

Chesapeake Bay Preservation Area Ordinance Specifications Manual

Adopted December 9, 2003

TABLE OF CONTENTS

- I. Purpose and Effect
- II. Definitions
- III. City Manager's Designees
- IV. Chesapeake Bay Preservation Area (CBPA) Review Committee
- V. CBPA Review Committee Application Requirements
- VI. Delineation of the Resource Protection Area (RPA)
- VII. CBPA Canopy Requirements
- VIII. Low Impact Design Standards for the Intensely Developed Area (IDA)

I. Purpose and Effect

These regulations are adopted and incorporated into Article X of Chapter 26 of the Chesapeake City Code, ("CBPA District ordinance"). They are intended to supplement the CBPA District ordinance with administrative procedures, specifications, guidelines, techniques and remedial actions. Unless otherwise indicated herein, these regulations shall be deemed binding. In case of conflict with any other ordinance or regulation, the more stringent provision will control. These regulations may only be amended by City Council except that the City Manager's Designee may make minor amendments relating to: i) administrative procedure; ii) nonbinding guidelines; iii) methods of measurement and calculation; iv) contents of plans and applications; v) delegation of approval authority; and vi) other changes that do not substantially affect the extent or conditions of development under the CBPA District ordinance and that are not inconsistent with purpose and intent of such ordinance.

II. Definitions

The following words and terms used in this Manual have the following meanings, unless the context clearly indicates otherwise. Words and terms not defined in this ordinance but defined elsewhere in the Chesapeake City Code or the Chesapeake Zoning Ordinance shall be given the meanings set forth therein.

Agricultural lands means those lands used for the planting and harvesting of crops or plant growth of any kind in the open; pasture; horticulture; dairying; floriculture; or raising of poultry and/or livestock. The term shall not include property on which qualified silvicultural activities are conducted.

Applicant means any person submitting any application required or permitted pursuant to the provisions of this Manual and the CBPA District ordinance.

Best Management Practices or BMPs means a practice or a combination of practices that is determined by the Department of Public Works to meet or exceed the water quality objectives set out in the CBPA District ordinance and designed in accordance with the Chesapeake Public Facilities Manual.

Board or CBLAB means the Chesapeake Bay Local Assistance Board or succeeding state board or commission.

Buffer or buffer area means an area of natural or established vegetation managed and preserved to protect other components of the Resource Protection Area and state waters from significant degradation due to land disturbance or development.

Chesapeake Bay Preservation Area, CBPA District or District means those areas delineated on the CBPA Map and the IDA Map as one of the following: (a) Resource Protection Area (RPA), (b) Resource Management Area (RMA) and (c) Intensely Developed Area (IDA). The CBPA District shall also include areas designated RPA or RMA as a result of an approved field delineation as provided in City Code Sections 26-516 and 26-517.

Chesapeake Bay Preservation Area Board or CBPA Board means the board established or designated by City Council to 1) consider appeals from administrative determinations; 2) consider requests for exceptions to the provisions of the CBPA District ordinance; 3) impose agreed upon civil penalties for violation of the CBPA District ordinance; and 4) order correction of violations of the CBPA District ordinance through restoration of the CBPA.

Chesapeake Bay Preservation Area Map or CBPA Map means the map adopted by City Council and incorporated into the CBPA District ordinance to delineate the boundaries of the CBPA District. The boundaries of the CBPA District shown on the CBPA Map shall be subject to refinement by approved field surveys as provided in the CBPA District ordinance.

Chesapeake Bay Preservation Area Review Committee or CBPA Review Committee means the administrative committee consisting of City staff appointed by the City Manager's Designee for the primary purpose of 1) reviewing and acting upon certain administrative approvals, exemptions and waivers permitted under the CBPA District ordinance; and 2) making recommendations to the CBPA Board on requests for exceptions to the provisions of the CBPA District ordinance. Other duties are specified in the ordinance.

Chesapeake Bay Preservation Area Specifications Manual, CBPA Specifications Manual, or Manual means this document setting out administrative procedures, specifications, guidelines, techniques and remedial actions. The term shall also include substantial amendments to this document approved by City Council and minor amendments approved by the City Manager's Designee. Minor amendments are those that do not substantially affect the extent or conditions of development permitted under the CBPA District ordinance and that are not inconsistent with the purpose and intent of such ordinance.

City Manager's Designee means any officer, department head or other employee designated by the City Manager to interpret, administer or enforce the CBPA District Ordinance. There may be one or more designees. This term shall also include designees of the City Manager's Designee, which may include the CBPA Review Committee or one or more members of City staff. The City Manager's Designee shall also 1) approve field delineations; 2) resolve CBPA District boundary disputes; 3) determine perennial flow; 4) act on requests for development in the RMA, including RMAs located wholly or partially in the IDA; 5) act on requests for construction access points under Section 26-520.B.7. of the City Code; 6) act on requests to remove vegetation from the RPA buffer under Section 26-520.B.7.c. of the City Code; 7) act on requests for exemptions, waivers and other administrative approvals not expressly delegated to the CBPA Review Committee or the CBPA Board; and 8) make minor amendments to this CBPA Specifications Manual. Other duties are specified in the CBPA District ordinance.

Construction footprint means the area of all impervious surface, including but not limited to, areas to be improved with buildings, roads, drives, parking areas, sidewalks, pools, decks, porches, sheds, and other structures and improvements, other than fences, subject to the CBPA regulations promulgated by CBLAB.

Development means the construction or substantial alteration of residential, commercial, industrial, institutional, recreational, transportation or utility facilities, buildings or structures, other than fences.

Diameter at Breast Height, or DBH, means the diameter of a tree measured outside the bark at a point four and one-half (4.5) feet above the ground.

Dripline means a vertical projection to the ground surface from the furthest lateral extent of a tree's leaf canopy. Where a tree's leaf canopy has been altered by trimming, pruning or breakage, the dripline shall be determined by the City Arborist.

Highly erodible soils mean soils (excluding vegetation) with an erodibility index (E) 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 $RKLS/t$, 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.

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 a permeability equal to or greater than six inches or 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 Soil Survey Handbook" of November 1966 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resources Conservation Service.

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, structures, (other than fences) streets, roads, drives parking areas, sidewalks and any concrete, asphalt or compacted gravel surface, as well as the area of any swimming pool, as measured by water surfaces, decks and concrete surfaces.

Infill means utilization of vacant land in or primarily surrounded by developed areas.

Intensely Developed Area or IDA means designated redevelopment areas of the City adopted pursuant to the Chesapeake Bay Preservation Act and regulations promulgated by CBLAB thereunder, as designated on the IDA Map.

Land disturbance in the CBPA District means any activity upon land which causes, contributes to, or results in the removal or covering of the vegetation upon such land, or the disturbance of unvegetated soils, including but not limited to, clearing, dredging, filling, grading or excavating. The term shall not include minor activities such as home gardening, individual landscaping and home maintenance, as determined by the City Manager's Designee; nor shall it include

bona fide silvicultural activities, which are exempt from the provisions of Chapter 26 of the City Code. Bona fide agricultural operations on agricultural lands located within the CBPA District shall be subject to separate standards, set out in Chapter 26 of the City Code, from those applicable to other land-disturbing activities.

Lot Coverage means the impervious area of any lot or parcel including, but not limited to buildings, drives, parking areas, sidewalks, patios, decks, and similar structures, other than fences.

Mitigation means acts necessary to prevent, limit or remedy conditions that may degrade water quality. The term shall not be given the same meaning as in federal and state wetlands laws and regulations, unless expressly stated herein.

Non-point source pollution means pollution consisting of constituents such as sediment, nutrients, and organic and toxic substances from diffuse sources, including, but not limited to, runoff from developments or operations on agricultural lands.

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 section 404 of the Federal Clean Water Act, as amended, and as further described in 33 CFR 328.3b, as amended, as determined by the City Manager's Designee.

Noxious weeds mean weeds that are difficult to control effectively, such as Johnson grass, kudzu and multiflora rose, as determined by the City Manager's Designee.

Ordinance means Article X of Chapter 26 of the Chesapeake City Code; this Manual; the CBPA Map and/or the IDA Map.

Perennial flow means water flows continuing throughout the year without interruption, as determined by the City Manager's Designee, in accordance with this Manual.

Perennial water body means a body of water that flows in a natural or man-made channel year-round during a year of normal precipitation. This includes, but is not limited to streams, estuaries, and tidal embayments and may include drainage ditches or channels constructed in wetlands or from former natural drainageways, which convey perennial flow. Lakes and ponds, through which a

perennial stream flows, are a part of the perennial stream. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow. This definition shall not include qualifying roadside drainage ditches in public rights-of-way or easements; active agricultural ditches meeting best management practices approved by the Virginia Dare Soil and Water Conservation District; and certain flood control and BMP facilities, all in accordance with the standards set out in CBLAB Regulations and guidance documents

Person means an individual, fiduciary, agent, corporation, firm, partnership, limited liability company, association, organization or any other entity or combination thereof.

Public road means a publicly owned road designed and constructed in accordance with water quality protection criteria at least as stringent as requirements applicable to the Virginia Department of Transportation. This definition includes those roads where the Virginia Department of Transportation exercises direct supervision over the design or construction activities, or both, and cases where secondary roads are constructed or maintained, or both, by a local government in accordance with the standards of that local government.

Plan means a complete set of documents required by the City Manager's Designee, the CBPA Review Committee or the CBPA Board to review applications or requests for land disturbance or for the division or development of property in the District.

Plat means a physical survey setting out in graphic form the division, or proposed division, of property. The features shown on such plat shall be those required by the Chesapeake City Code and the Chesapeake Zoning Ordinance and such additional features as may be required by regulations and policies implementing such ordinances.

Redevelopment means the process of developing land which is, or has been, previously developed.

Regional Best Management Facilities or BMPs means stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed.

Resource Management Area or RMA means that component of the CBPA District that is not classified as the Resource Protection Area. The RMA includes land types that, if improperly disturbed, used or developed, have the potential for

causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area.

Resource Protection Area or RPA means that component of the CBPA District comprised of wetlands; tidal shores; nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow; and such other areas 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.

Silvicultural activities means forest management activities, including but not limited to, the harvesting of timber, the construction of roads and trails for forest management purposes, and the preparation of the property for reforestation, that are conducted in accordance with the silvicultural best management practices developed and enforced by the State Forester pursuant to Section 10.1-1105 of the Code of Virginia, as amended, and that are located on property qualifying as "real estate devoted to forest use" under Section 58.1-3230 of the Code of Virginia, as amended.

Substantial alteration means expansion or modification of a building or structure (other than fences), or any other development that would result in a disturbance of land exceeding 2,500 square feet in the RMA.

Surface flow means the flow of water normally associated with wetland hydrology. The term pertains to the saturation or inundation of the surface of the ground which occurs during the growing season and which is observable for a prolonged duration, consistent with current federal wetlands regulations, as determined by the City Manager's Designee. Mere runoff shall not be deemed surface flow.

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 Section 28.2-1300 of the Code of Virginia, as amended.

Tree group or tree stand means a group of two or more trees which have trunks or canopies in close proximity to one another.

Water-dependent facility means development of land that cannot exist outside of the Resource Protection Area (RPA) and must be located on the shoreline by reason of the intrinsic nature of the proposed activity or use. These facilities include, but are not limited to, (i) ports; (ii) the intake and outfall

structures of power plants, water treatment plants and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas; (v) public observation decks; (vi) fisheries or other marine resource facilities; and (vii) shoreline protection measures; all as approved by the CBPA Review Committee.

Wetlands mean tidal and nontidal wetlands, as defined in Chapter 26 of the City Code.

III. City Manager's Designee

City Manager's Designee is a term used in the CBPA District ordinance to mean any officer, department head or other employee designated by the City Manager to interpret, administer or enforce the ordinance, including this Manual. There may be one or more designees. This term may also refer to designees of the City Manager's Designee, including the CBPA Review Committee or one or more members of City staff.

The following is a list of the City Manager's Designees and their assigned duties:

1. The Director of Planning, or his designee, shall serve as the City Manager's Designee responsible for the following:
 - a. Interpret and implement the CBPA District ordinance, including this Manual;
 - b. Appoint City staff members to serve on the CBPA Review Committee, including the City Arborist; two staff members from the Planning Department; two staff members from the Public Works Department; one staff member from the Department of Economic Development; one staff member from the Division of Zoning Administration; and one staff member from the City Attorney's Office (non-voting).
 - c. Review and approve RPA field delineations, under Section 26-517 of the City Code;
 - d. Review and approve determinations of perennial flow and perennial water bodies jointly with the Director of Public Works, in accordance with Section 26-517 of the City Code, CBLAB Regulations and CBLAB Guidance Documents.

- e. Review and resolve conflicts in CBPA boundaries under Section 26-517 of the City Code;
 - f. Review and act upon requests for land disturbance, development or redevelopment within the RMA, including RMAs that are located wholly or partially in the IDA;
 - g. Review and act upon access points during construction under Section 26-520.B.1.a. of the City Code;
 - h. Determine whether existing vegetation can be removed from the RPA buffer under the provisions of Section 26-520.B.7.c.1.
 - i. Modify and evaluate Water Quality Impact Assessments under Section 26-523 of the City Code;
 - j. Make minor modifications to this Manual; and
 - k. Any and all duties assigned in the CBPA District ordinance or by the City Manager.
2. The Chesapeake Bay Preservation Area (CBPA) Review Committee is assigned the following duties:
- a. Review and act upon applications for land disturbance, development and redevelopment activities conducted wholly or partially in the RPA, including portions in the IDA;
 - b. Review and act upon requests for water-dependent and other conditionally permitted uses in the RPA and IDA under Section 26-519 of the City Code;
 - c. Review and act upon requests for “grandfathered” RPA buffer encroachments under Section 26-520.B.7. of the City Code;
 - d. Review and act upon IDA buffer encroachments under Section 26-521 of the City Code.
 - e. Review and act upon requests for nonconforming waivers under Section 26-525 of the City Code;
 - f. Review and act upon requests for exemptions under section 26-526 of the City Code;

- g. Make recommendations to the CBPA Board for exception requests; and
 - h. Any and all duties assigned in the CBPA District ordinance or by the City Manager or the City Manager's Designee.
- 3. The Chesapeake Wetlands Board shall serve as the CBPA Board and shall have the following duties:
 - a. Hear and decide requests for exceptions;
 - b. Hear and decide appeals of decisions rendered by the City Manager's Designee or the CBPA Review Committee;
 - c. Impose agreed upon civil charges for violations under Section 26-528.G. of the City Code;
 - d. Order restoration of the CBPA District under Section 26-528.H. of the City Code; and
 - e. Any and all duties assigned to the CBPA Board in the CBPA District ordinance or by City Council.
- 4. The City Arborist shall serve as the City Manager's Designee in performing the following duties:
 - a. Determine noxious weeds;
 - b. Review and approval of tree canopy calculations for buffer encroachments under Sections 26-520 and 26-521 of the City Code;
 - c. Review and act upon CBPA landscaping requirements;
 - d. Authorize removal of dead or dying trees and specify any required replacement of trees;
 - e. Assist in developing restoration requirements; and
 - f. Any and all duties assigned in the CBPA District ordinance or by the City Manager's Designee.

5. The Public Works Director shall serve as the City Manager's Designee in performing the following duties:
 - a. Review and act upon CBPA stormwater calculations;
 - b. Review and approve stormwater management facilities and BMPs;
 - c. Issue certification by memorandum that existing stormwater management facilities have sufficient capacity and are in good working order;
 - d. Make determinations jointly with the Planning Director regarding designation of perennial flow and perennial water bodies pursuant to Section 26-517 of the City Code.
 - e. Make determinations regarding the practicability of using low-impact paving alternatives in the IDA.
 - f. Any and all duties assigned the Director or Department of Public Works in the CBPA District ordinance or by the City Manager or the City Manager's Designee.

6. The Environmental Code Enforcement Administrator shall serve as the City Manager's Designee in performing the following duties:
 - a. Conduct inspections and issue notices of violation to all persons causing or permitting violations of the CBPA District ordinance, including these regulations and any stipulations imposed as a condition of approval;
 - b. Issue stop work orders to all persons causing or permitting violations of the CBPA District ordinance;
 - c. Order correction of violations by restoration of the property as necessary to protect water quality and take other corrective action, such as issuing criminal summons or seeking injunctive relief; and
 - d. Any and all duties relating to enforcement of the CBPA District ordinance, including this Manual, orders and conditions of approval.

In conducting enforcement duties, the Environmental Code Enforcement Administration may request the assistance of the Departments of Planning

and Public Works to the extent deemed appropriate to effectively enforce the CBPA District ordinance and this Manual.

7. The Chairman of the Board of the Virginia Dare Soil and Water Conservation District, or his designee, may voluntarily serve as the City Manager's Designee in performing the following duties:
 - a. Review and act upon requests to encroach into the 100 foot RPA buffer for agricultural activities in accordance with Section 26-520.B.7.d. of the City Code; and
 - b. Coordinate with the Environmental Coordinator to issue notices of violation and implement compliance schedules for all persons causing or permitting violations of the CBPA ordinance on agricultural lands.

IV. Chesapeake Bay Preservation Area (CBPA) Review Committee

The Chesapeake Bay Preservation Area (CBPA) Review Committee has been formed to review land-disturbance, development, and redevelopment activities conducted wholly or partially within the RPA, including portions in the IDA. Land disturbance, development, and redevelopment plans in the RPA shall be submitted to the CBPA Review Committee for review, and depending on the nature of the request, to make recommendations to the CBPA Board or to take final action.

The CBPA Review Committee shall take final action on proposed land-disturbance, development or redevelopment in the RPA where 1) requested under City Code section 26-519; 2) requested under section 26-520.B.7.b.(2) or b.(3) of the CBPA ordinance; 3) requested for the IDA under Section 26-521 of the City Code; 4) requested under section 26-525 of the City Code; 5) requested under section 26-526 of the City Code; and 6) any other approvals delegated under the City Code or by the City Manager's Designee. Final decisions shall be in writing and shall state conditions of approval or reasons for denial. Any final action of the CBPA Review Committee may be appealed to the CBPA Board in writing within ten (10) days of the date of the written determination.

V. CBPA Review Committee Application Requirements

- A. Unless exempted below the applicant shall provide the following materials to the CBPA Review Committee for all applications:

1. A site plan or plat of the property including an environmental site assessment, landscape plan and stormwater management plan, according to Article X of the Chesapeake City Code (including CBPA calculations in accordance with the Chesapeake City Code and the requirements as set forth in the Chesapeake Public Facilities Manual), prepared by a certified surveyor or engineer, drawn to scale and not reduced, showing all proposed structures, including areas to be filled, graded, excavated or cleared, buildings, porches, stoops, steps, bay windows, roof overhangs, decks and/or patios, pools accessory structures, sidewalks, driveways, trails, parking, landscape areas, Best Management Practice (BMP) areas, location of the silt fence, topography lines (as well as the vertical datum utilized), wetland (both tidal and non-tidal) areas, wooded areas (including trees to be removed and trees to be protected), all bodies of water, and all other structures and features located on the site. The limits of disturbance shall be clearly delineated. If the site has been previously developed, provide the existing conditions on the site as well as the proposed new development. If existing structures or other impervious areas are to be removed, note that they will be removed on the site plan. Please clearly distinguish between existing conditions and the proposed new development.
2. A completed CBPA application, approved by the CBPA Review Committee, must be submitted. The CBPA Review Committee will not take action on applications deemed incomplete.
3. A building permit application shall be submitted for any building, structure, development or redevelopment within the District for which a building permit is required under the Chesapeake City Code or the Chesapeake Zoning Ordinance, other than fences.
4. A water quality impact assessment, meeting the requirements of section 26-523 of the City Code shall be required for any land-disturbance, development or redevelopment activity within the RPA. This requirement may be modified by the City Manager's Designee for the activities listed in section 26-519 of the City Code.
5. The applicant shall provide twenty (20) copies of each of the materials listed in items 1 through 4 above.

- B. An application for a nonconforming waiver under Section 26-525 of the City Code shall be made to CBPA Review Committee upon forms furnished by the Planning Department and shall include the following information:
1. Name and address of applicant and property owner;
 2. Legal description of the property and type of proposed use and development or construction;
 3. A sketch of the dimensions of the lot or parcel, location of buildings and proposed additions relative to the lot lines, and boundary of the RPA, including the one hundred (100) foot RPA buffer;
 4. Location and description of any existing private water supply or sewage system.

VI. DELINEATION OF THE RESOURCE PROTECTION AREA (RPA)

The RPA delineation is required for all development within the Chesapeake Bay Preservation Area District. Two methods are to be utilized for all RPA delineations within the City of Chesapeake. For all tidal areas, the RPA shall be measured from the four-foot (4') elevation mark, based upon 1929 National Geodetic Survey (NGS) vertical datum, 1972 adjustment. The RPA delineation shall follow this four-foot elevation line and the 100-foot buffer shall be measured from that line. For all non-tidal areas shall, the RPA shall be measured from the toe of bank. The RPA delineation shall follow the toe of bank line and the one-hundred (100) foot buffer shall be measured from that line.

The delineation of the RPA shall also include any necessary determinations of "perennial water bodies," using the most recent U.S. Geological Survey (7 1/2 minute topographic quadrangle map (scale 1:24,000)); or scientifically valid system of field indicators of perennial flow, approved by the City Manager's Designee. The determination shall also conform with CBLAB regulations and guidance documents.

The RMA area is the area adjacent to the RPA, as designated on the CBPA Map adopted by City Council. The RMA area must be delineated on the site plan for all development within the CBPA District.

All lots greater than 12,000 square feet in total lot area created by recordation of a subdivision plat on or after March 1, 2002, shall have at least seventy-five (75%) of the required lot area located landward of the RPA one

hundred (100) foot buffer. All lots 12,000 square feet or less in total lot area created by recordation of a valid subdivision plat on or after March 1, 2002 shall have at least eighty percent (80%) of the required lot area located landward of the RPA one hundred (100) foot buffer. In no event shall lot area reductions given for open space dedication under section 19-700 et seq. of the Zoning Ordinance be applied to lots located wholly or partially in the RPA.

VII. CBPA CANOPY REQUIREMENTS

- A. Definitions and minimum sizes for large canopy trees, small canopy trees and woody shrubs shall be the same as set out in the Chesapeake Landscape Specification Manual. Conversion rates shall be as follows: two small canopy trees or ten mulched shrubs (18-24 inches minimum height at planting or of a 3 gallon size) may be substituted for one large canopy tree. Notwithstanding this conversion rate, at least two-thirds of the required canopy coverage shall consist of large canopy trees. Also, there shall be no more than 20% of any single species of large canopy tree on a site. For new development, the calculation area, as defined in the Chesapeake Landscape Specification Manual, shall be based on the gross square footage of the lot or parcel being developed or improved. For additions, the gross square footage shall be determined based on the extent to which the addition encroaches in the RPA or RMA. All fractions in calculations made under this section shall be rounded up or down to the nearest whole number. An fraction .5 or greater shall be rounded up. Any fraction less than .5 shall be rounded down.
- B. The RPA landscaping requirement is a minimum fifty percent (50%) tree canopy coverage. The required minimum canopy coverage is determined using the square footage of the lot or parcel being developed, or in the case of an addition, the square footage of such addition to the extent that it encroaches in the RPA, multiplying that number by 0.5 (50%) and then dividing by 400 (canopy coverage of a large canopy tree). The resulting number will be the number of trees required for planting or preservation within the RPA, if possible, and where not possible, elsewhere on the property Example: A 15,000 square foot lot for a single-family residence on a lot within the RPA would require nineteen (19) large canopy trees. Take $(15,000 \times 0.5 = 7,500 / 400 = 19)$.
- C. The RMA landscaping requirement for other than commercial or industrial sites is a minimum twenty percent (20%) tree canopy coverage, with a cap

- of twenty (20) large canopy trees, for single-family residential lots and a minimum fifteen percent (15%) tree canopy coverage for townhouse and multifamily developments. The required minimum canopy coverage is determined by using the square footage of the lot for development or, in the case of additions, the square footage of such addition to the extent that it encroaches into the RMA, multiplying that number by 0.3 (30%) and then dividing by 400 (canopy coverage of a large canopy tree). The resulting number will be the number of trees required for planting or preservation within the RMA. Example: A 15,000 square foot lot for a single-family residence on a lot within the RMA would require eleven (11) large canopy trees. ($15,000 \times 0.3 = 4,500 / 400 = 11$).
- D. Landscaping requirements for commercial or industrial sites within the RMA is ten percent (10%) tree canopy coverage, calculated, planted and preserved in the same manner as specified in subparagraph C. above.
- E. For lots which are only partially in the RMA or RPA, only the percentage of lot area in the RMA and/or RPA will be multiplied by 10%, 15%, 20% or 50%, as the case may be, respectively, except that in the case of additions, the calculation will remain the same with only that portion of the addition encroaching into the RMA and/or RPA being used to calculate the canopy coverage.
- F. Landscaping requirements for the Intensely Developed Area (IDA) within the CBPA is a minimum twenty percent (20%) canopy coverage. This canopy coverage is determined by using the square footage of the lot for development or, in the case of additions, the square footage of such addition to the extent that it encroaches into the CBPA, multiplying that number by 0.2 (20%) and then dividing by 400 (canopy coverage of a large canopy tree). The resulting number will be the number of trees, 6-8 feet in height at planting required for planting or preservation within the CBPA. Example: A 15,000 square foot lot for a single-family residence on a lot within the RMA would require eight (8) large canopy trees or 16 small canopy trees ($15,000 \times 0.2 = 3,000/400 = 7.5$ or 8).
- G. Existing trees at least six to eight feet in height preserved on the parcel will be counted towards meeting the canopy coverage requirements set out above. In addition, trees planted or preserved under Article 19 of the Zoning Ordinance that are at least 6-8 feet in height will be counted towards the required canopy coverage.
- H. Tidal and sub-aqueous areas will be excluded from the tree canopy requirement calculations.

- I. All required tree canopy coverage shall be preserved in perpetuity, including natural understory and groundcover. Techniques for the preservation of natural understory and groundcover set out in CBLAB guidance documents shall be followed. Preservation shall further be ensured through notation on final approved site plans, construction plans and subdivision plats and, if deemed necessary by the approval authority, by a recorded preservation easement. The removal of dead or diseased trees and vegetation may be approved by the City Arborist, provided that such trees or vegetation are replaced to meet the tree canopy coverage, including natural understory and groundcover, requirements herein. The tree canopy coverage, including natural understory and groundcover, shall be maintained and preserved by the landowner.

VIII. Low Impact Design Standards for Intensely Developed Area (IDA)

Development in the IDA shall comply with the following low impact design standards. These standards also recommended for all permitted developments in the CBPA District whenever possible.

- A. All land disturbance, construction, development and redevelopment in the IDA shall minimize impervious cover so as to promote infiltration of stormwater into the ground.
- B. Grid and modular pavements, permeable asphalt, or other semi-permeable or permeable materials, and other BMPs designed to control stormwater run-off and non-point source pollution, shall be used for required parking areas, roads, and driveways, unless otherwise approved by the Director of Public Works or designee based on a determination that the use of such surfaces is impracticable or not permitted by law.
- C. Existing plants and trees shall be preserved to the greatest extent practicable;
- D. All clearing and grading shall be minimized to the greatest extent practicable;
- E. Stormwater runoff treatment shall be installed, if not already existing, in accordance with the Stormwater Management ordinance and the PFM. Stormwater management should incorporate bioretention areas to treat runoff from the entire site, where practicable;

- F. Pervious parking materials should be used where feasible for all driveways and parking areas not required under the Chesapeake Zoning Ordinance; and
- G. Landscaping requirements shall meet the twenty percent (20%) tree canopy coverage requirements in Section VII.F. above.
- H. Development and redevelopment in the IDA shall also adhere to the extent practicable to the 2000 CBLAD Guidance Document entitled “Better Site Design: An Assessment of the Better Site Design Principles for Communities Implementing Virginia’s Chesapeake Bay Preservation Act.” The document is available on the CBLAD website.

An emergency is deemed to exist and this Manual shall become effective on December 31, 2003.

ADOPTED this _____ day of _____, 2003.

Mayor