential pollutants to be stored, used, or produced on the site, and the measures proposed to protect against an accidental spill, leak,

or discharge of any such material.

a. A new or expanded water-dependent facility may be allowed provided that:

   i. It does not conflict with the comprehensive plan;

   ii. It complies with the performance criteria set forth in this part;

   iii. Any non-water-dependent component is located outside of Resource Protection Areas;

   iv. Access will be provided with the minimum disturbance necessary. Where possible, a single point of access will be provided.

b. Redevelopment shall conform to applicable stormwater management and sediment control criteria in Section 5001C.

2. Buffer Area Requirements

To minimize effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100 foot buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained if present and established where it does not exist. The 100 foot buffer area shall be deemed to achieve a 75% reduction of sediments and a 40% reduction of nutrients. Except as noted in this subsection, a combination of buffer area not less than 50 feet in width and appropriate best management practices located landward of the buffer area which collectively achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100 foot buffer area may be employed in lieu of the 100 foot buffer. This equivalency shall be determined by the Peanut Soil and Water Conservation District. The following additional performance criteria shall apply in the buffer area:

a. In order to maintain the functional value of the buffer area, indigenous vegetation may be removed only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices, as follows:

   i. Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they shall be replaced with

other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff.

ii. Any path shall be constructed and surfaced so as to effectively control erosion.

iii. Dead, diseased, or dying trees or shrubbery may be removed at the discretion of the landowner, and silvicultural thinning may be conducted based upon the recommendation of a professional forester or arborist.

iv. For shoreline erosion control projects, trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.

v. Any such action must be performed in accordance with an approved buffer management plan.

b. When the application of the buffer area would result in the loss of buildable area on a lot or parcel recorded prior to the adoption of this ordinance, modifications to the width of the buffer area may be allowed in accordance with the following criteria:

i. Modifications to the buffer area shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;

ii. Where possible, an area equal to the area encroaching the buffer area shall be established in indigenous trees or woody vegetation elsewhere on the lot or parcel in a way to maximize water quality protection;

iii. In no case shall the reduced portion of the buffer area be less than 50 feet in width.

c. Redevelopment within Intensely Developed Areas may be exempt from the requirements of this subsection. Requests for such an exemption shall be made as part of the development review as described in Section 6004. If

the immediate establishment of the buffer area within IDA's is impractical, measures that establish the buffer in these areas over time in order to maximize water quality protection, pollutant removal, and water resource conservation will be required. Such measures shall be included in a buffer management plan.

d. On agricultural lands the agricultural buffer area shall be managed to prevent concentrated flows of surface water from breaching the buffer area and noxious weeds (such as Johnson grass, kudzu, and multiflora rose) from invading the buffer area. The agricultural buffer area may be reduced as follows:

   i. To a minimum width of 50 feet when the adjacent land is enrolled in a federal, state, or locally-funded agricultural best management practices program, and the program is being implemented, provided that the combination of the reduced buffer area and best management practices achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100 foot buffer area in the opinion of the Peanut Soil and Water Conservation Board.

   ii. To a minimum width of 25 feet when a soil and water quality conservation plan, as approved by the Peanut Soil and Water Conservation District, has been implemented on the adjacent land, provided that the portion of the plan being implemented for the Chesapeake Bay Preservation Area achieves water quality protection at least the equivalent of that provided by the 100 foot buffer area in the opinion of the Peanut Soil and Water Conservation District Board. Such plan shall be based upon the field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service and accomplish water quality protection consistent with the Chesapeake Bay Preservation Act and Chesapeake Bay Preservation Area Designation and Management Regulations.

iii. The buffer area is not required for agricultural drainage ditches if the adjacent agricultural land has in place best management practices in accordance with a conservation plan approved by the Peanut Soil and Water Conservation District.

Article VI. Administrative Procedures

Section 6000. Nonconforming Use and Development Waivers

1. The City may permit the continued use, but not necessarily the expansion, of any structure in existence on the date of the adoption of this ordinance. The criteria of this part may be waived or modified for structures on legal nonconforming lots or parcels provided that:

   a. There will be no net increase in nonpoint source pollutant load;

   b. Any development or land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

2. It is not the intent of these criteria to prevent the reconstruction of preexisting structures within Chesapeake Bay Preservation Areas from occurring as a result of casualty loss unless otherwise restricted by City ordinances.

Section 6001. Public Utilities, Railroads, and Facilities Exemptions

1. Construction, installation, operation, and maintenance of electric, gas, and telephone transmission lines, railroads, and public roads and their appurtenant structures in accordance with the Erosion and Sediment Control law (Section 10.1-560 et. seq. of the Code of Virginia) or an erosion and sediment control plan approved by the Virginia Soil and Water Conservation Board will be deemed to constitute compliance with these regulations.

2. Construction, installation, operation, and maintenance of water, sewer and local gas lines will be exempt from the criteria in this part provided that:

   a. To the degree possible, the location of such utilities and facilities should be outside Resource Protection Areas.

   b. No more land will be disturbed than is necessary to provide for the desired utility installation.

   c. All such construction, installation, and maintenance of such utilities and facilities will be in compliance with all applicable state and federal permits and designed and conducted in a manner that protects water quality.

d. Any land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

Section 6002. Exemptions in Resource Protection Areas

The following land disturbance activities in Resource Protection Areas may be exempt from the criteria of this part provided that they comply with items 1 and 2 below: (i) water wells; (ii) passive recreation facilities such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities.

1. Any such land disturbance must be approved by the City of Suffolk Department of Community Development. A plan indicating the area to be disturbed shall be submitted for approval as part of the development review, Section 6004;

2. Any land disturbance exceeding an area of 2,500 square feet will comply with the erosion and sediment control requirements of this part.

Section 6003. Exceptions to the Criteria

Exceptions to the requirements of these criteria may be granted, provided that: (i) exceptions to the criteria will be the minimum necessary to afford relief, and (ii) reasonable and appropriate conditions upon any exception granted will be imposed as necessary so that the purpose and intent of this ordinance is preserved. Any request for exception must be indicated as part of the submission for development review, Section 6004.

Section 6004. Development Review

All development not otherwise exempted by the provisions of this ordinance must be approved through a process of development review. The procedures for development review are as follows:

1. The developer must submit a site development or redevelopment plan. Such plans shall be prepared in accordance with the requirements of Section 31-902.3 of the Zoning Ordinance for the City of Suffolk.

2. The location of all wetlands as field delineated, and floodplains, highly erodible soils and highly permeable soils shall be indicated on the site plan.

3. Supportive materials should be included to indicate which, if any, exceptions are being requested and why such exceptions are justified.

4. Any planting, buffer management mitigation or similar plans or information as required elsewhere in this ordinance shall be included as part of the site plan submission.

5. The location and type of all required vegetated buffer areas shall be indicated on the site plan.

6. Copies of all necessary federal, state, or local permits required to allow

the development shall be submitted with the site plan.

7. The Director of the Department of Community Development shall coordinate the review of all affected City agencies. This review shall be completed within fifteen (15) working days from the time of acceptance by the Department.

8. The Department shall act upon the site development plan and related materials as submitted by the applicant, or as modified during the site plan review process, within thirty (30) working days unless extensive modification to the plan or extenuating circumstances require additional time. If approved, the Director of the Department of Community Development shall certify its approval and state the conditions of such approval, if any, or if disapproved, shall indicate its disapproval and the reasons therefor.

9. The action of the Department shall be noted on all copies of the site plan to be retained in the record, referenced and attached to any changes or conditions determined necessary. One such copy shall be returned to the applicant, and others retained as required for records or further action of the department or other affected agencies of the city.

10. Building permits, when applicable, shall be issued in accordance with approved site plans. A copy of the approved site plan shall be retained in the records of the building inspector's office and all building and occupancy permits shall conform to the provisions of said site plan.

11. Approval of the site plan shall be void unless a building permit has been issued or use of the land has commenced within one hundred eighty (180) days from the date of approval. Upon request, revalidation of the site plan may be granted for an additional ninety (90) days if all factors of the original site plan review are the same; provided written notice requesting revalidation is received by the director prior to expiration of the original one hundred eighty-day period.

CHAPTER IV

DEFINITIONS

The following words and terms used in this plan have the following meanings, unless the context clearly indicates otherwise. These definitions are those given by the Cheapeake Bay Preservation Area Designation and Management Regulations.

"**Act**" means the Chesapeake Bay Preservation Act found in Chapter 21 (10.1-2100 et seq.) of Title 10.1 of the Code of Virginia.

"**Best management practice**" means a practice, or combination of practices, that is determined by a state or designated area wide planning agency to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

"**Board**" means the Chesapeake Bay Local Assistance Board.

"**Buffer area**" means an area of natural or established vegetation managed to protect other components of a Resource Protection Area and state waters from significant degradation due to land disturbances.

"**Chesapeake Bay Preservation Area**" means any land designated by a local government pursuant to Subsection 10.1-2107 of the Act. A Chesapeake Bay Preservation Area shall consist of a Resource Protection Area and a Resource Management Area.

"**Department**" means the Chesapeake Bay Local Assistance Department.

"**Development**" means the construction, or substantial alteration of residential, commercial, industrial, institutional, recreational, transportation, or utility facilities or structures.

"**Director**" means the "Executive Director of the Chesapeake Bay Local Assistance Department.

"**Floodplain**" means all lands that would be inundated by flood water as a result of a storm event of a 100-year return interval.

"**Highly erodible soils**" means soils (excluding vegetation) with an erodibility index (EI) from sheet and rill erosion equal to or greater than eight. The erodibility index for any soil is defined as the product of the formula RKLS/T, as defined by the "Food Security Act (F.S.A.) Manual" of August, 1988 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Soil Conservation Service, where K is the soil susceptibility to water erosion in the surface layer; R is the rainfall and runoff; LS is the combined effect of slope length and steepness; and T is the soil loss tolerance.

"**Highly permeable soils**" means soils with a given potential to transmit water through the soil profile. Highly permeable soils are identified as any soil having permeability equal to or greater than six inches of water movement per hour in any part of the soil profile to a

depth of 72 inches (permeability groups "rapid" and "very rapid") as found in the "National Soils Handbook" of July, 1983 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Soil Conservation Service.

"**Infill**" means utilization of vacant land in previously developed areas.

"**Intensely Developed Areas**" means those areas designated by the local government pursuant to Subsection 3.4 of the Regulations.

"**Impervious cover**" means a surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to; roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surface.

"**Local governments**" means counties, cities, and towns. The Regulations apply to local governments in Tidewater Virginia, as defined in 10.1-2101 of the Act, but the provisions of the Regulations may be used by other local governments.

"**Local program**" means the measures by which a local government complies with the Act and Regulations.

"**Local program adoption date**" means the date a local government meets the requirements of subsections A and B of 2.2 of Part II of the Regulations.

"**Nontidal wetlands**" means those wetlands other than tidal wetlands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U. S. Environmental Protection Agency pursuant to 404 of the federal Clean Water Act, in 33 C.F.R. 328.3b, dated November 13, 1986.

"**Plan of development**" means any process for site plan review in local zoning and land development regulations designed to ensure compliance with Subsection 10.1-2109 of the Act and the Regulations, prior to issuance of a building permit.

"**Redevelopment**" means the process of developing land that is or has been previously developed.

"**Regulations**" means the Final Chesapeake Bay Preservation Area Designation and Management Regulations adopted in September, 1989.

"**Resource Management Area**" means that component of the Chesapeake Bay Preservation Area that is not classified as the Resource Protection Area.

"**Resource Protection Area**" means that component of the Chesapeake Bay Preservation Area comprising of lands at or near the shoreline that have an intrinsic water quality value due to the ecological and biological process they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters.

"**Substantial alteration**" means expansion or modification of a building or development which would result in a disturbance of land exceeding an area of 2500 square feet in the Resource Management Area only.

"**Tidal shore**" or "**shore**" means land contiguous to a tidal body of water between the mean low water level and the mean high water level.

"**Tidal wetlands**" means vegetated and nonvegetated wetlands as defined in Subsection 62.1-13.1 of the Code of Virginia.

"**Tidewater Virginia**" means those jurisdictions named in Subsection 10-1-2101 of the Act.

"**Tributary stream**" means any perennial stream that is so depicted on the most recent U.S. Geological Survey 7-1/2 minute topographic quadrangle map (scale 1:24,000).

"**Use**" means an activity on the land other than development, including, but not limited to agriculture, horticulture, and silviculture.

"**Water-dependent facility**" means a development of land that cannot exist outside of the Resource Protection Area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include, but are not limited to (i) ports; (ii) the intake and outfall structures of power plants, water treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas, and (v) fisheries or other marine resources facilities.