

# **City of Baltimore Critical Area Management Manual**

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City of Baltimore

# Critical Area Management Program Manual

**2020 Edition**

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# I GENERAL INFORMATION

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## 1.1 Introduction to the Critical Area Management Program

Declines in the Chesapeake Bay's once bountiful populations of fish, crustaceans, waterfowl and other wildlife can be directly linked to a parallel decline in water quality and destruction of natural habitat, both consequences of increasing human activity within the Bay's watershed.

Population growth within the watershed, as well as changing farming and land use practices, have increased nutrient and sediment loads into the Bay, contributing to its decline. The residents and the lands immediately surrounding the Bay and its tidal tributaries have the greatest impact on water quality and natural habitat, and therefore, those who benefit the most from the beauty of the Bay also bear the greatest responsibility for its future. The Baltimore City's Critical Area Management Program (CAMP) addresses this connection by regulating the Critical Area - all land and all development within 1,000 feet of the Bay and its tidal tributaries. The Department of Planning has authority over the CAMP and makes decisions regarding development projects that take place within the Baltimore City's Critical Area.

The Chesapeake Bay Critical Area Act prescribed within State Natural Resources Article, §8-108.1 et. Seq., Annotated Code of Maryland establishes the State of Maryland Chesapeake Bay Critical Area Commission (CAC) and requires that Baltimore City prepare and adopt a Critical Area Management Program to protect and improve the shoreline habitat and tidal waters of the Chesapeake Bay and its tributaries. All land within 1,000 feet of the shore fall within the Critical Area and must be regulated to meet the program's goals and requirements.

### 1.1.1 CAMP Goals

The goals of the CAMP are as follows:

- Improve water quality by reducing the adverse impacts of human activity;
- Conserve and restore fish, plant and wildlife habitat while accommodating growth and revitalization; and,
- Promote a more attractive and sustainable environment for Baltimore's residents.

## 1.2 Overview of CAMP Requirements

The [Code of Maryland Regulation, Title 27: Critical Area Commission for the Chesapeake and Atlantic Coastal Bays \(COMAR 27\)](#) establishes criteria which the City's CAMP must meet. By these regulations, development within the Critical Area must:

- Meet "The 10% rule" by reducing pollutants running off the land by at least 10% above existing conditions, as measured by phosphorus;
- Preserve, enhance and restore trees, vegetation and habitat throughout the Critical Area;
- Plan for and manage the Critical Area Buffer to preserve, enhance and restore trees, vegetation and habitat;
- Preserve and restore shoreline; and,
- Follow CAMP regulations on use, zoning, subdivision, lot consolidation and reconfiguration.

### 1.3 This Manual

The Baltimore City Critical Area Management Program Manual (Manual) has been developed to help property owners and developers better understand the requirements that apply to their land or project. Once the classification of the land is determined, the owner or developer can refer to the appropriate section of this manual for a detailed description of not only the development area designation, but also a complete description of the types of projects allowed, prohibited uses, and the Critical Area regulations. Based upon a site’s location, it may be subject to multiple categories of regulations, which may include Intensely Developed Areas (IDA) or Resource Conservation Areas (RCA), Habitat Protection Areas (HPA) and Designated Habitat Protection Areas (DHPA) requirements; and other requirements, conditions, or limitations.

Furthermore, this Manual and all development projects located within the Critical Area are required to comply with COMAR 27; and the [Baltimore City Zoning Code, §7-401 et. Seq.](#) The three documents are required to be used concomitantly.

### 1.4 Actions Requiring Critical Area Project Review

Development in the Critical Area is subject to Critical Area review and requirements each time one or more of the following actions occur:

- Building/grading permit
- Zoning variance
- Conditional use or special exception
- Subdivision or lot consolidation
- Rezoning
- Other City, State and Federal project requirements

The above actions may include construction, reconstruction, modification, expansion of structures, placement of fill, dredging, drilling, mining, grading, paving, land excavation, vegetation clearing, land improvement, or storage of materials.

Once one of the above actions triggers the Critical Area review process, the project is evaluated by the Department of Planning to determine whether the proposed development is “significant development.”

Table 1 specifies which actions in Baltimore City are “significant” and require a full review and notification to the CAC in accordance with [COMAR 27.03.01](#).

Table 1: Summary of notification requirements

<b>Type of Application</b>	<b>IDA</b>	<b>RCA</b>
Disturbance to a Habitat Protection Area	Y	Y
Physical disturbance to the Buffer	Y	Y
Variance from Critical Area provisions	Y	Y
Development resulting in less than 5,000 sq. ft. of disturbance	N	N
Development resulting in between 5,000 and 10,000 sq. ft. of disturbance	N	Y
Development resulting in greater than 10,000 sq. ft. of disturbance	Y	Y
Subdivision of 10 lots or fewer	N	Y
Subdivision of greater than 10 lots	Y	Y

Subdivision affecting growth allocation	N/A	N/A
Rezoning that would occur wholly or partially within the Critical Area	Y	Y
Special exception or conditional use for industrial, commercial, institutional, non-residential, or multi-family	Y	Y
Substantial alteration to applications previously submitted to the Critical Area Commission (CAC)	Y	Y
Expenditure for improvements to the property equal to or greater than 50% of the assessed value (only the first instance applies, a second renovation does not trigger a review) see criteria for exemption in <a href="#">COMAR 27.01.02.07</a>	Y	Y

Y indicates that the action requires a full Critical Area Review and notification to the CAC. N indicates that the project will be reviewed by the Department of Planning only. Mitigation for vegetation removal is required even when a full review is not necessary.

If a development is deemed “significant,” an applicant must meet all the requirements of the CAMP. Plans, worksheets and other requirements are listed in Section 12: Forms and Additional Resources.

Development projects and uses may be considered significant development when a property is developed over time, or through obtaining multiple building or use and occupancy permits. Development of any size within the Buffer always trigger Critical Area review. In cases where the cumulative impact of the use or development ultimately results in meeting the significant development definition above, the project or use will be subject to Critical Area review.

All projects permitted or that have approval for mass grading prior to the effective date of this Manual is reviewed under the 2002 edition of the CAMP Manual.

#### 1.4.1 Projects Located on State of Maryland’s Property

Projects that are located on State of Maryland’s property are reviewed and approved by the CAC directly, and review by the City of Baltimore does not apply. State of Maryland’s property are located throughout Baltimore City and are displayed on Figure 1.

### 1.5 Prohibited and Conditional Uses in the Critical Area

Certain uses are prohibited within the Critical Area and the Buffer, as defined in [COMAR 27.01.02.02](#). Other uses may be permitted as conditional uses if they meet certain requirements and receive approval from the Baltimore City Board of Municipal and Zoning Appeals (BMZA) and the CAC. If standards are met, some prohibited uses may be approved as exceptions. The allowance of prohibited or conditional uses within the Critical Area are reviewed on a case by case basis.

#### 1.5.1 Critical Area Prohibited Uses

The following uses are prohibited within all portions of the Critical Area:

- Dwelling unit or other non-water dependent project as defined in the State’s [Natural Resources Code 1808.4 located](#) on a pier, wharf, dock, walkway, bulkhead, breakwater, piles over water, or other similar structure;
- Collection, storage, handling, or disposal of hazardous and toxic materials, as defined in [COMAR 11.07.01.01A](#);



- Commercial or municipal incinerators;
- Junk or scrap storage and yards, including storage on barges and belt conveyor systems used for the transfer of materials – this prohibition does not apply to the continuous process of loading or unloading processed metal for and during its transfer to or from a docked barge or vessel awaiting shipment;
- Landfills;
- Liquefied natural gas and petroleum gas terminals;
- Non-water dependent uses on barges in tidal waters, except maritime museums;
- Non-water dependent uses on permanently moored vessels in the Inner Harbor Basin, except maritime museums;
- Storage and handling of radioactive waste;
- Recycling collection stations;
- Solid waste acceptance facilities as defined in [Baltimore City Code Article 23 \(Sanitation\) § 11-1\(i\)](#), except for facilities approved as a conditional use by the BMZA;
- Automobile dismantling and recycling; including operations that perform maintenance, dismantling or storage of abandoned, unlicensed, junked, or derelict vehicles.

### 1.5.2 Prohibited Uses within the Buffer

The following uses are prohibited within the Buffer:

- Storage facilities for nutrients (elements or compounds essential as raw material for organic growth; for example, carbon, nitrogen, and phosphorus);
- Sand or gravel extraction operations;
- Cement plants;
- Chemical plants.

### 1.5.3 Exceptions to Prohibited Uses

The prohibitions listed above do not apply if the following standards are met:

- On recommendation of the Department of Planning, the BMZA finds that both:
  - There is no environmentally acceptable alternative outside the Critical Area;
  - The use is needed to improve water quality or address a wastewater management problem.
- For any new use that constitutes a significant development or for any expansion of a nonconforming use, a best management practices plan that achieves a net improvement in water quality and habitat is submitted and implemented as a requirement of the Critical Area review process.

### 1.5.4 Conditional Uses outside the Buffer

Solid waste acceptance facilities as defined in [Baltimore City Code Article 23 \(Sanitation\) § 11-1\(i\)](#) are prohibited in the Critical Area. The following exceptions are conditional uses allowed outside the Buffer, which require BMZA approval upon the recommendation of the Department of Planning:

- Waste-to-energy facilities;
- Indoor operated transfer facilities;
- Indoor operated composting facilities.

## 1.6 Grandfathered Uses

Any use that lawfully existed or was approved by the Board of Municipal and Zoning Appeals as of the date of the enactment of this ordinance, January 4, 1988, is considered grandfathered. Any expansion of these grandfathered uses must meet the standards of the Baltimore City Zoning Code for non-conforming uses and for uses prohibited in the Critical Area.

## 1.7 Critical Area Commission Approval Process of Significant Projects

After the project documents are reviewed by the Baltimore City Department of Planning, CAMP staff sends an application package to the CAC for final review. On average, the CAC provides feedback on complete permit applications within five (5) weeks from receipt. CAC feedback may include requests for additional information and recommendations. Baltimore City CAMP staff then informs the applicant of CAC comments and coordinates the submittal of additional information and issues the approval or denial of permits within the Baltimore City's permitting system.

For more detailed information on the Critical Area Review process, please see Section 11 - Implementation of the CAMP.

## 1.8 Compliance with Other City Ordinances

All development within the Critical Area must comply with all the applicable provisions of the [Baltimore City Code](#). This includes, but is not limited to:

- Baltimore City Natural Resources Code: Division II: Stormwater Management
- Baltimore City Natural Resources Code: Floodplain District, § 2-1 et. Seq.
- Baltimore City Zoning Code: Critical Overlay District, § 7-401 et. Seq.
- Baltimore City Building Code

### 1.8.1 Compliance with the City of Baltimore Stormwater Management Regulations

In addition to the Critical Area 10% phosphorus reduction requirement, projects in the Critical Area are required to comply with all existing City of Baltimore stormwater management regulations mandated by Baltimore City Department of Public Works (Baltimore City DPW). Procedures for permits, inspection, performance bonding, maintenance, appeals, and penalties are explained in the [Maryland Stormwater Management Design Manual](#) and the Baltimore City Natural Resources Code, Division 2.

The Maryland Stormwater Management Design Manual (Appendix D-4) provides guidelines for run-off pollution reduction in the Critical Area. The Manual also includes an assessment methodology for evaluating pollutant removal effectiveness of stormwater management facilities, and instructions for review and approval of runoff pollution reduction plans. Baltimore City DPW administers the review and approval process.

Stormwater Management Plans must be approved by the Baltimore City DPW prior to the submission of a project application to the CAC for review.

## 1.8.2 Compliance with the City of Baltimore Landscape Manual

The [Baltimore City Landscape Manual](#) applies to any development or redevelopment project involving 5,000 square feet or more of site disturbance and requiring Site Plan Review Committee approval. Plantings provided to meet Critical Area mitigation requirements may be credited towards the requirements of the Landscape Manual if the plantings also meet the conditions and standards of the Landscape Manual.

## 1.8.3 Conflicts with other Codes, Ordinances and Regulations

In the event that the exercise of the CAMP creates conflicts with other Baltimore City Codes, Ordinances or Regulations, the stricter provisions shall apply.

## 1.9 Overview of CAMP Manual

### Designation of Development Areas

The City is required by the State Critical Area Act to differentiate districts, sub-districts and sub-subdistricts within its Critical Area according to land use types and densities that existed at the time of program development. These areas are subject to different guidelines and restrictions that govern development and use. The Critical Area Regulations ([COMAR 27.01.02](#)) establish three land use classifications designed to accommodate growth in such a manner as to conserve habitat and protect water quality. The three development areas are:

1. Intensely Developed Areas (IDA)
2. Limited Development Areas (LDA)
3. Resource Conservation Areas (RCA)

The land within Baltimore City's Critical Area falls into two of the three categories outlined in the Critical Area Act: IDA and RCA, as Baltimore has no LDA.

The vast majority of Baltimore City's Critical Area is designated as IDA, for which the guidelines and restrictions are further detailed in Section 2 – Intensely Developed Areas. The diversity of existing land uses in the IDA requires that Baltimore City further differentiates this district of its Critical Area into Waterfront Industrial Areas (WIA) and Waterfront Revitalization Areas (WRA). The WRA retains a sub-subdistrict, the Shoreline Conservation Area (SCA), which intends to preserve soft shorelines and prevent the construction of additional bulkheads along Baltimore City's coastline. The total land area encompassed by the Critical Area in Baltimore City is 5,521.3 acres.

The expansion of the WRA and reduction of the WIA in the 2020 CAMP, when compared to the 2002 CAMP, was implemented to better align the Critical Area districts with the zoning map adopted by Baltimore City in 2017. The 2017 zoning map was enacted to reflect the changes in land use observed across Baltimore City, where areas previously zoned as industrial are converting into commercial uses.

The remainder of the City's Critical Area is designated as RCA. Guidelines and restrictions for RCA are provided in Section 3 – Resource Conservation Areas.

### **The Critical Area Buffer**

The Critical Area Act requires the establishment of a protective buffer around aquatic resources within the Critical Area. The Buffer is measured 100-feet landward from the mean high water line of tidal waters, the landward edge of tidal wetlands, and both banks of tributary streams. In some instances, the Buffer is expanded beyond 100 feet to include contiguous steep slopes, hydric soils, highly erodible soils, or non-tidal wetlands. When a development project encroaches upon the Buffer, the submission and approval of a Buffer Management Plan is required. Guidelines, restrictions, and submission requirements for development projects containing land within the Buffer are detailed in Section 4 – The Critical Area Buffer.

### **Habitat Protection Areas and Designated Habitat Areas**

The Critical Area Act also requires the City to identify existing natural resources in and around the Critical Area and establish provisions for protecting and enhancing these resources. In Section 5 – Habitat Protection Areas and Designated Habitat Protection Areas, specific resources and environmental concerns are described, including resource and wildlife habitat protection, water quality and shore erosion control. Maps and descriptions of Baltimore’s DHPAs are included in Section 9 – Designated Habitat Protection Areas.

### **Mitigation Standards & Planting Guide for the Critical Area**

To protect wildlife habitat, water quality, and forest cover; development and redevelopment projects are required to meet mitigation planting requirements. Detailed information on mitigation requirements and planting guidelines can be found in Section 6 – Mitigation Standards and Planting Guide for the Critical Area.

### **Stormwater Pollutant Reduction in the IDA**

The 10% Rule requires development and redevelopment projects to reduce stormwater runoff pollutant levels by at least 10% compared to the existing land use through the use of best management practices (BMP) for projects with disturbance over 250 square feet. Further guidance for meeting the 10% Rule can be found in Section 7 – Stormwater Pollutant Reduction in the IDA.

### **Offset Programs**

Alternative methods of compliance may be allowed if the applicant can prove that the Critical Area Requirements cannot be met onsite, or if the CAMP goals are better met by alternative compliance methods. Alternate compliance methods are most often achieved through offsite mitigation or offset fee programs. These topics are detailed further in Section 8 – Offset Programs.

### **Implementation of the CAMP and Materials Needed for Compliance**

The Critical Area Act (State Natural Resources Article, § 8-108.1 et. Seq., Annotated Code of Maryland) requires that each jurisdiction establish administrative procedures for implementing a local development review process. These procedures must include provisions for interagency coordination, enforcement and appeals; such provisions are listed in Section 11 – Implementation of the CAMP.

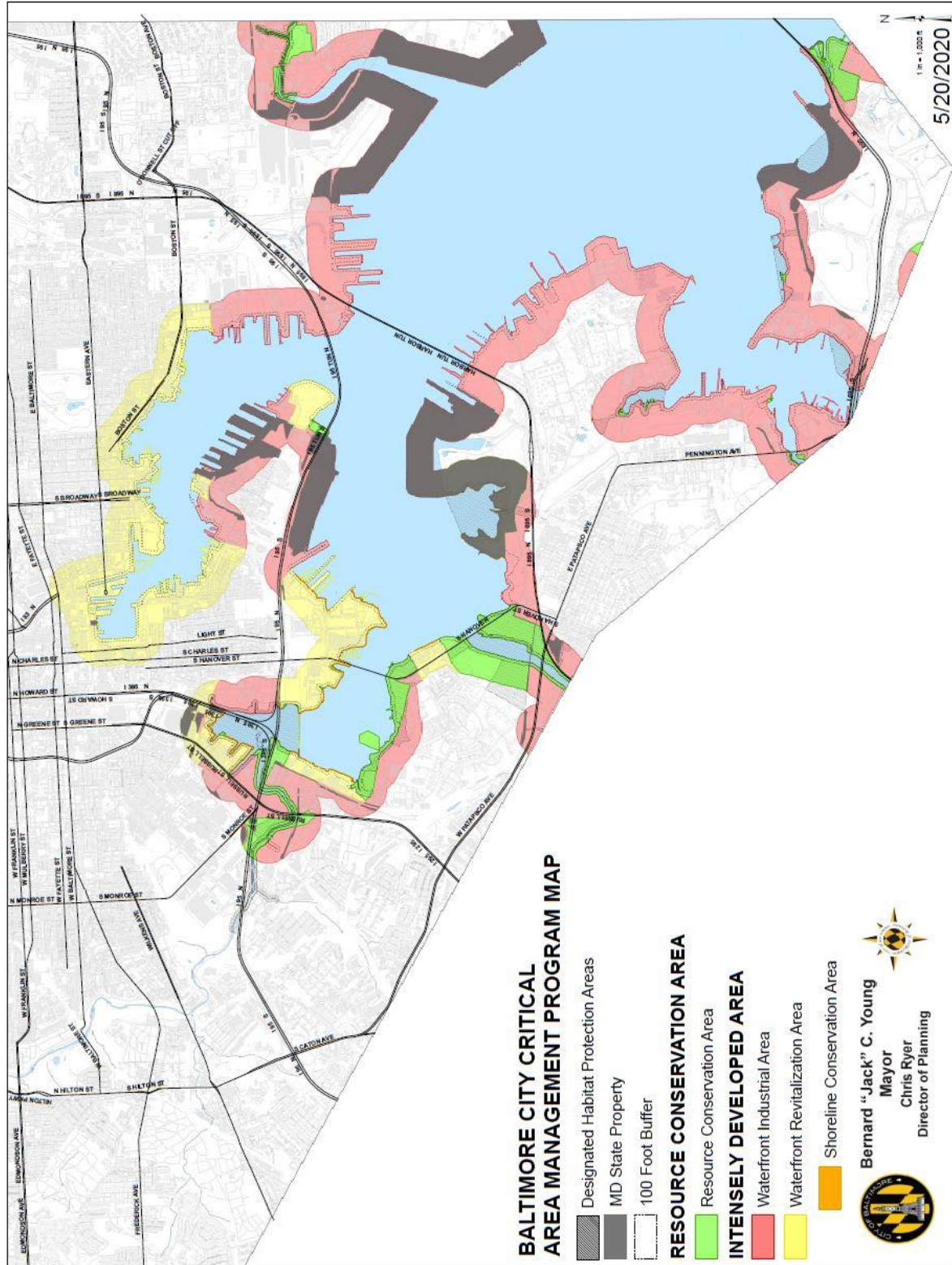
### **Forms and Additional Resources**

The materials needed for compliance with Baltimore’s CAMP, and other resources helpful to preparing required submissions are provided in Section 12 – Forms and Additional Resources.

## **Definitions and Acronyms**

Definitions of terms used throughout the manual are provided in Section 13 – Definitions and Acronyms.

Figure 1: CAMP Map





## **2 INTENSELY DEVELOPED AREAS**

Most of the City’s Critical Area is designated as IDA. The diversity of existing land uses in the IDA necessitates further differentiation of the IDA into Waterfront Revitalization Areas and Waterfront Industrial Areas. The CAMP Map (Figure 1) displays where Waterfront Revitalization Areas (WRA) and Waterfront Industrial Areas (WIA) are located within the IDA.

### **2.1 Waterfront Revitalization Area**

The WRA is one of two sub-districts within the IDA and has been undergoing redevelopment since the 1990’s. In the 2020 Manual update, the WRA expanded by 48 percent, going from approximately 617 acres to 1,282.8 acres, or 34 percent of the land area of the City’s Critical Area. The area starts approximately 4,800 feet (0.9 miles) southeast of the intersection of Key Highway and Stevenson Street and proceeds clockwise around the harbor to roughly 1,200 feet south of the intersection of Boston Street and Clinton Street in Canton. The intensity of use, extensive storm drain system and bulkheaded shores often preclude the habitat and stormwater filtering benefits of the Buffer. In addition, a hard-edged urban public promenade is almost complete along the full length of the area. However, areas that retain soft and pervious shoreline are also still present in the WRA. For that reason, the 2020 CAMP enacted the Shoreline Conservation Area (SCA) as a sub-subdistrict of the WRA, that encompasses 595.9 acres, or 46.5 percent of the total WRA. The intent of the SCA is to restrict the development of new bulkheads within soft shoreline areas of the WRA.

#### **2.1.1 Critical Area Requirements in the WRA**

##### **2.1.1.1 Buffer Requirements in the WRA**

Buffer Management Plans are required for any project that encroaches upon and disturbs land and /or vegetation within the Buffer, to mitigate or establish vegetated areas to protect aquatic, wetland, and shoreline environments from man-made disturbances. The mitigation requirements are detailed in Section 4 – The Critical Area Buffer.

##### ***2.1.1.1.1 Buffer Requirements for Water and Non-Water Dependent Uses in the WRA***

Critical Area requirements for development in the Buffer of the WRA vary, depending on whether the development is a water dependent or non-water dependent. To the extent possible, non-water dependent structures or operations associated with water-dependent projects or activities must be located outside the Buffer, in accordance with [COMAR 27.01.03.03-\(a\)\(4\)](#). Any proposals for new or expanded water-dependent facilities shall be considered in relation to the criteria set forth in [COMAR 27.01.03.04](#) - Local Plan Requirements for Water-Dependent Facilities.

All development that happens in the Buffer of the WRA requires that the applicant offset for any additional/new impervious areas. The applicant is also required to mitigate for any vegetation disturbed by development and meet the requirements for any new lot coverage. Shore erosion problems also must be corrected. A Buffer Management Plan that meets the requirements of this manual and [COMAR 27.01.09.01-3](#) must be submitted to the Department of Planning for approval. The Buffer must be vegetated, or mitigated for by other means, according to the

approved Buffer Management Plan prior to the approval of any use and occupancy permits for the project.

Any development or redevelopment within the Buffer is limited to 60 percent of the entire Buffer area, and mitigation must be provided for an area equal to additional/new impervious areas within the Buffer. Any deviation of this directive requires a variance. Table 5 provides guidance for the calculation of mitigation requirements. Please note that the developer must strive to meet the required mitigation on site, but a fee-in-lieu may be accepted if mitigation may not be fully met on site. The applicant is also required to mitigate for any vegetation disturbed by development.

#### **2.1.1.2 Afforestation Requirement in the WRA**

Projects within the WRA must meet the 15% afforestation requirement for the entire site, including the Buffer. Projects with LOD lesser than 20 percent of the total site area calculate the 15% afforestation based on the LOD. Afforestation requirements for projects in the WRA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### **2.1.1.3 Mitigation Requirements for Vegetation Removal in the WRA**

The removal of trees or woody vegetation within the WRA requires advanced approval of the Director of Planning and must be mitigated in accordance with this manual. Mitigation requirements for projects in the WRA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### **2.1.1.4 Runoff Pollution Reduction in the WRA**

Development and redevelopment projects are required to reduce stormwater runoff pollutant levels by at least 10% below that of existing land use, through the use of best management practices. This is known as the 10% Rule. Total phosphorus is used as the basis for computing pre-development and post-development pollutant loads to determine compliance with the 10% Rule. Further guidance for meeting the 10% Rule can be found in Section 7 – Stormwater Pollutant Reduction in the IDA.



## **2.1.2 Shoreline Conservation Area**

The SCA is a sub-subdistrict of the WRA created with the 2020 Manual update. The SCA encompasses areas that transitioned from industrial to other types of uses overtime, and that retain soft, green or natural shoreline features. The intention of the SCA is to limit the construction of additional bulkheads along Baltimore’s coastline, and sponsor the natural habitat as aesthetic value provided by soft shorelines. Additional benefits provided by soft shorelines include the maintenance of natural shoreline dynamics, attenuation of storm surge and flood waters, filtration of nutrients and other pollutants, and creation and protection of carbon sinks through the maintenance of wetlands.

The SCA occupies approximately 595.8 acres, or 10.8 percent of the land areas of Baltimore City’s Critical Area. The sub-subdistrict covers a portion of Masonville Cove, the MedStar Hospital site, portions of Westport, the shoreline area from the Horseshoe Casino until the BGE Spring Garden site, Port Covington and Fort McHenry National Monument and Historic Shrine.

For the purpose of the SCA, shoreline is defined as the area within 30 feet of the mean high water line as displayed in the Critical Area map.

### **2.1.2.1 Critical Area Requirements in the SCA**

#### ***2.1.2.1.1 Buffer Requirements for Water and Non-Water Dependent Uses in the SCA***

The Buffer requirements included in Section 2.1.1.1 apply to the Buffer of the SCA. In addition to those, no new -bulkheads are allowed in the SCA’s shoreline area (30 feet from the mean high water line), and the removal of vegetation, even if necessary for the re-establishment of the Buffer, must be approved by the Baltimore City Department of Planning and the CAC. The SCA requirements apply to areas that have soft shorelines as of the date of adoption of this Manual. Variances may be pursued for projects that propose water-dependent uses that deviate from the above described criteria. Variance information can be found on section 11.5 - Variances of this document.

Buffer Management Plans are required for any project that encroaches upon the Buffer in order to mitigate or establish vegetated areas that serve to protect aquatic, wetland, and shoreline environments from human-made disturbances. The mitigation requirements are detailed in Section 4 – The Critical Area Buffer.

#### ***2.1.2.1.2 Afforestation Requirement in the SCA***

Projects within the SCA must meet the 15% afforestation requirement for the total site area, including the Buffer. Projects with LOD lesser than 20 percent of the total site area calculate the 15% afforestation based on the LOD. Afforestation requirements for projects in the SCA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### ***2.1.2.1.3 Mitigation Requirements for Vegetation Removal in the SCA***

The removal of trees or woody plants within the SCA requires advance approval by the Baltimore City Department of Planning and must be mitigated in accordance with this manual.

Mitigation requirements for projects in the SCA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### ***2.1.2.1.4 Runoff Pollution Reduction in the SCA***

Development and redevelopment projects are required to reduce stormwater runoff pollutant levels by at least 10% below that of existing land use by using best management practices. This is known as the 10% Rule. Total phosphorus is used as the basis for computing pre-development and post-development pollutant loads to determine compliance with the 10% Rule. Further guidance for meeting the 10% Rule can be found in Section 7 – Stormwater Pollutant Reduction in the IDA.

## **2.2 Waterfront Industrial Area**

The WIA is the second sub-district in the Intensely Developed Area and generally has fewer structures and less lot coverage than the Waterfront Revitalization Area. This portion of the City's IDA is 3,169.3 acres, or 57.4 percent of the City's Critical Area.

A large amount of the City's industrially zoned land lies within the WIA, which has long been developed for port-related purposes. The City encourages the redevelopment of this area as part of its effort to retain and create jobs and industry. The City seeks the development of port-related facilities within its Critical Area but cannot reserve it exclusively for this purpose. The development of marinas is primarily regulated by the [Baltimore City Zoning Code, § 14-323](#) and guided by the [Maritime Master Plan](#). Portions of the City's WIA are protected and reserved for industrial uses by the [Baltimore City Zoning Code, § 11-206](#) (Maritime Industrial Zoning District).

### **2.2.1 Critical Area Requirements in the WIA**

#### **2.2.1.1 Buffer Requirements in the WIA**

Critical Area requirements for development in the Buffer vary, depending on whether the development is a water-dependent or non-water dependent use. To the extent possible, non-water-dependent structures or operations associated with water-dependent projects or activities must be located outside the Buffer, in accordance with COMAR 27.01.03.03-(a)(4). Any proposals for new or expanded water-dependent facilities shall be considered in relation to the criteria set forth in COMAR 27.01.03.04 - Local Plan Requirements for Water-Dependent Facilities. Buffer Management Plans are required for any project that encroaches upon the Buffer in order to mitigate or establish vegetated areas that serve to protect aquatic, wetland, and shoreline environments from human-made disturbances. The Buffer mitigation requirements are detailed in Section 4 – The Critical Area Buffer.

##### ***2.2.1.1.1 Buffer Requirements for a Water-Dependent Use in WIA***

Water-dependent development within the Buffer of the Waterfront Industrial Area requires the applicant to offset for any additional/new impervious areas. Table 5 provides guidance to calculate the mitigation required from the project. The applicant is also required to mitigate for any vegetation disturbed by development and meet Buffer disturbance requirements for any new lot coverage. In addition, shore erosion problems must be corrected.

A Buffer Management Plan that meets the requirements of this manual and [COMAR 27.01.09.01-3](#) must be submitted to the Department of Planning for approval. The Buffer must be vegetated, or mitigated for by other means, according to the approved Buffer Management Plan prior to the approval of any use and occupancy permits for the project.

#### ***2.2.1.1.2 Buffer Requirements for Non-Water Dependent Use in WIA***

Non-water dependent development within the Buffer of the WIA is limited to 50 percent of the total undeveloped Buffer area, and mitigation must be provided for new impervious areas within the Buffer. A variance is required of projects that wish to exceed the 50 percent limit. The applicant must follow Table 5 to calculate the mitigation required from the project. The applicant is also required to mitigate for any vegetation disturbed by development. Table 3 provides guidance for the calculation of the required mitigation. In addition, shore erosion problems must be corrected.

A Buffer Management Plan that meets the requirements of this manual and [COMAR 27.01.09.01-3](#) must be submitted to the Department of Planning for approval. The Buffer must be vegetated, or mitigated for by other means, according to the approved Buffer Management Plan prior to the approval of any use and occupancy permits for the project.

#### **2.2.1.2 Afforestation Requirement in the WIA**

Projects within the WIA must meet the 15% afforestation requirement for the total site area, including the Buffer. Projects with LOD lesser than 20 percent of the total site area calculate the 15% afforestation based on the LOD. Afforestation requirements for projects in the WIA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### **2.2.1.3 Mitigation Requirements for Vegetation Removal in the WIA**

The removal of trees or woody plants within the WIA requires advance approval of the Director of Planning and must be mitigated in accordance with this manual. Mitigation requirements for projects in the WIA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

#### **2.2.1.4 Runoff Pollution Reduction in the WIA**

Development and redevelopment projects are required to reduce stormwater runoff pollutant levels by at least 10% below that of existing land use using best management practices. This is known as the 10% Rule. Total phosphorus is used as the basis for computing pre-development and post-development pollutant loads to determine compliance with the 10% Rule. Further guidance for meeting the 10% Rule can be found in Section 7 – Stormwater Pollutant Reduction in the IDA.

### **3 RESOURCE CONSERVATION AREAS**

The portion of the City's Critical Area not designated as IDA is classified as Resource Conservation Area (RCA). This sub-area encompasses 371.8 acres and represents 6.7 percent of the land area of the City's Critical Area. The Resource Conservation Area is almost exclusively floodplain areas and shoreline parks. Resource Conservation Areas are regulated by [COMAR 27.01.02.05](#).

#### **3.1 Development within the RCA**

##### **3.1.1 Permitted, Conditional, and Prohibited Uses outside the Buffer**

In addition to the uses identified as prohibited and conditional uses in the Critical Area in Section 1.5 of this manual, there are additional limitations on development within the RCA.

Development outside the Buffer within the RCA will be limited to recreational, cultural, and educational facilities. Permitted and accessory uses include open space, public recreation, natural parks, pedestrian easements, bike paths, and cultural and historical sites. Sites owned by the City of Baltimore that are used for active recreation by the City of Baltimore have their uses grandfathered. The grandfathering provision only applies to existing sites that have active uses as of, or prior to, the enactment of the Critical Area law in the City of Baltimore. Public facilities are conditional uses outside the Buffer, and non-public water-dependent facilities are prohibited in the RCA.

##### **3.1.2 Permitted, Conditional, and Prohibited Uses within the Buffer**

In addition to the uses identified as prohibited uses in the Buffer in Section 1.5 - Prohibited and Conditional Uses in the Critical Area of this manual, there are additional limitations on development within the Buffer of the RCA. Permitted and accessory uses permitted within the Buffer of the RCA include areas for passive recreation, such as nature study and education. Service facilities for these uses must be located outside of the Buffer. Public water-dependent facilities are conditional uses within the Buffer in the RCA.

##### **3.1.3 Lot Coverage Limitations in the RCA**

Within the RCA, lot coverage is limited as follows:

- a) Lot coverage is limited to 15 percent of a parcel or lot except as otherwise outlined below;
- b) If a parcel or lot one-half acre or less in size existed on or before December 1, 1985, then lot coverage is limited to 25 percent of the parcel or lot;
- c) If a parcel or lot greater than one half acre and less than one acre in size existed on or before December 1, 1985, then lot coverage is limited to 15 percent of the parcel or lot;
- d) If an individual lot one-acre or less in size is part of a subdivision approved after December 1, 1985, then lot coverage may not exceed 25 percent of the lot. However, the total lot coverage over the entire subdivision may not exceed 15 percent;
- e) Lot coverage limits provided in sub-sections (a) and (c) above may be exceeded, upon findings by the Director of Planning or their designee that the following conditions exist:
  - 1) Lot coverage associated with new development activities on the property have been minimized;

- 2) For a lot or parcel one-half acre or less in size, total lot coverage does not exceed the lot coverage limitations described above by more than 25 percent or 500 square feet, whichever is greater;
- 3) For a lot or parcel greater than one-half acre in size and less than one acre in size, total lot coverage does not exceed 15 percent lot coverage by more than 5,445 square feet;
- 4) Water quality impacts associated with runoff from new lot coverage have been minimized through the use of best management practices (BMP) approved by the City of Baltimore – Department of Public Works (DPW);
- 5) The property owner performs on-site mitigation to offset potential adverse water quality impacts from the new development activities that contribute to lot coverage; or the property owner pays a fee in lieu of performing the on-site mitigation. The new lot coverage on the property must be mitigated, and Table 5 can be used to calculate the mitigation required.

## **3.2 Critical Area Requirements in the RCA**

### **3.2.1 Buffer Requirements in the RCA**

Buffer Management Plans are required for any project that encroaches upon the Buffer in order to mitigate or establish vegetated areas that serve to protect aquatic, wetland, and shoreline environments from human-made disturbances. The Buffer mitigation requirements are detailed in Section 4 – The Critical Area Buffer.

### **3.2.2 Mitigation Requirements for Vegetation Removal in the RCA**

The removal of trees or woody vegetation within the RCA requires advance approval of the Director of Planning and must be mitigated in accordance with this manual. Mitigation requirements for projects in the RCA can be found in Section 6 – Mitigation Standards & Planting Guide for the Critical Area.

### **3.2.3 Runoff Pollution Reduction in the RCA**

Local and state stormwater management requirements apply to projects in the RCA. If a project receives a variance or conditional approval to exceed lot coverage in the RCA, the 10% Rule for phosphorus reduction applies.

## **4 THE CRITICAL AREA BUFFER**

The Buffer is the area immediately adjacent to the mean high water line of tidal waters, the edge of each bank of tributary streams and the landward edge of tidal wetlands. It includes areas that are naturally vegetated or not naturally vegetated and may include undeveloped land or land that has been previously developed or disturbed. The Buffer requirements described in this section are intended to protect aquatic, wetland, shoreline, and terrestrial environments from human-made disturbances. The Buffer is expanded to include steep slopes, erodible soils and other sensitive areas.

The Buffer regulations in this chapter include comprehensive standards and procedures for the management of the Critical Area Buffer.

### **4.1 Measurement and Expansion of the Buffer**

The Buffer is measured 100-feet landward from:

- The mean high water line of tidal waters;
- The landward edge of tidal wetlands;
- The edge of each bank of tributary streams;
- The landward edge of rip-rap, bulkhead or revetment when the shoreline of the site is developed and/or impervious.

The Buffer is expanded when one or more of the following conditions exist, contiguous to the Buffer (see [COMAR 27.01.09.01](#)):

- a) Steep slopes, with the Buffer expanded at a rate of four feet for every one percent of slope or to the top of the slope, whichever is greater;
- b) [Non-tidal Wetlands of Special State Concern](#), including both the wetland and its regulated 100-foot buffer;
- c) Non-tidal wetlands to the upland boundary of the non-tidal wetland; and,
- d) Highly erodible soils and hydric soils, with the Buffer expanded to the landward edge of the soil or 300-feet (which includes the minimum 100-foot Buffer), whichever is less.

In accordance with provisions enacted by the [Maryland General Assembly in 2008](#), a 200-foot Buffer from tidal waters and tidal wetlands is required for new subdivisions and site plan approvals in the RCA.

Before final recordation of a subdivision, the applicant must mark the Buffer in the field with a permanent sign that prohibits clearing or disturbance. There must be at least one sign per lot or for each 200 linear feet of shoreline. Concurrent with the recordation of the subdivision, the applicant must record a protective measure, such as deed restrictions or an equivalent, within the Buffer Management Plan.

### **4.2 Prohibited Uses in the Buffer**

The following uses are prohibited within the Buffer in all portions of the Critical Area:

- Storage facilities for nutrients, including elements or compounds essential as raw materials for organic growth and development;
- Sand or gravel extraction operations;

- Cement plants;
- Chemical plants.

See Section 3 - Resource Conservation Areas for additional use restrictions applicable to development in the RCA, and Section 1.5 - Prohibited and Conditional Uses in the Critical Area for general use restrictions in the Critical Area.

### **4.3 Sites with 15% or More Total Land Area in the Buffer**

When the Buffer comprises 15 percent or more of a site, the applicant may be approved to develop within the Buffer up to the point where 85 percent of the total site area is developed, provided that the portion of the Buffer disturbed by such development complies with mitigation requirements. This provision does not apply to projects located within the WRA, RCA or DHPA.

Additional information about the Buffer Offset Fee Program is provided in Section 8 – Offset Programs.

### **4.4 Buffer Mitigation Requirements**

Mitigation for Buffer disturbance is required from projects located within the Buffer of the IDA and is calculated based on new impervious areas and vegetation removal. Calculations and plantings for mitigation are required as part of the submission of Buffer Management Plans. Regarding fulfilment, if the mitigation requirement cannot be met on site, it may be met off-site or through payment of a fee-in-lieu. Table 5 offers guidance for the calculation of Buffer mitigation, and additional information about the fee-in-lieu program is provided in Section 8 – Offset Programs.

Mitigation for Buffer disturbance must be provided for an area equal to all newly proposed impervious areas within the Buffer. The mitigation ratio depends on whether the project is water dependent or non-water dependent (Table 4). The mitigation requirement does not apply to a project that limits its Buffer disturbance to areas that are currently impervious. Specific mitigation requirements and calculations for Buffer mitigation can be found in Section 6 - Mitigation Standards & Planting Guide for the Critical Area.

Mitigation for vegetation removal is based on the caliper inch and the condition of the trees removed from the Buffer area. Specific planting requirements and calculations for Buffer mitigation can be found in Section 6 - Mitigation Standards & Planting Guide for the Critical Area.

### **4.5 Buffer Management Plans**

The submittal of a Buffer Management Plan is required for any project that involves disturbance of the Buffer. An applicant must submit a Buffer Management Plan to the Department of Planning for review and approval when Buffer mitigation is required in accordance with [COMAR 27.01.09.01-3](#) or when disturbance to the Buffer will result from issuance of a variance, permit, or other project approval. As set forth in [COMAR 27.01.09.01-3](#), Baltimore City may not authorize a variance to Buffer planting and mitigation requirements or issue a final use and occupancy permit until the applicant completes the implementation of a Buffer Management

Plan, or provides financial assurance to cover the costs for materials, installation and long-term survivability of plant materials.

Projects requiring submission of a Buffer Management Plan include:

- The creation of a new subdivision or a new lot;
- The conversion from one land use to another land use on a lot or a parcel; or
- Development or disturbance on a lot or a parcel created before March 8, 2010.

Buffer Management Plan requirements vary depending on the intensity of the proposed development activity. The project types and submission requirements for each type of Buffer Management Plan are described further in this section.

The three types of Buffer Management Plans are:

- Simplified Buffer Management Plan
- Minor Buffer Management Plan
- Major Buffer Management Plan

#### **4.5.1.1 Simplified Buffer Management Plan**

A Simplified Buffer Management Plan is required for a Buffer impact that is associated with:

- Providing access to a private pier or shoreline that is no greater than 3 feet wide;
- Manually removing invasive or noxious vegetation;
- Filling to maintain an existing grass lawn; or,
- Cutting a tree that is in imminent danger of falling, except when actions are necessary in emergency situations. In such instances, a Simplified Buffer Management Plan shall be submitted at the earliest possible time.

A Simplified Buffer Management Plan must include:

- A brief narrative describing the proposed activity, including the anticipated start date and method to be used;
- The proposed mitigation;
- The proposed planting date; and
- The signature of the party responsible for the proposed activity and for ensuring the survival of the planting.

#### **4.5.1.2 Minor Buffer Management Plan**

A Minor Buffer Management Plan is required for a Buffer impact that is associated with:

- Proposed Buffer disturbance that requires less than 5,000 square feet of mitigation.

A Minor Buffer Management Plan must include:

- A plan that shows the proposed Limit of Disturbance (LOD), the total number and size of trees to be removed, if applicable, and the arrangement of the planting to be done;
- Calculations to determine the required Buffer mitigation;
- A landscape schedule that shows the proposed species type, the quantity of plants, the size of plants to be installed, and the planting date;
- A maintenance plan for the control of invasive species, pests, and predation that shows invasive species and pest control practices, the provision of at least two years of



monitoring, and a reinforcement planting provision if survival rates fall below the standards set in this manual and [COMAR 29.01.09.01-2](#).

- An inspection agreement that grants permission to Baltimore City to inspect the plantings at appropriate times;
- The signature of the party responsible for the proposed activity and for ensuring the survival of the planting.

#### **4.5.1.3 Major Buffer Management Plan**

A Major Buffer Management Plan is required for a Buffer impact that is associated with:

- Proposed Buffer disturbance requiring mitigation of 5,000 square feet or greater.

A Major Buffer Management Plan must include:

- A plan that shows the proposed LOD, the total number and size of trees to be removed, if applicable, and the arrangement of the planting to be done;
- Calculations to determine the required Buffer mitigation;
- A landscape schedule that shows the proposed species type, the quantity of plants, the size of plants to be installed, and the planting date;
- A maintenance plan for the control of invasive species, pests and predation that shows invasive species and pest control practices, the provisions for at least two years of monitoring, and a reinforcement planting provision if survival rates fall below the requirements;
- A long-term protection plan that includes evidence of financial assurance that adequately covers the planting and survivability requirement, a provision for at least two years of monitoring, and if planting, an anticipated planting date before construction or the sale of the lot;
- An inspection agreement that grants permission to the local government to inspect the plantings at appropriate times;
- The signature of the party responsible for the proposed activity and for the survival of the planting.

In a Major Buffer Management Plan, a single species may not exceed 20 percent of the total planting requirement, and shrubs may not exceed 20 percent of the total planting requirement without special permission from the Department of Planning.

#### **4.5.2 Buffer Credit for Plantings Outside the Buffer**

New vegetation planted outside the Buffer may be credited toward Buffer requirements provided that:

- It is contiguous to existing or planned vegetation within the Buffer; and,
- Vegetation planted outside the Buffer is at least 25 feet in width or as wide as site constraints will allow; and,
- Existing or planned vegetation within the Buffer is the entire depth of the Buffer and includes at least 50 linear feet along the shoreline or as wide as site constraints will allow; and,
- The buffer plan has prior approval from the Department of Planning's Director.

## 4.6 Shoreline Erosion Control

To protect shoreline against erosion while retaining natural shoreline form, habitat, and ecological function, the State of Maryland has established regulations to promote the use of nonstructural shoreline stabilization measures. Nonstructural shoreline stabilization measures are required where shoreline erosion control is necessary, except in areas mapped by the Maryland Department of the Environment (MDE) as appropriate for structural shoreline stabilization measures. In areas designated for nonstructural shoreline stabilization measures, structural measures may be allowed where the applicant is able to demonstrate to the satisfaction of MDE that nonstructural measures are not feasible. Additional information can be found on [COMAR 26.24.04.04-1](#). These may involve areas of excessive erosion, areas subject to heavy tides, and areas too narrow for effective use of nonstructural shoreline stabilization measures.

The construction of structural shoreline stabilization measures is a development activity requiring Buffer mitigation planting. Additional information regarding shoreline stabilization is provided on [COMAR 26.24.04](#). Calculations and guidelines for mitigation planting are provided in Section 6 - Mitigation Standards & Planting Guide for the Critical Area.

## 4.7 Piers, Barges, Vessels, and Docks

Piers, barges, permanently moored vessels, and docks are subject to Critical Area regulations, requirements and offsets. All piers, barges, vessels and docks must also comply with all applicable State and Federal rules and regulations.

### 4.7.1 Piers and Fill Piers

Pursuant to the [State Natural Resources Article, § 8-1808.4](#), Annotated Code of Maryland, and the [Baltimore City Zoning Code, § 7-406](#), no building permit shall be issued for any project involving the construction of a dwelling unit or other non-water dependent structure on a pier waterward of the mean high waterline of tidal streams, waters, or wetlands within the Critical Area. Non-water-dependent projects include, but are not limited to: dwelling units, restaurants, shops, other commercial buildings and recreational areas; swimming pools; sheds or storage buildings; parking lots; and sanitary facilities.

The following piers have been approved by MDE for non-water dependent uses, and have been grandfathered:

- Belt's Wharf – 960 Fell Street,
- North Shore – 2327 Boston Street,
- Harborview, two piers – 1101 Key Highway and 100 Harborview Drive
- Power Plant, 601 East Pratt Street, three dining areas on piers.

The construction of a water dependent pier or any other structure creates a new area of the Critical Area Buffer, and all Critical Area Buffer regulations are applicable. Buffer requirements and the 10% Rule apply to work done in existing piers (replacement, rehabilitation) if the structure is considered impervious. Reconfiguration of existing piers are reviewed based on the net footprint of the structure. Only the 10% Rule applies to expansions of water dependent piers if the structure's surface is considered impervious.

#### **4.7.2 Barges**

Non-water dependent uses in tidal waters are not permitted on barges located in the City of Baltimore. A barge is defined as non-self-propelled watercraft, as opposed to a vessel which is defined as self-propelled and is licensed by the U.S. Coast Guard. Uses on barges approved as of the original date of the enactment of this legislation are grandfathered, which includes the barges themselves and original locations. Barges that are relocated without the prior notification and approval by the Planning Department lose their grandfathered status under the CAMP. Barges that have been approved by the City for non-water dependent uses and are grandfathered include:

- Lighthouse Point Boat Sales Barge (2701 Boston Street)
- Harborview Swimming Pool Barge (500 Harborview Drive)

#### **4.7.3 Permanently Moored Barges and Vessels**

Non-water dependent uses are not allowed on permanently moored barges and vessels in the Inner Harbor Basin with the exception of permanently moored vessels used as maritime museums. Permanently moored barges and vessels become part of the Critical Area and are subject to all regulations, requirements and offsets.

#### **4.7.4 Floating Piers and Docks**

Concrete, wood or other materials used for floating piers and docks are considered impervious for the calculation of lot coverage, unless the dock is constructed of slats with spaces between that are wide enough to allow water to freely pass through. Buffer requirements apply to floating piers and docks located over the surface of the water, unless the structure is considered pervious surface as described in this paragraph; and is open to the public.

#### **4.7.5 Mitigation Requirement**

The development of existing piers, barges, permanently moored vessels, and docks trigger all Buffer mitigation requirements, as the structures as considered extensions of the Buffer. The development of new structures over water (ex.: concrete pier expansions) trigger the 10% Rule only.

### **4.8 The Promenade**

Privately owned land or piers within the Critical Area for which the applicant grants a public pedestrian and bicycle access easement, approved by the Board of Estimates, is excluded from Buffer requirements. The portion of the site which has been dedicated as public promenade, trail or for access to the promenade or trail may be excluded in the calculation of the net Buffer area. The right of way areas should also be excluded from the total lot coverage used to calculate Buffer mitigation requirements.

## **5 HABITAT PROTECTION AREAS AND DESIGNATED HABITAT PROTECTION AREAS**

The Critical Area regulations require local jurisdictions to identify important natural and community resources within the Critical Area and to devise strategies for protecting and enhancing those resources.

The Critical Area regulations identify ten types of Habitat Protection Areas (HPA) that must be included in local habitat protection programs. In addition, twelve important natural areas within Baltimore have been identified as Designated Habitat Protection Areas (DHPA).

### **5.1 Habitat Protection Areas**

HPAs are designated areas that receive special protection within the Critical Area because they provide habitat for fish, wildlife, and plant species that are significant to the local ecosystem.

The ten types of HPAs identified in the Critical Area regulations include:

1. The Critical Area Buffer;
2. Areas containing threatened and endangered species and species in need of conservation;
3. Colonial water bird nesting sites;
4. Historic waterfowl staging and concentration areas;
5. Riparian forests;
6. Forest interior dwelling bird habitat (forests of 100 acres or more);
7. Designated Natural Heritage Areas;
8. Anadromous fish propagation waters;
9. Habitats of local significance including non-tidal wetlands; and,
10. Areas which may in the future be identified by State and Federal agencies as important plant or wildlife habitats.

#### **5.1.1 The Critical Area Buffer**

The Buffer is one of the designated HPAs. The majority of Baltimore's Buffer has been previously altered by development, including filling and structural stabilization or alteration of the shoreline, leaving little remaining natural habitat. The remaining undeveloped Buffer areas primarily consist of beaches, vegetated slopes and banks, eroding banks, vegetated tidal wetlands, and tributary streams.

#### **5.1.2 Species Threatened, Endangered, or in Need of Conservation**

The Maryland Department of Natural Resources (DNR) identifies Significant Habitats within Baltimore. Maryland DNR also maintains lists of rare, threatened, and endangered plant and animal species for each Maryland jurisdiction, including Baltimore City.

#### **5.1.3 Colonial Water Bird Nesting Sites**

Chesapeake Bay Foundation staff and Baltimore Department of Parks and Recreation staff have documented rookeries of black crowned night heron at the mouth of Curtis Creek and at the northern end of the Middle Branch of the Patapsco River. The State of Maryland cannot

officially designate these sites until documented by the Maryland Department of Natural Resources through site surveys.

#### **5.1.4 Historic Waterfowl Staging and Concentration Areas**

The Chesapeake Bay is located within the Atlantic Flyway and plays a role in migratory bird patterns. The Baltimore Harbor provides habitat for wintering waterfowl in its tidal wetlands and open water areas. The Patapsco River mainstem, from the Hanover Street Bridge eastward to the Dundalk Marine Terminal, supports various wintering waterfowl. According to DNR, documented areas of special importance to wintering waterfowl include the west cove adjoining the Masonville dredge disposal site, the upper Middle Branch, and Stonehouse Cove on Curtis Creek.

#### **5.1.5 Riparian Forests**

Riparian forests are crucial to the protection and enhancement of the water resources of the Chesapeake Bay. They are complex ecosystems that help provide food and habitat for wildlife, as well as being an asset in mitigating and controlling stormwater runoff and pollution.

#### **5.1.6 Forest Interior Dwelling Bird Habitat**

The impact of the loss of forests impacts all species of birds and wildlife. Although small forests are less optimal breeding habitat for most forest-interior birds, these forests can be an important migratory stopover. Maximizing forest cover, improving forest interconnectivity, and increasing forest widths are strongly encouraged to increase habitat in the Critical Area.

#### **5.1.7 Designated Natural Heritage Areas**

The Maryland Natural Heritage program has no designated Natural Heritage Areas in Baltimore City.

#### **5.1.8 Anadromous Fish Propagation Waters**

Anadromous fish propagation waters are those streams that are a tributary to the Chesapeake Bay where the spawning of anadromous species, including rockfish, striped bass, yellow perch, white perch, shad, and river herring occurs or has occurred. The Upper Middle Branch of the Patapsco River and the Lower Gwynns Falls are classified as anadromous fish propagation waters.

It is the policy of the City of Baltimore to require protection of the in-stream and stream bank habitat of anadromous fish propagation waters. The City promotes land use policies and practices in the watershed of spawning streams within the Critical Area that minimize the adverse impacts of development on the water quality of the streams and provide for the unobstructed movement of spawning and larval forms of anadromous fish in streams.

The following standards apply within anadromous fish propagation watersheds:

- The installation or introduction of concrete riprap or other artificial surfaces onto the bottom of natural streams shall be prohibited unless it can be demonstrated that water quality and fisheries habitat can be improved;
- Channelization or other physical alterations, which may change the course of circulation of a stream and thereby interfere with the movement of fish, shall be prohibited;

- The City shall require each development activity that occurs within a watershed draining to anadromous fish propagation waters to fulfill the following objectives:
  - Minimize development activities or land disturbances within the watershed;
  - Maintain, or if practicable, improve water quality in affected streams or other water bodies;
  - Minimize to the extent possible the discharge of sediments into affected streams or other water bodies;
  - Maintain, or if practicable, increase the natural or native vegetation of the watershed and tree canopy over the streams.

The City shall ensure coordination and compliance with complimentary State laws and regulations. This includes prohibiting the construction or placement of dams or other structures that would interfere with or prevent the movement of spawning fish or larval forms in streams or other designated water bodies. If practical, existing structures that block streams or other water bodies shall be removed. The City shall ensure that the construction, repair or maintenance activities associated with bridges, or other stream crossing, or with utilities and roads, which involve disturbance within the Buffer or which occur in-stream as described in [COMAR 08.05.03.11B\(5\)](#), shall be prohibited between March 1 and May 15 of each year. These activities must also meet State and Federal tidal wetlands license requirements.

#### **5.1.9 Habitats of Local Significance Including Non-Tidal Wetlands**

Habitats of local significance in the City of Baltimore are different in quality from significant habitat areas in less disturbed or non-urbanized environments. Herbaceous, scrub-shrub, and woodland communities include native plants and often-exotic volunteer species. Common resident birds, wintering species, migrants and an assortment of urban-tolerant small mammals are supported by these habitats, each of which is considered desirable in our urban context. Naturalized areas of any reasonable size, especially when located near water, are valuable to the wildlife populations of City of Baltimore and therefore are protected within the Critical Area as HPAs.

Woodlots are valuable habitats to a diversity of species as well as providing many benefits to a city, including reducing water and air pollution and moderating temperatures. [COMAR 27.01.05-2](#) requires protection of “developed woodlands.” These areas, whether or not they lie within an HPA, are protected within CAMP.

The National Wetland Inventory Maps indicate, and our site investigations have confirmed, that the City of Baltimore has fewer than 10 acres of palustrine wetlands within its Critical Area. These wetlands are scattered in isolated pockets and include small stands of both palustrine forested and palustrine emergent wetlands.

The CAC does not regulate non-tidal wetlands. All permits for construction will be contingent on the applicant receiving all proper approvals from MDE. An applicant is required to obtain a permit from MDE for any activity that alters a non-tidal wetland or its 25-foot Buffer. The 25-foot Buffer is expanded to 100 feet for Wetlands of Special State Concern as defined in COMAR 26 [Subtitles 23 and 24](#).

To begin the permit process, the applicant is required to complete a ‘Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Non-Tidal Wetland in Maryland’, which may be obtained from the U.S. Army Corps of Engineers. Applicants are required to demonstrate that those proposed impacts to non-tidal wetlands are necessary. The application review process first eliminates and then reduces impacts through avoidance and minimization of impacts. An alternative analysis may be required as part of this process. Mitigation is required for all authorized impacts, and wetland mitigation monitoring is required and will extend beyond construction of an approved mitigation project.

#### **5.1.10 Future Areas Identified as Important Plant or Wildlife Habitat**

Since the date of original adoption of the CAMP program (January 1988), no State or federal agency has designated such an area within Baltimore’s Critical Area. If such an area is designated in the future, it will be incorporated into the Program as provided in COMAR 27.

### **5.2 Designated Habitat Protection Area**

The City of Baltimore has identified twelve important natural areas as DHPAs:

1. Upper Middle Branch
2. Gwynns Falls
3. Lower Middle Branch
4. Reedbird
5. Masonville
6. Stonehouse Cove
7. Cabin Branch
8. Hawkins Point
9. Quarantine Road
10. Thoms Cove
11. Fort Armistead
12. Colgate Creek

Locations, maps, and types of habitats existing for each of the DHPAs listed above are provided in Section 9 – Designated Habitat Protection Areas (DHPAs).

### **5.3 Habitat Protection Requirements for Undeveloped HPAs and DHPAs**

In order to protect undeveloped HPAs and DHPAs, encroachment by development or redevelopment will be permitted only on portions of DHPAs that are already developed. Development within undeveloped HPAs follow criteria specific to the sub-district where the project site is located. Projects located within those areas are subject to the habitat protection and mitigation requirements outlined in this section.

In portions of DHPAs where the Director of Planning determines that the area is not developed, no disturbance or encroachment by development, redevelopment, destruction of vegetation or certain uses will be allowed. Provisions for appeals of determinations and requests for variances are presented in Section 10 - Implementation of the CAMP.

### **5.3.1 Determination by the Director of Planning**

When development is proposed for any portion of an HPA or DHPA, the Director of Planning will determine the extent of existing development on the project site. The Director will base determinations regarding the extent of existing development on a review of the following:

- Habitat Assessment;
- Field investigations and other verification methods deemed appropriate and necessary by the Director;
- Consultation with experts including MDE and DNR.

### **5.3.2 Previously Developed HPAs and DHPAs**

The applicant may encroach upon developed portions of the HPA or DHPA upon fulfillment of the following conditions that may be required by the Director of Planning:

- The applicant must submit a habitat assessment for the development site as described in the subsection below;
- The applicant must demonstrate that the proposed development cannot be located elsewhere on the property and the disturbance is limited to the absolute minimum required, as determined by the Director of Planning;
- The applicant must submit a mitigation plan for the development site as described below.

The Director of Planning will certify that the above conditions have been met and that the proposed development will not adversely affect the HPA or DHPA. In determining whether the proposed development will adversely affect the HPA or DHPA, the Director of Planning may seek review and/or technical expertise from DNR, when appropriate.

## **5.4 Habitat Assessment and Forest Stand Delineation**

Where a development project is proposed to encroach upon an HPA or DHPA, the applicant may be required to perform a habitat assessment of the site to determine the impact of the proposed development on the protected habitat located on or adjacent to the development site. Any such assessment is subject to field investigations and other verification methods deemed appropriate and necessary by the Director of Planning.

The Baltimore City Department of Planning determines, based on site conditions, whether a separate Forest Stand Delineation is required. When required, the applicant should use the State of Maryland Forest Conservation Manual to determine whether an Intermediate or Full Forest Stand Delineation is needed.

## **5.5 Mitigation Plan**

If the Director of Planning reviews the habitat assessment, concurs with its findings, and determines that the proposed development or use has minimal adverse impact on the habitat designated for protection, the applicant must then propose appropriate environmental mitigation. The proposed mitigation plan must include sufficient elements so as to render the larger HPA or DHPA substantially unaltered with respect to the habitat designated for protection as required in [COMAR 27.01.09](#). The proposed mitigation plan shall include all tree replacements required to mitigate the removal of existing trees to accommodate the proposed development within the



HPA or DHPA. Mitigation requirements for tree removal can be found in Section 6 - Mitigation Standards & Planting Guide for the Critical Area.

No building, use, or occupancy permits shall be issued, partially or otherwise, in any HPA or DHPA until or unless the Director of Planning has certified that the mitigation plan proposed by the property owner is consistent with the requirements of the CAMP. Likewise, no use or occupancy permit, whether it is permanent, temporary or partial will be issued for any development or use until or unless the Director of Planning has certified that the mitigation measures proposed in the approved mitigation plan have been satisfactorily installed, protected, and maintained.

In the event that a property owner has been issued a valid building, use, or occupancy permit on the basis of an approved mitigation plan, but subsequent to the issuance of such permits the owner fails to install, protect, or maintain the approved on-site mitigation specified in the mitigation plan, all such permits shall be subject to immediate suspension or revocation.

## **6 MITIGATION STANDARDS & PLANTING GUIDE**

The Critical Area regulations task local jurisdictions with conserving, maintaining, and increasing the forest and woodland vegetation within the Critical Area. This includes ensuring that tree and woody vegetation clearing to accommodate development activities is minimized and appropriately mitigated. Projects proposed by private entities on privately owned land must follow this Manual to calculate the required mitigation.

In accordance with the Critical Area regulations, various development activities and conditions within the Critical Area and the Buffer require mitigation through planting. These requirements include:

- Afforestation of sites within the entire Critical Area (Buffer included).
- Mitigation of forest or vegetation clearing within the Critical Area outside the Buffer.
- Buffer disturbance for development or redevelopment sites containing land within the Critical Area Buffer not forested or partially established in woody or wetland vegetation.
- Buffer mitigation for the clearing of forest or woody vegetation and disturbance within the Critical Area Buffer.

This section details how the various mitigation requirements are calculated and provides guidelines on how they can be met.

### **6.1 Afforestation Requirements**

Many development and redevelopment sites in the City of Baltimore have limited or no existing forest cover. The portions of sites located within the Critical Area shall be planted to provide a vegetative cover of at least 15 percent of the project site area.

Existing vegetation on the site may be credited towards the required 15 percent if:

- The vegetated area is greater than 4,000 sq. ft. as described in the [Baltimore City Natural Resources Code](#);
- The forested area or vegetation is over 70 percent native species;
- Any areas of non-native species will be subtracted from the above 70 percent;
- The area will be protected from disturbance during development;
- A Forest Stand Delineation is prepared for the vegetated area.

The required area for afforestation shall be calculated as follows:

$$\text{(Total Site Area in the Critical Area)} \times 0.15 = \text{Required Forest or Developed Woodland Cover (Acres)}$$

$$\text{Required Forest or Developed Woodland Cover} - \text{Existing Vegetation Credit} = \text{Afforestation Requirement (Acres)}$$

Planting credits for afforestation on sites or portions of sites within Buffer and non-Buffer areas of the Critical Area are based on [COMAR 27.01.09.01-2](#). The following formula should be used to determine the number of plantings needed to satisfy the afforestation requirement:

$$\text{Afforestation requirement for the Buffer areas (acres)} * 217.8 = \text{number of 2-inch caliper trees required}$$

*Afforestation requirement for non-Buffer areas (acres) \* 100 = number of 2-inch caliper trees required*

A conservation easement, or a similar legal instrument, is required from projects that plant woodlands greater than 10,000 square feet to fulfill its mitigation requirement, located within or outside of the Critical Area.

## 6.2 Mitigation Requirements for Forest and Vegetation Clearing

Within Baltimore’s Critical Area and Buffer, no tree or woody plant may be cut, removed, or destroyed unless approved in advance by the Director of Planning. Any clearing of forest or woody vegetation must be replaced and maintained by the property owner. Mitigation requirements vary depending on the purpose of the clearing activity and the portion of the Critical Area where the clearing is to occur.

### 6.2.1 Mitigation for Clearing outside the Buffer

For densely vegetated sites, a Forest Stand Delineation may be required as described in the [State Forest Conservation Manual](#) and the [Baltimore City Supplement](#) to the State Forest Conservation Manual. For such sites, the Forest Stand Delineation shall be used to determine mitigation requirements.

The Department of Planning will make the final determination of how to estimate the mitigation. One of the following methods will be used to calculate required mitigation:

- Calculation of the square footage of the vegetation removed; or,
- Count or estimate of the total number of caliper inches of trees or woody plants removed.

Any vegetation disturbed outside the Buffer within the Critical Area must be mitigated according to the ratios listed in Table 2. Where ratios are used to express mitigation requirements, they indicate either the number of caliper inches of replacement required per caliper inch (unless otherwise specified) of vegetation removed, or the number of square feet of planting required per square foot of vegetation removed.

Table 2: Mitigation requirements for vegetation removal in non-Buffer areas

Development Area Type & Activity	Outside of Buffer <sup>1</sup>	Outside of Buffer Violation <sup>1</sup>
All IDA – dead or dying, hazardous and/or invasive species removal	(1) 2-inch caliper tree:1 tree	(2) 2-inch caliper tree:1 tree
IDA	1:1	2:1
RCA	3:1	4:1
DHPAs	3:1	4:1

<sup>1</sup>Ratios are displayed in inches unless otherwise specified.

Clearing violations require mitigation at a higher ratio than vegetation removal that is approved in advance by the Director of Planning. The higher ratio also applies for vegetation planted as mitigation for a previous development project located within the Critical Area, or vegetation planted using Critical Area offset-fee funds. Because RCAs and DHPAs are intended to provide a higher level of resource and habitat protection, the mitigation ratios for these areas are more stringent than that for IDAs.

Planting credits for mitigation of vegetation removal on sites or portions of sites outside the Buffer and within the Critical Area are based upon the State Forest Conservation Manual and the Baltimore City Supplement to the State Conservation Manual.

### 6.2.2 Mitigation for Clearing within the Buffer

Any tree or vegetation clearing must have the prior written approval of the Director of Planning and must be mitigated according to the ratios in Table 3. For projects involving both disturbance in the Buffer and tree removal, mitigation is calculated as the sum of both.

Where ratios are used to express mitigation requirements, they indicate either the number of caliper inches of replacement required per caliper inch of vegetation removed, or the number of square feet of planting required per square foot of vegetation removed. Each caliper inch equals 100 square feet of planting requirement.

Table 3: Buffer mitigation for forest and vegetation clearing

<b>Development Area Type &amp; Activity</b>	<b>Buffer<sup>1</sup></b>
All IDA – dead or dying, hazardous and/or invasive species removal	(1) 2-inch caliper tree:1 tree
IDA – Shore erosion control	1:1
IDA – Riparian water access	2:1
IDA – Development/redevelopment of water-dependent facilities	2:1
IDA (non-water dependent use)	3:1
DHPAs – any tree removal	3:1
RCAs – any tree removal	3:1
All areas and types <sup>2</sup> – Buffer violation	4:1

<sup>1</sup>Ratios are displayed in inches unless otherwise specified.

<sup>2</sup> Mitigation for Buffer violation is two (2) 2-inch caliper tree for the removal of one (1) dead or dying, hazardous and invasive species in the IDA only.

As shown on Table 3, the removal of dead or dying trees must be mitigated with 3-caliper inches of replacement per caliper inch removed only within the RCA and DHPA. Clearing violations require mitigation at a higher ratio than vegetation removal that is approved in advance by the Director of Planning. The higher ratio also applies for vegetation planted as mitigation for a previous development project located within the Critical Area, or vegetation planted using Critical Area offset-fee funds. In case vegetation planted with Critical Area funds is removed without a permit, the mitigation ratio is what would be required from clearing violation plus one (1) additional inch of mitigation.

Regardless of the size and type of vegetation selected for Buffer mitigation, the areas of the Buffer required to be planted must be covered with mulch, groundcover, or a combination of the two until understory vegetation is established.

### 6.2.3 Mitigation for Buffer Disturbance

Mitigation for Buffer disturbance must be provided for an area equal to all newly proposed impervious areas within the Buffer. The mitigation ratio depends on whether the project is water dependent or non-water dependent, as displayed on Table 4. The mitigation requirement does not apply to a project that limits its Buffer disturbance to areas that are currently impervious. The mitigation requirement must be calculated by using the credit information provided on Table 5.

Table 4: Mitigation for Buffer disturbance

Type of Development Activity	Mitigation Ratio (square foot)
Water dependent	2:1
Non-water dependent	3:1

### 6.3 Removal of Vegetation Planted as Mitigation for a Previous Critical Area Project or Funded by Critical Area Offset-fees

The removal of vegetation that was planted as mitigation for a previous Critical Area project or that used offset-fee funds is strongly discouraged. As mentioned in the section above, one additional inch is required, in addition to the regular mitigation ratio for vegetation removal, for such cases. Variances to the additional planting requirement may not be granted to the disturbance of vegetation that happens due to private development. A variance may be granted to projects pursued by public entities where there is the need for removal of vegetation planted as mitigation for a previous Critical Area project, or that used Critical Area offset-fee funds. Variances pursued by public entities are assessed on a case by case basis and must be approved by the Department of Planning and the CAC.

### 6.4 Planting Credits

The planting credits for afforestation and mitigation in the Buffer and non-Buffer areas are shown in Table 5. Regardless of the size and type of vegetation selected, the areas of the Buffer required to be planted must be covered with mulch, groundcover, or a combination of the two until understory vegetation is established.

Table 5: Planting credits for Buffer and non-Buffer mitigation

Vegetation Type	Minimum Size	Maximum Credit (square feet)	Maximum % of Landscape Stock Credit
Canopy tree	2" caliper	200 (Buffer only)	N/A
		435.6 (non-Buffer)	
Canopy tree	¾" caliper	100	N/A
Understory tree	¾" caliper	75	N/A
Large shrub	3' high	50	20
Small shrub	18" high	25	10
Herbaceous perennial	1 quart or area covered by seed mix	2	5
Planting Cluster for or mitigation of less than ½ acre	1 canopy tree; and 3 large shrubs or 6 small shrubs of sizes listed above	300	N/A

Planting Cluster for mitigation of less than ½ acre	2 understory trees; and 3 large shrubs or 6 small shrubs of sizes listed above	350	N/A
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All stock shall be subject to a 2-year replacement warranty  
 Because of the harsh urban environment and lack of native seed sources, natural regeneration and smaller planting stock are not accepted in Baltimore City.

## 6.5 Planting Standards for Afforestation and Mitigation

### 6.5.1 Planting Approach

The composition and arrangement of required Buffer and Critical Area planting may depend on the constraints and opportunities of the site and the proposed development project. Planting requirements for the Buffer are greater than the planting standards to satisfy required afforestation or mitigation of vegetation cleared outside the Buffer. Buffer planting requirements are intended to improve the functions of the Buffer, including protecting water quality and conserving and enhancing habitat.

In highly developed urban sites, the afforestation and mitigation requirements may be met through traditional site landscaping rather than reforestation. Plantings provided to meet mitigation requirements may also be used to satisfy the requirements of the Baltimore City Landscape Manual, if the plantings proposed meet the conditions and standards required by the Landscape Manual.

### 6.5.2 Preferred Species

To receive credit towards afforestation and mitigation planting requirements, species native to the Maryland Coastal Plain region must be used.

The City of Baltimore Department of Planning maintains a list of native species acceptable for meeting Critical Area planting requirements. The criteria for selection of this list are as follows:

- Predominately Coastal Plain native species;
- Ability to perform the desired dynamic function in the community as planted;
- Commercial availability;
- Anticipated survival and hardiness.

Only species listed in the Critical Area Native Plant List or those included in the U.S Fish & Wildlife Service publication “[Native Plants for Wildlife Habitat and Conservation Landscaping, Chesapeake Bay Watershed](#)” are acceptable for credit without special approval. Native species not included in the above sources may receive credit with approval from the Department of Planning and the CAC. The Department of Planning must approve and may choose to prescribe the size and composition of any planting list.

Questions about species selection may be directed to the Critical Area Planner at the City of Baltimore Department of Planning by calling (410) 396-PLAN.

### 6.5.3 Invasive Species

Invasive plant species may not be planted in the Critical Area, and where they exist the City encourages removal of the species and replanting with native species. A list of invasive species

may be found in the guide [“Plant Invaders of the Mid-Atlantic Natural Areas \(2002 - National Park Service and U.S. Fish and Wildlife Service\)”](#). An additional helpful resource is the Maryland Native Plant Society [“Control of Invasive Non-Native Plants - A Guide for Gardeners and Homeowners in the Mid-Atlantic Region”](#).

#### **6.5.4 Native Grasses and Woody Shrub Seed Mixes**

Sites that are to be reforested or otherwise not to be mown or disturbed shall be seeded with an appropriate wildlife habitat mix, herbaceous mix, woody shrub mix, reclamation mix, or other mix as approved by the Department of Planning. In locations where the Buffer is not programmed with dedicated uses or activities, this planting regime can create a low maintenance natural area.

For any native seed mix in the Critical Area, the criteria used for species selection will be:

- High germination rate;
- High wildlife value;
- Native species of the Coastal Plain;
- Ability to survive in dry, hot conditions and poor soils.

Field observations will be performed to determine the establishment success rate.

#### **6.5.5 Traditional Grasses and Lawns**

Traditionally maintained lawn or turf grass areas provide little to no habitat and may not be credited towards mitigation requirements. New lawn areas are not permitted within the Buffer.

#### **6.5.6 Afforestation and Mitigation Offset Fees**

The Department of Planning may approve the payment of offset fees if the requirements cannot be met onsite and no offsite mitigation opportunities are available. Further information on the use and calculation of offset fees can be found under Section 8 – Offset Programs.

### **6.6 Process for Deferment of Mitigation Requirements**

Under special circumstances, the Department of Planning in consultation with the CAC may allow the deferment of the fulfilment of mitigation requirements; that being the afforestation, vegetation removal or stormwater 10% Rule requirements. The applicant is required to submit a written request to the Department of Planning that describes the special circumstance that could qualify for mitigation deferment. Please note that monetary reasons are not a valid argument for mitigation deferment and will not be entertained by the Department of Planning. The granting of mitigation deferment is at the full discretion of the Department of Planning.

No occupancy permit shall be issued until the required afforestation or mitigation requirement has been completed or until an Escrow Account, Non-revocable Letter of Credit, Performance Bond or similar financial instrument has been established in the name of the Mayor and City Council of Baltimore. Such account shall be for an amount equal to the total estimated cost of the required planting, plus an additional forty percent for contingencies and project management fees in the event the applicant fails to implement the plan.

Regarding timelines, the mitigation required from a project may be deferred up to 24 (twenty-four) months after project completion. The deferment deadline for requirements that arise from violations is 24 (twenty-four) months from project review by the Department of Planning, or the review of actions performed without a permit within the Critical Area. The specific deadline for mitigation fulfillment must be approved by the Department of Planning and must be listed along additional terms and conditions for the action in a Memorandum of Understanding (MOU) that is prepared by the Department of Planning. The MOU must be reviewed and approved by the Baltimore City Department of Law, the Baltimore City Board of Estimates and the CAC.

Additionally, the applicant is required to provide a financial assurance in the form of a Letter of Credit, Escrow Account, Performance Bond or similar instrument approved by the Department of Planning and the Baltimore City Department of Law prior to the approval of the MOU. At a minimum, the MOU must:

- Briefly describe the project or action,
- List the reason for the mitigation deferment,
- List the terms and conditions of the mitigation deferment,
- Contain an original copy of the financial assurance document,
- Establish when and how the financial instrument may be executed by the City of Baltimore.



## **7 STORMWATER POLLUTANT REDUCTION IN THE INTENSELLY DEVELOPED AREA**

### **7.1 The 10% Rule**

The criteria set forth in conjunction with the Critical Area Act require that any development within the IDA be accompanied by practices to reduce water quality impacts associated with stormwater runoff. The Criteria further specify that these practices must be capable of reducing stormwater pollutant loads from a development site to a level at least 10% below the load generated by the same site prior to development. This requirement is commonly referred to as the “10% Rule.”

The concentration of phosphorus in stormwater runoff is the element used to characterize the requirement for meeting the 10% Rule. Phosphorus reduction requirements shall be calculated using the formulas provided by the Critical Area Commission. The pollution reduction requirement should be met on-site. However, if onsite compliance is not feasible, the applicant may mitigate offsite, and if an offsite project is not available, the applicant may be allowed to pay an offset fee. See Section 8.4 - Stormwater Offset Program for more information about the stormwater offset program.

Stormwater management plans shall comply with the Maryland Chesapeake and Atlantic Coastal Bays Critical Area 10% Rule Guidance- Fall 2003 (the 10% Rule Guidance), and as subsequently amended.

1. Redevelopment and new development proposals in the IDA shall demonstrate use of best management practices for stormwater management that assure a 10% reduction of predevelopment pollutant loadings. This demonstration shall be based on methodologies agreed on by the County and the Critical Area Commission.
2. Plans that cannot demonstrate the required on-site reductions in predevelopment pollutant loadings may be approved only if the plan demonstrates that mitigation measures, including fees-in-lieu, or offsets will be provided to achieve equivalent water quality benefits elsewhere in the same watershed. All such mitigation measures or offset plans shall be consistent with methodologies agreed on by the City and the Critical Area Commission.

### **7.2 Green Roofs**

Green roofs qualify as stormwater best management practices in accordance with the Maryland Stormwater Design Manual and may be counted as pervious surface in the determination of stormwater management requirements. However, if a green roof is located on a new or expanded structure within the Buffer, Buffer mitigation requirements will still apply for Buffer impacts associated with the structure.

Additionally, vegetation planted on a roof may not be used to meet the afforestation or vegetation removal mitigation requirements within the Critical Area.

## **8 OFFSET PROGRAMS**

### **8.1 Background**

Baltimore City's Critical Area review process may be triggered by projects whose location and circumstances do not allow for on-site mitigation and fulfillment of Critical Area requirements. The second preferred option is to perform the mitigation at an off-site location. To allow necessary development and redevelopment to proceed while meeting the Critical Area requirements when no off-site mitigation options are available, the City of Baltimore has established two fee-in-lieu offset programs:

- The Buffer Mitigation and Afforestation Offset Program, and
- The Stormwater Pollution Reduction Offset Program.

Before an applicant is permitted to pay an offset fee, the City requires the applicant to review the many methodologies available for reducing environmental impacts. Alternative strategies for water quality and habitat enhancement must be incorporated into the applicant's project to comply with the current Maryland Stormwater Design Manual and the 10% Rule.

A project may qualify for an offset if the Director of Planning determines that it is infeasible for the applicant to meet all or part of the Critical Area Buffer, afforestation, and/or stormwater pollution reduction requirement on the development site or through an offsite mitigation project.

### **8.2 Critical Area Buffer and Afforestation Offset Program**

Applicants who are unable to comply with the Buffer mitigation and afforestation requirements are obligated to contribute a fee to the Critical Area Buffer and Afforestation Offset-fee Fund. These options are a last resort and fees are only accepted if the applicant can prove compliance is not feasible onsite, and no suitable offsite projects are available. The fee amount will be based on costs associated with installing and maintaining the quantity and type of landscaping required to satisfy the project's afforestation and/or Buffer mitigation requirements. Buffer disturbance costs are determined based on planting credits, where 200 square feet of credit is attributed to one 2-inch caliper tree. Each 2-inch caliper tree is valued according to the Baltimore City Landscape Manual, which reflects the current cost to install and maintain landscaping equivalent to the afforestation requirement not able to be met on site. The cost per 2-inch caliper tree may be amended periodically with approval from both the Baltimore City Planning Commission and the CAC. This cost is set in the [Baltimore City Landscape Manual](#), and may be revised and readjusted at any time.

Alternative offset projects may be considered, provided that the applicant is able to demonstrate to the City that the proposed alternative will result in an environmental benefit to the City's Critical Area equivalent to the installation of the prescribed vegetation on the development site. The project owner is required to maintain the plantings installed on an offsite location for a minimum of two (2) years. The City may seek comments and recommendations from the CAC.

### **8.3 Receiving Areas for Buffer Offset Projects**

The City can designate sites throughout its Critical Area as receiving areas for the Buffer offsets described above. In selecting sites for receiving areas, the City will give priority to lands

covered with impervious surface or lots containing compacted soils. The City encourages landowners within its Critical Area to allow Buffer offset projects to be installed on private property in exchange for the granting of conservation easements. Participating landowners may be granted a credit toward Buffer mitigation requirements in the event that future development takes place in portions of the Buffer that remain without vegetation. The City may also explore additional incentives, and will assess the recommendations and requests on a case by case manner, to encourage the use of private lands as receiving areas for Buffer offsets

If suitable private land is not available, City-owned land within the Resource Conservation Area may be used for this purpose. The focus in these areas will be to enhance existing vegetation and habitat.

Minimum requirements for qualifications as potential receiving areas include the following:

- The site is determined by the City as being unlikely to be redeveloped for a water-dependent use; and,
- The planting plan includes at least 50 linear feet along the shoreline for the entire width of the Buffer. Planting may extend outside the Buffer provided it is contiguous to the vegetated portion of the Buffer and is no less than 25 feet in width and depth.

#### **8.4 Stormwater Offset Program**

Projects that are unable to comply with the runoff pollution reduction requirements as described in Section 7 are required to contribute a fee to the Stormwater Offset Fund before building, use, and occupancy permits may be issued for the property. A project may qualify for an offset when it is determined that it is infeasible for the project to meet all or part of the 10% pollution reduction requirement on site or through offsite mitigation.

Any subsequent redevelopment of a site already assessed an offset fee for either the 10% Rule requirement or the Buffer disturbance requirement triggers additional Critical Area review. This applies if the further redevelopment is determined to be significant or would result in any change to on-site mitigation required for prior development or use. Such additional redevelopment may require modification of the permit or denial of the permit application. In some cases, additional mitigation may be required if the redevelopment increases impervious surfaces or displaces vegetation originally approved as part of a Critical Area determination.


#### **8.5 Assessing the Fee for a Stormwater Offset**

The amount of the fee is based on the costs that a project would incur for installation and maintenance of a stormwater pollution reduction facility on-site. Methodologies for computing existing and proposed pollutant loading and the effectiveness of stormwater management facilities in fulfilling the pollution removal goals are specified in the Maryland Stormwater Management Design Manual. The fee is \$45,000 per pound of phosphorous per year, or as amended.

## **9 DESIGNATED HABITAT PROTECTION AREAS**

The Critical Area regulations require local jurisdictions to identify important natural and community resources within the Critical Area and to devise strategies for protecting and enhancing those resources. Twelve important natural areas within Baltimore have been identified as DHPA. Locations, maps, and types of habitats existing for each of the DHPAs are provided in this section.

### **Legend for Habitat Protection Area Maps**

 Designated Habitat Protection Areas

 MD State Property

 100 Foot Buffer

#### **RESOURCE CONSERVATION AREA**

 Resource Conservation Area

#### **INTENSELY DEVELOPED AREA**

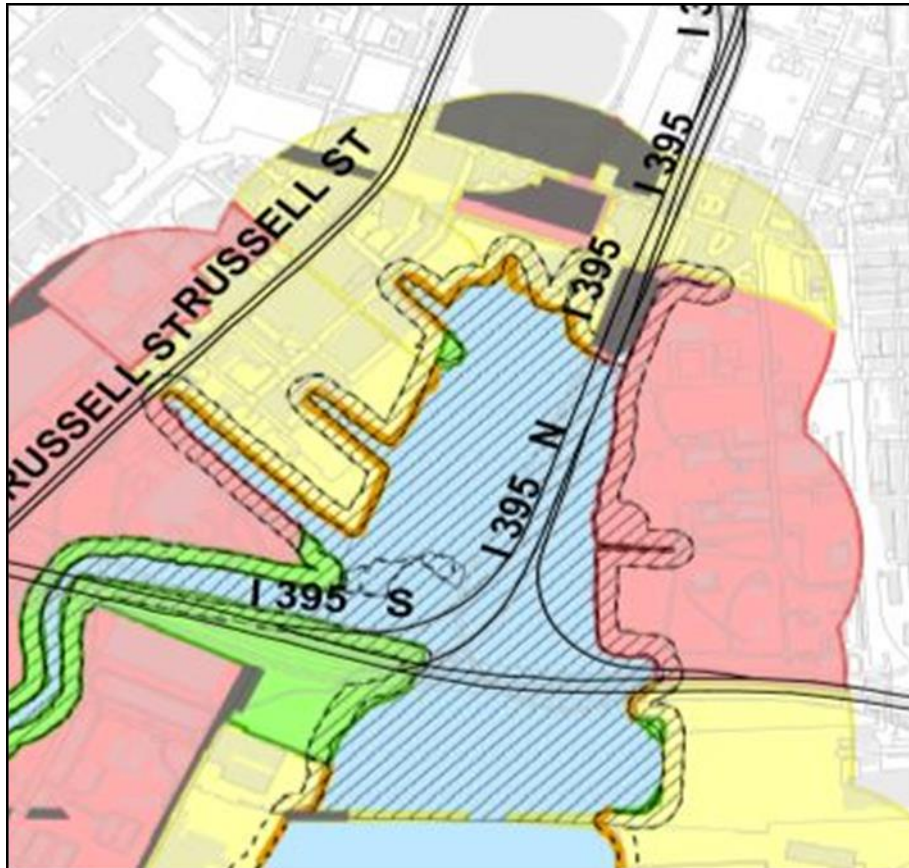
 Waterfront Industrial Area

 Waterfront Revitalization Area

 Shoreline Conservation Area

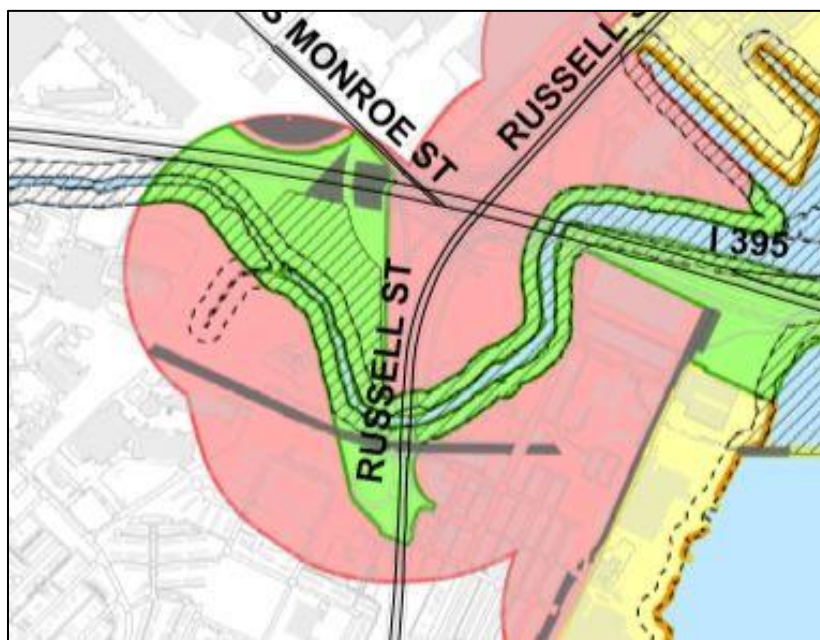
## 9.1 Upper Middle Branch

This DHPA has been identified as an historic waterfowl staging and concentration area. In addition, portions of this shallow water area have been used as wetland mitigation sites for various waterfront development projects. The Middle Branch area includes all waters to the mean high water line, which lie north of the Western Maryland Bridge and trestle. In addition, the area includes all uplands within 100 feet of the mean high water line of the waters described above. It also includes the wetland portion of Block #7612, Lot 2 and all lands lying within 25 feet of these wetlands.



## 9.2 Gwynns Falls

This DHPA has been identified as a major greenway, needing protection as a wildlife corridor. This corridor connects the upland forests of the upper Gwynns Falls Watershed with the wetlands and tidal waters of the upper Middle Branch. The area includes the waters of the Gwynns Falls from the upper Middle Branch continuing upstream to a point 1000 feet north and west of the southeast side of the Washington Boulevard Bridge. In addition, the area includes all lands within 100-feet of waters of the Gwynns Falls on the south side of the stream from the upper Middle Branch to the boundary of the Critical Area. On the north side of the stream, the area includes all lands within 100-feet of the waters of the Gwynns Falls extending from the upper Middle Branch to the point of intersection with the Russell Street bridge and then expands to various widths to be bounded on the north by the B & O Railroad right-of-way and continues along the I-95 right-of-way to the point where the I-95 right-of-way intersects Washington Boulevard. From this point, the area includes all lands within 100-feet from the waters of the Gwynns Falls on the north side of the stream continuing upstream to the boundary of the Critical Area. This area also includes the streambeds and all lands lying within 100-feet of the streambeds of the two tributary streams which intersect the Gwynns Falls on its south side. The first is located between Bremen and Berlin Streets and continues from the main stem of the Gwynns Falls southward to the Critical Area boundary and the second is located along the B & O Railroad right-of-way and also continues approximately 580 feet from the main stem of the Gwynns Falls.

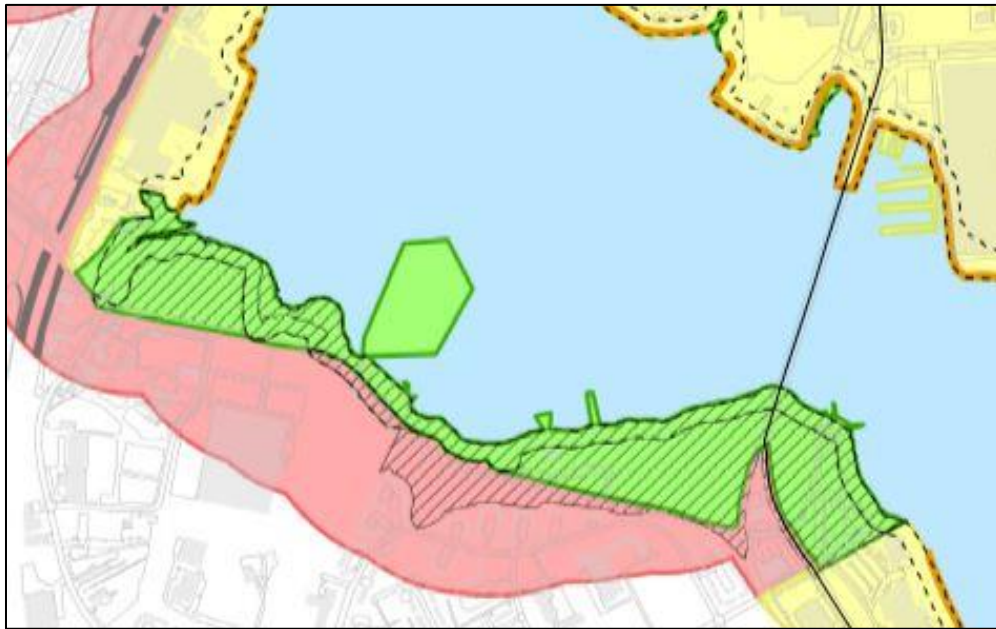




### 9.3 Lower Middle Branch

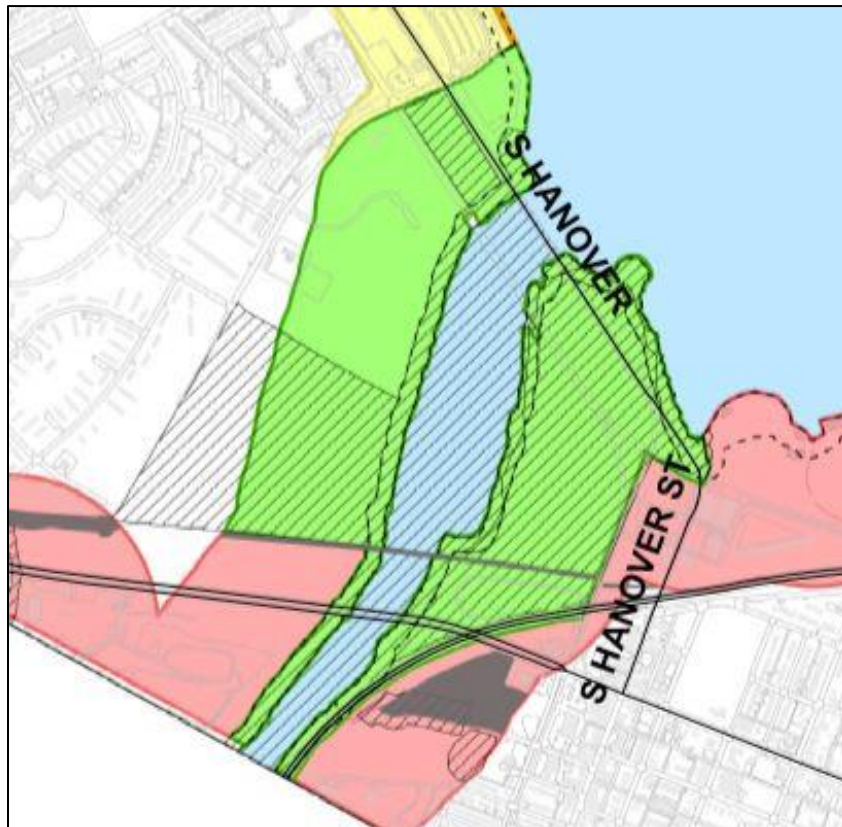
This DHPA includes two discontinuous areas including the following: 1) a tidal wetland and tidal stream on the lower Middle Branch; 2) a mature oak forest on the south side of Waterview Avenue. The first area includes the waters of the tidal stream which runs from Waterview Avenue northward to the lower Middle Branch; all lands within 100 feet of both sides of the stream; a 100-foot Buffer along the shoreline of Block #7611, Lot 1 and the entirety of Lots 2 and 7, and the shallow tidal waters of the lower Middle Branch which border these properties.

The second area includes a mature oak forest on portions of the following properties: Block #7612-E, Lot 10; Block #7610 including lots 4, 5, 7, 8, 9, and the entirety of Lots 18 and 19.



## 9.4 Reebird

This DHPA includes three discontinuous areas including the following: 1) tidal wetlands and City-owned open spaces along both banks of the Patapsco River; 2) a streambed flowing under the 500 block of West Patapsco Avenue; and 3) a streambed west of the intersection of Garrett and Potee Streets. The first area encompasses the following: the waters of the Patapsco river; tidal wetlands, Critical Area Buffer and portions of the publicly-owned vegetated open space in Block #7612-L including Lots 1 and that portion of Lot 2 which lies south of an imaginary line that would be created where Cherryland Road extended at its present alignment through Lot 2 to the Patapsco River; those portions of Block #7612-N, Lots 7, 8, and 10 which lie in the 100 foot Buffer; all lands extending from the south bank of the Patapsco River to the right-of-way of the Baltimore Harbor Tunnel Thruway and continuing from the City line to the point where the Harbor Tunnel Thruway intersects Potee Street; the entirety of Block #7612-M; and that portion of Block #7027, Lot 20 that is bounded by S. Hanover Street, Potee Street, and Frankfurst Avenue. The second area includes 100 feet on either side of a stream flowing towards Baltimore County, located in Block #7612-G, Lots 1 and 4. The third area includes 100 feet on either side of a stream flowing northwesterly towards the Patapsco River starting from a point located 475 feet from the intersection of Potee and Garrett Streets, and 100 feet on either side of a small inlet tributary on the western side of the same stream, both of which are located in Block #7027-C, portions of Lots 3 and 4.



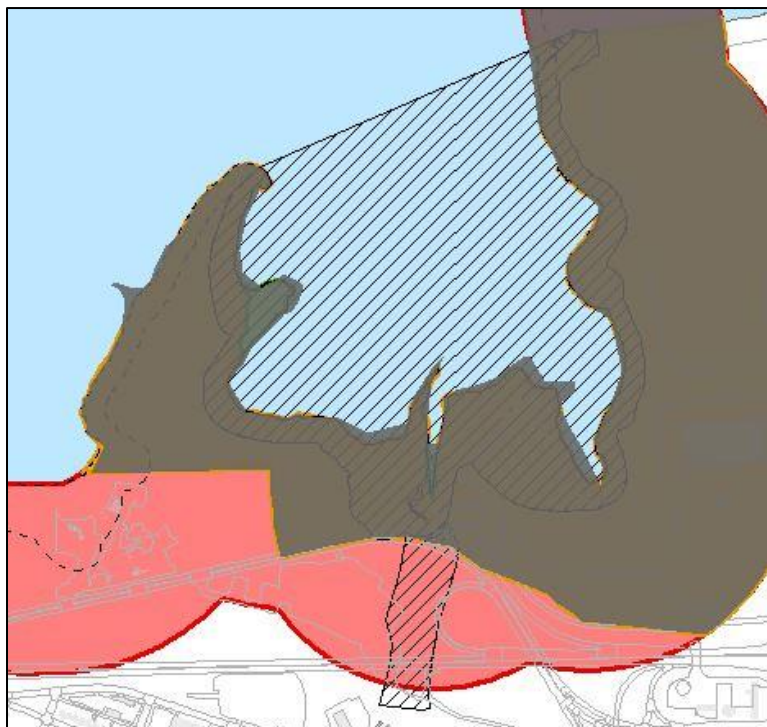


## 9.5 Masonville Cove

This DHPA has been identified as a historic waterfowl staging and concentration area with an extensive vegetated Buffer. The area includes all waters to the mean high water line which lie within the cove formed by the irregular shoreline of Block #7043, Lot 1 and all lands within 100 feet of the mean high water line. In addition, the area includes a 100-foot Buffer on both sides of the tributary stream that empties into this cove at the south end of the property. This 100-foot Buffer extends from the Critical Area line northward to the point where it intersects the Critical Area Buffer formed by the tidal waters of the Patapsco River.

It is important to note that the Maryland Port Administration (MPA) maintains and operates a dredge disposal site on the upland area immediately east of these waters. In addition, the MPA has for at least a decade now, identified this area for development as a major terminal similar to their Dundalk and Seagirt facilities. Part of the site has been developed by Mercedes Benz as an automobile Roll On / Roll Off. As mitigation for the dredge disposal site and the port development, the MPA is developing the Masonville Cove as wildlife habitat area with an environmental education center, a fishing pier and small boat launch.

In response to the complex balance that must be achieved between economic development for the benefit of the State and protection of habitat, the Maryland Department of Transportation (MDOT) in cooperation with the Department of Natural Resources (DNR) has developed a comprehensive plan to address future expansion areas for the Port. An important part of this master plan is an environmental element for the improvement in quality and/or quantity of habitat areas in a manner consistent with the policies established in [COMAR 27.01.09.04\(B\)](#). The plan is part of MPA's plans for marine terminal facilities and dredged disposal.

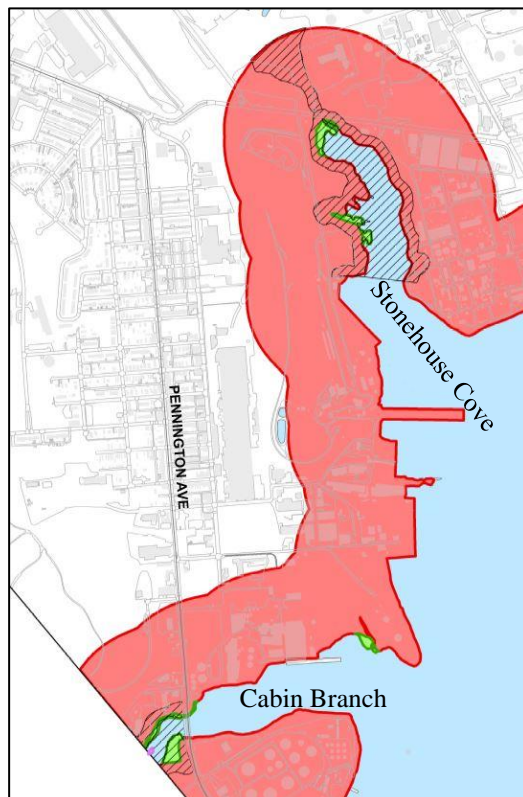


## 9.6 Stonehouse Cove

This DHPA has been identified as a historic waterfowl staging and concentration area with an extensive vegetated buffer. The cove contains vegetated tidal wetlands bordering on upland-forested areas. The upper reach of the cove contains an intermittent stream, which is heavily vegetated along both banks. The area includes all the waters of the cove extending out into Curtis Creek to a point located approximately 1,750 feet south of the roadbed when measured perpendicularly from East Patapsco Avenue. The area also includes: all lands within 100 feet of the tidal waters described above; all lands within 100 feet of the intermittent tidal stream extending from the north side of the East Patapsco Avenue bridge and continuing upstream to the limits of the Critical Area; and the forested area lying in Block #7335-E, covering portions of Lots 1, 3, and 6. In addition to the above, this habitat protection area includes the forested areas along the western side of the cove extending from East Patapsco Avenue and bounded on the west by the access road to the CSX Transportation coal terminal, further extending southward along the access road to a point located approximately 1,200 feet where the access road intersects the 100-foot Buffer. From this point of intersection, the HPA includes the 100-foot Buffer southward extending to a point along the shoreline situated approximately 1,750 feet from East Patapsco Avenue when measured perpendicularly.

## 9.7 Cabin Branch

This DHPA contains vegetated tidal wetlands along both its banks extending from the west side of the Pennington Avenue bridge to the City line. The area includes the waters off Block # 7173 including portions of Lots 11A, 12, and 13, and Block # 7173A including portions of Land 1E. In addition, all uplands within 100 feet of these waters are included as well.



## 9.8 Hawkins Point

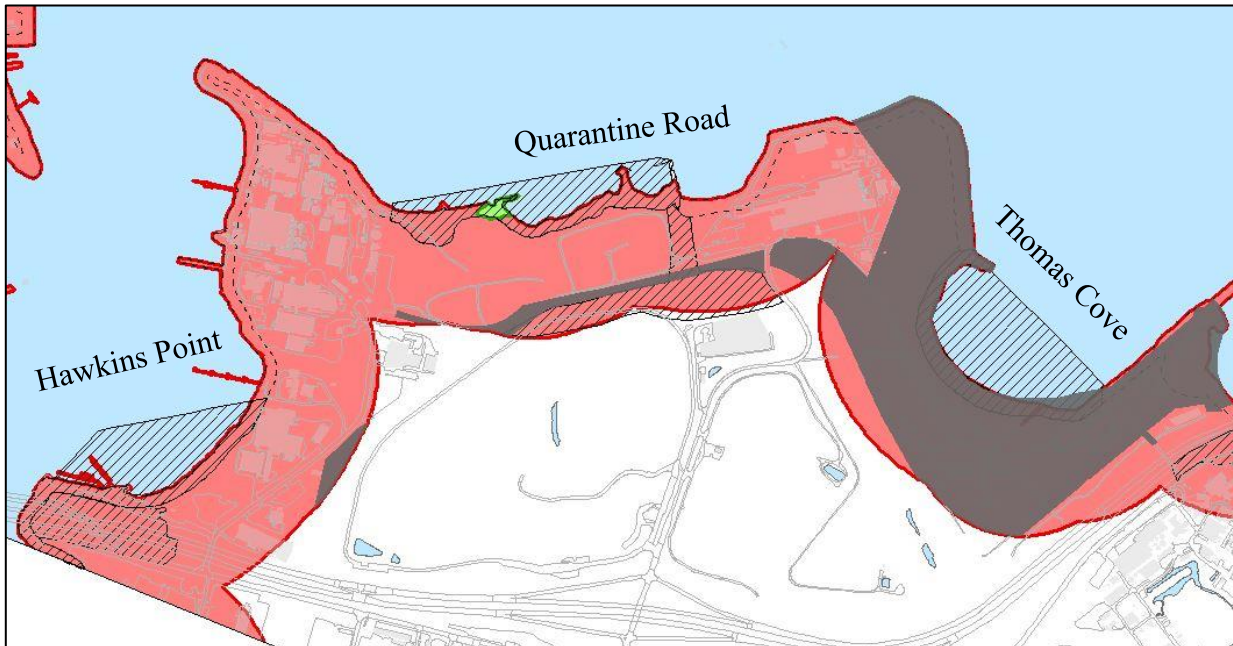
This area on the Hawkins Point peninsula contains a historic waterfowl staging and concentration area and a densely vegetated Buffer. The DHPA includes the tidal waters off Block #7000, Lots 1, 7, 8, and 9, including I-695 right-of-way. The area also includes a 100-foot Buffer along the shoreline of these properties. In addition, the area includes the protection of woodlands adjoining the drainage areas located on Block #7000, Lots 7, 8, and 9.

## 9.9 Quarantine Road

This designated area contains a historic waterfowl staging and concentration area. The DHPA includes the waters off the vegetated portion of the shoreline of Block #7003, Lot 4 and a 100-foot Buffer along this same section of shoreline. The area also includes the wooded drainage area along the eastern side of the property and the forested portions of Block #7005, Lots 30 and 31 and Block #7002, Lot 3 which fall within the Critical Area.

## 9.10 Thomas Cove

The third designated area on the Hawkins Point Peninsula is Thomas Cove, also known as Thoms Cove. The cove has been identified as a historic waterfowl staging and concentration area. This DHPA includes the waters off the shoreline of Block #7005 Lot 35 as well as the 100-foot Buffer along the shoreline.



## 9.11 Fort Armistead

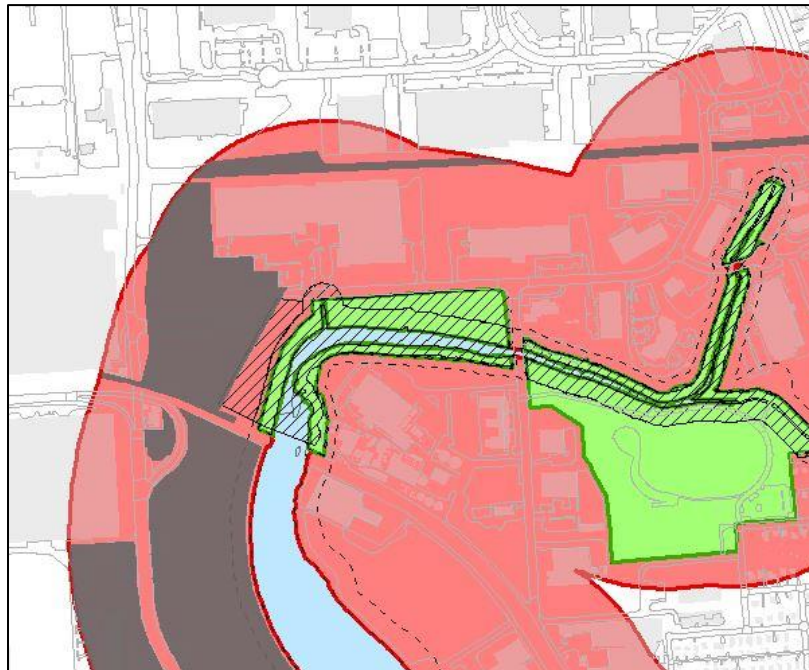
This DHPA contains a large tidal wetland that was created as mitigation for the construction of the Francis Scott Key Bridge. The designated area includes the Fort Armistead Park (Block #7006, Lot 8) and a portion of the I-695 right-of-way extending northeasterly from the intersection of Dock Road and I-695.





## 9.12 Colgate Creek

This DHPA is an important tidal tributary stream, which has a vegetated shoreline along most of its length. The designated area includes the following: Colgate Creek; the entirety of Block 6921, Lot #4; the entirety of Block #6922, Lots #1, #2 and #4, and the portion of Lot #5 which lies within 10 feet of mean high tide. Beginning at the point where Colgate Creek passes under Van Deman Street on its east side, the area includes all lands within 100 feet of mean high tide on the north, east and west sides of the stream as it traverses Block 6923, Lot #1. On the south side of Colgate Creek as it traverses Block 6923, Lot #1, the HPA shall consist of all lands within 100 feet of mean high tide.



## **10 ADDITIONAL INFORMATION ABOUT THE CAMP**

### **10.1 Stormwater Offset Program Criteria for Small Sites and Derelict Buildings**

Critical Area compliance costs for reducing the stormwater pollution by 10% on small lots can be significant and out of proportion to the cost of the overall development and construction process. Construction on existing structures on residential lots less than 1,500 square feet and commercial lots less than 2,000 square feet can activate Critical Area requirements based upon the 50 percent assessment criteria used to define “significant” development. In these cases, the engineering fees can cost more than the mitigation or the offset fees, therefore, the following special provision will apply to these projects:

#### **10.1.1 Small Residential Projects**

Development activities on existing structures for residential use outside the 100-foot Buffer on sites less than 1,500 square feet are not required to pay offset fees, even if the project activates the 50 percent assessment criteria. This does not apply to new subdivisions or new construction.

#### **10.1.2 Small Non-Residential Projects**

Development activities on existing structures in Residential, Office-Residential and Business zoning districts for commercial use outside of the 100-foot Buffer on sites less than 2,000 square feet are not subject to Critical Area requirements, even if the project meets or exceeds the 50 percent assessment criteria. This does not apply to new subdivisions or new construction.

### **10.2 Mitigation for Public Uses**

The City of Baltimore maintains a policy of requiring development projects in the Waterfront Revitalization Area to include the construction and maintenance of a public pedestrian promenade or hiking biking facilities along the Inner Harbor, the Middle Branch and other waterfront areas. Cultural and educational facilities may also require paved areas to accommodate public traffic. The portions of these public areas dedicated to public access easements, approved by the Board of Estimates, may be excluded from Buffer disturbance and afforestation requirements. However, they are not exempt from the 10% Rule requirements.

### **10.3 Growth Allocation**

The use of growth allocation in the City is prohibited.

### **10.4 Marina Requirements**

#### **10.4.1 Water Quality Best Management Practices**

For the development of new marinas and the expansion or alteration of existing marinas, developers and operators are required to comply with environmental best management practices or provide offsets to prevent adverse effects on water quality.

Marina developers and operators are required to meet sanitary requirements by installing, maintaining, and operating year-round, sanitary pump-out facilities, or through payment into an offset fund. Such facilities must be constructed in conformity with the provisions of [COMAR 26.22.01.01](#).

For marinas with boatlift facilities, marina developers and operators are required to install, maintain, and operate devices for the interception of boat-bottom wash-waters whenever a marina offers pullout, lifts, or bottom-cleaning facilities or services. The discharge of any boat-bottom wash-waters into the harbor will be allowed only in the event that the operator has obtained a valid National Pollution Discharge Elimination System (NPDES) permit, if one is required, and provided that all such waters are properly treated prior to discharge.

### **10.5 Maritime Master Plan Compliance**

All marinas must comply with the City of [Baltimore's Maritime Master Plan](#).

### **10.6 Lot Consolidation and Reconfiguration**

The provisions of this regulation shall apply to the consolidation or reconfiguration of lots that are non-conforming to Critical Area requirements, and are further detailed under [COMAR 27.01.02.08](#).

Any legal parcel of land, not being part of a recorded or approved subdivision, that was recorded as of December 1, 1985;

Land that was subdivided into recorded, legally buildable lots, if the subdivision received the local jurisdiction's final approval before June 1, 1984; and,

Land that was subdivided into recorded, legally buildable lots, if the subdivision received the local jurisdiction's final approval after December 1, 1985, but not later than the date of the jurisdiction's program approval.

### **10.7 Local Agency Actions within the Critical Area**

Development in the Critical Area resulting from actions of local agencies shall be in accordance with the provisions [COMAR 27.02](#). Projects proposed by local agencies require Consistency Reports that are prepared by the Department of Planning and submitted to the CAC; however, exceptions apply. Full review by the CAC may be required.

### **10.8 Criteria for Grandfathering and Non-Conforming Uses**

#### **10.8.1 Grandfathering**

The City shall permit the continuation, but not necessarily the intensification or expansion, of any use in existence on January 4, 1988, unless the use has been abandoned for more than one year, or is otherwise restricted by existing local ordinances. If any existing use does not conform to the provisions of the program, its intensification or expansion may be permitted only in accordance with the variance procedures outlined in the Baltimore City Zoning Code and [COMAR 27.01.02.07](#).

In addition, all buildings and development existing in the Buffer prior to January 4, 1988 are not subject to Buffer mitigation requirements, as long as the development activity is within the existing building or footprint and does not involve ground disturbance. This holds true if the development activity meets or exceeds 50 percent of the assessed full base cash value of the

property. Expansion beyond the existing building or footprint must be addressed with the regulations listed in this Manual, and Buffer mitigation requirements apply to the entire developed footprint, existing and proposed.

The City shall permit a single-lot or parcel of land that was legally on record at the date of program approval to be developed with a single-family dwelling, if a dwelling is not already in place, provided that:

- It is on land where development activity has progressed to the point of the pouring of the foundation footings or the installation of structural members;
- It is a legal parcel of land, not being part of a recorded or approved subdivision, that was recorded as of December 1, 1985, and land that was subdivided into recorded, legally buildable lots, where the subdivision received the City’s final approval prior to June 1, 1984, if:
  - At the time of development, the land is brought into conformance with the Critical Area program insofar as possible, including the consolidation or configuration of lots not individually owned or the procedures are approved by the CAC; or
  - The land has received a building permit subsequent to December 1, 1985, but prior to the local program approval.
- It is on land that was subdivided into recorded, legally, buildable lots, where the subdivision received the City’s final approval between June 1, 1984 and December 1, 1985; and,
- It is on land that was subdivided into recorded, legally buildable lots, where the subdivision received the final approval after December 1, 1985, and provided that either development of any such land conforms to the IDA or RCA requirements in this CAMP or the area of the land is counted by the City against the growth allocation permitted through the City’s CAMP.

No portion of this this section may be interpreted as altering any requirements for development activities set out in the water-dependent facilities section or the habitat protection section of this manual.

## 10.9 Criteria for Brownfield Sites

The US Environmental Protection Agency (EPA) defines Brownfields as, “A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

There are many Brownfields located within Baltimore’s Critical Area, and because the City wishes to encourage clean-up actions. As explained below, special provisions apply to these sites.

To be considered a Brownfield, a site must be eligible for and participating in the [MDE Brownfield Voluntary Cleanup Program](#) (BVCP). Listed below are criteria for development of these sites:

- If a paved/capped area is required as part of the Brownfields mitigation, that paving/capping is temporarily exempt from Critical Area fees;
- The Brownfields property will remain exempt and payments deferred until a portion of the site is re-used, requiring a new occupancy permit or building permit. The property



owner will be required to provide a letter to the Planning Department explaining that they understand this deferment and will convey this requirement to prospective buyers or tenants of the property;

- When the building or occupancy permit application process is started, the entire site will have to comply with Critical Area regulations;
- At the time the use and occupancy permit is requested the stormwater quality standards must have been met.

# **11 IMPLEMENTATION OF THE CAMP**

## **11.1 Local Adoption of the CAMP**

The City's CAMP was originally enacted into law by City Council Resolution Number 107 and companion Ordinances Numbers 1130, 1131, and 1132, effective January 4, 1988. As of that date, all development activity, which requires any public action and constitutes significant development as defined herein is subject to any and all applicable CAMP requirements specified in the Baltimore City Code and this CAMP document. Subsequent to its adoption, the City's CAMP was amended by Ordinance Number 356, effective June 22, 1994, and approved by the Chesapeake Bay CAC on November 2, 1994. This CAMP document was further modified by Ordinance Number 517, effective March 21, 1995, and approved by the Chesapeake Bay CAC on May 3, 1995. Development projects for which Critical Area findings were made prior to January 4, 1988, are also subject to CAMP requirements in the event that such projects require additional public actions after the effective date of the City's CAMP.

Baltimore's CAMP was reviewed in 2002, and was repealed and re-ordained by Ordinance 02-350, effective June 13, 2002 and approved by the Chesapeake Bay CAC on November 13, 2002. The terms and conditions contained herein reflect the most current amendments to the CAMP.

## **11.2 Critical Area Review Process**

### **11.2.1 Submissions & Reviews**

All development and redevelopment projects located within the Critical Area must comply with CAMP manual requirements. Review of all site plans and proposals within the City's Critical Area is the responsibility of Baltimore City Department of Planning. The Baltimore City Department of Planning determines if a development proposal meets local Critical Area requirements for "significant" development and has the authority to approve or deny permit applications. If a project is deemed significant, the following is the minimum that will be requested:

- Existing conditions plan.
- Proposed site plan.
- Mitigation/landscaping plan with planting details, spacing, and species.
- The stormwater management plan approved by Baltimore DPW.
- CAMP Program Certification and Landscape Maintenance Agreement signed and included as part of the mitigation plan or landscape plan package, if required.
- Buffer Management Plan, if one is required.
- Forest Stand Delineation (FSD), if one is required.
- ESD 10% Rule spreadsheet (found on the Critical Area Commission's website).
- Habitat Assessment if any encroachment in a Designated Habitat Protection Area is proposed.
- Critical Area Project Information Form (available at the Baltimore Office of Sustainability website).
- Any additional information deemed necessary by the Director of Planning.

The appropriate documents are sent electronically to the CAC by the Department of Planning for further review and for verification that the proposed development is compliant with Baltimore City's CAMP, as required by the Critical Area Act.

For projects requiring technical water quality review, Planning staff may request the applicant to submit the ESD 10% Rule calculations to DPW for a technical water quality review. Please note that DPW charges a fee for such reviews, and the applicant is fully responsible for its payment. As part of the review, DPW assesses the applicant's runoff pollution reduction requirements and the proposed BMPs for the project.

It is important to note that when a project is required by DPW to develop a Stormwater Management Plan, the plan must have, at a minimum, environmental site design (ESD) approval by the Agency prior to its submission to the CAC. The requirement is necessary because in the event that DPW requests any modifications to the BMPs utilized to achieve stormwater management compliance, after the permit application has been submitted to the CAC, the ESD 10% Rule information submitted as part of the Critical Area package must also be modified, and post-submittal changes are strongly discouraged.

Such approval helps streamline processes whenever the ESD 10% Rule information, submitted as part of the Critical Area Package, must be modified in the following conditions:

- DPW requests any modifications to the BMPs utilized to achieve stormwater management compliance, and
- DPW does so after the permit application has been submitted to the CAC.

The requirement is necessary to diminish the chances of post-submittal changes, which the CAC strongly discourages.

Additionally, all applicants are required to meet all applicable Building Codes and other Code requirements before a building permit may be issued.

### **11.3 Inter-Agency Coordination**

The Department of Planning has established notification and review procedures to insure timely and maximum communication among City agencies involved in permit approval processes. To the extent possible, these procedures utilize existing plans and permits review mechanisms. Inter-agency coordination is currently built into these review processes, which allows Federal, State and Local agencies the opportunity to review Critical Area compliance as well.

Key agencies reviewing all significant development projects in the Critical Area include the:

- Department of Planning
- Department of Public Works
- Department of Housing and Community Development.

The City Health and Fire Departments review development projects that involve the generation, storage or use of hazardous, toxic or nutrient materials. The City Law Department is consulted as necessary.

## **11.4 Building and Occupancy Permits and Inspections**

An applicant may not be issued an occupancy permit or certificate of completion unless or until the City has certified that the on-site vegetation and/or runoff pollution reduction BMPs have been installed in a satisfactory manner. Once the applicant has demonstrated that all on-site requirements have been completed, the Department of Planning may inspect the property to certify that Critical Area requirements have been satisfied.

In cases where the Director of Planning determines that Critical Area requirements may be satisfied off-site through one or both of the offset programs, an occupancy permit or certificate of completion for the property may not be issued until and unless the applicant has fully complied with offset agreements. The Department of Planning determines compliance with offset agreements.

## **11.5 Variances**

### **11.5.1 Applicability**

The City of Baltimore has established provisions where, owing to special features of a site or other circumstances, implementation of this Manual or a literal enforcement of provisions within this Manual would result in unwarranted hardship to an applicant; a Critical Area variance may be obtained.

- 1) In considering an application for a variance, the City of Baltimore shall presume that the specific development activity in the Critical Area, that is subject to the application and for which a variance is required, does not conform with the general purpose and intent of Natural Resources Article, Title 8 Subtitle 18, COMAR Title 27, and the requirements of this Manual.
- 2) Unwarranted hardship means that without a variance, an applicant would be denied reasonable and significant use of the entire parcel or lot for which the variance is requested.

### **11.5.2 Standards for Granting a Variance**

Standards for the variance are per the Zoning Code Article 32 Title 5-308.

### **11.5.3 Standing**

The provisions for granting such a variance shall include evidence submitted by the applicant that the following standards are met:

- 1) Due to special features of the site or special conditions or circumstances peculiar to the land or structure involved, a literal enforcement of provisions and requirements of this Critical Area Manual would result in unwarranted hardship;
- 2) A literal interpretation of the provisions of this Manual will deprive the applicant the use of land or a structure permitted to others in accordance with the provisions of this Critical Area Manual;

- 3) The granting of a variance will not confer upon an applicant any special privilege that would be denied by this Critical Area Manual to other lands or structures within the Critical Area;
- 4) The variance request is not based upon conditions or circumstances which are the result of actions by the applicant, including the commencement of development activity before an application for a variance has been filed;
- 5) The request does not arise from any condition relating to land or building use, either permitted or non-conforming on any neighboring property; and
- 6) The granting of a variance shall not adversely affect water quality or adversely impact fish, wildlife or plant habitat within the Critical Area; and
- 7) The granting of the variance will be in harmony with the general spirit and intent of the State Critical Area Law and this Critical Area Manual.

#### **11.5.4 Process**

Applications for a variance will be made in writing to the BMZA with a copy provided to the Department of Planning and the Critical Area Commission. The City of Baltimore shall follow its established procedures for advertising and notification of affected landowners. Variance guidelines are per the Zoning Code Article 32 Subtitle 3 – Variances.

- 1) After hearing an application for a Critical Area Program variance, the BMZA shall make written findings reflecting analysis of each standard. With due regard for the person's technical competence, and specialized knowledge, the written findings may be based on evidence introduced and testimony presented by:
  - a. The applicant;
  - b. The City of Baltimore or any other government agency; or
  - c. Any other person deemed appropriate by the City of Baltimore.
- 2) If the variance request is based on conditions or circumstances that are the result of actions by the applicant, the City of Baltimore shall consider that fact, and whether the application has met the requirements of Part E below.
- 3) The applicant has the burden of proof and the burden of persuasion to overcome the presumption of nonconformance established in paragraph (A) above.
- 4) Within 10 working days after issuance of a written variance decision, the City of Baltimore shall notify the Critical Area Commission of its findings and decision to grant or deny the variance request.

#### **11.5.5 After-the-Fact Requests**

- 1) A local jurisdiction may not accept an application of a variance to legalize a violation of this subtitle, including an unpermitted structure or other development activity until the local jurisdiction:
  - a. Issues a notice of violation; and
  - b. Assesses an administrative or civil penalty for the violation.
- 2) The City of Baltimore may not approve an after-the-fact variance unless an applicant has:
  - a. Fully paid all administrative, civil and criminal penalties imposed under Natural Resources Article, §8-1808(c)(1)(iii)14-15 and (2)(i), Annotated Code of Maryland;
  - b. Prepared a restoration or mitigation plan, approved by the local jurisdiction, to abate impacts to water quality or natural resources as a result of the violation; and
  - c. Performed the abatement measures in the approved plan in accordance with the local Critical Area Program.
- 3) If the Board denies the requested after-the-fact variance, then the City of Baltimore shall:
  - a. Order removal or relocation of any structure; and
  - b. Order restoration of the affected resources.

### **11.5.6 Appeals**

Appeals from decision concerning the granting or denial of a variance under these regulations shall be taken in accordance with all applicable laws and procedures of the City of Baltimore for variances. Variance decisions by the BMZA may be appealed to the Circuit Court in accordance with the Maryland Rules of Procedure. Appeals may be taken by any person, firm, corporation or governmental agency aggrieved or adversely affected by any decision made under this Manual.

Such appeals will be made as follows:

- 1) Zoning appeals shall be filed with the Baltimore Zoning Administrator and forwarded to the BMZA for a hearing, in accordance with [Baltimore City Zoning Code](#);
- 2) Stormwater Management appeals shall be filed with the Director of the DPW,
- 3) Building Permit and Occupancy Permit appeals shall be filed with the Commissioner of the Department of Housing and Community Development, in accordance with the Baltimore City Building Code.
- 4) [Baltimore City Charter \(2018\)](#), Department of Planning, § 70-80: Other appeals from determinations by the Director of the Department of Planning regarding the CAMP provisions shall be made to the Planning Commission pursuant to Baltimore City Building Code Article 00.

### **11.5.7 Additional Appeals**

Further appeals from any decision rendered by the hearing officers or bodies specified above may be taken to the Circuit Court for the City of Baltimore, as follows:

- 1) BMZA: Judicial Review proceeds in accordance with City Charter Article VII and Baltimore City Zoning Code Article 32.
- 2) Planning Commission proceeds in accordance with Article VII, Section 79 (City Charter, 1995).

### **11.5.8 Conditions and Mitigation**

The BMZA shall impose conditions on the use or development of a property which is granted a variance as it may find reasonable to ensure that the spirit and intent of this Manual is maintained including, but not limited to the following:

- 1) Adverse impacts resulting from the granting of the variance shall be mitigated as recommended by the Department of Planning, but not less than by planting on the site per square foot of the variance granted at no less than a 3:1 basis.
- 2) New or expanded structures or lot coverage shall be located the greatest possible distance from mean high water, the landward edge of tidal wetlands, tributary streams, nontidal wetlands, or steep slopes.

### **11.5.9 Commission Notification**

Within 10 working days after a written decision regarding a variance application is issued, a copy of the decision will be sent to the Critical Area Commission. The City of Baltimore may not issue a permit for the activity that was the subject of the application until the applicable 30-day appeal period has elapsed.

## **11.6 Enforcement**

Violation of the provisions of this CAMP document shall be dealt with in the manner provided for in the applicable Critical Area provisions of the Baltimore City Code. Penalty citations are as follows:

- Stormwater management violations: [Baltimore City Natural Resources Code](#) Article 7, Division II;
- Zoning violations: [Baltimore City Zoning Code](#) Article 32, Title 19;
- Building Code violations: Baltimore City Building Code, Article 00.

### **11.6.1 Civil and Criminal Penalties**

In addition to other penalties applicable under State or City law, including the ones required by any other City agencies, each person who violates a provision of [Baltimore City Natural Resources Code](#), or the City's CAMP ordinance or related regulations; including a contractor, property owner, or any other person who committed, assisted, authorized, or participated in the violation; is subject to a fine not to exceed \$25,000. A "property owner" includes two or more persons holding title to the property under any form of joint ownership. Due process principles apply and shall include proper notice to the violator, and an opportunity of justification of actions. The following apply to civil and criminal penalties:

- Each violation of a regulation, rule, order, program, or other requirement constitutes a separate offense;
- Each calendar day that a violation continues constitutes a separate offense;
- For each offense, a person shall be subject to separate fines, orders, sanctions, and other penalties;
- Civil penalties for continuing violations will accrue without a requirement for an additional assessment, notice, or opportunity for hearing for each separate offense; and,
- On consideration of all the factors included under the Natural Resources Code and any other factors within Baltimore’s CAMP, the City will impose the amount of the penalty. Satisfaction of all requirements represents a pre-condition to the issuance of any permit, approval, variance, or special exception for the affected property. Unless an extension of time is appropriate due to adverse planting conditions, any additional mitigation required as a condition of approval for the permit, approval, variance, or special exception shall be completed within 90 days of the issuance of a permit, approval, variance, or special exception for the affected property

In determining the amount of the penalty to be assessed, the City may consider the following:

- The gravity of the violation;
- Any willfulness or negligence involved in the violation;
- The environmental impact of the violation; and,
- The cost of restoration of the resource affected by the violation and mitigation for damage to that resource, including the cost to the State and Baltimore City for performing, supervising, or rendering assistance to the restoration and mitigation.

Baltimore City shall not issue a permit, approval, variance, or special exception unless the person seeking the permit approval, variance, or special exception has:

- Fully paid all administrative, civil, and criminal penalties imposed under paragraph of this subsection;
- Prepared a restoration or mitigation plan, approved by the Baltimore City Director of Planning to abate impacts to water quality or natural resources as a result of the violation; and,
- Performed the abatement measures in the approved plan in accordance with Baltimore’s CAMP.

## **11.7 Restoration**

Any development, redevelopment, construction or excavation undertaken in violation of any provision of this CAMP document must promptly be corrected after written notice from the Director of Planning and/or the DHCD. The property owner will have thirty days (30) from the receipt of such written notice in order to correct any violations.

## **11.8 Local Program Administration**

### **11.8.1 Program Amendments and Refinements**

The Planning Commission and the City Council may from time to time amend or refine the Baltimore CAMP. A program amendment is any change or proposed change to an adopted program that is not determined by the chairman of the CAC to be a program refinement. Program refinement is any change or proposed change to an adopted Manual that does not



significantly impact the use of land or water in the Critical Area. Program refinements may include:

- A change to an adopted program that results from a State law;
- A change to an adopted program that affects local processes and procedures;
- A change to a local ordinance or code that clarifies an existing provision; and,
- A minor change to an element of an adopted program that is clearly consistent with the provisions of State Critical Area law and all the criteria of the Commission.

All such amendments and refinements shall be approved by the CAC as established in [State Natural Resources Article, § 8-1809](#).

<http://mgaleg.maryland.gov/webmga/frmStatutesText.aspx?article=gnr&section=8-1809&ext=html&session=2019RS&tab=subject5>. No such amendments shall be implemented without approval of the CAC. Standards and procedures for the CAC approval of proposed amendments or refinements are as set forth in the [State Natural Resources Article, § 8-1809 \(I\) and § 8-1809 \(d\)](#),

<http://mgaleg.maryland.gov/webmga/frmStatutesText.aspx?article=gnr&section=8-1809&ext=html&session=2019RS&tab=subject5>, respectively. In addition, the Department of Planning and the City Council shall review the entire program and propose any necessary amendments or refinements at least every six (6) years.

When an amendment or refinement is requested, the applicant shall submit the amendment or refinement request to the Planning Commission for review. Upon completing Findings of Fact, these documents shall be forwarded to City Council. The City Council shall hold at least one public hearing at which parties of interest and citizens shall have an opportunity to be heard. The public comment period must be at least fifteen (15) days. The City Council shall forward the approved amendment or refinement request to the CAC for final approval.

Except for program amendment or program refinements developed during a six (6)-year comprehensive review, a zoning map amendment may only be granted by the City upon proof of a mistake in the existing zoning. This requirement does not apply to proposed changes to a zoning map that meets the following criteria:

- Are wholly consistent with the land classifications in the adopted program; or,
- Propose the use of growth allocation in accordance with the adopted program.

### **11.8.2 Revisions to this Manual**

Between the required six (6)-year program review, revisions to this manual shall be submitted to the Baltimore City Planning Commission for review and approval and are subject to a public hearing by the Planning Commission. In the event that the revision is approved by the Planning Commission, it shall be forwarded to the CAC for approval.

The Director of Planning and the CAC are authorized to correct any typographical errors, eliminate redundant or extraneous material or rearrange portions of Baltimore's CAMP document from time to time, provided that the Baltimore Law Department concurs that any such corrections do not constitute changes in the City's adopted CAMP within the intent of [COMAR 27](#) and other applicable State or City laws.

## **12 FORMS & ADDITIONAL RESOURCES**

The materials in this section are intended to assist applicants in the preparation of their submissions by providing various forms, worksheets, and other information that may be required for the review and approval of projects in the Critical Area.

### **12.1 Forms**

#### **CITY OF BALTIMORE CHESAPEAKE BAY CRITICAL AREA MANAGEMENT PROGRAM**

City of Baltimore, Maryland  
Department of Planning

I am aware of the requirements of the City of Baltimore Critical Area Management Program and I agree to comply with these regulations and all applicable policy, guidelines and ordinances. I further agree to:

1. Certify installation of the approved Best Management Practice(s), to maintain such practices and have signed, if appropriate, a Declaration of Covenants-Inspection/Maintenance Agreement for Stormwater Management Facility and filed it with the Department of Public Works.
2. Certify installation of the Landscaping/Planting Plan no later than one (1) year from the date of occupancy to the Baltimore City Planning Department, 417 E. Fayette Street, 8th Floor, Baltimore, MD 21202.
3. Certify implementation of the landscape maintenance agreement listed in items A-F below. I shall be responsible for this maintenance and tree care for a period of two years. Services shall include, but not be limited to the following:

#### **A. WATERING**

- Watering shall be provided during the growing season as required.
- First Growing Season: Once per week.
- Second and Subsequent Growing Seasons: As needed, but not less than once per month during July and August. This includes trees planted in the sidewalk and the public right-of-way.

#### **B. REINFORCEMENT OF PLANTING REQUIREMENTS**

- A minimum of 100 percent of the total number of trees is required to survive at the end of the two-year maintenance period.

#### **C. MOWING AND FERTILIZER USE**

- Mowing: Areas requiring mowing should be kept to a minimum. If mowing is necessary, raise the lawn mower blade to at least 5 inches. This will reduce soil erosion,

increase water absorption, and increase turf drought tolerance. On areas that are lawn that do not require close mowing, allow the grass to attain a height of at least 10 inches. Mowing in these areas is permitted once per year in the fall after September.

- Fertilizer, Pesticides and Herbicides: Avoid the use of any fertilizer, especially those containing phosphorous or nitrogen, chemical pesticides and herbicides. If pest (rat) control is necessary, use integrated pest management, which limits pesticide applications to times when a problem is actually present. Remove all human and pet waste sources: garbage, spoiled food, pet excrement, etc.-these are all rodent food sources.

#### D. STORMWATER FACILITIES

- Plantings in stormwater facilities/BMPs are to be left to grow in their natural form in order to provide habitat for birds and other species. Do not mow grass or other plants in these areas, but keep trash cleaned out.

#### E. CONTROL OF INVASIVE PLANT SPECIES

- Phragmites, ailanthus, and other non-native plant removal should be undertaken in any areas on-site in perpetuity. Invasive, non-native plants will overtake the newly planted, native landscaping plants and create a monoculture unless controlled. Non-native, invasive plants should be spot-controlled using a combination of "Rodeo" herbicide, hand-cutting and weeding. Care should be taken not to spray any newly planted, native plants.

#### F. PROTECTION FROM DISEASE AND INJURY

- Periodic inspection shall be made for any evidence of disease or damage.

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Applicant/Developer's Name

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Applicant/Developer's Signature

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Owner's Name

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Owner's Signature

## 12.2 Related Regulations and Resources

The following regulations and documents may be helpful in better understanding the requirements of the CAMP and other related regulations.

### 12.2.1 Critical Area Regulation & Critical Area Commission Publications

- [Code of Maryland Regulations, Title 27: Critical Area Commission for the Chesapeake and Atlantic Coastal Bays \(COMAR 27\)](#)
- [State Natural Resources Article, § 8-1808 et. Seq., Annotated Code of Maryland](#)
- [Critical Area 10% Rule Guidance Manual](#)
- [Other Critical Area Commission Publications](#)
  - Including planting guidance publications:
    - “Native Trees and Shrubs in Maryland”
    - “Forest Mitigation Guidance”
    - “Living Shorelines – A Guide for Waterfront Property Owners”

### 12.2.2 Related Regulations

- [Baltimore City Codes](#)
- [Baltimore City Development Guidebook](#)
- [Baltimore City Forest Conservation Program](#)
- [Baltimore City Landscape Manual](#)
- [Baltimore City Maritime Master Plan](#)
- [Baltimore City Site Plan Review Guidelines](#)
- [Maryland Stormwater Design Manual](#)

### 12.2.3 Critical Area Planting Resources

- [Invasive Species of Concern in Maryland](#)
- [U.S. Fish & Wildlife Service – Native Plants for Wildlife Habitat and Conservation Landscaping for the Chesapeake Bay Watershed](#)

## **13 DEFINITIONS AND ACRONYMS**

### **13.1 Definitions**

The following terms have been incorporated into the Baltimore City Critical Area Management Program. Each of these terms has the meaning indicated below.

“Afforestation” means the establishment of forest cover on an area from which it has always or very long been absent, or the planting of open areas which are not presently in forest cover (source: Baltimore City Code, Article 7, Division iv, Subtitle 41, forest and tree conservation).

"Anadromous Fish" means fish that travel upstream (from their primary habitat in the ocean) to freshwaters in order to spawn.

"Anadromous Fish Propagation Waters" means those streams that are tributary to the Chesapeake Bay where spawning of anadromous species of fish (e.g., rockfish, yellow perch, white perch, shad, and river herring) occurs or has occurred. The streams are designated by the tidewater administration. For the purpose of this program, "streams" refers to designated anadromous fish propagation waters within the critical area.

“Barge” means a non-self-propelled vessel.

"Best Management Practices (BMPs)" means conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxics, and sediment.

"Brownfield" “A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” (U.S. Environmental Protection Agency).

“Buffer”, means area that based on conditions at the time of development, is immediately landward from mean high water of tidal waterways, the edge of bank of a tributary stream, or the edge of a tidal wetland; and the area exists, or may be established in, natural vegetation to protect a stream, tidal wetland, tidal waters or terrestrial environments from human disturbance. The Buffer includes an area of at least 100-feet, even if that area was previously disturbed by human activity, and also includes any expansion for contiguous areas, including a steep slope, hydric soil, highly erodible soil, nontidal wetland, or a Nontidal Wetland of Special State Concern as defined in [COMAR 26.23.01.01](#).

“COMAR” means Code of Maryland Regulations. The Critical Area regulations are COMAR Title 27, or COMAR 27.

“Commission” means the Chesapeake Bay Critical Area Commission.

"Community Piers" means boat docking facilities associated with subdivisions and similar residential areas, and with condominium, apartment, and other multiple-family dwelling units. Private piers are excluded from this definition.

"Conservation Easement" means a non-possessory interest in land, which restricts the manner in which the land may be developed in an effort to reserve natural resources for future use.

"Cover Crop" means the establishment of a vegetative cover to protect soils from erosion and to restrict pollutants from entering the waterways. Cover crops can be dense, planted crops of grasses or legumes, or crop residues such as corn, wheat, or soybean stubble which maximize infiltration and prevent runoff from reaching erosive velocities.

"Critical Area" means all lands and waters defined in §8-1807 of the Natural Resources Article, Annotated Code of Maryland. Critical Area includes:

- a) All waters of and lands under the Chesapeake Bay and Atlantic Coastal Bays and their tributaries to the head of tide;
- b) All State and private wetlands designated under Title 16 of the Environment Article, Annotated Code of Maryland;
- c) All land and water areas within 1,000 feet beyond the landward boundaries of State or private wetlands and the heads of tides designated under Title 16 of the Environment Article, Annotated Code of Maryland; and
- d) Modification to these areas through inclusions or exclusions proposed by local jurisdictions and approved by the Commission as specified in §8-1807 of the Natural Resources Article, Annotated Code of Maryland.

"Developed Woodlands" means those areas of 1 acre or more in size which predominantly contain trees and natural vegetation and which also include residential, commercial, or industrial structures and uses.

"Developer" means a person who undertakes development activity as defined in this ordinance; or a person who undertakes development as defined in the criteria of the commission.

"Development activities" or "Development" means the construction or substantial alteration of residential, commercial, industrial, institutional, or transportation facilities or structures and includes construction, reconstruction, modification, demolition or expansion of structures; placement of fill; dredging; drilling; mining; grading; paving; land excavation; land clearing; land improvement; storage of materials.

"Disturbance" means any alteration or change to the land and includes any amount of clearing, grading, or construction activity (COMAR Title 27).

"Dwelling Unit" means a single unit providing complete, independent living facilities for at least one person, including permanent provisions for sanitation, cooking, eating, sleeping, and other activities routinely associated with daily life. Dwelling unit includes a living quarters for a domestic or other employee or tenant, an in-law or accessory apartment, a guest house, or a caretaker residence.

"Ecosystem" a biological community of interacting organisms and their physical environment.

"Forest" means a biological community dominated by trees and other woody plants covering a land area of 1 acre or more. This also includes forests that have been cut, but not cleared.

"Forested Area" means a biological community dominated by trees and other woody plants.

"Highly Erodible Soils" means those soils with a slope greater than 15 percent; or those soils with a k value greater than 0.35 and with slopes greater than 5 percent.

"Historic Waterfowl Staging and Concentration Area" means an area of open water and adjacent marshes where waterfowl gather during migration and throughout the winter season.

"Hydric Soils" means soils that are wet frequently enough to periodically produce anaerobic conditions, thereby influencing the species composition or growth, or both, of plants on those soils.

"Hydrophytic Vegetation" means those plants cited in "Vascular Plant Species Occurring in Maryland Wetlands" (Dawson, F. et al., 1985) which are described as growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (plants typically found in water habitats).

"Improvements" means all physical improvements to the land or structures. Does not include consultant fees, portable equipment (restaurant ranges, moveable brewery equipment, etc.)

"Includes" means includes or including by way of illustration and not by way of limitation.

"Intensely Developed Area" means an area of at least 20 acres or the entire upland portion of the Critical Area within a municipal corporation, whichever is less, where:

- Residential commercial, institutional, or industrial developed land uses predominate; and
- A relatively small amount of natural habitat occurs.

The district includes:

- An area with a housing density of at least 4 dwelling units per acre;
- An area with public water and sewer systems with a housing density of more than 3 dwelling units per acre; or
- A commercial marina re-designated by a local jurisdiction from a resource conservation area or limited development area to an intensely developed area through a mapping correction that occurred before January 1, 2006.

"K Value" means the soil erodibility factor in the universal soil loss equation. It is a quantitative value that is experimentally determined.

"Land Clearing" means any activity that removes the vegetative ground cover.

"Landforms" means features of the earth's surface created by natural causes.

"Lot Coverage" means 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 any human-made 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 1 foot in width that has not been constructed with a footer;
- A walkway in the Buffer or expanded Buffer, including stairway, that provides direct access to a community or private pier;
- A wood mulch pathway; or
- A deck with gaps that allow water to pass freely.

"Marina" means any facility for the mooring, berthing, storing, or securing of watercraft, but not including community piers and other non-commercial boat docking and storage facilities.

"Master Plan" means a compilation of policy statements, goals, standards, maps, and pertinent data relative to the past, present, and future trends of the Baltimore City including, but not limited to, its population, housing, economics, social patterns, land use, water resources and their use, transportation facilities, and public facilities, prepared by or for the Department of Planning.

"Mean High Tide" means the average height of all the daily high tides recorded over a specified period at a given location.

"Mitigation" means an action taken to compensate for an adverse impact to the environment resulting from a development activity or a change in land use or intensity.

"Natural Heritage Area" means any communities of plants or animals which are considered to be among the best statewide examples of their kind, and are designated by regulation by the Secretary of the Department of Natural Resources.

"Natural Vegetation" means those plant communities that develop in the absence of human activities.

"Natural Parks" means areas of natural habitat that provide opportunities for those recreational activities that are compatible with the maintenance of natural conditions.

"Non-Point Source Pollution" means pollution generated by diffuse land use activities rather than from an identifiable or discrete facility. It is conveyed to waterways through natural processes, such as rainfall, storm runoff, or groundwater seepage rather than by deliberate discharge. Non-point source pollution is not generally corrected by "end-of-pipe" treatment, but rather, by changes in land management practices.

"Non-Renewable Resources" means resources that are not naturally regenerated or renewed.

"Non-Tidal Wetlands" means those lands in the critical area, excluding tidal wetlands regulation under Title 9 of the Natural Resources Article, Annotated Code of Maryland, where the water table is usually at or near the surface, or lands where the soil or substrate is covered by shallow water at some time during the growing season. These regulations apply to the palustrine class of non-tidal wetlands as defined in "Classification of Wetlands and Deepwater Habitats of the United States" (publication FWS/OBS-79/31, December 1979) and as identified on the national wetlands inventory maps, or which may be identified by site survey at the time of application for a development activity. These lands are usually characterized by one or both of the following:

- At least periodically, the lands support predominantly hydrophytic vegetation;
- The substrate is predominantly undrained hydric soils.

"Offsets" means structures or actions that compensate for undesirable impacts.

"Open Space" means land and water areas retained in an essentially undeveloped state.

"Palustrine" means all non-tidal wetlands dominated by trees, shrubs, persistent emergent plants, or emergent mosses or lichens and all such wetlands that occur in tidal areas where the salinity due to ocean-derived salts is below one-half part per 1,000 parts of water.

"Port" means any one or more or combination of:

- Lands, piers, docks, wharves, warehouses, sheds, transit sheds, elevators, compressors, refrigeration storage plants, buildings, elevators, compressors, refrigeration storage plants, buildings, structures, and other facilities, appurtenances, and equipment useful or designed for use in connection with the operation of a port;
- Every kind of terminal or storage structure or facility useful or designed for use in handling, storing, loading, or unloading freight or passengers at marine terminals;
- Every kind of transportation facility useful or designed for use in connection with any of these.

"Program Amendment" means any change or proposed change to an adopted program that is not determined by the chairman of the Critical Area Commission to be a program refinement.

"Program Refinement" means any change or proposed change to an adopted program that the chairman of the Critical Area Commission determines will result in a use of land or water in the Chesapeake Bay Critical Area or Atlantic Coastal Bays Critical Area in a manner consistent with the adopted program, or that will not significantly affect the use of land or water in the critical area. Program refinement may include:

- A change to an adopted program that results from state law;
- A change to an adopted program that affects local processes and procedures;
- A change to a local ordinance or code that clarifies an existing provision; and
- A minor change to an element of an adopted program that is clearly consistent with the provisions of state critical area law and all the criteria of the commission

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



"Reforestation" means the establishment of a forest through artificial reproduction or natural regeneration.

"Resource Conservation Area" means an area that is characterized by:

- Nature dominated environments, such as wetlands, surface water, forests, and open space; and
- Resource-based activities, such as agriculture, forestry, fisheries, or aquaculture.
- An area with a housing density of less than one dwelling per five acres.

"Runoff Pollution" means those contaminants which are carried by precipitation that flows over land.

"Selection" means the removal of single, scattered trees or other vegetation from uneven-aged stands by frequent and periodic cutting operations.

"Significant Development" means development which: disturbs land in the Buffer; disturbs 10,000 or more square feet of land in the Critical Area; results in any disturbance, caused by use, development, or destruction of vegetation, to land in an area designated under the Critical Area Management Program as a habitat protection area; or involves an expenditure for improvements to the property equal to or greater than 50 percent of the assessed value of the property, as certified by the Department of Planning.

"Species in Need of Conservation" means those fish and wildlife whose continued existence as part of the state's resources are in question and which may be designated by regulation by the Secretary of Natural Resources as in need of conservation pursuant to the requirements of COMAR Natural Resources Article.

"Steep slopes" means slopes of 15 percent or greater incline.

"Stormwater Runoff" means all increases in storm water resulting from:

- an increase in the imperviousness and/or lot coverage of the site, including all additions to buildings, roads and parking lots;
- changes in permeability caused by compaction during construction or modifications in contours, including the filling or drainage of small depression areas;
- alteration of drainage ways, or regrading of slopes;
- destruction of forest; or
- installation of collection systems to intercept street flows or to replace swales or other drainage ways.

"Transportation Facilities" means anything that is built, installed, or established to provide a means of transport from one place to another.

"Tributary Streams" means a perennial stream or an intermittent stream within the critical area that has been identified by site inspection or in accordance with local program procedures approved by the commission. "Unwarranted Hardship" means that without a variance, an applicant would be denied reasonable and significant use of the entire parcel or lot for which the variance is requested. (Natural Resources Article 8-1808 (d) (1)).

"Waterfowl" means birds which frequent and often swim in water, nest and raise their young near water, and derive at least part of their food from aquatic plants and animals.

"Wildlife Corridor" means a strip of land having vegetation.

"Wildlife Habitat" means those plant communities and physiographic features that provide food, water and cover, nesting, and foraging or feeding conditions necessary to maintain populations of animals in the critical area.

## 13.2 Acronyms

<b>BMP</b>	Best Management Practices
<b>BMZA</b>	Baltimore City Board of Municipal and Zoning Appeals
<b>BVCP</b>	Brownfield Voluntary Cleanup Program
<b>CAC</b>	Critical Area Commission
<b>CAMP</b>	Critical Area Management Program
<b>COMAR</b>	Code of Maryland Regulations
<b>DHPA</b>	Designed Habitat Protection Areas
<b>DNR</b>	Maryland Department of Natural Resources
<b>DPW</b>	Baltimore City Department of Public Works
<b>EPA</b>	Environmental Protection Agency
<b>ESD</b>	Environmental Site Design
<b>FSD</b>	Forest Stand Delineation
<b>HPA</b>	Habitat Protection Area
<b>IDA</b>	Intensely Developed Areas
<b>LDA</b>	Limited Development Areas
<b>MDE</b>	Maryland Department of the Environment
<b>MDOT</b>	Maryland Department of Transportation
<b>MPA</b>	Maryland Port Administration
<b>NPDES</b>	National Pollution Discharge Elimination System
<b>RCA</b>	Resource Conservation Areas
<b>SCA</b>	Shoreline Conservation Area
<b>WIA</b>	Waterfront Industrial Areas
<b>WRA</b>	Waterfront Revitalization Areas