City of Annapolis
Department of Planning & Zoning
145 Gorman Street, 3rd Fl
Annapolis, MD 21401-2535

FOR CITY USE ONLY
COMPLETED

PlanZone@annapolis.gov • 410-263-7961 • Fax 410-263-1129 • TDD use MD Relay or 711 • www.annapolis.gov

Critical Area Buffer Management Plan

As Required by the State of Maryland Critical Area Commission

Property information

Owner of property _____

Address _____

City _____ ST _____ Zip _____ Phone _____

Other contact _____

Address _____

City _____ ST _____ Zip _____ Phone _____

Project address (if different) _____

Critical Area designation _____ Zoning _____

Is the property in a Buffer Exempt Area, BEA? ___ Yes ___ No

Expected start date of project _____ Expected planting date _____

Proposed Project

Provide a brief explanation of your proposed project and the methods and/or equipment to be used in the space below.

Justification of Project

Provide justification for the proposed project and its intended purpose in the space below.

Long-term Management Plan

Provide a description of the management plan to be utilized. The plan is required to control invasive species, pests and predation. Monitoring and replacement of plants that do not survive is required for two years.

STEP 1: FOR NON-BEA DESIGNATED SITES ONLY. For BEA sites, start at Step 2.

<u>BUFFER ESTABLISHMENT</u> - Required for development or redevelopment activities outside of the of the 100-foot buffer on a parcel containing the buffer.

Development or redevelopment activity that occurs on a lot or parcel that includes a buffer to tidal waters, a tidal wetland or a tributary stream must establish the buffer based on the chart below if the buffer is not fully forested or fully established in woody or wetland vegetation.

Development Category	Lot Created Before 1987	Lot Created After 1987
Development on a vacant lot	Establish the buffer based on total sq. ft. of lot coverage outside the buffer	Fully establish the buffer
Subdivision	Fully establish the buffer	
New lot with an existing dwelling	Establish the buffer based on total sq. ft. of lot coverage outside the buffer	
Conversion of a land use on a parcel or lot to another land use	Fully establish the buffer	
Addition, accessory structure or redevelopment	Establish the buffer based on net sq. ft. of increase in lot coverage outside the buffer	
Substantial alteration	Establish the buffer based on total sq. ft. of lot coverage outside the buffer	

Lot coverage means the total area that is occupied by a structure, accessory structure, parking area, driveway, roadway; or an area covered with gravel, stone, shell, impermeable decking, a paver, permeable pavement or any manmade material. This includes but is not limited to the footprint of homes and accessory structures, walkways, steps, patios, garden ponds, and pools.

Calculation of Buffer Establishment:

The following process is used to compute the amount of buffer establishment required for development or redevelopment activity. Follow the steps below to calculate the buffer establishment planting requirements.

1. Determine the development category from the table above _____
2. Determine the extent of buffer establishment per the table above _____
3. Calculate the square footage of planting required based on the criteria above for buffer establishment. Place this amount in the final calculation chart for Step 1. _____

STEP 2: FOR SITES DESIGNATED NON-BEA or BEA

<u>TREE REMOVAL MITIGATION</u> - Required for development or redevelopment activity inside the 100-foot buffer or expanded buffer.

Tree removal for development or redevelopment activity that occurs within the buffer requires planting mitigation. The amount of planting mitigation is based on the canopy coverage area of the trees removed. (For trees that are dead, dying, diseased, invasive or hazardous see section B below).

Calculation of Buffer Mitigation for Tree Removal:

The following process is used to compute the amount of buffer mitigation required for tree removal in the buffer. Follow the steps below to calculate the replacement planting mitigation requirements:

1. Determine the square footage of the canopy coverage area for the removal of trees due to the development or redevelopment activity _____
2. The figure from line number 1 above is the amount of mitigation required for the tree removal. Place this amount in the final calculation chart for Step 2. _____

STEP 3: FOR SITES DESIGNATED NON-BEA or BEA

<u>MITIGATION FOR DISTURBANCE WITHIN THE BUFFER</u> - Required for development or redevelopment activity inside the 100-foot buffer or expanded buffer.

A development or redevelopment activity that occurs on a lot or parcel within the buffer requires planting mitigation. The amount of planting mitigation is based on the type of activity and the limit of disturbance area.

Activity	Mitigation Ratio	
	Permanent Disturbance	Temporary Disturbance
Shore erosion control	1:1	1:1
Riparian water access	2:1	1:1
Development or redevelopment of water-dependent facilities	2:1	1:1
Buffer-Exempt Area (BEA development or redevelopment)	2:1	1:1
Variance (Non-BEA development or redevelopment)	3:1	1:1
Violation	4:1	N/A

Permanent disturbance means a material, enduring change in the topography, landscape or structure that occurs as part of a development or redevelopment activity. Temporary disturbance means a short-term change in the landscape that occurs as part of a development or redevelopment activity.

Calculation of Mitigation for Disturbance to the Buffer:

The following process is used to compute the amount of mitigation for the development or redevelopment activity. Follow the steps below to calculate the buffer mitigation planting requirements:

	Permanent Disturbance	Temporary Disturbance
1. State the development category from the table above.		
2. List the corresponding mitigation ratio for each activity.		
3. List the total square footage of area disturbed within the buffer for permanent and temporary disturbance.		
4. Calculate the area of mitigation required for both permanent and temporary disturbance (multiply the sq. ft. of disturbed area by the appropriate activity ratio).		
5. Add together the totals of the required mitigation for permanent disturbance and temporary disturbance. Place this amount in the final calculation chart for Step 3.		

STEP 4: FOR SITES DESIGNATED NON-BEA or BEA

<u>MITIGATION FOR REMOVAL OF DEAD, DYING, DISEASED OR HAZARDOUS TREES WITHIN THE BUFFER</u>

Trees Removed	Mitigation Requirement
For each 1” or greater caliper dead, dying, diseased, invasive or hazardous tree	Replacement with minimum 3/4” caliper, native, canopy tree

Calculation of Mitigation for Removal of Dead, Dying, Diseased, Invasive or Hazardous Trees:

Mitigation is calculated on a ratio of 1:1 for the removal of dead, dying, diseased, invasive or hazardous trees.

1. Number of trees to be removed. Replacement number equals the number of removed trees. Place this amount in the final calculation chart for Step 4. _____

STEP 5: FINAL CALCULATION CHART FOR BUFFER ESTABLISHMENT AND BUFFER MITIGATION

The total buffer planting requirements are based on the cumulative total of the Buffer Establishment and Buffer Mitigation*. Follow the steps below to calculate the total planting amount required.

1. List the square footage of buffer establishment from Step 1. _____
2. List the square footage of mitigation for tree removal from Step 2. _____
3. List the square footage of mitigation for disturbance from Step 3. _____
4. Add the square footage from steps 1, 2 and 3 above. Total sq. ft. = 0
5. List the number of replacement trees required for tree removal from Step 4 _____

*Note: Planting credit for mitigation required may also be applied toward buffer establishment requirements if applicable.

STEP 6: BUFFER PLANTING PLAN AND SCHEMATIC DRAWING

Buffer Management Plan applications must include a schematic drawing identifying the areas of impact to the Critical Area. The schematic drawing must show the proposed activity, the limit of disturbance, existing and proposed lot coverage features, existing trees and shrubs, and the 100' buffer and if required, the expanded buffer area. Vegetation to be removed and the replacement plantings are to be shown and labeled. A table listing the vegetation that will be used for establishment and/or mitigation must be provided. The table should include the species type, quantity of plants, sizes of plants along with the corresponding planting credit for each plant type. All plants must be native to the region and appropriate for the proposed site conditions. Landscaping stock planted in accordance with the table below shall be 100% guaranteed for at least 2 years after planting is completed.

Planting Location

All mitigation should be located within the Critical Area in the following order preference:

1. On-site within the Buffer
2. On-site adjacent to the Buffer
3. On-site within the Critical Area
4. Off-site (follow order of preference 1-3 above)
5. Fee-in-lieu payment (only if options 1-4 cannot be met)

Buffer Establishment and Mitigation Credits for Various Vegetation

Planting requirements can be met by utilizing the following credit tables:

Landscaping Stock Planting Credit Table			
Vegetation Type	Minimum Size at Time of Installation Eligible for Credit	Maximum Credit Allowed (square footage per plant)	Maximum Percent of Credit (per type of vegetation)
Canopy tree	2 inch caliper	200	Not applicable
Canopy tree	¾ inch caliper	100	Not applicable
Understory tree	¾ inch caliper	75	Not applicable
Large shrub	3 feet high	50	30
Small shrub	18 inches high	25	20
Herbaceous Perennial	1 quart or based on the area covered by plugs or seed mix	2	10
Planting Cluster for buffer establishment or mitigation of less than ½ acre	1 canopy tree; and 3 large shrubs or 6 small shrubs of sizes listed above	300	Not applicable
Planting Cluster for buffer establishment or mitigation of less than ½ acre	2 understory trees; and 3 large shrubs or 6 small shrubs of sizes listed above	350	Not applicable

Alternative planting standards may be permitted based on the following table below if applicable:

Requirement Type	Amount of Planting	Options
Establishment	Less than ¼ acre	Landscaping stock for the entire required area according to the planting credit table (shown above)
Establishment	¼ acre to less than or equal to 1 acre	At least 25% of the entire required area in landscaping stock according to the planting credit table (shown above) and the remainder according to the optional planting table (shown below) or natural regeneration
Establishment	Greater than 1 acre	At least 10% of the entire required area in landscaping stock according to the planting credit table (shown above) and the remainder according to the optional planting table (shown below) or natural regeneration
Mitigation	Less than 1 acre	Landscaping stock for the entire required area according to the planting credit table (shown above)
Mitigation	1 acre or greater	At least 50% of the entire required area in landscaping stock according to the planting credit table (shown above) and the remainder according to the optional planting table (shown below)

Optional Flexible Stocking Size Planting Credit Table			
Stock Size of Trees Only	Required Number of Stems Per Acre	Survivability Requirement	Minimum Financial Assurance Period After Planting
Bare-root seedling or whip	700	50 percent	5 years
½-inch to 1-inch container grown	450	75 percent	2 years
More than 1-inch container grown	350	90 percent	2 years

STEP 7: FINANCIAL ASSURANCE

For Buffer Management Plans that total more than 5,000 square feet for Buffer Establishment or Buffer Mitigation separately, or a combined total of 5,000 square feet for Buffer Establishment and Buffer Mitigation must include a long-term protection plan that provides financial assurance to cover the planting and survivability requirements and a provision for a minimum of two years monitoring. A completed and signed City of Annapolis Landscape Maintenance Agreement and application for a Landscape Bond must be submitted to the City of Annapolis Department of Planning and Zoning prior to approval.

STEP 8: AUTHORIZATION

Application form must be signed by PROPERTY OWNER. An agent signature is not acceptable.

I certify these statements to be true and accurate and that any trees to be removed are on my property. I hereby grant the City of Annapolis officials permission to enter my property for inspections of the Buffer Management Plan.

Owner signature _____ Date _____

City of Annapolis Authorized Signature

Planning & Zoning_____ Date _____