# PUBLIC PATHWAYS ASSISTANCE GUIDE

## Critical Area Commission
## Chesapeake and Atlantic Coastal Bays

Image: Jefferson Patterson Park

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## INTRODUCTION

The Maryland Critical Area law encourages counties and towns with local Critical Area programs to provide public access to the shorelines of the Chesapeake and Atlantic Coastal Bays and their tidal tributaries. Walkways and pathways that showcase the natural resources in the Critical Area and provide opportunities to view and enjoy the water help build support for restoring and protecting these important areas. The Critical Area law requires decision-makers to locate and design pathways, boardwalks and other access points carefully in order to protect water quality and sensitive habitats.

The purpose of this guidance document is to assist local, state, and federal officials, planners, consultants and contractors in designing and constructing public access in the Critical Area with the above resource protection goals in mind. When properly sited, designed and constructed, public pathways within the Critical Area can increase public awareness and enhance environmental stewardship among visitors while allowing them to learn about and enjoy the Chesapeake Bay and Atlantic Coastal Bays' many resources.

## PUBLIC ACCESS IN THE CRITICAL AREA

Public Pathway, Concord Point Park, Town of Havre De Grace (photo: Nick Kelly)

Siting and designing a new pathway involves considering multiple and sometimes competing factors. The Critical Area designation (Intensely Developed Areas, Limited Development Areas and Resource Conservation Areas) does not restrict the type of access that can be provided, but it does play a role in how a project should be designed and may be reviewed. For example, a walkway alongside the water on a public wharf that is meant to accommodate a large number of people and boats should be located in an IDA and designated Modified Buffer Area (MBA). A natural surface trail may be more appropriate in a riparian forest located in the LDA or RCA. It is also important to design for access for different types of populations and uses, including ensuring access for those with disabilities.

## PATHWAY TYPES

A pathway is a linear course or trail that generally connects one point to another. Pathways can range from very narrow natural surface trails to very wide paved walkways. The purpose of a path can range from a trail meant to allow people access to the natural environment to a sidewalk meant to connect people from one area of town to another.

MD-413 Multiuse pathway which provides walking and biking access from Crisfield to Westover in Somerset County.

Public pathways are meant to be open for the general public to use and access. They can be designed as either single-use or shared-use. Single-use public pathways are designed to accommodate low-to-moderate traffic that is usually focused on pedestrian use. Motorized modes of transportation are typically prohibited. Shared-use public pathways are designed to accommodate several modes of non-motorized transportation such as walking, running, biking, horseback riding, and wheelchair users. Some forms of motorized transportation may be permitted, such as e-bikes and motorized wheelchairs. The applicant should consider the intended use of the pathway, including the number of people expected to use the path yearly, and the existing site conditions (i.e., lawn, forest, existing impervious, etc.) when applying the design and location standards outlined below.

## LOCATION AND DESIGN STANDARDS

The following guidance should be used when incorporating public pathways into a state, federal or local project to ensure that impacts to the Critical Area are minimized:

### HABITAT PROTECTION AREAS (HPAs)[1]

#### 100-FOOT AND EXPANDED BUFFER

[1] Habitat Protection Areas include the 100-foot and expanded Buffer, nontidal wetlands, threatened and endangered species, species in need of conservation, plant habitat, wildlife habitat, and anadromous fish propagation waters. See COMAR 27.01.09 for more information.

The Critical Area Buffer[2] is generally the first 100-feet from the edge of tidal waters, tidal wetlands and tributary streams. It can be expanded to include sensitive resources such as steep slopes and hydric soils. Disturbance to the Buffer is prohibited with some exceptions, including access to the shoreline. Therefore, in order to minimize impacts, public pathways should be predominantly located outside the 100-foot and expanded Buffer. Pathways may meander at intervals into the Buffer and include viewing areas to provide opportunities for education and access to the water.

## MODIFIED BUFFER AREAS

Modified Buffer Areas[3] (MBAs) are designated by a local jurisdiction and approved by the Critical Area Commission as those areas of the shoreline that have historically shown that they cannot meet the Critical Area's Buffer functions for water quality and habitat. Additional development may be permitted within 100 feet of the shoreline on MBA properties without the need of a variance and at a reduced mitigation rate. The site characteristics of MBAs tend to vary, with some composed of high amounts of impervious surfaces like marinas, while others are residential or commercial properties that have Buffers consisting of lawn, buildings, and accessory structures.

Given the variation in site characteristics, local jurisdictions should design public pathways in MBAs to maximize water quality and habitat benefits specific to the site. For example, pathways that are parallel and are adjacent to the shoreline may be allowed in MBAs but should include coastal resilient plantings between the shoreline and the pathway whenever possible. Other things to consider include using integrated pest management practices to treat lawns and reduce toxic runoff of pesticides and other chemicals. Pathways located on marinas or other MBA properties of high impervious surfaces should consider stormwater best management practices to treat both the pathway (such using pavers or treating the pathway with bioswales or wet swales) and other areas of impervious surfaces onsite (including recycling "gray water," collecting rainwater from downspouts on structures in the Buffer, and using pervious pavers, bioretention areas, or rain gardens to treat impervious surfaces).

Commission staff are available to assist jurisdictions in site design for pathways on MBA designated properties.

## FOREST INTERIOR DWELLING BIRD HABITAT

Large blocks of contiguous forest are likely to contain important habitat for forest interior dwelling birds (FIDS). In order to minimize impacts to this important breeding habitat, paths should be located in the first 300-feet of the forest edge as opposed to the interior of the forest block. Pathway widths in FIDS habitat should be minimized to maintain forest canopy coverage, and single-use walking paths are preferred over wider multi-use paths. Natural surfaces are encouraged whenever possible. Motorized uses (with

[2] See COMAR 27.01.09.01.E.
[3] See COMAR 27.01.09.01-8.

the exception of emergency access) should be prohibited on public pathways located in FIDS habitat.

More information on the importance of FIDS can be found in the Commission's *A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area* guidance document,

TIDAL AND NONTIDAL WETLANDS

Pathways located over tidal wetlands and waterways should be designed to minimize adverse impacts on submerged aquatic vegetation, intertidal vegetation, and other aquatic resources. Points of contact with the shoreline should be chosen to minimize adverse impacts to shore stability and habitat. Impacts to these resources will require authorization by the Maryland Department of the Environment. Contact with MDE's Tidal or Nontidal Wetlands Division should be made early in the planning stages.

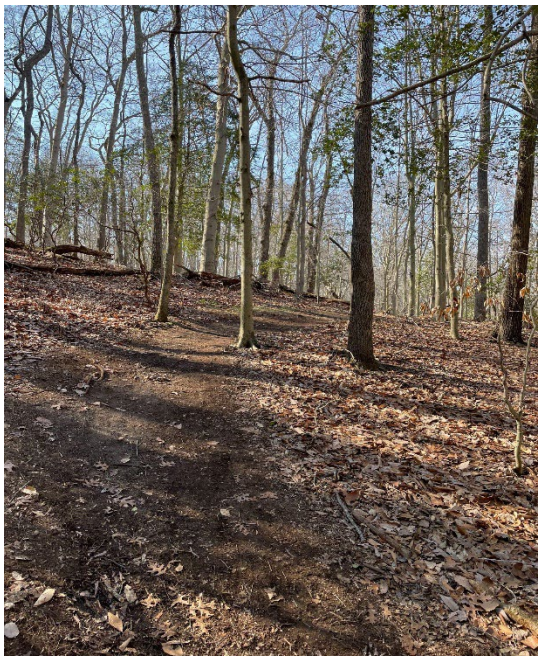
OTHER HABITAT PROTECTION AREAS

Early coordination with the Maryland DNR Wildlife and Heritage Service (WHS) is also recommended to determine if other regulated HPAs may be present. Those habitats include threatened and endangered species, species in need of conservation, plant habitat, wildlife habitat, and anadromous fish propagation waters. Depending on the habitat and resource, DNR WHS will offer recommendations for siting and design that should be incorporated into the project, including time of year restrictions, locating pathways to avoid impacts to plant habitats identified by WHS, and using best sediment and erosion control practices.

ADDITIONAL HABITAT CONSIDERATIONS

FOREST AND DEVELOPED WOODLAND CLEARING

Public pathways should be located so that the clearing of forests, developed woodlands, and other natural vegetation is either avoided or, if impacts are unavoidable, minimized due to site constraints. Pathways should be designed to avoid existing trees wherever possible rather than removing them so that forest canopy can remain intact. Any cut trees should be left to decay in the woods as they can provide important wildlife habitat.

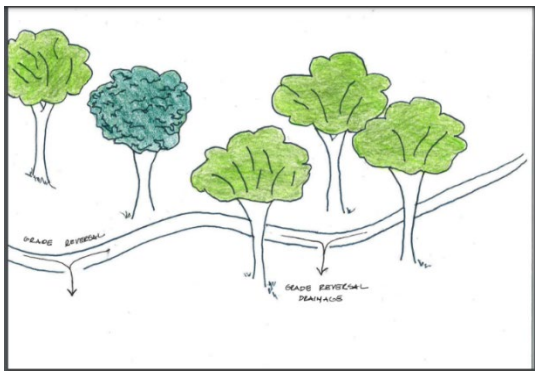


A dirt pathway using grade reversal and tree avoidance, Waterworks Park, Annapolis, MD (photo: Nick Kelly)

## STEEP SLOPES

Protecting steep slopes is important within the Critical Area, as erosion of these areas can lead to potential sloughing of upland that often results in additional sedimentation in the Bay, increased stormwater hazards, and damages to the stability of neighboring structures. Therefore, impacts to steep slopes should be avoided if possible. However, if locating a public pathway requires unavoidable impacts to steep slopes, then the pathway should follow the contour of the slope (parallel to the grade) and avoid crossing contour lines as much as possible. Switchbacks and grade reversals should be included in the design, with grade reversals occurring every 100-150 feet. The grade of the trail should average generally between 1% and 10%, with the maximum grade not exceeding 20% except in areas of grade reversals and switchback approaches. Grade reversals are sections of a trail that change from going uphill to downhill. This minimizes erosion by lessening the distance that flowing water can build up energy to displace soil. A minimum 25-foot buffer of vegetation should be either created or maintained as a filter strip between the limits of trail construction disturbance and water features. Depending on the intended use and intensity, impacts to steep slopes should be minimized to the maximum extent possible. Additional best practices can be found in the USDA Trail Construction a Construction and Maintenance Guide. Figure 1 provides an illustration of a trail that is designed with grade reversals to reduce stormwater impacts and improve stability.

**FIGURE 1: Trail That Incorporates Grade Reversal**



## WETLAND MIGRATION AREAS

Wetland migration areas have been identified and mapped by the Maryland Department of Natural Resources as areas that may support wetlands in the future due to sea level rise. Given the importance of public access to the shoreline, public walkways are permitted within wetland migration areas. Pathways located over wetland migration areas should be constructed of natural surfaces and boardwalks that will allow easy removal and rerouting of pathways as the hydrology of the area changes. However, non-water dependent structures should be avoided within wetland migration areas. State agencies submitting a public walkway project that impacts wetland migration areas must include an assessment as to why the impacts to the wetland migration areas are unavoidable, how other ecological features may be enhanced, restored, or created to maintain existing wetland functions to provide protection against future impacts, and recommendations for addressing the detrimental impact and enhancement of natural features. While not required, we recommend that local jurisdictions and federal agencies consider performing a similar assessment before siting a public walkway.

Jurisdictions should use data sources such as Maryland DNR's Coastal Atlas, Maryland DNR's MERLIN, NOAA's Digital Coast, and the Watershed Resources Registry to determine if a wetland migration area exists in the location of a proposed public walkway.

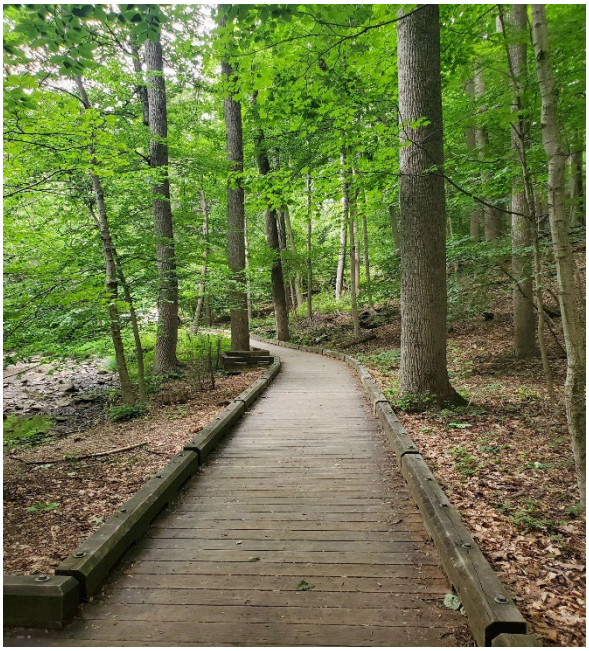
Boardwalk pathway adjacent to migrating wetlands, Calvert Cliffs State Park, Lusby, MD (Photo: Charlotte Shearin)

## OTHER DESIGN GUIDELINES

### PATHWAY COMPOSITION

When possible, pathways should consist of natural surfaces, pervious surfaces or semi-pervious surfaces. Examples include mulch, permeable pavers, and boardwalks. For decking, spaces should be maintained between the boards, to allow stormwater to flow freely through the structure. While mulch may be recommended for forested settings, it should not be used in areas located within 100 feet of the water to avoid washing into adjacent streams and waterways.

With the exception of natural surfaces, all public pathway materials count as lot coverage[4]. Despite this, we recommend the use of permeable pavers when natural surfaces cannot be used, as pavers can treat stormwater management on a site.



(A boardwalk trail located in Cunningham Falls State Park, Thurmont, MD Photo Courtesy Alltrails.com)

[4] For the full definition of lot coverage, see Appendix B.

A pathway composed of wood plans located over a stream, Calvert Cliffs State Park, Lusby MD (photo: Claudia Jones)

## AMERICANS WITH DISABILITY ACT (ADA) ACCESSIBILITY

The Critical Area Commission encourages local jurisdictions to provide public pathways that provide ADA access. The recommended width for single-use paths that provide ADA accessibility is 6 feet and for multi-use paths is 10 feet. Additional resources regarding ADA accessibility can be found in the USDA Accessibility Guidebook for Outdoor Recreation and Trails.

## VIEWING AREAS

Viewing areas are encouraged on pathways that are publicly-owned. They should be located in existing cleared areas where possible, or designed to minimize clearing when impacts to forests and developed woodlands cannot be avoided. Wooden decks, gazebos, and other seating areas can be considered as part of a viewing area.

A viewing area of the South River in Quiet Water Park, Annapolis, MD (photo: Nick Kelly)

Since viewing areas are not water-dependent, they should be located outside of the Buffer when possible. However the Commission recognizes that public pathways can provide the public the opportunity to stop and view the shoreline, wetlands and wildlife. If a viewing area is proposed in the Buffer, then a conditional approval is required. The conditional approval request must include information explaining why the area is necessary to be located within the Buffer. Viewing areas within the Buffer should be no greater than 250 square feet in size and consist of natural surface materials such as wood decking, mulch, or other natural materials. Some vegetation management around a viewing area may be allowed under a Buffer Management Plan, including invasive species removal and limited tree limbing. Wooden decks and other seating areas can be considered as part of a viewing area within the Buffer.

Views of the Susquehanna River from an observation deck, Town of Havre De Grace (photo: Nick Kelly)

## NON-WATER DEPENDENT STRUCTURES

Non-water dependent structures, such as gazebos, bandstands, restrooms, and food stands are prohibited in the Buffer and MBA setback without a conditional approval; they are permitted outside of these areas. A conditional approval request must include information explaining why the non-water dependent structure is necessary to the use

and function of the public walkway within the Buffer, MBA setback, or wetland migration area.

## STORMWATER MANAGEMENT

Stormwater management is important to include as a part of the design and the types of practices selected should be carefully considered. Acceptable practices may include permeable pavers; native herbaceous shrubs and tree species planted along the edges of the pathway to filter run-off, control erosion, provide shade, and define the limits of pedestrian access; rain gardens; bioswales; sheetflow to conservation areas that do not include steep slopes or wetlands; or non-rooftop disconnects. Practices which would disturb steep slopes or require additional clearing, particularly of canopy, should be avoided.

## SIGNAGE

Signage is encouraged as a component of public walkways to provide rules for using the pathways as well as for environmental education regarding the goals of the Critical Area program and importance of the Chesapeake and Atlantic Coastal Bays, habitat conservation, and water quality protection. Signs should be located in cleared areas when possible and minimize clearing when not. Placing signs near viewing areas, gazebos, or other structures can also minimize impacts. Example signage language can be found in the Appendix C.

Chesapeake Beach Railway Trail Signage
Photo courtesy of traillink.com

## MITIGATION REQUIREMENTS

Mitigation for public pathways should be provided, at a minimum, based on the following impacts and ratios. Mitigation for a project is cumulative (i.e. - mitigation must be provided for impacts to all features below):

Mitigation of trees to offset the impacts of the newly constructed MD-413 multiuse pathway, Somerset County, MD

BUFFER AND MODIFIED BUFFER AREA SETBACK

Pathways in the 100-foot Buffer, Expanded Buffer, and MBA setback require 2:1 mitigation for the footprint of the trail. However, a natural surface trail does not require mitigation for its footprint. An additional 1:1 mitigation is required for any vegetation cleared for all trail projects.

OUTSIDE MODIFIED BUFFER AREA SETBACK

Pathways located within the MBA (but outside the MBA setback) require mitigation at 1:1 ratio for the footprint of the trail. An additional 1:1 mitigation is required for any vegetation cleared.

VEGETATIVE CLEARING OUTSIDE THE BUFFER

Any vegetative clearing associated with pathways that are located outside of the Buffer requires mitigation at a 1:1 ratio for the area of vegetation cleared.

OTHER IMPACTS TO THE BUFFER AND MBA

If a pathway includes viewing areas in the Buffer or MBA, mitigation is required at a 2:1 ratio for the viewing area if it meets the design criteria outlined above, and 3:1 mitigation otherwise. Any nonwater-dependent structures in the Buffer or MBA setback related to public pathways require mitigation at a 3:1 ratio for the footprint of the structure. An additional 1:1 mitigation is required for any vegetation cleared.

CLEARING OF FIDS HABITAT

Mitigation required for clearing FIDS habitat is 1:1 provided that clearing is limited to edge habitat. Clearing of interior habitat may result in additional mitigation as described within the FIDS guidance manual.

## *EXCEPTIONS TO MITIGATION REQUIREMENTS*

Jurisdictions can reduce the amount of mitigation required or receive mitigation credit under the following scenarios. Alternatives should be used only when planting is not feasible:

1. If installing man-made material, use of permeable materials in the Buffer where the underlying soil type is “C” or better may generate a maximum of 1:1 credit for required mitigation, provided that any direct clearing associated with the project is first mitigated using trees, shrubs, and grasses.

2. Removal of lot coverage in the Buffer[5] can be used to generate credits towards mitigation requirements associated with disturbance, provided that the area is stabilized after the lot coverage is removed. However, any direct clearing associated with the project must first be mitigated using native trees, shrubs, and grasses.

3. Natural surface trails do not require mitigation for its footprint; therefore, only mitigation for clearing of vegetation is required in accordance with the ratios outlined above.

4. For FIDS habitat, if canopy is maintained, then mitigation may be reduced to a ratio of 0.5:1 upon review of the proposed plans by the Critical Area Science Advisor.

[5] See COMAR 27.01.09.01-2

### *MITIGATION PLANTING REQUIREMENTS*

Mitigation plantings should always be native Maryland coastal plain species but can be a mix of warm-season grasses, shrubs, and trees as appropriate. Ideally, mitigation should occur onsite within the Buffer whenever possible. Providing plantings in the Buffer along public walkways can help to educate the public as to what constitutes a functioning Buffer. When onsite planting is not possible, other locations onsite or Buffers offsite are appropriate. Please coordinate with Commission staff if you have questions. Buffer Management Plans should be provided in accordance with the Commission's regulations[6].

Any impacts to Forest Interior Dwelling Species (FIDS) habitat (including canopy and understory/shrub vegetation) requires mitigation in the form of planting FIDS habitat. For more information on FIDS habitat and the required mitigation, please see the FIDS guidance manual.

### *ALTERNATIVES TO PLANTING REQUIREMENTS*

In smaller towns that are mostly composed of Intensely Developed Areas, there may not be available planting areas in the Buffer, and therefore alternatives may be appropriate. Stormwater retrofitting is one option that would provide water quality benefits; please coordinate with Commission staff to discuss mitigation credits for stormwater management offsets and other proposed alternatives to mitigation planting.

A dirt trail that avoids impacts to existing trees and vegetation at Waterworks Park, Annapolis, MD. (Photo: Charlotte Shearin)

[6] See COMAR 27.01.09.01-3.

## SUBMISSION PROCESS

The procedures for submitting public pathway projects to the Critical Area Commission for review and approval (or certification of consistency, if applicable) varies based on who owns the property on which the public walkway is located. The local jurisdiction or State agency should coordinate with Commission staff in advance of the project submission to discuss the proper process, particularly if the project impacts multiple properties owned by different agencies (e.g. - a pathway that impacts both State-owned and jurisdiction-owned land) .

### *PUBLIC PATHWAYS ON PRIVATE OR LOCAL LANDS*

If a local jurisdiction is sponsoring a proposed public pathway on private lands, or if a public pathway is proposed on land owned by a local jurisdiction, then the project must comply with the following Critical Area review procedures, as applicable:

Oriole Carving, Town of Havre De Grace, MD (Photo: Nick Kelly)

*Consistency Report*: Pathway projects that are minor in scale require consistency with the local Critical Area program[7]. Projects that are deemed minor and are consistent with the local program may be submitted for Commission staff review using a Consistency Report. This type of project does not require full Critical Area Commission approval.

*Critical Area Commission Approval (Major Development):* Public pathway projects that qualify under the definition of Major Development[8] must be reviewed by the full Critical Area Commission. The Commission's project checklist outlines submission requirements, including public notice.

*Critical Area Commission Approval (Conditional Approval)*: Pathway projects that are not consistent with the local government's Critical Area program or have significant environmental impacts in the local jurisdiction (such as clearing in the Buffer, the location of non-water dependent structures in the Buffer, or impacts to FIDS interior), may require conditional approval[9] from the Critical Area Commission. The Commission's project checklist outlines the submission requirements, including public notice. In addition, a conditional approval form is needed to show compliance with COMAR.

[7] See COMAR 27.02.02.
[8] See COMAR 27.02.04.
[9] See COMAR 27.02.06.

## *PUBLIC PATHWAYS ON STATE-OWNED LAND*

Public pathways on state-owned land require approval under one of the following review procedures, as applicable:

*Memorandum of Understanding*: Public pathways may be included under a list of eligible projects within an approved Memorandum of Understanding between the Commission and the state agency, and therefore may be reviewed at a staff level[10]. Design standards and limitations for public pathways are often included in MOUs. Please contact your state agency liaison who coordinates with Commission staff to determine if public pathways are eligible under an approved MOU.

*Critical Area Commission Approval (Standard Approval):* Public pathway projects that do not meet the parameters under an approved MOU and are located on state-owned lands are required to meet the development standards for state agency projects and must be reviewed by the full Critical Area Commission[11]. The Commission's project checklist outlines submission requirements, including public notice and addressing climate resiliency factors.

*Critical Area Commission Approval (Conditional Approval):* Pathway projects that are not consistent with the Commission's regulations for state agency development or have significant environmental impacts to State-owned land, such as Buffer clearing or impacts to FIDS interior, require conditional approval from the Critical Area Commission[12]. The Commission's project checklist outlines the submission requirements, including public notice and addressing climate resiliency factors; in addition, a conditional approval form is needed to show compliance with COMAR.

## *PUBLIC PATHWAYS ON FEDERAL LAND*

Public pathways proposed on federal lands, such as lands owned by the National Park Service, must be consistent with the Coastal Zone Management Act (CZMA). Coordination for the CZMA is directed through the Maryland Department of the Environment and the Maryland Department of Natural Resources. Critical Area Commission staff will provide comments as a part of the CZMA process to ensure consistency with the Critical Area law and regulations, including adherence to this guidance document.

[10] See COMAR 27.02.03.
[11] See COMAR 27.02.05
[12] See COMAR 27.02.06.

## CONTACT INFORMATION

For general questions or information about the Critical Area Program or questions relating to State oversight of local programs, please visit our website or call 410-260-3460 for assistance.

Waterworks Park, Anne Arundel County. (Photo: Claudia Jones)

# APPENDIX A: ADDITIONAL RESOURCES

- Critical Area Commission Forms
  - Conditional Approval Form For State or Local Governments
  - Consistency Report For Local Jurisdictions
  - Project Checklist for Local Governments
  - Project Checklist for State Agencies

- A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area' guidance document

- The Green Book for the Buffer

- Maryland Coastal Zone Management Act Program

- Maryland DNR's MERLIN Mapping Tool

- Maryland DNR's Coastal Atlas

- NOAA's Digital Coast Mapping Tool

- Nontidal Wetlands Division, Maryland Department of the Environment

- Tidal Wetlands Division, Maryland Department of Environment

- USDA Accessibility Guidebook for Outdoor Recreation and Trails

- USDA Trail Construction a Construction and Maintenance Guide (2007)

- Watershed Resources Registry

# APPENDIX B: DEFINITIONS

**Buffer** - an area that is immediately landward from mean high water of tidal waters, the edge of each bank of a tributary stream, or the landward boundary of a tidal wetland. The Buffer includes an area of at least 100 feet and may be expanded for contiguous areas, including a steep slope, hydric soil, highly erodible soil, nontidal wetland, or a Nontidal Wetland of Special State Concern.

**Buffer Management Plan**- a narrative, graphic description, or plan of the Buffer that is necessary when an applicant proposes a development activity that will affect a portion of the Buffer..

**Disturbance**- an alteration or change to the land that includes any amount of clearing, grading, or construction activity.

**Forest Interior Dwelling Birds** - species of birds that require relatively large forested tracts in order to breed successfully, such as various species of flycatchers, warblers, vireos, and woodpeckers.

**Forest Interior Dwelling Bird Habitat** - Existing riparian forests, such as relatively mature forests of at least 300 feet in width which occur adjacent to streams, wetlands, or the Bay shoreline, or forest areas utilized as breeding areas by forest interior dwelling birds and other wildlife species such as relatively mature forested areas within the Critical Area of 100 acres or more, or forest connected with these areas).

**Habitat Protection Area** - an area that is designated for protection under Maryland State Law and regulations, including. the Buffer, a nontidal wetland, a habitat of a threatened species, a habitat of an endangered species, a habitat of a species in need of conservation, plant and wildlife habitat in need of protection or conservation,; and anadromous fish propagation waters.

**Invasive species** - a type of plant that is non-native to the region whose introduction causes, or is likely to cause environmental harm or harm to human health.

**Lot coverage**- the percentage of a total lot or parcel that is occupied by a structure, accessory structure, parking area, driveway, walkway, or roadway, or covered with gravel, stone, shell, impermeable decking, a paver, permeable pavement, or other any manmade material. Lot coverage includes the ground area covered or occupied by a stairway or impermeable deck. Lot coverage does not include a fence or wall that is less than one foot in width that has not been constructed with a footer; a walkway in the Buffer or expanded Buffer, including a stairway, that provides direct access to a

community or private pier; a wood mulch pathway; or a deck with gaps to allow water to pass freely.

**Mitigation** - an action taken to compensate for adverse impacts to the environment resulting from a development activity.

**Modified Buffer Area** - an area of land where a pattern of residential, industrial, commercial, or recreational development existed in the first 100 feet from tidal water or tidal wetlands on December 1, 1985 in the Chesapeake Bay Critical Area or on June 1, 2002 in the Atlantic Coastal Bays Critical Area and that, as part of a local program approved by the Commission, is shown on a map maintained on file by the local jurisdiction and is subject to modified development provisions

**Steep slopes**- Slopes that are of 15 percent or greater incline.

# APPENDIX C: EXAMPLE LANGUAGE FOR SIGNAGE

Below are examples of language that may be used on signage associated with public pathways. Other types of language for signage may also be permitted. Please contact Commission staff for further assistance.

***Buffer***

**This path is located within the Critical Area Buffer.**

In the Critical Area, a Buffer is a minimum of 100-feet wide. The Buffer in the Critical Area is an area between tidal waters/wetlands and upland development that filters sediment from stormwater runoff, thereby providing water quality benefits to the [INSERT NAME OF WATER BODY HERE] and providing habitat for many species of animals. The more forest-like a Buffer is with multi-layer vegetation, then the more water quality and habitat benefits it provides.

***Forest Interior Dwelling Bird (FIDS) Habitat***

**This path that you are walking on goes through Forest Interior Bird (FIDS) habitat.**

FIDS are birds that need large areas of contiguous forest in which to breed successfully. FIDS include birds that migrate to Eastern forests from the tropics to breed like the Scarlet Tanager and the Woodthrush, mainly due to the abundance of insects available to feed their nestlings and fledglings. FIDS also include non-migrating or short-distance migrants like the Pileated Woodpecker and the Red-Shouldered Hawk.

FIDS habitat is to be protected and conserved in the Critical Area. The best FIDS habitat consists of large multi-layered forests consisting of canopy trees, understory trees, and both large and small shrubs with a riparian component. When you are protecting FIDS habitat you are also protecting habitat for other wildlife like squirrels, raccoons, reptiles, and amphibians; and you are protecting the water quality benefits a forest provides by decreasing runoff and increasing infiltration of stormwater.

This path is designed to protect FIDS habitat by minimizing clearing (it is designed to meander around trees), limiting the width of the path to [INSERT WIDTH] feet, and by maintaining the tree canopy coverage.

### *Pathway Material (Permeable)*

The pathway that you are walking on is made of permeable pavers. This is a surface that allows water from rain to soak into the ground instead of running entirely off its surface and into the nearby water body. When water can infiltrate into the ground, less sediment and other pollutants run off the surface and into the receiving water. Pervious pavers are an alternative to impervious surface materials, such as asphalt and concrete.