

**EXHIBIT E—ORDINANCE NO. 05-1077C**

**METRO CODE CHAPTER 3.07  
URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN**

**TITLE 13 MODEL ORDINANCE**

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### **Section 1. Intent**

The purpose of this ordinance is to comply with Section 4 of Title 13 of Metro's Urban Growth Management Functional Plan.

- A. To protect and improve the following functions and values that contribute to fish and wildlife habitat in urban streamside areas:
  - 1. Microclimate and shade;
  - 2. Stream-flow moderation and water storage;
  - 3. Bank stabilization, sediment and pollution control;
  - 4. Large wood recruitment and retention and channel dynamics; and
  - 5. Organic material sources.
- B. To protect and improve the following functions and values that contribute to upland wildlife habitat in new urban growth boundary expansion areas:
  - 1. Large habitat patches
  - 2. Interior habitat
  - 3. Connectivity and proximity to water; and
  - 4. Connectivity and proximity to other upland habitat areas
- C. To establish High, Moderate, and Low Habitat Conservation Areas (HCA) to implement the performance standards of Title 13 of the Urban Growth Management Functional Plan.
- D. To provide clear and objective standards and a discretionary review process, applicable to development in Habitat Conservation Areas, in accordance with Statewide Land Use Planning Goal 5.
- E. To allow and encourage habitat-friendly development, while minimizing the impact on fish and wildlife habitat functions.
- F. To provide mitigation standards for the replacement of ecological functions and values lost through development in Habitat Conservation Areas.

### **Section 2. Applicability**

- A. This ordinance applies to all properties containing mapped Habitat Conservation Areas (HCA).
- B. All applicants must provide Construction Management Plans, in accordance with Section 5 of this ordinance.

- C. Where applicants are proposing development entirely outside of the HCA, but within 100 feet of its boundary, applicants must verify this boundary through the procedures outlined in Section 9 of this ordinance.
- D. Where applicants are proposing development within the HCA, they must comply with the Development Standards found in Section 6 and Section 7 of this ordinance, and the Map Verification procedures found in Section 9 of this ordinance. Conditioned Uses, and Activities that are exempt from these requirements, may be found in Section 3 of this ordinance.
- E. Applicants proposing to partition or subdivide properties containing HCA must comply with the partition and subdivision standards found in Section 6(F) of this ordinance, or the Discretionary standards in Section 7 of this ordinance; as well as the Map Verification procedure in Section 9 of this ordinance.
- F. The Development Standards found in Sections 6 and 7 of this ordinance do not apply to development that occurs entirely outside of any portion of the HCA.
- G. The requirements of this ordinance apply in addition to other applicable local, state, regional, and federal development requirements, including those for Water Quality Resource Areas and Flood Management Areas; except that:
  - 1. Applicants using the discretionary review process in Section 7 of this ordinance do not need to engage in any additional review process for Water Quality Resource Areas; and
  - 2. This ordinance shall not impose any mitigation requirements for wetlands beyond those required by federal and state law.
- H. “Development,” “Partition,” and “Subdivision” are defined in Section 11 of this ordinance.

### **Section 3. Exempt Uses and Conditioned Activities**

The following uses and activities are exempt from the requirements of this chapter:

- A. Change of ownership.
- B. Where construction of a residence was completed before January 1, 2006, the owners or residents shall not be restricted from engaging in any development that was allowed prior to September 22, 2005; unless such development required obtaining a land use decision, or a building, erosion control, or grading permit.
- C. A building permit for a phased development project for which the applicant has previously met the application requirements, so long as the site for new construction was identified on the original permit and no new portion of the HCA will be disturbed.
- D. Where a property has been subdivided under subsection 6(F) of this ordinance, and the mitigation requirements of subsection 6(E) (and, if appropriate, subsections 7(B) and 7(C)) have been completed for the subdivision, development on the individual lots may proceed without further review under this ordinance. Similarly, where a property has been subdivided under subsection 7(D) of this ordinance, and the mitigation requirements of subsection 7(D) have been completed for the subdivision, development on the individual lots may proceed without further review under this ordinance.

- E. Limited types of development, redevelopment, operations, and improvements, including the following:
1. Maintenance, alteration, expansion, repair and replacement of existing structures provided that the building footprint is not increased.
  2. The alteration, expansion, or replacement of existing structures, provided that:
    - a. The alteration, expansion, or replacement of a structure will not intrude more than 500 sq. ft. into the HCA in addition to the area defined as the building footprint as of January 1, 2006; and
    - b. The new intrusion into the HCA is no closer to the protected water feature than the pre-existing structure or improvement.
  3. Minor encroachments not to exceed 120 sq. ft. of impervious surface such as accessory buildings, eave overhangs, exterior building improvements for access and exiting requirements, or other similar features.
  4. Temporary and minor clearing not to exceed 200 square feet for the purpose of site investigations and pits for preparing soil profiles, provided that such areas are restored to their original condition when the investigation is complete.
  5. Up to 10% of vegetative cover within the original mapped HCA on a lot or parcel may be removed, provided that no more than 20,000 square feet is removed; and provided that if more than 10% has been removed at the time of a development application, the review process shall use the original mapped HCA, subject to map verification, as the basis for determining the Maximum Disturbance Area in Section 6(C) of this ordinance and Mitigation standards in Sections 6(E) and 7(B), 7(C), 7(D)(1)(b) and 7(D)(2)(d) of this ordinance.
  6. Maintenance of existing gardens, pastures, lawns and landscape perimeters, including the installation of new irrigation systems within existing gardens, pastures, lawns, and landscape perimeters.
  7. Removal of plants identified as nuisance or prohibited plants on the *Metro Native Plant List* and the planting or propagation of plants identified as native plants on the *Metro Native Plant List*. Handheld tools must be used to remove nuisance or prohibited plants, and after such removal all open soil areas greater than 25 square feet must be replanted.
  8. Farming practices and farm uses on land within an exclusive farm use zone established under ORS 215.203, within an area designated as marginal land under ORS 197.247 (1991 Edition), or on other agricultural lands, except that this exemption does not apply to buildings associated with farm practices or farm uses. "Farming practice" as used in this subsection shall have the meaning set out in ORS 30.930. "Farm use" as used in this subsection shall have the meaning set out in ORS 215.203.
  9. Forest practices on forestlands situated outside the Metro UGB, except as provided in ORS 527.722(2), (3), and (4). "Forest practices" and "forestlands" as used in this subsection shall have the meaning set out in ORS 30.930.

10. Maintenance, alteration, repair, and replacement of roads and utilities when no additional incursion into the HCA is proposed.
  11. Maintenance and repair of existing streets, railroads, shipping terminals, and utilities within rights-of-way, easements, and access roads.
  12. Existing water-dependent uses that can only be carried out on, in, or adjacent to water because they require access to the water for waterborne transportation or recreation.
  13. Operation, maintenance, and repair of manmade water control facilities such as irrigation and drainage ditches, constructed ponds or lakes, wastewater facilities, and stormwater pretreatment facilities.
  14. Projects with the sole purpose of restoring or enhancing wetlands, streams, or fish and wildlife habitat areas, provided that the project is part of an approved local, state, or federal restoration or enhancement plan.
  15. Low-impact outdoor recreation facilities for public use, outside of Water Quality Resource Areas, including, but not limited to, multi-use paths, access ways, trails, picnic areas, or interpretive and educational displays and overlooks that include benches and outdoor furniture, provided that the facility meets the following requirements:
    - a. It contains less than 500 sq. ft. of new impervious surface; and,
    - b. Its trails shall be constructed using non-hazardous, pervious materials, with a maximum width of four feet.
- F. Emergency procedures or activities undertaken which are necessary to remove or abate hazards and nuisances or for the protection of public health, safety and welfare; provided that such remedial or preventative action must take place within a timeframe too short to allow for compliance with the requirements of this ordinance. After the emergency, the person or agency undertaking the action shall fully restore any impacts to the HCA resulting from the emergency action. Hazards that may be removed or abated include those required to maintain aircraft safety.
- G. Multnomah County Drainage District - Within Habitat Conservation Areas located in Multnomah County Drainage District No. 1, Peninsula Drainage District No. 1, Peninsula Drainage District No. 2, and the area managed by the Sandy Drainage Improvement Company, routine operations, repair, maintenance, reconfiguration, rehabilitation, or replacement of existing drainage and flood control facilities, and existing related facilities, including any structures, pump stations, water control structures, culverts, irrigation systems, roadways, utilities, accessory uses (such as off-load facilities that facilitate water-based maintenance), erosion control projects, levees, soil and bank stabilization projects, dredging and ditch clearing within the hydraulic cross-section in existing storm water conveyance drainageways, or other water quality and flood storage projects applicable to existing facilities and required to be undertaken pursuant to ORS chapters 547 or 554 or Titles 33 or 44 of the Code of Federal Regulations, shall be allowed, provided that:
1. The project is consistent with all other applicable local, state, and federal laws and regulations;

2. The project does not encroach closer to a surface stream or river, wetland, or other body of open water than existing operations and development;
3. Disturbed areas are replanted with vegetation and no bare soils remain after project completion; the planting of native vegetation and removal of invasive non-native or noxious vegetation is encouraged; invasive non-native or noxious vegetation shall not be planted; and,
4. Each district submits an annual report, to all local permitting agencies in which the district operates, describing the projects the district completed in the previous year and how those projects complied with all applicable federal and state laws and requirements.

H. Wildlife Hazard Management Areas - Any activity that is required to implement a Federal Aviation Administration (FAA)-compliant Wildlife Hazard Management Plan (WHMP) on property owned by the Port of Portland within 10,000 feet of an Aircraft Operating Area, as defined by the FAA, shall not have to comply with subsections 6(B-D), 7(D)(1)(a)(3) and (4), or 7(D)(2)(b), (c) and (e) of this ordinance. For disturbance within the HCA on property owned by the Port of Portland within 10,000 feet of an Aircraft Operating Area, as defined by the FAA, the applicant shall choose, at its sole discretion, between complying with subsection 6(E) of this ordinance or complying with subsection 7(C), or subsections 7(D)(1)(b) and 7(D)(2)(d) of this ordinance. Mitigation required pursuant to subsection 6(E) or 7(C), or 7(D)(1)(b) and 7(D)(2)(d) of this ordinance as part of any development within the HCA on property owned by the Port of Portland within 10,000 feet of an Aircraft Operating Area, as defined by the FAA, shall be permitted at any property located:

1. Within the same 6<sup>th</sup> Field Hydrologic Unit Code subwatershed as delineated by the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) if on-site mitigation would conflict with FAA-compliant WHMP; or
2. Outside of the same 6<sup>th</sup> Field Hydrologic Unit Code subwatershed as delineated by the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) only if the applicant follows the discretionary review process in section 7 of this ordinance.

#### **Section 4. Prohibitions**

- A. The planting of any invasive non-native or noxious vegetation is prohibited within the HCA.
- B. Outside storage of materials is prohibited within the HCA, unless such storage began before the effective date of this ordinance; or, unless such storage is approved during development review under either Section 6 or Section 7 of this ordinance.

#### **Section 5. Construction Management Plans**

In order to ensure that trees and vegetation within HCAs are not damaged during construction, all applicants, even those not developing within an HCA, shall provide a construction management plan that includes the following information:

- A. Location of site access and egress that construction equipment will use;
- B. Equipment and material staging and stockpile areas;
- C. Erosion and sediment control measures; and

- D. Measures to protect trees and other vegetation located within the HCA, but outside of the disturbance area approved under the provisions of section 6 or section 7 of this ordinance.

### **Section 6. Development Standards**

The development standards described in this section apply to all development and redevelopment that occurs entirely, or partially, within Habitat Conservation Areas, unless such development is exempt under Section 3, or, unless the applicant chooses to follow the discretionary process in Section 7 of this ordinance. This section also applies to subdivisions and partitions of properties that contain HCAs.

Application for a land use, building, grading, land division, or other development permit through the clear and objective process may be an administrative decision. [*Insert city/county decision-type here.*]

- A. **Application Requirements.** Applications for a building permit or development permit must provide a development plan and accompanying narrative explanation that includes the following information in addition to any other building permit or development permit requirements. All of the application requirements must be met prior to approval of a building or development permit.
1. Applicants must verify the HCA on their property as described in Section 9 of this ordinance.
  2. For the entire subject property (HCA and non-HCA), applicants must submit a scale map of the property that includes:
    - a. Location of all High, Moderate, and Low HCAs on the property;
    - b. Outline of any existing disturbance area, including the location of existing adjacent streets and paved areas, utilities, culverts, stormwater management facilities, or bridges;
    - c. Location of any wetlands or water bodies on the property, including a delineation of the Water Quality Resource Area;
    - d. Location of 100 year floodplain and floodway boundary as defined by the Federal Emergency Management Agency (FEMA) and the area of the 1996 flood inundation; and
    - e. Topography shown by contour lines of 2-ft. intervals for slopes less than 15% and by 10 ft. intervals for slopes 15% or greater. On properties that are two acres or larger, such a contour map is required only for the portion of the property to be developed.
  3. Detailed site plan of proposed development outlining total disturbance area, including, proposed building footprints, site property improvements, utilities and landscaping.
  4. The following additional information shall be provided about the HCA:
    - a. For properties containing less than one acre of HCA, the location of all trees within the HCA that are greater than six inches diameter at breast height (DBH), shall be identified by size and species. For properties containing one acre or more of HCA, the applicant may approximate the number of trees and the diameter range, and provide a listing of the dominant species;
    - b. For proposed disturbance areas containing less than one acre of HCA, all trees with a diameter of six inches or greater that will be removed shall be specifically identified as to

diameter at breast height (DBH) and species. For proposed disturbance areas containing one acre or more of HCA an approximate of the number of trees, their diameters and the dominant species; and

- c. If grading will occur within the HCA, a grading plan showing the proposed alteration of the ground at 1-ft. vertical contours in areas of slopes less than 5%, and 2-ft. vertical contours in areas of slopes 6-15%, and at 5-ft. vertical contours of slopes 15% or greater.

**B. Methods for avoiding Habitat Conservation Areas.** The following habitat-friendly development practices may be used to avoid or minimize development within HCAs by allowing flexible site design. [*Cities/counties shall allow the following methods to avoid, or minimize, development within HCAs*]:

1. ***Building setback flexibility*** to avoid, or minimize, development within HCAs. The minimum building setback of the base zone may be reduced to any distance between the base zone minimum and zero, unless this reduction conflicts with applicable fire or life safety requirements.
2. ***Flexible landscaping requirements*** to avoid, or minimize, development within HCAs.
  - a. Landscaping requirements, apart from those required for parking lots or street berms, may be met by preserving the HCA.
  - b. Facilities that infiltrate stormwater onsite, including the associated piping, may be placed within the HCA so long as the forest canopy and the areas within the driplines of the trees are not disturbed. Such facilities may include, but are not limited to, vegetated swales, rain gardens, vegetated filter strip, and vegetated infiltration basins. Only native vegetation may be planted in these facilities.
3. ***Flexible Site Design*** (On-site Density Transfer) to avoid or minimize development within HCAs.
  - a. ***Residential.*** For residential development proposals on lands with a HCA, a transfer of density within the property site is permitted. [*Cities/counties may establish the appropriate percentage of density that may be transferred, provided that it is not less than 50% of the maximum density that would have been permitted in the portion of property within the HCA under the applicable zoning code requirements.*]
  - b. In order to accommodate the transferred density, dimensional standards and lot sizes may be adjusted by no more than 30 percent. [*Cities/counties may set the percentage of the adjustment, provided that it is no lower than 20%.*]
  - c. ***Commercial and Industrial Zones.*** For on-site density transfers in Commercial or Industrial zones, the transfer credit is 10,000 sq. ft floor area ratio (FAR) per acre of land within the HCA.
  - d. ***Mixed-Use Zones.*** Within mixed-use zones the density transfer credit can be factored using either 3(a) or 3(c) above, depending on the type of development proposed.
  - e. All remaining HCA shall be permanently restricted from development and maintained for habitat functions, such as by making a public dedication or executing a restrictive covenant.

4. **Site Capacity Incentives.** The following site capacity standards provide flexibility in the design of land divisions in order to allow ways to better protect HCAs.
  - a. Density bonus if HCA is protected. In multi-family residential zones, a 25 percent density bonus may be allowed for any development of four (4) or more dwelling units if 75 percent or more of the HCA on a site is permanently preserved, such as by making a public dedication or executing a restrictive covenant. The bonus density shall be in addition to the base density allowed in the applicable zoning district.
  - b. All area within a HCA, or any portion of it, may be subtracted from the calculations of net size for purposes of determining the minimum number of units that must be built on the property, provided that such area is protected, such as by making a public dedication or executing a restrictive covenant. This provision may only be applied to properties that were inside the Metro UGB on January 1, 2002.
5. *[Cities/Counties may allow the following tools for avoiding or minimizing development in HCAs]:*

**Transfer of development rights (off-site) in residential zones.** Transfer of development rights preserves development opportunities and reduces development pressure on environmentally-sensitive properties. The regulations described below allow development rights to be transferred from properties with HCAs to off-site areas that can accommodate the additional density without environmental conflict. Transfer of development rights between properties is allowed as follows. “Development rights” are the number of potential dwelling units that would be allowed on the property by the base zone.

- a. Sending properties. Properties where at least 50 percent of the property is within a HCA may transfer development rights.
- b. Receiving Properties.

*Option 1:* All properties in 2040 Mixed-Use areas may receive development rights from sending properties except:

- i. Where any portion of the receiving property is within an HCA; or
- ii. Where any portion of the receiving property is in the undeveloped 100-year floodplain as currently defined by the Federal Emergency Management Agency (FEMA).

*Option 2:* City or county may identify receiving properties upon adoption of this ordinance to be selected using the criteria in Option 1. The resulting map or criteria to identify receiving properties may include fewer properties than Option 1.

- a. Maximum density. The density of the receiving property may not exceed 200 percent of the allowable density of the receiving property.
- b. In order to accommodate the transferred density, dimensional standards and lot sizes may be adjusted by no more than 30 percent.
- c. Transfer procedure. Transfer of development rights is allowed as follows:

- i. Covenant required. The owner of the sending property must execute a covenant with the authorizing authority that reflects the reduced development potential on the sending property. The covenant must be recorded before approval of the final plan. Density transfers shall be recorded on the title of the sending lot in the HCA and on the title of the transfer (receiving) property.
  - ii. Sending property included. The sending property must be a part of the application for development on the receiving property. A copy of the covenant for the sending property must be included with the application.
  - iii. City or county may purchase development rights from sending properties to place in a development rights bank for later sale to developers to use on receiving properties.
- C. **Development within HCAs.** The following development standards apply to all development that occurs within the HCA except for exempt uses and conditioned activities addressed in Section 3 of this ordinance and utility facilities addressed in subsection 6(D) of this ordinance. If all development occurs outside of an HCA on a property, these standards do not apply. These standards also do not apply to development that occurs pursuant to the standards established by the alternative discretionary development standards in Section 7 of this ordinance. (Note: Applicants seeking to develop within a Water Quality Resource Area must utilize either the discretionary standards located in Section 7 of this ordinance or the review standards for Metro’s Title 3 Water Quality Resource Areas).
- 1. ***Disturbance area limitations*** to minimize impact to HCA.
    - a. *Single-family residential.* The maximum disturbance area (MDA) allowed within HCAs is determined by subtracting the area of the lot or parcel outside of the HCAs from the total disturbance area (TDA) calculated as described in Table 1 below.  
(TDA – Area outside the HCA = MDA)
      - i. Moderate and Low HCAs are subject to the same disturbance area limitations.
      - ii. Calculation of maximum disturbance area. If a lot or parcel includes both High and Moderate/Low HCAs then:
        - (A) If there is more High HCA than Moderate/Low HCA on the lot or parcel, then the MDA shall be calculated as if all of the Moderate/Low and High HCA were High, per Table 1 below; or
        - (B) If there is more Moderate/Low HCA than High HCA on the lot or parcel, then the MDA shall be calculated as if all of the Moderate/Low and High HCA were Moderate/Low, per Table 1 below.
      - iii. Location of MDA. If a lot or parcel includes different types of HCAs, then:
        - (A) The amount of development that may occur within the High HCA is equal to the total disturbance area minus the area of the lot or parcel outside of the High HCA (TDA – non-High HCA = MDA). If the area of the lot or parcel outside the High HCA is greater than the total disturbance area, then development shall not occur within the High HCA:

(Area outside High HCA > TDA = no development in High HCA);

- (B) The amount of development that may occur within the Moderate HCA is equal to the total disturbance area minus the area of the lot or parcel outside of the High and Moderate HCA (TDA – (Low HCA + non-HCA) = MDA). If the area of the lot or parcel outside the Moderate HCA is greater than the total disturbance area, then development shall not occur within the Moderate HCA:

(Area outside Moderate HCA > TDA = no development in Moderate HCA);

and

- (C) The amount of development that may occur within the Low HCA is equal to the total disturbance area minus the area of the lot or parcel outside of the High, Moderate and Low HCA (TDA – non-HCA = MDA). If the area of the lot or parcel outside the Low HCA is greater than the total disturbance area, then development shall not occur within the Low HCA:

(Area outside Low HCA > TDA = no development in Low HCA).

**Table 1. HCA Total Disturbance Area Limitations for SFR.**

HCA type	Total Disturbance Area
High	50 percent of the lot area, up to maximum of 5,000 sq. ft.
Moderate/Low	65 percent of the lot area, up to maximum of 6,000 sq. ft.

- b. *All other zones.* The maximum disturbance area (MDA) allowed by right within Low, Moderate and High HCAs in these zones is found in Table 2 below; this MDA is subject to the mitigation requirements described in subsection 6(E) of this ordinance.

**Table 2. HCA Disturbance Area Limitations for all zones other than SFR.**

HCA type	Maximum Disturbance Area
High	10 percent of HCA on site
Moderate	15 percent of HCA on site
Low	50 percent of HCA on site

- c. Development within an HCA in accordance with the provisions of this ordinance shall not result in a change of the HCA status of such developed areas on a property. In the case of a later development request seeking to develop within previously undisturbed HCAs on a property where a prior development request was subject to the provisions of this ordinance, the calculation of the MDA allowed on the property shall be based on the location of the HCA, notwithstanding the location of any authorized development within the HCA.
2. ***Protection of habitat during site development.*** During development of any site containing a HCA, the following standards apply:
- a. Work areas shall be marked to reduce potential damage to the HCA.
  - b. Trees in HCAs shall not be used as anchors for stabilizing construction equipment.

- c. Native soils disturbed during development shall be conserved on the property.
- d. An erosion and sediment control plan is required and shall be prepared in compliance with requirements set forth in the [*locally adopted Title 3 erosion control regulations*];
- e. Prior to construction, the HCA that is to remain undeveloped shall be flagged, fenced, or otherwise marked and shall remain undisturbed.
- f. All work on the property shall conform to the Construction Management Plan described in Section 5 of this ordinance.

**D. Utility facility standards.** The following disturbance area limitations apply to new utilities, private connections to existing or new utility lines, and upgrade

- a. The disturbance area for utility facility connections to utility facilities is no greater than 10 feet wide.
- b. The disturbance area for the upgrade of existing utility facilities is no greater than 15 feet wide.
- c. The disturbance area for new underground utility facilities is no greater than 25 feet wide and disturbs no more than 200 linear feet of Water Quality Resource Area, within any 1,000 linear foot stretch of Water Quality Resource Area; provided that this disturbance area shall be restored with the exception of necessary access points to the utility facility.
- d. No fill or excavation is allowed within the ordinary high water mark of a stream, unless a permit is obtained from the US Army Corps of Engineers through the Standard Local Operating Procedures for Endangered Species (SLOPES) process.
- e. Mitigation is required as described in subsection E below.

**E. Mitigation requirements for disturbance in HCAs.** In order to achieve the goal of reestablishing forested canopy that meets the ecological values and functions described in section 1(A) of this ordinance, tree replacement and vegetation planting are required when development intrudes into a HCA according to the following standards, except for wetlands mitigation requirements imposed by state and federal law.

- 1. **Required plants and plant densities.** All trees, shrubs and ground cover must be native plants selected from the *Metro Native Plant List*. An applicant must meet Mitigation Option 1 or 2, whichever results in more tree plantings; except that where the disturbance area is one acre or more, the applicant shall comply with Mitigation Option 2:
  - a. *Mitigation Option 1.* In this option, the mitigation requirement is calculated based on the number and size of trees that are removed from the site. Trees that are removed from the site must be replaced as shown in Table 3. Conifers must be replaced with conifers. Bare ground must be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

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**Table 3. Tree Replacement**

Size of tree to be removed (inches in diameter)	Number of trees and shrubs to be planted
6 to 12	2 trees and 3 shrubs
13 to 18	3 trees and 6 shrubs
19 to 24	5 trees and 12 shrubs
25 to 30	7 trees and 18 shrubs
over 30	10 trees and 30 shrubs

- b. *Mitigation Option 2.* In this option, the mitigation requirement is calculated based on the size of the disturbance area within a HCA. Native trees and shrubs are required to be planted at a rate of five (5) trees and twenty-five (25) shrubs per every 500 square feet of disturbance area (calculated by dividing the number of square feet of disturbance area by 500, and then multiplying that result times five trees and 25 shrubs, and rounding all fractions to the nearest whole number of trees and shrubs; for example, if there will be 330 square feet of disturbance area, then 330 divided by 500 equals .66, and .66 times five equals 3.3, so three trees must be planted, and .66 times 25 equals 16.5, so 17 shrubs must be planted). Bare ground must be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.
2. **Plant size.** Replacement trees must be at least one-half inch in caliper, measured at 6 inches above the ground level for field grown trees or above the soil line for container grown trees (the one-half inch minimum size may be an average caliper measure, recognizing that trees are not uniformly round), unless they are oak or madrone which may be one gallon size. Shrubs must be in at least a 1-gallon container or the equivalent in ball and burlap and must be at least 12 inches in height.
  3. **Plant spacing.** Trees shall be planted between 8 and 12 feet on-center and shrubs shall be planted between 4 and 5 feet on center, or clustered in single species groups of no more than four (4) plants, with each cluster planted between 8 and 10 feet on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.
  4. **Plant diversity.** Shrubs must consist of at least two (2) different species. If 10 trees or more are planted, then no more than 50% of the trees may be of the same genus.
  5. **Location of mitigation area.** All vegetation must be planted on the applicant’s site within the HCA or in an area contiguous to the HCA; provided, however, that if the vegetation is planted outside of the HCA then the applicant shall preserve the contiguous area by executing a deed restriction, such as a restrictive covenant. (*Note: an off-site mitigation option is provided in a streamlined discretionary review process*).
  6. **Invasive vegetation.** Invasive non-native or noxious vegetation must be removed within the mitigation area prior to planting.
  7. **Tree and shrub survival.** A minimum of 80% of the trees and shrubs planted shall remain alive on the fifth anniversary of the date that the mitigation planting is completed.
  8. **Monitoring and reporting.** Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die must be replaced in kind. For a period of five years, the property

owner must submit an annual report to (list appropriate city or county department) documenting the survival of the trees and shrubs on the mitigation site. *[Optional: the city or county may require the property owner to post a performance bond in the amount sufficient to cover costs of plant material and labor associated with site preparation, planting, and maintenance in lieu of the monitoring and reporting requirement.]*

9. To enhance survival of the mitigation plantings, the following practices are required:
  - a. Mulching. Mulch new plantings a minimum of three inches in depth and 18 inches in diameter to retain moisture and discourage weed growth.
  - b. Irrigation. Water new plantings one inch per week between June 15th to October 15th, for the three years following planting.
  - c. Weed control. Remove, or control, non-native or noxious vegetation throughout maintenance period.
10. To enhance survival of tree replacement and vegetation plantings, the following practices are recommended:
  - a. Planting season. Plant bare root trees between December 1st and February 28th, and potted plants between October 15th and April 30th.
  - b. Wildlife protection. Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and resulting damage to plants.

F. **Standards for Partitions and Subdivisions.** The purpose of this section is to allow for partitions in a manner that limits the total amount of allowable development within HCAs on the partitioned parcels; and to require that new subdivision plats delineate and show the Moderate and High HCAs as a separate unbuildable tract.

1. ***Standards for Partitions containing HCAs:***

- a. When partitioning a property into parcels, an applicant shall verify the boundaries of the HCA on the property according to Section 9 of this ordinance.
- b. Applicants who are partitioning, but are not simultaneously developing their property, do not need to comply with Section 5 of this ordinance.
- c. When partitioning a property into parcels there shall be no more than a 30% percentage point difference in the percentage of HCA on the parcels; for example, a partition that produces two parcels, one that is 55% HCA and the other that is 35% HCA is permissible; whereas a partition that produces two parcels, one that is 75% HCA and the other that is 30% HCA is not permissible. However, an applicant may partition a property such that at least 90% of the original property's High HCA and 80% of its moderate HCA is on a separate unbuildable parcel, protected by a restrictive covenant or a public dedication.
- d. Subsequent development on any parcels containing HCAs shall comply with Section 5, and the development standards of either section 6 or section 7 of this ordinance.

2. ***Standards for Subdivisions containing HCAs:***

- a. Applicants who are subdividing, but not developing, must verify the location of the HCA boundary according to Section 9 of this ordinance, and comply with this subsection 6(F); such applicants do not need to comply with Section 5 of this ordinance. Applicants who are subdividing, but not developing, property may:
  - i. Complete the mitigation requirements of subsection 6(E) of this ordinance (and, if appropriate, subsections 7(B) and 7(C)) and thereby exempt all subsequent development on lots containing HCA from further review under this ordinance; or
  - ii. Not complete the mitigation requirements of subsections 6(E), 7(B), or 7(C) of this ordinance, thus requiring that any subsequent development within an HCA be subject to this ordinance.
- b. Applicants who are subdividing and developing properties must comply with Sections 5, 6, and 9 of this ordinance.
- c. When a property containing any HCA is subdivided, this ordinance requires that new subdivision plats delineate and show the Moderate and High HCA as a separate unbuildable tract according to the following process:
  - i. The applicant must place at least 90% of the High HCA and 80% of the Moderate HCA in a separate tract.
    - (A) If over 50% of the HCA on a property is of a High designation, the entire calculation is for High (i.e., 90% of the HCA must be placed within a separate tract).
    - (B) If over 50% of the HCA on a property is of a Moderate designation, the entire calculation is for Moderate (i.e., 80% of the HCA must be placed within a separate tract).
  - ii. If the tract is adjacent to the backyard for residences, the minimum backyard requirement is reduced to 10 ft.
  - iii. The standards for subdivisions in Moderate and High HCAs shall apply in addition to the requirements of the city/county land division ordinance and zoning ordinance.
  - iv. Prior to preliminary plat approval, the Moderate and/or High HCA shall be shown as a separate tract, which shall not be a part of any lot used for construction of a dwelling unit.
  - v. Prior to final plat approval, ownership of the HCA tract shall be identified to distinguish it from lots intended for sale. The tract may be identified as any one of the following:
    - (A) Private natural area held by the owner or homeowners association by a restrictive covenant; or
    - (B) For residential subdivisions, private natural area subject to an easement conveying storm and surface water management rights to the city/county and preventing the

owner of the tract from activities and uses inconsistent with the purpose of this ordinance; or

- (C) At the owner's option, public natural area where the tract has been dedicated to the city/county or other governmental unit, or a private non-profit with the mission of land conservation.

### **Section 7. Alternative Discretionary Development Standards**

Applicants may choose to use the alternative discretionary development standards provided in this section rather than the development standards provided in section 6 of this ordinance. There are four discretionary review processes provided in this section: subsection A provides discretionary review for an applicant seeking only to partition a property; subsection B provides discretionary review for an applicant who will comply with the development standards in section 6 of this ordinance, except that the applicant seeks to meet the mitigation requirements of that section on a different property from the property on which a HCA will be disturbed; subsection C provides discretionary review for an applicant who will comply with the development standards in section 6 of this ordinance, except that the applicant seeks to meet the mitigation requirements of that section by proportionally varying the number and size of plants required to be planted; and subsection D provides general discretionary review standards applicable to an applicant seeking some other type of discretionary approval of development that will disturb an HCA.

- A. **Discretionary Review for Partitions.** An applicant seeking to partition land in ways that do not accord with the standards established in Section 6(F)(1) may seek review under this subsection 7(A).
  - 1. The applicant shall verify the boundaries of the HCAs on the property according to Section 9 of this ordinance.
  - 2. The applicant shall submit the following application materials:
    - a. A scale map of the entire property that includes:
      - i. Location of all High, Moderate, and Low HCA on the property;
      - ii. Location of any wetlands or water bodies on the property, including a delineation of the Water Quality Resource Area;
      - iii. Location of 100 year floodplain and floodway boundary as defined by the Federal Emergency Management Agency (FEMA) and the area of the 1996 flood inundation; and
      - iv. A delineation of the proposed partition.
    - b. A written and documented explanation of how and why the proposed partition satisfies the approval criteria in subsection 7(A)(3). Such written documentation shall include an alternatives analysis of different possible partition plans, based on the characteristics and zoning of the property.
  - 3. **Approval Criteria.** A partition shall be approved under this subsection 7(A) provided that the applicant demonstrates that it is not practicable to comply with the partition standards in Section 6(F)(1) of this ordinance, and that the applicant's partition plan will result in the smallest

practicable percentage point difference in the percentage of HCA on the parcels created by the partition (this will minimize the amount of allowable disturbance areas within HCAs on the parcels, assuming that the development standards in this Section 6 were applied to future development on such parcels).

4. Subsequent development on any parcels created by the partition and containing HCAs shall comply with all provisions of this ordinance, except that the map verification completed and approved as part of the partition may be used to satisfy the requirements of section 9 of this ordinance for any such development.

**B. Discretionary Review To Approve Off-Site Mitigation.** An applicant seeking discretionary approval only for off-site mitigation within the same subwatershed (6<sup>th</sup> Field Hydrologic Unit Code), but who will comply with all other provisions of Section 6 of this ordinance, may seek review under this subsection 7(B). (An applicant who seeks to conduct the mitigation in a different subwatershed may apply for such approval under subsection 7(D) of this ordinance.)

1. The applicant shall submit:

- a. A calculation of the number of trees and shrubs the applicant is required to plant under Section 6(E) of this ordinance; and

- b. A map and accompanying narrative that details the following:

- i. The number of trees and shrubs that can be planted on-site;

- ii. The on-site location where those trees and shrubs can be planted;

- iii. An explanation of why it is not practicable for the remainder of the mitigation to occur on-site; and

- iv. The proposed location for off-site mitigation and documentation that the applicant can carry out and ensure the success of the mitigation, including documentation that the applicant possesses legal authority to conduct and maintain the mitigation, such as having a sufficient ownership interest in the mitigation site, and, if the mitigation is not within a HCA, documentation that the mitigation site will be protected after the monitoring period expires, such as through the use of a restrictive covenant.

2. Approval Criteria. Off-site mitigation shall be approved under this subsection 7(B) provided that the applicant has demonstrated that it is not practicable to complete the mitigation on-site and that the applicant has documented that it can carry out and ensure the success of the off-site mitigation on a property within the same subwatershed (6<sup>th</sup> Field Hydrologic Unit Code) as the related disturbed HCA.

3. Mitigation approved under this subsection 7(B) of this ordinance shall be subject to all of the requirements of subsection 6(E) of this ordinance, except for the requirements of subsection 6(E)(5) of this ordinance.

**C. Discretionary Review To Approve Mitigation That Varies the Number and Size of Trees and Shrubs.** An applicant seeking discretionary approval only to proportionally vary the number and size of trees and shrubs required to be planted under subsection 6(E), for example to plant fewer larger

trees and shrubs or to plant more smaller trees and shrubs, but who will comply with all other provisions of Section 6 of this ordinance, may seek review under this subsection 7(C).

1. The applicant shall submit:
  - a. A calculation of the number of trees and shrubs the applicant would be required to plant under Section 6(E) of this ordinance;
  - b. The numbers and sizes of trees and shrubs that the applicant proposes to plant;
  - c. An explanation of why the numbers and sizes of trees and shrubs that the applicant proposes to plant will achieve, at the end of the fifth year after initial planting, comparable or better mitigation results as the results that would be achieved if the applicant complied with all of the requirements of subsection 6(E) of this ordinance. Such explanation shall be prepared and signed by a knowledgeable and qualified natural resources professional or a certified landscape architect and shall include discussion of site preparation including soil additives and removal of invasive and noxious vegetation, plant diversity, plant spacing, planting season, and immediate post-planting care including mulching, irrigation, wildlife protection, and weed control; and
  - d. The applicant's mitigation site monitoring and reporting plan.
2. Approval Criteria. A request to vary the numbers and sizes of trees and shrubs to be planted shall be approved if the applicant demonstrates that the proposed planting will achieve, at the end of the fifth year after initial planting, comparable or better mitigation results as the results that would be achieved if the applicant complied with all of the requirements of subsection 6(E) of this ordinance. Such determination shall take into consideration all of the information required to be submitted under subsection 7(C)(1) of this ordinance.
3. Mitigation approved under this subsection 7(C) of this ordinance shall be subject to the requirements of subsections 6(E)(4) through 6(E)(9) of this ordinance, and it is recommended that such mitigation also follow the practices recommended in subsection 6(E)(10) of this ordinance.

D. **Discretionary Review.** An applicant seeking discretionary approval to undertake any development activity within a HCA that does not comply with subsection 6 of this ordinance and is not described in subsections 7(A), (B), or (C) of this ordinance may file an application under this section 7(D) of this ordinance.

1. **Application Requirements.** The applicant shall provide all items described in subsection 6(A) of this ordinance, except that, for utility projects undertaken by public utilities across property that is not owned by the utility, the utility shall not be required to map or provide any information about the property except for the area within 300 feet of the location of the proposed disturbance area of the utility's project, and the applicant shall also provide all of the following:
  - a. **Impact Evaluation and Alternatives Analysis.** An impact evaluation and alternatives analysis is required to determine compliance with the approval criteria and to evaluate development alternatives for a particular property. The alternatives must be evaluated on the basis of their impact on the HCA, the ecological functions provided by the HCA on the property, and off-site impacts within the subwatershed (6<sup>th</sup> Field Hydrologic Unit Code) where the property is located. The impact evaluation shall include all of the following items:

- i. Identification of the ecological functions of riparian habitat found on the property as described in Table 4 of this ordinance and the habitat connectivity ecological functions described in subsection 7(D)(1)(a)(ii)(C) and (D) of this ordinance.
- ii. For upland habitat in areas to be added to the Metro urban growth boundary areas after October 1, 2005, identification of the impact the proposed development would have on the following ecological functions provided by upland wildlife habitat:
  - (A) Habitat patch size;
  - (B) Interior habitat;
  - (C) Connectivity of the habitat to water; and
  - (D) Connectivity of the habitat to other habitat areas.

**Table 4. Ecological functional values of riparian corridors.**

<b>Ecological function</b>	<b>Landscape features providing functional values</b>
Microclimate and shade	Forest canopy or woody vegetation within <b>100 feet</b> of a stream; a wetland <sup>1</sup> ; or a flood area <sup>2</sup> .
Streamflow moderation and water storage	A wetland or other water body <sup>3</sup> with a hydrologic connection to a stream; or a flood area <sup>2</sup> .
Bank stabilization, sediment and pollution control	All sites within <b>50 feet</b> of a surface stream;  Forest canopy, woody vegetation, or low structure vegetation/open soils within <b>100 feet</b> of a stream or a wetland; or forest canopy, woody vegetation, or low structure vegetation/open soils within a flood area; and,  Forest canopy, woody vegetation, or low structure vegetation/open soils within <b>100-200 feet</b> of a stream if the slope is greater than 25%.
Large wood and channel dynamics	Forest canopy within <b>150 feet</b> of a stream or wetland; or within a flood area; and  The channel migration zone is defined by the floodplain, but where there is no mapped floodplain a default of <b>50 feet</b> is established to allow for the channel migration zone.
Organic material sources	Forest canopy or woody vegetation within <b>100 feet</b> of a stream or wetland; or within a flood area.

<sup>1</sup>Refers to “hydrologically-connected wetlands,” which are located partially or wholly within ¼ mile of a surface stream or flood area.

<sup>2</sup>Developed floodplains are not identified as HCAs because they do not provide primary ecological functional value.

<sup>3</sup>“Other water body” could include lakes, ponds, reservoirs, or manmade water feature that is not a water quality facility or farm pond.

- iii. Evaluation of alternative locations, design modifications, or alternative methods of development to determine which options reduce the significant detrimental impacts on the HCAs and the ecological functions provided on the property. At a minimum, the following approaches must be considered:

- (A) The techniques described in subsection 6(B) of this ordinance;
  - (B) Multi-story construction;
  - (C) Minimizing building and development footprint;
  - (D) Maximizing the use of native landscaping materials; and
  - (E) Minimal excavation foundation systems (e.g., pier, post or piling foundation).
- iv. Determination of the alternative that best meets the applicable approval criteria and identification of significant detrimental impacts that are unavoidable.
- b. **Mitigation Plan.** The purpose of a mitigation plan is to compensate for unavoidable significant detrimental impacts to ecological functions that result from the chosen development alternative as identified in the impact evaluation. However, when development occurs within delineated wetlands, then the mitigation required under subsection 7(D)(2)(d) shall not require any additional mitigation than the mitigation required by state and federal law for the fill or removal of such wetlands.
- i. An applicant may choose to develop a mitigation plan consistent with the requirements of subsection 6(E) of this ordinance. If an applicant so chooses, then the applicant shall submit a mitigation plan demonstrating such compliance.
  - ii. If an applicant chooses to develop an alternative mitigation plan that would not comply with the requirements of subsection 6(E) of this ordinance, including, for example, a proposal to create an alternative plant community type such as an oak savannah or a low-structure plant community, or where an applicant demonstrates that a portion of identified HCA on its property provides only impaired ecological functions, then the applicant shall submit a mitigation plan that includes all of the following:
    - (A) An explanation of how the proposed mitigation will adequately compensate for the impacts to ecological functions described in the impact evaluation required by subsection 7(D)(1)(a). The applicant may use the mitigation that would be required under subsection 6(E) of this ordinance as the baseline mitigation required to compensate for disturbance to a HCA that provides an average level of ecological functions. Such explanation shall include:
      - (1) If the applicant uses the mitigation that would be required under subsection 6(E) of this ordinance as the baseline mitigation required to compensate for disturbance to a HCA, then the applicant shall submit a calculation of the number of trees and shrubs the applicant would be required to plant under subsection 6(E) of this ordinance;
      - (2) A site plan showing where the specific mitigation activities will occur and the numbers and sizes of trees and shrubs that the applicant proposes to plant; and

- (3) A discussion of site preparation including soil additives and removal of invasive and noxious vegetation, plant diversity, plant spacing, planting season, and immediate post-planting care including mulching, irrigation, wildlife protection, and weed control.
  - (B) Documentation of coordination with appropriate local, regional, special district, state, and federal regulatory agencies.
  - (C) A list of all parties responsible for implementing and monitoring the mitigation plan and, if mitigation will occur off-site, the names of the owners of property where mitigation plantings will occur.
  - (D) The applicant's mitigation site monitoring and reporting plan.
  - (E) If the proposed mitigation will not be conducted on-site, the applicant shall submit a map and accompanying narrative that details the following:
    - (1) The number of trees and shrubs that can be planted on-site;
    - (2) The on-site location where those trees and shrubs can be planted;
    - (3) An explanation of why it is not practicable for the remainder of the mitigation to occur on-site; and
    - (4) The proposed location for off-site mitigation and documentation that the applicant can carry out and ensure the success of the mitigation, including documentation that the applicant possesses legal authority to conduct and maintain the mitigation, such as having a sufficient ownership interest in the mitigation site, and, if the mitigation is not within a HCA, documentation that the mitigation site will be protected after the monitoring period expires, such as through the use of a restrictive covenant.
  - (F) If the mitigation area is off-site and not within the same subwatershed (6<sup>th</sup> Field Hydrologic Unit Code) as the related disturbed HCA, the applicant shall submit an explanation of why it is not practicable to conduct the mitigation within the same subwatershed and of why and how, considering the purpose of the mitigation, the mitigation will provide more ecological functional value if implemented outside of the subwatershed.
  - (G) An implementation schedule, including timeline for construction, mitigation, mitigation maintenance, monitoring, reporting and a contingency plan. If the applicant is proposing any in-stream work in fish-bearing streams as part of the mitigation project, then the applicant shall submit documentation that such work will be done in accordance with the Oregon Department of Fish and Wildlife in-stream work timing schedule.
- c. The Impact Evaluation and Alternatives Analysis required by subsection 7(D)(1)(a) and the Mitigation Plan required by subsection 7(D)(1)(b) shall be prepared and signed by either (1) a knowledgeable and qualified natural resource professional, such as a wildlife biologist, botanist, or hydrologist, or (2) a civil or environmental engineer registered in Oregon to

design public sanitary or storm systems, storm water facilities, or other similar facilities. The application shall include a description of the qualifications and experience of all persons that contributed to the Impact Evaluation and Alternatives Analysis and to the Mitigation Plan, and, for each person that contributed, a description of the elements of such reports to which the person contributed.

## 2. Approval Criteria.

- a. All application requirements in subsection 7(D)(1) shall be met.
- b. **Avoid.** An applicant shall first avoid the intrusion of development into the HCA to the extent practicable. The development that is proposed must have less detrimental impact to HCAs than other practicable alternatives, including significantly different practicable alternatives that propose less development within HCAs. If there is more than one type of HCA on a property then the applicant shall first avoid the intrusion of development into the higher-valued HCA, to the extent practicable, and the development that is proposed must have less detrimental impact to the higher-valued HCAs than other practicable alternatives. To avoid development in HCAs, and to the extent practicable, applicants shall use the approaches described in subsection 7(D)(1)(a)(iii).
- c. **Minimize.** If the applicant demonstrates that there is no practicable alternative that will not avoid disturbance of the HCA, then the development proposed by the applicant within the HCA shall minimize detrimental impacts to the extent practicable. If there is more than one type of HCA on a property then the development within higher-valued HCAs shall be considered more detrimental than development within lower-valued HCAs.
  - i. Development must minimize detrimental impacts to ecological functions and loss of habitat consistent with uses allowed by right under the base zone, to the extent practicable;
  - ii. To the extent practicable within the HCA, the proposed development shall be designed, located, and constructed to:
    - (A) Minimize grading, removal of native vegetation, and disturbance and removal of native soils by using the approaches described in subsection 6(C)(2), reducing building footprints, and using minimal excavation foundation systems (e.g., pier, post or piling foundation);
    - (B) Minimize adverse hydrological impacts on water resources such as by using the techniques described in Part (a) of Table 5, unless their use is prohibited by an applicable and required State or Federal permit issued to a unit of local government having jurisdiction in the area, such as a permit required under the federal Clean Water Act, 33 U.S.C. §§1251 et seq., or the federal Safe Drinking Water Act, 42 U.S.C. §§300f et seq., and including conditions or plans required by such permit;
    - (C) Minimize impacts on wildlife corridors and fish passage such as by using the techniques described in Part (b) of Table 5; and
    - (D) Consider using the techniques described in Part (c) of Table 5 to further minimize the impacts of development in the HCA.

**Table 5. Habitat-friendly development practices.<sup>1</sup>**

**Part (a): Design and Construction Practices to Minimize Hydrologic Impacts**

1. Amend disturbed soils to original or higher level of porosity to regain infiltration and stormwater storage capacity.
2. Use pervious paving materials for residential driveways, parking lots, walkways, and within centers of cul-de-sacs.
3. Incorporate stormwater management in road right-of-ways.
4. Landscape with rain gardens to provide on-lot detention, filtering of rainwater, and groundwater recharge.
5. Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics.
6. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain gardens.
7. Retain rooftop runoff in a rain barrel for later on-lot use in lawn and garden watering.
8. Use multi-functional open drainage systems in lieu of more conventional curb-and-gutter systems.
9. Use bioretention cells as rain gardens in landscaped parking lot islands to reduce runoff volume and filter pollutants.
10. Apply a treatment train approach to provide multiple opportunities for storm water treatment and reduce the possibility of system failure.
11. Reduce sidewalk width and grade them such that they drain to the front yard of a residential lot or retention area.
12. Reduce impervious impacts of residential driveways by narrowing widths and moving access to the rear of the site.
13. Use shared driveways.
14. Reduce width of residential streets, depending on traffic and parking needs.
15. Reduce street length, primarily in residential areas, by encouraging clustering and using curvilinear designs.
16. Reduce cul-de-sac radii and use pervious vegetated islands in center to minimize impervious effects, and allow them to be utilized for truck maneuvering/loading to reduce need for wide loading areas on site.
17. Eliminate redundant non-ADA sidewalks within a site (i.e., sidewalk to all entryways and/or to truck loading areas may be unnecessary for industrial developments).
18. Minimize car spaces and stall dimensions, reduce parking ratios, and use shared parking facilities and structured parking.
19. Minimize the number of stream crossings and place crossing perpendicular to stream channel if possible.
20. Allow narrow street right-of-ways through stream corridors whenever possible to reduce adverse impacts of transportation corridors.

**Part (b): Design and Construction Practices to Minimize Impacts on Wildlife Corridors and Fish Passage**

1. Carefully integrate fencing into the landscape to guide animals toward animal crossings under, over, or around transportation corridors.
2. Use bridge crossings rather than culverts wherever possible.
3. If culverts are utilized, install slab, arch or box type culverts, preferably using bottomless designs that more closely mimic stream bottom habitat.
4. Design stream crossings for fish passage with shelves and other design features to facilitate terrestrial wildlife passage.
5. Extend vegetative cover through the wildlife crossing in the migratory route, along with sheltering areas.

<sup>1</sup> These development practices represent the state of scientific knowledge at the time of this ordinance's enactment, if more effective habitat-friendly practices become available, they should be used.

**Part (c): Miscellaneous Other Habitat-Friendly Design and Construction Practices**

1. Use native plants throughout the development (not just in HCA).
2. Locate landscaping (required by other sections of the code) adjacent to HCA.
3. Reduce light spill-off into HCAs from development.
4. Preserve and maintain existing trees and tree canopy coverage, and plant trees, where appropriate, to maximize future tree canopy coverage.

- d. **Mitigate.** If the applicant demonstrates that there is no practicable alternative that will not avoid disturbance of the HCA, then development must mitigate for adverse impacts to the HCA. All proposed mitigation plans must meet the following standards.
  - i. The mitigation plan shall demonstrate that it compensates for detrimental impacts to ecological functions provided by HCAs, after taking into consideration the applicant's efforts to minimize such detrimental impacts through the use of the techniques described in Table 5 and through any additional or innovative techniques. A mitigation plan that requires the amount of planting that would be required under subsection 6(E) of this ordinance based on the amount of proposed disturbance area within the HCA, and that otherwise complies with all of the mitigation requirements in subsection 6(E) of this ordinance, shall be considered to have satisfied the requirements of this subsection 7(D)(2)(d) of this ordinance.
  - ii. Mitigation shall occur on the site of the disturbance, to the extent practicable. Off-site mitigation shall be approved if the applicant has demonstrated that it is not practicable to complete the mitigation on-site and that the applicant has documented that it can carry out and ensure the success of the off-site mitigation, as described in subsection 7(B)(1)(b)(iv) of this ordinance. In addition, if the off-site mitigation area is not within the same subwatershed (6<sup>th</sup> Field Hydrologic Unit Code) as the related disturbed HCA, the applicant shall demonstrate that it is not practicable to complete the mitigation within the same subwatershed and that, considering the purpose of the mitigation, the mitigation will provide more ecological functional value if implemented outside of the subwatershed. Mitigation shall not be allowed outside of the Metro jurisdictional boundary.
  - iii. All re-vegetation plantings shall be with native plants listed on the *Metro Native Plant List*.
  - iv. All in-stream work in fish-bearing streams shall be done in accordance with the Oregon Department of Fish and Wildlife in-stream work-timing schedule.
  - v. A mitigation maintenance plan shall be included and shall be sufficient to ensure the success of the planting, and compliance with the plan shall be a condition of development approval.
- e. **Municipal Water Utility Facilities Standards.** Except as provided within this subsection, in addition to all other requirements of subsection 7(D)(2) of this ordinance, municipal potable water, storm water (drainage) and wastewater utility facilities may be built, expanded, repaired, maintained, reconfigured, rehabilitated, replaced or upsized if not exempted in

Section 3 of this ordinance. These facilities may include but are not limited to water treatment plants, wastewater treatment plants, raw water intakes, pump stations, transmission mains, conduits or service lines, terminal storage reservoirs, and outfall devices provided that:

- i. Such projects shall not have to comply with the requirements of subsection 7(D)(2)(b) of this ordinance, provided that, where practicable, the project does not encroach closer to a water feature than existing operations and development, or for new projects where there are no existing operations or development, that the project does not encroach closer to a water feature than practicable;
- ii. Best management practices will be employed that accomplish the following:
  - (A) Account for watershed assessment information in project design;
  - (B) Minimize the trench area and tree removal within the HCA;
  - (C) Utilize and maintain erosion controls until other site stabilization measures are established, post-construction;
  - (D) Replant immediately after backfilling or as soon as effective;
  - (E) Preserve wetland soils and retain soil profiles;
  - (F) Minimize compactions and the duration of the work within the HCA;
  - (G) Complete in-water construction during appropriate seasons, or as approved within requisite Federal or State permits;
  - (H) Monitor water quality during the construction phases, if applicable; and
  - (I) Implement a full inspection and monitoring program during and after project completion, if applicable.

### **Section 8. Variances**

- A. The purpose of this Section is to ensure that compliance with this ordinance does not cause unreasonable hardship. To avoid such instances, the requirements of this ordinance may be varied. Variances are also allowed when strict application of this ordinance would deprive an owner of all economically viable use of land.
- B. This Section applies in addition to the standards governing proposals to vary the requirements of the base zone.
- C. Notice of variance applications shall be provided:
  1. Upon receiving an application to vary the requirements of this ordinance, the notice shall be provided to all property owners within *[insert appropriate distance consistent with state law and other local notice provisions]* of the subject property inside the urban growth boundary, and within *[insert appropriate distance consistent with state law and other local notice provisions]* feet of the subject property outside the urban growth boundary, to Metro, to any neighborhood or

community planning organization recognized by the [city/county] and whose boundaries include the property, and to any watershed council recognized by the Oregon Watershed Enhancement Board and whose boundaries include the property.

2. Within seven (7) days of a decision on the variance, notice of the decision shall be provided to Metro, to any neighborhood or community planning organization recognized by the [city/county] and whose boundaries include the property, to any watershed council recognized by the Oregon Watershed Enhancement Board and whose boundaries include the property, and to any other person required to receive notice of such a decision under state law.

D. **Hardship Variance.** Variances to avoid unreasonable hardship caused by the strict application of this ordinance are permitted subject to the criteria set forth in this section. To vary from the requirements of this ordinance, the applicant must demonstrate the following:

1. The variance is the minimum necessary to allow the proposed use or activity;
2. Unless the proposed variance is from mitigation under Section 6(E) or mitigation under Section 7(B), (C), or (D)(1)(b) and D(2)(d), the proposed use will comply with those standards, as applicable; and
3. The proposed use complies with the standards of the base zone.

E. **Buildable Lot Variance.** A variance to avoid the loss of all economically viable use of a lot that is partially inside a HCA is permitted. Applicants must demonstrate the following:

1. Without the proposed variance, the applicant would be denied economically viable use of the subject property. To meet this criterion, the applicant must show that:
  - a. The proposed use cannot meet the standards in Section 8(D) (hardship variance); and
  - b. No other application could result in permission for an economically viable use of the subject property. Evidence to meet this criterion shall include a list of uses allowed on the subject property.
2. The proposed variance is the minimum necessary to allow for the requested use;
3. The proposed variance will comply with Section 6(E) or 7(B), (C), or D(1)(b) and D(2)(d) (mitigation); and
4. The proposed use complies with the standards of the base zone.

F. **Variance Conditions.** Conditions may be imposed to limit any adverse impacts that may result from granting any variance.

## Section 9. Map Administration and HCA Verification

A. **Exempt development.** Development that is outside of any HCA and no closer than 100 feet to the border of an HCA (including all impervious surfaces and landscaping), based on the HCA map, may proceed without having to comply with this section or any other portion of this ordinance except for

Section 5, Construction Management Plan. *[Note: At the time a city or county adopts this model ordinance and its HCA map, such city or county may decrease the 100 feet “safe harbor” distance provided in this section to no fewer than 25 feet provided that it conducts additional analysis to correct any misalignment errors of the type described in section 9(E)(2) of this ordinance and adopts sufficient findings of fact to justify such corrections.]*

- B. Verification of the location of HCAs as described in this section shall not be considered a comprehensive plan amendment. *[Note: Adjustment of the mapped HCA shall only proceed as provided in this ordinance.]*
- C. Map verification is available to correct for mistakes in the location of HCAs on properties. Map verification shall not be used to dispute whether identified HCAs provide the ecological functions that they are assumed to provide based on the ecological criteria used to identify them. If an applicant believes that a properly identified HCA does not provide the ecological functions that it has been identified as providing, then the applicant may use the discretionary review process to decrease the amount of mitigation required for disturbing such an area.
- D. The map verification requirements described in this section 9 of this ordinance shall be met at the time an applicant requests a building permit, grading permit, tree removal permit, land division approval, or some other land use decision. A property owner, or another person with the property owner’s consent, may request to verify the location of HCAs on a real property lot or parcel pursuant to this Section 9 of this ordinance at other times, but whether the *[city/county]* processes such request shall be at the Planning Director’s sole discretion, based on staff availability, funding resources, and policy priorities. If a person receives a verification separate from a simultaneous request for a building permit, grading permit, tree removal permit, land division approval, or some other land use decision, then the person may use the verification to satisfy the requirements of this section at any time up until five years after the date the verification was issued.
- E. Notwithstanding any other provisions of this Section 9 of this ordinance, for utility projects undertaken by public utilities across property that is not owned by the utility, the utility shall not be required to map or provide any information about the property except for the area within 300 feet of the location of the proposed disturbance area of the utility’s project.
- F. **Basic Verification Approaches.** The basic verification approaches described in subsections 9(F)(1) through (3) of this ordinance are available for applicants who believe either (1) that the HCA map is accurate, (2) that there is a simple incongruity between the HCA map and the boundary lot lines of a property, or (3) that the property was developed prior to *[insert date—either the effective date of this ordinance or two years after acknowledgement of the regional program, whichever is earlier]*.
  - 1. **Applicant Believes HCA Map is Accurate.** An applicant who believes that the HCA map is accurate may comply with this subsection 9(F)(1) of this ordinance. The applicant shall submit the following information regarding the real property lot or parcel:
    - a. A detailed property description;
    - b. A copy of the applicable HCA map;
    - c. A summer 2005 aerial photograph of the property, with lot lines shown, at a scale of at least 1 map inch equal to 50 feet for lots of 20,000 or fewer square feet, and a scale of 1 map inch

equal to 100 feet for larger lots (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742);

- d. The information required to be submitted under Section 6 or 7 of this ordinance if the applicant proposes development within any HCA under those provisions; and
  - e. Any other factual information that the applicant wishes to provide to support map verification.
2. ***Obvious Misalignment Between Mapped Habitat and Property Lot Lines.*** In some cases, the mapped vegetative cover layer in the GIS database might not align precisely with the tax lot layer that shows property lines, resulting in a HCA map that is also misaligned with tax lot lines. An applicant who believes that the HCA map is inaccurate based on such an obvious misalignment may comply with this subsection 9(F)(2) of this ordinance. The applicant shall submit the following information regarding the real property lot or parcel:
- a. The information described in subsections 9(F)(1)(a) through (e) of this ordinance; and
  - b. A documented demonstration of the misalignment between the HCA map and the property's tax lot boundary lines. For example, an applicant could compare the boundary lot lines shown for roads within 500 feet of a property with the location of such roads as viewed on the aerial photograph of the area surrounding a property to provide evidence of the scale and amount of incongruity between the HCA maps and the property lot lines, and the amount of adjustment that would be appropriate to accurately depict habitat on the property.
3. ***Property Developed Between Summer 2002 and [Insert date of Approval of Regional Program].*** Where a property was developed between the summer of 2002 (when the aerial photo used to determine the regional habitat inventory was taken) and *[insert date that the regional program was approved]*, the applicant shall submit the following information regarding the real property lot or parcel:
- a. The information described in subsection 9(F)(1)(a) through (e) of this ordinance;
  - b. A summer 2002 aerial photograph of the property, with lot lines shown, at a scale of at least 1 map inch equal to 50 feet for lots of 20,000 or fewer square feet, and a scale of 1 map inch equal to 100 feet for larger lots (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742);
  - c. Any approved building permits or other development plans and drawings related to the development of the property that took place between summer 2002 and *insert date that the regional program was approved]*; and
  - d. A clear explanation and documentation, such as supporting maps or drawings or an more recent aerial photograph, indicating the new development that has occurred and where previously identified habitat no longer exists because it is now part of a developed area.
4. ***Decision Process.*** The Planning Director's map verification decision made pursuant to this subsection 9(F) of this ordinance may be an administrative decision. The Planning Director's decision shall be based on consideration of the information submitted by the applicant, any information collected during a site visit to the lot or parcel, any information generated by prior

map verifications that have occurred on adjacent properties, and any other objective factual information that has been provided to the Planning Director.

**G. Detailed Verification Approach.** All applicants who believe that the HCA map is inaccurate for a reason other than as described in subsections 9(F)(2) and (3) may file a verification request consistent with this subsection 9(G) of this ordinance.

1. **Application requirements.** The applicant shall submit a report prepared and signed by either (1) a knowledgeable and qualified natural resource professional, such as a wildlife biologist, botanist, or hydrologist, or (2) a civil or environmental engineer registered in Oregon to design public sanitary or storm systems, storm water facilities, or other similar facilities. Such report shall include:
  - a. A description of the qualifications and experience of all persons that contributed to the report, and, for each person that contributed, a description of the elements of the analysis to which the person contributed;
  - b. The information described in subsections 9(F)(1)(a) through (e) of this ordinance;
  - c. The information described in subsections 9(F)(2)(b) and 9(F)(3)(b) through (d) of this ordinance, if the applicant believes such information is relevant to the verification of habitat location on the subject lot or parcel;
  - d. Additional aerial photographs if the applicant believes they provide better information regarding the property, including documentation of the date and process used to take the photos and an expert's interpretation of the additional information they provide;
  - e. A map showing the topography of the property shown by contour lines of 2 foot intervals for slopes less than 15% and by 10 foot intervals for slopes 15% or greater; and
  - f. Any additional information necessary to address each of the verification criteria in subsection 9(G)(4) of this ordinance, a description of where any HCAs are located on the property based on the application of the verification criteria in subsection 9(G)(4) of this ordinance, and factual documentation to support the analysis.
2. **Notice requirements.** Upon receipt of a completed application pursuant to this subsection 9(G) of this ordinance, the Planning Director shall provide notice of the map verification application to Metro, to the owners of record of property on the most recent property tax assessment roll where such property is located within 100 feet of the subject property, *[Note: A city or county may increase the 100 feet neighbor notification requirement if it so chooses]* to any neighborhood or community planning organization recognized by the governing body and whose boundaries include the property, and to any watershed council recognized by the Oregon Watershed Enhancement Board and whose boundaries include the property. The notice provided by the jurisdiction shall comply with the notice requirements of ORS 197.763. The Planning Director shall accept written public comments regarding the matter during a public comment period.
3. **Decision process.** The Planning Director shall apply the verification criteria in subsection 9(G)(4) of this ordinance to confirm the location of any HCAs based on the HCA map, the information submitted by the applicant, any information received during the public comment period, and any additional information readily available, including information collected during a

site visit to the lot or parcel. The applicant and all persons that submitted written comments shall be provided with a written explanation of the Planning Director's decision.

4. **Verification Criteria.** The verification of the location of HCAs shall be according to the four-step process described in this subsection 9(G)(4) of this ordinance. A verification application shall not be considered complete and shall not be granted unless all the information required to be submitted with the verification application has been received.
  - a. **Step 1. Verifying boundaries of inventoried riparian habitat.** Locating habitat and determining its riparian habitat class is a four-step process:
    - i. Locate the Water Feature that is the basis for identifying riparian habitat.
      - (A) Locate the top of bank of all streams, rivers, and open water within 200 feet of the property.
      - (B) Locate all flood areas within 100 feet of the property.
      - (C) Locate all wetlands within 150 feet of the property based on the Local Wetland Inventory map (if completed) and on the Metro 2002 Wetland Inventory Map (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742). Identified wetlands shall be further delineated consistent with methods currently accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers.
    - ii. Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, rivers, and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.
      - (A) Vegetative cover status shall be as identified on the Metro Vegetative Cover Map (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742).
      - (B) The vegetative cover status of a property may be adjusted only if (1) the property was developed prior to the time the regional program was approved (see subsection 9(F)(3) of this ordinance, above), or (2) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants shall submit an analysis of the vegetative cover on their property using summer 2002 aerial photographs and the definitions of the different vegetative cover types provided in Section 11 of this ordinance.
    - iii. Determine whether the degree that the land slopes upward from all streams, rivers, and open water within 200 feet of the property is greater than or less than 25% (using the methodology as described in *[insert a reference to the city or county code section that describes the methodology used to identify Water Quality Resource Areas pursuant to Title 3 of the Urban Growth Management Functional Plan]*); and
    - iv. Identify the riparian habitat classes applicable to all areas on the property using Table 6 and the data identified in subsections 9(G)(4)(a)(i) through (iii).

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**Table 6: Method for Locating Boundaries of Class I and II Riparian Areas.**

Distance from Water Feature	Development/Vegetation Status <sup>1</sup>			
	Developed areas not providing vegetative cover	Low structure vegetation or open soils	Woody vegetation (shrub and scattered forest canopy)	Forest Canopy (closed to open forest canopy)
<b>Surface Streams</b>				
0-50'	Class II	Class I <sup>2</sup>	Class I	Class I
50'-100'		Class II <sup>3</sup>	Class I	Class I
100'-150'		Class II <sup>3</sup> if slope>25%	Class II <sup>3</sup> if slope>25%	Class II <sup>3</sup>
150'-200'		Class II <sup>3</sup> if slope>25%	Class II <sup>3</sup> if slope>25%	Class II <sup>3</sup> if slope>25%
<b>Wetlands (Wetland feature itself is a Class I Riparian Area)</b>				
0-100'		Class II <sup>3</sup>	Class I	Class I
100'-150'				Class II <sup>2</sup>
<b>Flood Areas</b>				
Within 300' of river or surface stream		Class I	Class I	Class I
More than 300' from river or surface stream	<sup>4</sup>	Class II <sup>3</sup>	Class II <sup>3</sup>	Class I
0-100' from edge of flood area			Class II <sup>3,5</sup>	Class II <sup>3</sup>

<sup>1</sup> The vegetative cover type assigned to any particular area was based on two factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged. As an example of how the categories were assigned, in order to qualify as “forest canopy” the forested area had to be part of a larger patch of forest of at least one acre in size.

<sup>2</sup> Except that areas within 50 feet of surface streams shall be Class II riparian areas if their vegetation status is “Low structure vegetation or open soils,” and if they are high gradient streams. High gradient streams are identified on the Metro Vegetative Cover Map. If a property owner believes the gradient of a stream was incorrectly identified, then the property owner may demonstrate the correct classification by identifying the channel type using the methodology described in the Oregon Watershed Assessment Manual, published by the Oregon Watershed Enhancement Board, and appended to the Metro’s Riparian Corridor and Wildlife Habitat Inventories Report, Attachment 1 to Exhibit F to Metro Ordinance No. 05-1077C.

<sup>3</sup> Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map (on file in the Metro Council office), shall be treated as Class I riparian habitat areas in all cases, subject to the provision of additional information that establishes that they do not meet the criteria used to identify habitats of concern as described in Metro’s Technical Report for Fish and Wildlife. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

<sup>4</sup> If development prior to the effective date of Metro Ordinance No. 05-1077C within a contiguous, undeveloped flood area (to include contiguous flood areas on adjacent properties) that was not mapped as having any vegetative cover has reduced the size of that contiguous flood area to less than one half of

an acre in size, then the remaining flood area shall also be considered a developed flood area and shall not be identified as habitat.

<sup>5</sup> Only if within 300 feet of a river or surface stream.

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- b. ***Step 2. Verifying boundaries of inventoried upland habitat in future urban growth boundary expansion areas.*** Upland habitat was identified based on the existence of contiguous patches of forest canopy, with limited canopy openings. The “forest canopy” designation is made based on analysis of aerial photographs, as part of determining the vegetative cover status of land within the region. Upland habitat shall be as identified on the HCA map unless corrected as provided in this subsection.
- i. Except as provided in subsection 9(G)(4)(b)(ii), vegetative cover status shall be as identified on the Metro Vegetative Cover Map used to inventory habitat at the time the area was brought within the urban growth boundary (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742).
  - ii. The only allowed corrections to the vegetative cover status of a property are as follows:
    - (A) To correct errors made when the vegetative status of an area was determined based on analysis of the aerial photographs used to inventory the habitat at the time the area was brought within the urban growth boundary. For example, an area may have been identified as “forest canopy” when it can be shown that such area has less than 60% canopy crown closure, and therefore should not have been identified as “forest canopy.” The perimeter of an area delineated as “forest canopy” on the Metro Vegetative Cover Map may be adjusted to more precisely indicate the dripline of the trees within the canopied area provided that no areas providing greater than 60% canopy crown closure are de-classified from the “forest canopy” designation. To assert such errors, applicants shall submit an analysis of the vegetative cover on their property using the aerial photographs that were used to inventory the habitat at the time the area was brought within the urban growth boundary and the definitions of the different vegetative cover types provided in Section 11 of this ordinance; and
    - (B) To remove tree orchards and Christmas tree farms from inventoried habitat; provided, however, that Christmas tree farms where the trees were planted prior to 1975 and have not been harvested for sale as Christmas trees shall not be removed from the habitat inventory.
  - iii. If the vegetative cover status of any area identified as upland habitat is corrected pursuant to subsection 9(G)(4)(b)(ii)(A) to change the status of an area originally identified as “forest canopy,” then such area shall not be considered upland habitat unless it remains part of a forest canopy opening less than one acre in area completely surrounding by an area of contiguous forest canopy.
- c. ***Step 3. Urban Development Value of the Property.*** The urban development value of property designated as regionally significant habitat is depicted on the Metro Habitat Urban Development Value Map (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742).

- i. A property’s urban development value designation shall be adjusted upward if the Metro 2040 Design Type designation for the property lot or parcel has changed from a category designated as a lower urban development value category to one designated as a higher urban development value category. 2040 Design Type designations are identified on the Metro 2040 Applied Concept Map (also available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232; 503-797-1742).
  - ii. Properties in areas designated on the 2040 Applied Concept Map as the Central City, Regional Centers, Town Centers, and Regionally Significant Industrial Areas are considered to be of high urban development value; properties in areas designated as Main Streets, Station Communities, Other Industrial Areas, and Employment Centers are of medium urban development value; and properties in areas designated as Inner and Outer Neighborhoods and Corridors are of low urban development value.
  - iii. As designated in Title 13 of Metro’s Urban Growth Management Functional Plan, properties owned by a regionally significant educational or medical facility are designated as high urban development value.
- d. **Step 4. Cross-Reference Habitat Class With Urban Development Value.** City and county verification of the locations of High, Moderate, and Low Habitat Conservation Areas shall be consistent with Tables 7 and 8.

**Table 7: Method for Identifying Habitat Conservation Areas (“HCA”)**

<b>Fish &amp; wildlife habitat classification</b>	<b>High Urban development value<sup>1</sup></b>	<b>Medium Urban development value<sup>2</sup></b>	<b>Low Urban development value<sup>3</sup></b>	<b>Other areas: Parks and Open Spaces, no design types outside UGB</b>
Class I Riparian	Moderate HCA	High HCA	High HCA	High HCA / High HCA+ <sup>4</sup>
Class II Riparian	Low HCA	Low HCA	Moderate HCA	Moderate HCA / High HCA+ <sup>4</sup>
Class A Upland Wildlife	No HCA	No HCA	No HCA	No HCA / High HCA <sup>5</sup> / High HCA+ <sup>4</sup>
Class B Upland Wildlife	No HCA	No HCA	No HCA	No HCA / High HCA <sup>5</sup> / High HCA+ <sup>4</sup>

NOTE: The default urban development value of property is as depicted on the Metro Habitat Urban Development Value Map. The Metro 2040 Design Type designations provided in the following footnotes are only for use when a city or county is determining whether to make an HCA adjustment.

<sup>1</sup>Primary 2040 design type: Regional Centers, Central City, Town Centers, and Regionally Significant Industrial Areas

<sup>2</sup>Secondary 2040 design type: Main Streets, Station Communities, Other Industrial areas, and Employment Centers

<sup>3</sup>Tertiary 2040 design type: Inner and outer neighborhoods, Corridors

<sup>4</sup>Cities and counties shall give Class I and II riparian habitat and Class A and B upland wildlife habitat in parks designated as natural areas even greater protection than that afforded to High Habitat Conservation Areas.

<sup>5</sup>All Class A and B upland wildlife habitat in publicly-owned parks and open spaces, except for parks and open spaces where the acquiring agency clearly identified that it was acquiring the property to develop it for active recreational uses, shall be considered High HCAs.

**Table 8: Method for Identifying Habitat Conservation Areas (“HCA”) in Future Urban Growth Boundary Expansion Areas**

<b>Fish &amp; wildlife habitat</b>	<b>High Urban development</b>	<b>Medium Urban development</b>	<b>Low Urban development</b>	<b>Other areas: Parks and Open Spaces, no design</b>
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<b>classification</b>	<b>value<sup>1</sup></b>	<b>value<sup>2</sup></b>	<b>value<sup>3</sup></b>	<b>types outside UGB</b>
Class I Riparian	Moderate HCA	High HCA	High HCA	High HCA / High HCA <sup>+4</sup>
Class II Riparian	Low HCA	Low HCA	Moderate HCA	Moderate HCA / High HCA <sup>+4</sup>
Class A Upland Wildlife	Low HCA	Moderate HCA	Moderate HCA	High HCA / High HCA <sup>5</sup> / High HCA <sup>+4</sup>
Class B Upland Wildlife	Low HCA	Low HCA	Moderate HCA	Moderate HCA / High HCA <sup>5</sup> / High HCA <sup>+4</sup>

NOTE: The default urban development value of property is as depicted on the Metro Habitat Urban Development Value Map. The Metro 2040 Design Type designations provided in the following footnotes are only for use when a city or county is determining whether to make an HCA adjustment.

<sup>1</sup>Primary 2040 design types: Regional Centers, Central City, Town Centers, and Regionally Significant Industrial Areas

<sup>2</sup>Secondary 2040 design types: Main Streets, Station Communities, Other Industrial areas, and Employment Centers

<sup>3</sup>Tertiary 2040 design types: Inner and outer neighborhoods, Corridors

<sup>4</sup>Cities and counties shall give Class I and II riparian habitat and Class A and B upland wildlife habitat in parks designated as natural areas even greater protection than that afforded to High Habitat Conservation Areas.

<sup>5</sup>All Class A and B upland wildlife habitat in publicly-owned parks and open spaces, except for parks and open spaces where the acquiring agency clearly identified that it was acquiring the property to develop it for active recreational uses, shall be considered High HCAs.

## **Section 10. Severability**

The provisions of this ordinance are severable. If any section, clause, or phrase of this ordinance is adjudged to be invalid by a court of competent jurisdiction, the decision of that court shall not affect the validity of the remaining portions of this ordinance.

## **Section 11. Definitions**

Unless specifically defined in this section, words or phrases used in this ordinance shall be interpreted to give them the same meaning as they have in common usage and to give this ordinance its most reasonable application.

**Building site** - The area on a lot or parcel that is designated to contain a structure, impervious surface, or non-native landscaping.

**Building footprint** - The area that is covered by buildings or other roofed structures. A roofed structure includes any structure more than 6 feet above grade at any point, and that provides an impervious cover over what is below. Building footprint also includes uncovered horizontal structures such as decks, stairways and entry bridges that are more than 6 feet above grade. Eaves are not included in building coverage. Underground facilities and structures are defined based on the foundation line.

**Developed areas not providing vegetative cover** - are areas that lack sufficient vegetative cover to meet the one-acre minimum mapping units of any other type of vegetative cover.

**Developed flood area** – A flood area (a) upon which a building or other structure has been located, or (b) that is an uncovered, hard-surfaced area or an area covered with a perforated hard surface (such as “Grasscrete”) that is able to withstand vehicular traffic or other heavy-impact uses; provided, however, that graveled areas shall not be considered developed flood areas.

**Development** - Any man-made change defined as buildings or other structures, mining, dredging, paving, filling, or grading in amounts greater than ten (10) cubic yards on any lot or excavation. In addition, any other activity that results in the removal of more than: either 10 percent or 20,000 square feet of the vegetation in the Habitat Conservation Areas on the lot is defined as development. When individual trees are removed, the area contained within the tree's drip line shall be the basis for calculating the square footage of vegetation removed.

Development does not include the following: (a) Stream enhancement or restoration projects approved by cities and counties; or (b) Farming practices as defined in ORS 30.930 and farm use as defined in ORS 215.203, except that buildings associated with farm practices and farm uses are subject to the requirements of this ordinance.

**Disturb** - Man-made changes to the existing physical status of the land, which are made in connection with development. The following uses are excluded from the definition:

- enhancement or restoration of the Water Quality Resource Area;
- planting native cover identified in the Metro Native Plant List.

**Disturbance Area** - An area that contains all temporary and permanent development, exterior improvements, and staging and storage areas on the site. For new development the disturbance area must be contiguous. The disturbance area does not include agricultural and pasture lands or naturalized areas.

**Dripline** - The outermost edge of a tree's canopy; when delineating the drip line on the ground, it will appear as an irregularly shaped circle defining the canopy's perimeter.

**Ecological functions** - The primary biological and hydrologic characteristics of healthy fish and wildlife habitat. Riparian ecological functions include microclimate and shade, streamflow moderation and water storage, bank stabilization and sediment/pollution control, sources of large woody debris and natural channel dynamics, and organic material sources. Upland wildlife ecological functions include size of habitat area, amount of habitat with interior conditions, connectivity of habitat to water resources, connectivity to other habitat areas, and presence of unique habitat types.

**Effective Impervious Area** - A subset of total impervious area that is hydrologically connected via sheet flow or discrete conveyance to a drainage system or receiving body of water

**Emergency** - Any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, and includes, but is not limited to, fire, explosion, flood, severe weather, drought earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation disruptions, and disease.

**Engineer** - A registered professional engineer licensed by the State of Oregon.

**Enhancement** - The process of improving upon the natural functions and/or values of an area or feature that has been degraded by human activity. Enhancement activities may or may not return the site to a pre-disturbance condition, but create/recreate beneficial processes and features that occur naturally.

**Erosion** - Erosion is the movement of soil particles resulting from actions of water or wind.

**Fill** - Any material such as, but not limited to, sand, gravel, soil, rock or gravel that is placed in a wetland or floodplain for the purposes of development or redevelopment.

**Flood areas** - Those areas contained within the 100-year floodplain and floodway as shown on the Federal Emergency Management Agency Flood Insurance Maps and all lands that were inundated in the February 1996 flood (note that areas that were mapped as flood areas but were filled to a level above the base flood level prior to September 30, 2005, consistent with all applicable local, state, and federal laws shall no longer be considered habitat based on their status as flood areas).

**Flood Management Areas** - All lands contained within the 100-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency Flood Insurance Maps and the area of inundation for the February 1996 flood. In addition, all lands which have documented evidence of flooding.

**Floodplain** - The land subject to periodic flooding, including the 100-year floodplain as mapped by FEMA Flood Insurance Studies or other substantial evidence of actual flood events.

**Floodway** - The portion of a watercourse required for the passage or conveyance of a given storm event as identified and designated by the (identify name) city/county pursuant to this Ordinance. The floodway shall include the channel of the watercourse and the adjacent floodplain that must be reserved in an unobstructed condition in order to discharge the base flood without flood levels by more than one foot.

**Floor Area Ratio (FAR)** - The amount of floor area in relation to the amount of site area, expressed in square feet. For example, a floor area ratio of 2 to 1 means two square feet of floor area for every one square foot of site area.

**Forest canopy** - Areas that are part of a contiguous grove of trees of one acre or larger in area with approximately 60% or greater crown closure, irrespective of whether the entire grove is within 200 feet of the relevant water feature.

**Habitat Conservation Area or HCA** - An area identified on the Habitat Conservation Areas Map and subject to the development standards.

**Habitat-friendly development** - A method of developing property that has less detrimental impact on fish and wildlife habitat than does traditional development methods. Examples include clustering development to avoid habitat, using alternative materials and designs such as pier, post, or piling foundations designed to minimize tree root disturbance, managing storm water on-site to help filter rainwater and recharge groundwater sources, collecting rooftop water in rain barrels for reuse in site landscaping and gardening, and reducing the amount of effective impervious surface created by development.

**Invasive non-native or noxious vegetation** - Plant species that are listed as nuisance plants or prohibited plants on the Metro Native Plant List as adopted by Metro Council resolution because they are plant species that have been introduced and, due to aggressive growth patterns and lack of natural enemies in the area where introduced, spread rapidly into native plant communities.

**Lot** - Lot means a single unit of land that is created by a subdivision of land. (ORS 92.010).

**Low structure vegetation or open soils** - Areas that are part of a contiguous area one acre or larger of grass, meadow, crop-lands, or areas of open soils located within 300 feet of a surface stream (low structure vegetation areas may include areas of shrub vegetation less than one acre in size if they are contiguous with areas of grass, meadow, crop-lands, orchards, Christmas tree farms, holly farms, or areas

of open soils located within 300 feet of a surface stream and together form an area of one acre in size or larger).

**Mitigation** - The reduction of adverse effects of a proposed project by considering, in the order: a) avoiding the impact all together by not taking a certain action or parts of an action; b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; c) rectifying the impact by repairing, rehabilitating or restoring the affected environment; d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action by monitoring and taking appropriate measures; and e) compensating for the impact by replacing or providing comparable substitute water quality resource areas or habitat conservation areas.

**Native vegetation or native plant** - Vegetation listed as a native plant on the Metro Native Plant List as adopted by Metro Council resolution and any other vegetation native to the Portland metropolitan area provided that it is not listed as a nuisance plant or a prohibited plant on the Metro Native Plant List.

**Open space** - Land that is undeveloped and that is planned to remain so indefinitely. The term encompasses parks, forests and farmland. It may also refer only to land zoned as being available to the public, including playgrounds, watershed preserves and parks.

**Owner or property owner** - The person who is the legal record owner of the land, or where there is a recorded land sale contract, the purchaser thereunder.

**Parcel** - Parcel means a single unit of land that is created by a partitioning of land. (ORS 92.010).

**Partition** - Partition means to divide land into two or three parcels of land within a calendar year. (ORS 92.010)

**Phased development project** - A phased development plan includes the following:

- A site plan showing the proposed final development of the site and phases, including the initial and interim phases.
- A written statement describing each phase, including the potential uses, and the approximate timeline for each phase of development.

**Practicable** - means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose and probable impact on ecological functions. The practicability of a development option shall include consideration of the type of HCA that will be affected by the proposed development. For example, High HCAs have been so designated because they are areas that have been identified as having lower urban development value and higher-valued habitat, so it should be more difficult to show that alternative development options that avoid the habitat are not practicable. On the other hand, Low HCAs have been so designated because they are areas that have been identified as having higher urban development value and lower-valued habitat, so it should be less difficult to show that alternative development options that avoid the habitat are not practicable.

**Redevelopment** – Development that occurs on sites that have previously been developed.

**Restoration** - The process of returning a disturbed or altered area or feature to a previously existing natural condition. Restoration activities reestablish the structure, function, and/or diversity to that which occurred prior to impacts caused by human activity.

**Riparian** - Those areas associated with streams, lakes and wetlands where vegetation communities are predominately influenced by their association with water.

**Routine repair and maintenance** - Activities directed at preserving an existing allowed use or facility, without expanding the development footprint or site use.

**Set-back adjustment** - The placement of a building a specified distance away from a road, property line or protected resource.

**Significant negative impact** - An impact that affects the natural environment, considered individually or cumulatively with other impacts on the HCA, to the point where existing fish and wildlife habitat functional values are degraded.

**Statewide Land Use Planning Goal 5** - Oregon's statewide planning goal that addresses open space, scenic and historic areas, and natural resources. The purpose of the goal is to conserve open space and protect natural and scenic resources.

**Steep slopes** - Steep slopes are those slopes that are equal to or greater than 25%. Steep slopes have been removed from the "buildable lands" inventory and have not been used in calculations to determine the number of acres within the urban growth boundary that are available for development.

**Stormwater pre-treatment facility** - Any structure or drainage way that is designed, constructed, and maintained to collect and filter, retain, or detain surface water run-off during and after a storm event for the purpose of water quality improvement.

**Stream** - A body of running water moving over the earth's surface in a channel or bed, such as a creek, rivulet or river. It flows at least part of the year, including perennial and intermittent streams. Streams are dynamic in nature and their structure is maintained through build-up and loss of sediment.

**Structure** - A building or other major improvement that is built, constructed or installed, not including minor improvements, such as fences, utility poles, flagpoles or irrigation system components, that are not customarily regulated through zoning codes.

**Subdivision** - A Subdivision of land means to divide land into four or more lots within a calendar year. (ORS 92.010).

**Top of Bank** - The same as "bankful stage" defined in OAR 141-85-010.

**Urban Development Value** - The economic value of a property lot or parcel as determined by analyzing three separate variables: assessed land value, value as a property that could generate jobs ("employment value"), and the Metro 2040 design type designation of property. The urban development value of all properties containing regionally significant fish and wildlife habitat is depicted on the Metro Habitat Urban Development Value Map

**Urban Growth Boundary or UGB** - means an urban growth boundary adopted pursuant to ORS chapter 197.

**Utility facilities** - Buildings, structures or any constructed portion of a system which provides for the production, transmission, conveyance, delivery or furnishing of services including, but not limited to,

heat, light, water, power, natural gas, sanitary sewer, stormwater, telephone and cable television. Utility facilities do not include stormwater pre-treatment facilities.

**Variance** - means a discretionary decision to permit modification of the terms of an implementing ordinance based on a demonstration of unusual hardship or exceptional circumstances unique to a specific property.

**Water-dependent** - A use which can be carried out only on, in, or adjacent to water because it requires access to the water for waterborne transportation or recreation. Water-dependent also includes development, which by its nature, can be built only on, in, or over water. Bridges supported by piers or pillars, as opposed to fill, are water-dependent development.

**Water feature** - All rivers, streams (regardless of whether they carry year-round flow, i.e., including intermittent streams), springs which feed streams and wetlands and have year-round flow, Flood Management Areas, wetlands, and all other bodies of open water.

**Water Quality Resource Area** - is an area identified by a city or county as a Water Quality Resource Area in order to comply with Title 3 of Metro's Urban Growth Management Functional Plan, Metro Code sections 3.07.310- 3.07.370.

**Watershed** - A watershed is a geographic unit defined by the flows of rainwater or snowmelt. All land in a watershed drains to a common outlet, such as a stream, lake or wetland.

**Wetlands** - Wetlands are those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are those areas identified and delineated by a qualified wetland specialist as set forth in the 1987 Corps of Engineers Wetland Delineation Manual.

**Woody vegetation** - Areas that are part of a contiguous area one acre or larger of shrub or open or scattered forest canopy (less than 60% crown closure) located within 300 feet of a surface stream.

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