

CBPA New Single Family Checklist

The following is required on survey:

- CBPA note: “THIS PROPERTY IS LOCATED IN THE CHESAPEAKE BAY PRESERVATION AREA (C.B.P.A.) AND IS SUBJECT TO CERTAIN DEVELOPMENT REQUIREMENTS AND LIMITATIONS. NO TREE REMOVAL, LAND DISTURBING ACTIVITY OR CONSTRUCTION ACTIVITY CAN BE COMMENCED WITHOUT PRIOR APPROVAL FROM THE CITY OF NORFOLK. PLEASE CONTACT THE BUREAU OF ENVIRONMENTAL SERVICES AT 757-664-4368 FOR FURTHER INFORMATION.
- Identify trees greater than or equal to 4 inches in diameter in 100-foot buffer and show trees that are proposed to be removed.
- Label “CBPA Wetland” line. Contact Environmental Services for wetland delineation; 757-664-4369.
- Label CBPA Buffer Lines
 - IDA Zoning
 - Label “50’ CBPA Buffer” line
 - Label “100’ CBPA Buffer” line
 - RPA Zoning
 - Label “50’ RPA Buffer” line
 - Label “100’ RPA Buffer” line
- Provide required CBPA Mitigation and/or Buffer Restoration on survey or landscape plan according to CBPA Guidance Document (attached).
- Provide Water Quality Impact Assessment Form (WQIA)
- Provide stake-out of proposed development, including driveways and deck additions.

Water Quality Impact Assessment (WQIA) for CBPA Single Family Construction

Land Disturbance:

Area of site _____ ft.²

Area of land disturbance _____ ft.²

CBPA Mitigation

trees removed within 100' CBPA buffer _____ 1" - 12" _____ 13" - 24" _____ 25" - 35"

shrubs removed within 100' CBPA buffer _____

Total woody vegetation disturbance within 100' CBPA buffer _____ ft.²

CBPA Buffer Encroachment:

Provide existing and proposed impervious (decks and patios are considered impervious) in chart. The 100' CBPA buffer encroachment will be the total, including the encroachment into the 50' CBPA buffer. Refer to CBPA guidance document for mitigation and encroachment planting requirements and species selection.

	Existing Impervious	Proposed Impervious
50' CBPA Buffer		
100' CBPA Buffer		

Mitigation & Encroachment plantings required:

Vegetation to be planted: Large Canopy Trees _____

Small Canopy Trees _____

Shrubs _____

Show species and numbers of proposed vegetation to be planted on the survey or landscape plan.

Erosion and Sediment Control:

Agreement in Lieu of an Erosion and Sediment Control Plan Provided

Yes No

Responsible Land Disturber has been identified

Yes No

City of Norfolk CBPA Guidance Document

This guidance applies to both Resource Protection Areas (RPA) and Intensely Developed Areas (IDA) within the Chesapeake Bay Area overlay district.

New Single Family Homes: Structures shall be located to minimize encroachment into the 100' CBPA Buffer to preserve existing trees and shrubs. Any encroachment into the seaward 50' CBPA buffer, that can't be avoided due to lot constraints, must provide buffer restoration equal in square footage to the proposed encroachment. Any impervious surface encroachment into the 100' CBPA buffer will require buffer restoration equal to one planting unit. In RPA areas, encroachment into the 50 foot CBPA buffer is subject to Board of Zoning Appeals approval.

A landscape plan, or planting plan on a survey is required to be submitted and a CBPA tree permit shall be issued for mitigation prior to approval. Planting should be shown seaward of the proposed encroachment. Full mitigation is still required for existing trees and shrubs being removed within the 100' CBPA buffer per Norfolk CBPA tree mitigation guidelines. No encroachment of single family homes, including decks and patios, shall come within 25 feet of jurisdictional wetlands.

Single Family Additions and Accessory Structures: Additions to preexisting single family houses, accessory structures and any impervious surface that extend into the seaward 50'CBPA buffer must provide buffer restoration equal in square footage to the proposed encroachment or at a minimum 1 planting unit. In addition to buffer restoration, full mitigation is required for existing trees and shrubs being removed within the 100' buffer per Norfolk CBPA tree mitigation guidelines standards. Any impervious surface encroachment into the 100 foot CBPA buffer for an addition or accessory structure will require planting 1 large canopy tree species. No addition, accessory structure, or any impervious surface shall come within 25 feet of jurisdictional wetlands. Accessory structures shall be located in an area that minimizes impact to protected vegetation. In RPA designated areas accessory structures encroachment into the 100 foot CBPA buffer is subject to Board of Zoning Appeals approval.

Tree Mitigation Guidelines

Tree Mitigation for Single Trees (≤ 5) Removed During Development (Chesapeake Bay Preservation Area Overlay District-RPA and IDA)

Tree mitigation is based upon the following guidelines established by Bureau of Environmental Services. Mitigation is based upon tree size class, tree species, and tree location. The construction impact zone (CIZ) is a 10 foot wide area adjacent to any structures footprint. Large canopy tree species (LCT) are those that reach at least 60 feet in height at maturity. Small canopy species (SCT) are those that reach less than 35 feet in height at maturity.

New Single Family & Additions

Mitigation for trees located within building footprint:

Size Class (DBH* inches)	Mitigation – Large Canopy Trees
0 – 12	1 – 1.5” caliper tree
13-24	2 – 1.5” caliper trees
25-35	3 – 1.5” caliper trees

Mitigation for trees located within construction impact zone (10 feet from foundation)

Size Class (DBH inches)	Mitigation
0 – 12	2 – 1.5” caliper trees (1 LCT + 1 SCT)
13-24	4 – 1.5” caliper trees (2 LCT + 2 SCT)
25-35	6 – 1.5” caliper trees (3 LCT + 3 SCT)

CBPA Violations (Trees Removed without Permit)

Tree mitigation will double the requirements shown in the charts above.

Significant Specimen Trees

DBH of 36” or greater is a considered a large specimen tree and mitigation is influenced by tree condition and tree risk assessment performed by an ISA Certified Arborist. $(\text{Diameter}/3 + (\text{canopy spread}/43,560 \times 200 \text{ trees/acre}) = \#$ of replacement large canopy trees.

Dead or Dying Trees

The tree replacement is 1:1, based upon written evaluation by an ISA Certified Arborist.

*DBH – Diameter at Breast Height (measured at 4.5 feet above the ground)

Substitution Guidelines

1 LCT = 2 SCT = 10 large growing shrubs (6 – 8 ft. height and/or width @ maturity)

1/2 of mitigation planting shall be trees

Monetary Substitution: 1 LCT = \$310.00; 1 SCT = 250.00; 1 Shrub = \$45.00

MITIGATION SPEC SHEET



Large Canopy Tree means a large-growing tree. WILL MATURE TO APPROX. 60+ FEET IN HEIGHT

MINIMUM PLANTING SIZES:

*1.5 INCHES IN DIAMETER &/or 8-10 FEET IN HEIGHT,

*MULTI-STEMMED AND EVERGREENS - 8-10 FEET IN HEIGHT; IGNORE DIAMETER-- acceptable shade trees are oak, pine, black gum, southern magnolia, eastern red cedar and similar sized trees;



Small Canopy Tree means a tree that can grow under or smaller than a shade tree. WILL MATURE TO APPROX. 20+ FEET IN HEIGHT

MINIMUM PLANTING SIZES:

*1.5 INCHES IN DIAMETER &/or 8-10 FEET IN HEIGHT,

*MULTI-STEMMED AND EVERGREENS - 8-10 FEET IN HEIGHT; IGNORE DIAMETER

—Acceptable small or under-story trees are serviceberry, yaupon holly, redbud, and similar sized trees.



LARGE-GROWING SHRUBS means shrubs that are woody/hardy, and permanent additions to the landscape (such as a tree). WILL MATURE TO APPROX. 8-10 FEET IN HEIGHT &/OR WIDTH

IF SUBSTITUTION OPTION IS GIVEN: PLANTING SUBSTITUTION:

1 large canopy tree = 2 small canopy tree; 1 large canopy tree = 10 large-growing shrubs

Planting must occur onsite within 100 foot CBPA buffer. Payment can substitute for required plantings due to space restrictions.

MONETARY SUBSTITUTION: 1 shade tree = \$310; 1 small tree = \$250; 1 shrub = \$45

**IMPORTANT: CHECK SUN/SHADE REQUIREMENTS AND SALT TOLERANCE
PLANT TREES/SHRUBS ALLOWING PROPER GROWTH BOTH IN HEIGHT AND WIDTH
PLANT ACCORDING TO PLANTING GUIDES PROVIDED BY NURSERY
KEEP ID TAG(S) ON PLANT(S) &/OR KEEP CONTAINER(S) FOR INSPECTION**

100 Foot CBPA (RPA & IDA) Buffer Encroachment Guidelines

Any impervious surface encroachment into the 100 foot CBPA buffer for new single family homes will require buffer restoration equal to one planting unit. Any impervious surface encroachment into the 100 foot CBPA buffer for an addition or accessory structure will require planting 1 large canopy tree species.

One Planting Unit

- One (1) large canopy tree @ 1.5" – 2" caliper or large evergreen tree @ 6' height
- Two (2) small canopy trees @ 1.0" – 1.5" caliper
- Three (3) small shrubs

50 Foot CBPA (RPA & IDA) Buffer Encroachment Restoration Guidelines

For every 400 square-foot encroachment or fraction thereof, provide one planting unit.

Example:

An 800 square-foot addition encroaching into 50 foot CBPA buffer.

Divide by 400 square feet (20'x20' unit) to get:

<u>Units</u>	x	<u>plant/unit</u>	<u>Number of plants</u>
2 units	x	1 large canopy tree	2 large canopy trees
		2 small canopy trees	4 small canopy trees
		3 small shrubs	<u>6 small shrubs</u>
			12 plants

Salt-Tolerant Native Plants for Waterfront Landscapes

Deciduous Large Canopy Trees

Hackberry (*Celtis occidentalis*)

Sugarberry (*Celtis laevigata*)

Sweet gum (*Liquidambar styraciflua*) – cultivar without seed pods e.g. ‘Rotundiloba’

Black Cherry (*Prunus serotina*)

Bald Cypress (*Taxodium distichum*)

White oak (*Quercus alba*)

Swamp white oak (*Quercus bicolor*)

Willow oak (*Quercus phellos*) – cultivar with narrower canopy e.g. ‘Hightower’

Water oak (*Quercus nigra*)

Pin oak (*Quercus palustris*)

Persimmon (*Diospyros virginiana*) – edible fruit

Black tupelo (*Nyssa sylvatica*) – cultivar with narrower canopy e.g. ‘Forum’

Evergreen Large Canopy Trees

Eastern red cedar (*Juniperus virginiana*)

Loblolly pine (*Pinus taeda*)

American holly (*Ilex opaca*)

Live oak (*Quercus virginiana*) – cultivar with narrower canopy e.g. ‘Highrise’

Southern magnolia (*Magnolia grandiflora*)

Small Canopy Trees

Yaupon holly (*Ilex vomitoria*) – tree & weeping varieties available

Little Gem Magnolia (*Magnolia grandiflora* ‘Little Gem’)

Sweetbay magnolia (*Magnolia virginiana*)

Common serviceberry (*Amelanchier arborea*)

Eastern serviceberry (*Amelanchier canadensis*)

Salt-Tolerant Native Plants for Waterfront Landscapes

Shrubs

Red chokeberry (*Aronia arbutifolia*)
Sweet pepperbush (*Clethra alnifolia*)
Inkberry holly (*Ilex glabra*)
Yaupon holly (*Ilex vomitoria*) – dwarf cultivars available e.g. ‘Nana’ & ‘Stokes Dwarf’
Wax myrtle (*Morella cerifera*)
Southern bayberry (*Morella caroliniensis*)
Northern bayberry (*Morella pensylvanica*)
Beach plum (*Prunus maritima*) – edible fruit
Smooth sumac (*Rhus glabra*)
Elderberry (*Sambucus nigra* ssp. *canadensis*) – edible fruit
Highbush blueberry (*Vaccinium corymbosum*) – edible fruit
Arrowwood (*Viburnum dentatum*)
Salt bush (*Baccharis halmifolia*)
Marsh elder (*Iva frutescens*)

Grasses

Switch grass (*Panicum virgatum*)
Salt-meadow hay (*Spartina patens*)

Perennials

Hibiscus (*Hibiscus moscheutos*)
Marsh mallow (*Kosteletzkya virginica*)
Asters (*Aster* spp.)
Blanket flower (*Gaillardia* spp.)
Goldenrods (*Solidago* spp.)
Coneflower (*Echinacea* spp.)
Orange coneflower (*Rudbeckia fulgida*)
Black-eyed Susan (*Rudbeckia hirta*)
Blazing star (*Liatris squarrosa*)

Tidal Marsh (regular salt water flooding)

Salt marsh cordgrass (*Spartina alterniflora*)
Salt-meadow hay (*Spartina patens*)