



September 11, 2024

Brian Martin, Alissa Maxwell, and Rob Zoeller
City of Beaverton
PO Box 4755
Beaverton, OR 97076

Dear Brian, Alissa, and Rob:

This letter is in response to the July 17, 2024, memo (Attachment A to this letter) concerning: draft Development Code updates (Attachment B) that would apply to the Cooper Mountain area added to the urban growth boundary (UGB) in 2018; and those draft updates' compliance with Urban Growth Management Functional Plan (the "UGMFP", a portion of the Metro Code) Title 13, *Nature in Neighborhoods*.

UGMFP Subsection 3.07.1330(b)(5)(f) requires the City of Beaverton to comply with the provisions of Subsections 3.07.1330(b)(1)-(3) as those provisions apply to upland wildlife habitat in the Cooper Mountain area added to the UGB in 2018. Subsection 3.07.1330(b)(5)(f) offers three examples, numbered (1)-(3), of how the City can "comply"; for the reasons noted below, **the City's July 17 memo demonstrates that the referenced proposed Development Code updates for the Cooper Mountain area would satisfy Example (2), with the referenced proposed updates substantially complying with Subsection 3.07.1340, *Performance Standards and Best Management Practices for Habitat Conservation Areas*, as they apply to upland wildlife habitat in new urban areas** (i.e., the Cooper Mountain area added to the UGB in 2018).

The proposed Development Code updates referenced in the July 17 memo contain review standards applicable to development in all proposed Habitat Conservation Areas (HCAs) of the Cooper Mountain area that appropriately include:

- Clear and objective development approval standards consistent with UGMFP Subsection 3.07.1330(c) that protect HCAs but allow limited development within High HCAs, slightly more development in Moderate HCAs, and even more development in Low HCAs;
- Allowances for property owners to use habitat friendly development practices, as well as requirements that development in HCAs be mitigated to restore the ecological functions that are lost or damaged as a result of the development;
- Discretionary development approval standards consistent with UGMFP Subsection 3.07.1330(d) that comply with Subsections 3.07.1340(b)(2)(A)-(C);
- Provisions related to mitigation for development occurring within delineated wetlands that are consistent with state and federal law; and
- Procedures to consider claims of hardship and to grant hardship variances for any property demonstrated to be converted to an unbuildable lot by application of any provisions implemented by the City to comply with the requirements of Title 13.

When available, please provide Metro with the final staff report to the Planning Commission that addresses these Title 13 requirements.

Sincerely,



Glen Hamburg, Associate Regional Planner
Planning, Development & Research, Metro

Attachments:

- A. July 17, 2024, memo from City of Beaverton, with subject "Cooper Mountain Title 13 Development Code Compliance" (seven pages total)
- B. Draft proposed City of Beaverton Development Code amendments referenced in Attachment A (50 pages total)
- C. June 2024 City of Beaverton "Cooper Mountain Proposed Code Overview" Resource Overlay Summary (four pages total)

CC: Roger Alfred and Eryn Kehe of Metro

Attachment A



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MEMORANDUM

TO: Glen Hamburg, Associate Regional Planner, Metro

FROM: Alissa Maxwell, Capital Planning Project Manager
Rob Zoeller, Senior Planner
Brian Martin, Long Range Planning Manager

DATE: July 17, 2024

SUBJECT: Cooper Mountain Title 13 Development Code Compliance

ATTACHMENTS: 1. Cooper Mountain Proposed Code Overview, Resource Overlay
2. Proposed Development Code, Chapter 40.70, Applications, Resource Overlay, Chapter 60.37, Resource Overlay, and Chapter 60.61, Trees and Vegetation – Cooper Mountain

The City of Beaverton is requesting Metro’s review of the proposed Development Code updates for the Cooper Mountain Community Plan area to confirm that the proposed updates substantially comply with the performance standards and best management practices in Metro’s Urban Growth Management Functional Plan, Title 13 (Nature in Neighborhoods).

Background

The Cooper Mountain Community Plan area was added to the Urban Growth Boundary (UGB) on December 13, 2018. The City of Beaverton is completing comprehensive planning consistent with Metro Code section 3.07.1120 (Planning for Areas Added to the UGB). The city received a grant from Metro to develop the Cooper Mountain Community Plan, including amendments to the city’s Comprehensive Plan and Development Code to facilitate future development across the plan area.

This memorandum provides the regulatory context and Development Code approach that the city is taking to protect significant fish and wildlife habitat in the Cooper Mountain Community Plan area. This review is limited to the updates that the city is making for the Cooper Mountain Community Plan area because areas added to the UGB after December 5, 2005 have specific requirements under Title 13, which are described below.

Regulatory Context

OAR 660, Division 23 (the “Goal 5 rule”) establishes procedures and requirements for complying with Goal 5, including preparation of an Economic, Social, Environmental, and Energy (ESEE) analysis to help evaluate potential changes. Within the Metro region, the Goal 5 rule also requires

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that local governments comply with Metro’s Urban Growth Management Functional Plan (UGMFP), Title 13 (Nature in Neighborhoods). This means that for regionally significant Riparian Corridors (OAR 660-023-0090) and Wildlife Habitat (OAR 660-023-0110) within Metro’s boundary, the City of Beaverton must comply with the Metro UGMFP rather than the standard provisions of the Goal 5 rule.

Metro Code Section 3.07.1330(a) requires cities and counties wholly or partly within the Metro boundary to apply the requirements of Title 13 to the riparian habitat and upland habitat areas on Metro’s Inventory Map. The City of Beaverton already has a program for compliance with Title 13 for riparian and upland areas across the city. This memorandum is specific to the sections of Title 13 that apply to areas that were added to the UGB after December 28, 2005. Those are the sections of Title 13 that apply to the Cooper Mountain Community Plan area, which was added to the UGB on December 13, 2018.

Metro Code Section 3.07.1330(b) outlines five alternative approaches for cities and counties to adopt regulatory code related to natural resources protection. As a member of the Tualatin Basin Natural Resources Coordinating Committee (TBNRCC), the City of Beaverton follows the fifth approach, listed in Metro Code Section 3.07.1330(b), subsections (5)(a) through (5)(g).

Subsections 5(a) through 5(e) address implementation of the Tualatin Basin Program, protections for riparian habitat areas, and partnerships between members of the TBNRCC, including the City of Beaverton and Clean Water Services (CWS). The city will continue to follow the Tualatin Basin Program, implementing CWS protections for riparian habitat areas (CWS regulates riparian habitat areas through design and construction standards for the Vegetated Corridor). Those standards apply throughout the city and will apply throughout the Cooper Mountain Community Plan area after annexation.

Specific to Cooper Mountain, Metro Code Section 3.07.1330(b)(5)(f) requires the following:

*“The city or county complies with the provisions of Metro Code Section 3.07.1330(b)(1) to (b)(3) as those provisions apply to upland wildlife habitat in territory added to the Metro urban growth boundary after December 28, 2005. For example, (1) each city and county shall either adopt and apply Metro’s Title 13 Model Ordinance to upland wildlife habitat in new urban areas, **(2) substantially comply with Metro Code Section 3.07.1340 as it applies to upland wildlife habitat in new urban areas**, or (3) demonstrate that it has implemented an alternative program that will achieve protection and enhancement of upland wildlife habitat in new urban areas comparable with the protection and restoration that would result from one of the two previous approaches described in this sentence;...” (emphasis added)*

For upland wildlife habitat areas, the city is following pathway (2) to adopt Development Code updates for the Cooper Mountain Community Plan area that substantially comply with the performance standards in Metro Code Section 3.07.1340.

The relevant sections of Metro Code Section 3.07.1340 are summarized below, along with the city’s approach for the Cooper Mountain Community Plan area.

Proposed Code Review

The city is proposing new sections of Development Code to implement design standards for upland habitat areas that are substantially compliant with Metro Code Section 3.07.1340,

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Performance Standards and Best Management Practices for Habitat Conservation Areas. The city's proposed development code sections include:

- 40.70.15 Applications: Resource Overlay
- 60.37 Cooper Mountain Resource Overlay
- 60.61 Trees and Vegetation – Cooper Mountain

Metro Code Section 3.07.1340(a)

Summary: Metro Code Section 3.07.1340(a) describes the requirements for city and county comprehensive plans and implementing ordinances. The specific section that applies to the Comprehensive Plan amendments for the Cooper Mountain Community Plan area is Section 3.07.1340(a)(8), which states the following:

“...when a city or county exercises its discretion to approve zoning changes to allow a developed property that contains a Habitat Conservation Area to ... increase the type or density and intensity of development in any area, then the city... shall apply the provisions of Metro Code Section 3.07.1340, or provisions that will achieve substantially comparable habitat protections and restorations as the provisions of this section.”

Section 3.07.1340(b) then outlines the review standards that are applicable to development in Habitat Conservation Areas (HCAs).

City's Approach: The city's Development Code provisions that are substantially comparable to the habitat protections in Section 3.07.1340(b) are described below.

Metro Code Section 3.07.1340(b)

Metro Code Section 1340(b) includes subsections (1) through (3). Subsection (1) includes three parts (not numbered) embedded in this subsection of code.

Summary: The first part of subsection (1) requires the city to adopt clear and objective development approval standards that protect HCAs, but allow different levels of development, based on whether the areas are High, Moderate, or Low HCA.

City's Approach: The method for identifying High, Moderate, or Low HCAs in areas added to the UGB after December 28, 2005, is outlined in Table 3.07-13b. The method requires a cross reference of the fish and wildlife habitat classification and the urban development value for the area. Based on Metro's 2040 Growth Concept Map (December 2023), all of the Cooper Mountain Community Plan area (with the exception of existing parks) is designated as “Neighborhood”, which is a Tertiary 2040 design type, resulting in a Low Urban Development Value. When cross-referencing with the fish and wildlife classifications, all areas of Class A and Class B Upland Wildlife Habitat would result in **Moderate HCA**. Metro Code Section 3.07.1340(b)(1) requires clear and objective standards that allow “slightly more development” than would be allowed in High HCAs.

For comparison, Riparian Class I areas cross referenced with Low Urban Development Value would be considered High HCAs. In Cooper Mountain, those riparian areas are protected by CWS rules for Vegetated Corridors.

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For the purpose of developing this code, the city has considered that the development standards for riparian areas (as administered by CWS) are standards that allow limited development in High HCAs. **Therefore, for upland areas in Cooper Mountain (Moderate HCA), the proposed development code allows slightly more development than is allowed in the CWS Vegetated Corridor.**

The proposed Development Code section 60.37 Resource Overlay provides clear and objective rules to regulate development within the Resource Overlay, which includes wetlands, waters, Riparian Class I and II, and Upland Class A and B Habitat areas. The rules include the following:

- Previously approved and permitted development is exempt from the standards. Existing uses may remain and continue, including maintenance and repair of existing structures, landscaping, and other existing development. (60.37.25)
- Emergency procedures, agriculture and farming practices, removal of nuisance plants, natural resources enhancements, and small impacts (less than 500 square feet) are allowed within the Resource Overlay. (60.37.25)
- During land division, at least 80 percent of the Resource Overlay on the property will be required to be protected from disturbance and separated into its own lot (also called a tract) where future development will be not allowed. The remaining 20 percent of the overlay on the property can be disturbed for development. Mitigation must be provided for the permanent disturbance area. (60.37.30)
- Development activities within riparian areas must meet the vegetated corridor requirements of CWS. (60.37.35.1.C)
- On properties that are fully or extensively covered with Resource Overlay, the development rules allow up to 6,000 square feet of disturbance area. Mitigation must be provided for the permanent disturbance area. (60.37.40.1)
- Commercial and multi-dwellings are allowed on existing lots of record with a maximum disturbance area of 50 percent of the total area of the Resource Overlay on the existing lot. Mitigation must be provided for the permanent disturbance area. (60.37.40.2)
- Vegetated stormwater management facilities, linear utilities, up to 6,000 square feet of a non-linear utility facility, and public trails may be constructed in the Resource Overlay. (60.37.40.3 through 6)
- Transportation corridors are allowed within the Resource Overlay. Mitigation must be provided for the permanent disturbance area. (60.37.40.7)
- Public and private parks are allowed on existing lots of record with a maximum disturbance area of 50 percent of the total area of the Resource Overlay on the existing lot. Mitigation must be provided for the permanent disturbance area. (60.37.40.8)

Summary: The second part of subsection (1) states that the city standards must allow property owners to use habitat friendly development practices.

City's Approach: The city previously adopted code provisions (Beaverton Development Code 60.12 Habitat Friendly Development Practices) to allow and encourage Habitat Friendly Development Practices across the city. The use of habitat friendly development practices is

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voluntary. Beaverton Development Code 60.12.25 offers development credits when projects apply specific techniques, such as preserving Habitat Benefit Areas and utilizing Low Impact Development Techniques. Those credits will still be available outside the Cooper Mountain Community Plan area. Within the Cooper Mountain Community Plan area, the protection of habitat areas is required, as described previously. The use of low impact development techniques will not result in other development credits, but the habitat friendly development practices are still allowed and encouraged.

Summary: The third part of subsection (1) states that the city standards shall require that all development in HCAs be mitigated to restore ecological functions that are lost or damaged as a result of development.

City's Approach: The proposed Development Code 60.37 requires developments to mitigate for disturbances of the Resource Overlay, which encompasses the significant riparian and upland habitat areas in the Cooper Mountain Community Plan area. The mitigation requirements (60.37.45) require mitigation through planting of trees, shrubs, and ground cover. The quantity of planting is based on the permanent disturbance area within the Resource Overlay. Developments must prepare a mitigation plan and provide irrigation and monitoring through a 2-year monitoring period.

In addition, proposed Development Code 60.61 includes design standards and guidelines for tree preservation during development and planting to achieve required tree canopy. The tree preservation standards (60.61.15) and guidelines (60.61.25) require development to preserve a minimum percentage of existing trees within the Resource Overlay (which includes both significant riparian and upland habitat areas). The tree canopy standards (60.61.20) require planting to achieve 65 percent canopy coverage within the Resource Overlay. The tree canopy guidelines (60.61.30) allow for lower percentage of canopy coverage within the Resource Overlay if the planting plan protects or restores other ecological functions.

Summary: Subsection (2) of Metro Code Section 3.07.1340(b) requires the city to adopt discretionary development approval standards for development proposed in HCAs that follow an avoid-minimize-mitigate process. Development pursuing a discretionary approval process must determine whether practicable alternatives exist to avoid development in the HCA. The city must allow flexibility in design standards (such as reduced setback and landscaping requirements) to help avoid impacts to the HCA. When there is no practicable alternative, the development proposal must minimize impacts to HCAs and impacts to water quality. When development occurs within HCAs, the city must require mitigation to restore the ecological functions that were lost or damaged as a result of the development.

City's Approach: The proposed development code 60.37.50, Alternative Review outlines the discretionary process for development within the Resource Overlay. The Alternative Review process is available for applicants that cannot or choose not to follow the development standards in 60.37.30, 60.37.35, 60.37.40 or 60.37.45, all described above. Applicants must prepare an Alternatives Analysis and Impact Evaluation to identify the ecological functions provided by the habitat areas within the Resource Overlay on the project site. The analysis must document the site conditions or circumstances that make it physically difficult or impossible to **avoid impacts** to the Resource Overlay. The evaluation must provide three practicable development alternatives and identify the alternative that **minimizes impacts** to ecological functions. As with all development in the Resource Overlay, the applicants **mitigate for impacts** by following the mitigation

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requirements in 60.37.45 or provide an alternative mitigation plan that compensates for impacts to ecological functions, in accordance with 60.37.50.1.B.

The proposed development code includes an application and review process for developments that are pursuing an alternative review (40.70.15.4, Resource Overlay – Alternative Review). The process requires applicants to demonstrate that there are special conditions or circumstances of the site that make it physically difficult or impossible to develop without disturbing the Resource Overlay beyond the standard allowances. Applicants must prepare an Alternatives Analysis and Impact Evaluation to demonstrate that the proposal does not result in greater impacts to ecological functions, compared to other practicable alternatives. Finally, the applicant must provide a mitigation plan that is consistent with requirements described above.

Summary: Subsection (3) of Metro Code Section 3.07.1340(b) states that the city’s requirements for mitigation for development within delineated wetlands may not exceed state and federal law.

City’s Approach: The proposed development code points to state and federal standards for development in or near wetlands (60.37.10.6)

Metro Code Section 3.07.1340(c)

Summary: Metro Code Section 3.07.1340(c) requires the city to consider claims of hardship variances for any property that is converted to an unbuildable lot through application of these regulations.

City’s Approach: The proposed Development Code allows for limited development on properties that are fully covered by the Resource Overlay, which is intended to avoid the creation of unbuildable lots through these regulations. On properties that are fully or extensively covered with Resource Overlay, the development rules allow up to 6,000 square feet of disturbance area. Mitigation must be provided for the permanent disturbance area. (60.37.40.1)

In addition, the city’s existing Development Code includes a variance application. The purpose of the variance application is to consider cases where the literal interpretation of the development code would cause an undue or unnecessary hardship without a corresponding public benefit. (40.95.05)

Metro Code Section 3.07.1340(d)

Summary: Metro Code Section 3.07.1340(d) outlines the process to administer the map of HCAs and provide site-level verification of the locations of riparian areas and upland habitat.

City’s Approach: The City is working with Metro to update the inventory of Regionally Significant Fish and Wildlife Habitat. The mapping methodology and resulting inventory of natural resources have been documented in a separate memorandum and the Cooper Mountain Community Plan’s Natural Resources Report, Revised December 2023.

The proposed Comprehensive Plan, Development Code, and Zoning map amendments include definition and mapping of the Resource Overlay, which includes areas of Riparian Class I and Class II Habitat and Upland Class A and Class B Wildlife Habitat. During development, applicants must locate the Resource Overlay on their properties. The proposed Development Code allows applicants to correct the boundary of the Resource Overlay based on site-specific investigations that have concurrence from Oregon Department of State Lands (DSL). (60.37.15.2) Corrections to

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the boundary of the Resource Overlay that have concurrence from DSL may follow a Type 1 application process (40.70.15.2). The proposed Development Code also includes a detailed boundary correction process that requires a Type 3 application to challenge the data in the natural resources inventory (60.37.15.3 and 40.70.15.3). The city will maintain a GIS map of the Resource Overlay that includes the corrections made through development applications and site-specific investigations.

Conclusions and Documentation

As part of the Cooper Mountain Community Plan, the city is proposing Development Code revisions that are substantially compliant with the performance standards outlined in Metro Code section 3.07.1340(b).

Wetlands and riparian areas are protected through the Clean Water Services design and construction standards for Vegetated Corridors. Upland areas will be protected by the city's proposed Development Code updates. The proposed Development Code updates include clear and objective standards that allow slightly more development in the upland areas than would be allowed in wetland or riparian areas. The proposed Development Code updates also require mitigation when development disturbs natural resource areas and provides a discretionary review process that follows the avoid-minimize-mitigate approach outlined in Title 13.

An overview of the proposed development rules for the Resource Overlay in Cooper Mountain is attached to this memorandum, along with the proposed language in Beaverton Development Code Chapters 40.70, 60.37 and 60.61I. Additional chapters of the proposed Development Code, such as Cooper Mountain zoning districts, definitions, and general provisions related to mapping overlays, can be found on the project website at www.beavertonoregon.gov/CM.

The city is requesting Metro's review of the attached documents to confirm that the proposed Development Code updates substantially comply with the performance standards and best management practices in Metro Title 13.

Questions regarding the proposed development code or requests for additional data may be directed to Alissa Maxwell, Capital Planning Project Manager at amaxwell@beavertonoregon.gov. We appreciate Metro staff's continued support and participation in this effort as we plan for needed housing, services, and infrastructure in Cooper Mountain.



Cooper Mountain Community Plan Project

Proposed Beaverton Code Amendments

- Commentary is for information only.
- Proposed new language is underlined.
- Proposed deleted language is ~~stricken~~.
- Language that has been skipped is indicated by “***”

CHAPTER 40 - APPLICATIONS

Section 40.70 – Resource Overlay

The proposed amendments in this new section would be for activities on properties that contain the Resource Overlay. There are five (5) resource overlay applications that will apply in Cooper Mountain. Most development activity will go through a Type 1 process to verify that the development plans meet the Resource Overlay requirements in Section 60.37. Applicants that believe the Resource Overlay has been drawn incorrectly can use a Type 1 process to request corrections based on more accurate technical information. A Type 3 boundary correction will be required for boundary changes that require more discretion to evaluate the findings of the natural resources report.

Properties that would like to propose an alternative mitigation procedure to protect significant natural resources can apply for an alternative review to demonstrate how the proposed development will meet the objectives of avoiding, limiting impacts, and then mitigating for impacts to significant natural resources.

40.70. Resource Overlay

40.70.05. Purpose.

The purpose of Resource Overlay review is to implement the natural resource protections of the Resource Overlay. This Section provides for the review of allowed uses in the Resource Overlay and a path to correct the Resource Overlay boundary, separate from the development review process. This Section is carried out by the approval criteria listed herein.

40.70.10. Applicability.

1. The provisions of this section apply for the following actions:
 - A. Initial land divisions and property line adjustments on properties that contain the Resource Overlay.



- B. Proposed non-exempt clearing, grading, or site improvements within the Resource Overlay consistent with Section 60.37.30, such as land use applications and site development and building permits.
- C. Proposed corrections or amendments to the boundary of the Resource Overlay.

40.70.15. Applications.

There are four Resource Overlay applications, which are subject to the following requirements.

1. Resource Overlay – Development

- A. Threshold. An application for Resource Overlay – Development shall be required when one or more of the following thresholds apply:
 - 1. Sites with proposed clearing, grading, or site improvements within the Resource Overlay, excluding activity that is exempt under Section 60.37.30.
 - 2. Initial land divisions of a property that contains Resource Overlay.
 - 3. Property line adjustments on property that contains the Resource Overlay.
- B. Procedure Type. The Type 1 procedure, as described in Section 50.35 of this Code, shall apply to an application for Resource Overlay – Development. The decision-making authority is the Director.
- C. Approval Criteria. To approve an application for Resource Overlay – Development, the decision-making authority shall make findings of fact based on evidence provided by the applicant demonstrating that all the following criteria are satisfied:
 - 1. The proposal satisfies the threshold requirement for Resource Overlay – Development.
 - 2. All City application fees related to the application under consideration by the decision-making authority have been submitted.
 - 3. The proposal contains all applicable application submittal requirements as specified in Section 50.25.1. of the Development Code.
 - 4. The proposal is consistent with all applicable provisions of CHAPTER 20 (Land Uses) of the Development Code.
 - 5. The proposal complies with all applicable provisions in CHAPTER 60 (Special Requirements).
 - 6. Applications and documents related to the request, which will require further City approval, shall be submitted to the City in the proper sequence.
- D. Submission Requirements. An application for Resource Overlay – Development shall be submitted by the owner of the subject property, or the owner's authorized agent, on a form provided by the Director and shall be filed with the Director. The application shall be accompanied by the information required by the application form, and by Section 50.25. (Application Completeness) and any other information identified through a Pre-Application Conference. A Resource Overlay – Development application shall also include the following:
 - 1. Existing Conditions Map. For the entire subject property, a scaled map of the property that includes:
 - a. Location of the boundary of the Resource Overlay 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 known wetlands, waterways, or other waters on the property.
 - d. Location of the Floodplain Overlay and floodway boundary, as defined by the Federal Emergency Management Agency (FEMA);
 - e. Site topography at 2-foot contour intervals. On properties that are two acres or larger, topographic contours are only required for the portion of the property within the proposed disturbance area.

2. Proposed Site Plan. A scaled map of the property that includes:
 - a. Proposed lot lines and easements.
 - b. Detailed site plan of proposed development activity.
 - c. Outline of total permanent and temporary disturbance areas, including proposed building footprints, site property improvements, utilities, grading, landscaping, and areas of disturbance during construction.
 - d. Location and square footage of vegetation to be removed.
 - e. Proposed site grading at 2-foot contour intervals.
3. Proposed Mitigation Plan. The application shall include a mitigation plan in accordance with Section 60.37.55.
4. A narrative demonstrating compliance with applicable standards in Section 60.37.
- E. Conditions of Approval. The decision-making authority may impose conditions on the approval of an application for Resource Overlay - Development to ensure compliance with the approval criteria.
- F. Appeal of a Decision. Refer to Section 50.60.
- G. Expiration of a Decision. Refer to Section 50.90.
- H. Extension of a Decision. Refer to Section 50.93.
2. **Resource Overlay – Boundary Correction Type 1**
 - A. Threshold. An application for Resource Overlay – Boundary Correction Type 1 shall be required to make a basic boundary correction to the boundary of the Resource Overlay for one of the reasons outlined in Table 60.37.15.2. This includes the following reasons:
 1. The Resource Overlay map is inaccurate based on a clear misalignment of the GIS layers.
 2. The location of wetland or other water feature has been incorrectly identified or the stream classification is inaccurate.
 3. The upland habitat area not associated with a wetland or water feature does not accurately reflect the site conditions that were present on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB.
 - B. Procedure Type. The Type 1 procedure, as described in Section 50.35 of this Code, shall apply to a Resource Overlay – Boundary Correction Type 1. The decision-making authority is the Director.
 - C. Approval Criteria. To approve a Resource Overlay – Boundary Correction Type 1, the decision-making authority shall make findings of fact based on evidence provided by the applicant demonstrating that all the following criteria are satisfied:
 1. The proposal satisfies the threshold requirement for a Resource Overlay – Boundary Correction Type 1 application.
 2. All City application fees related to the application under consideration by the decision-making authority have been submitted.
 3. The proposal contains all applicable application submittal requirements as specified in Section 50.25.1 of the Development Code.
 4. The proposal complies with all applicable provisions in CHAPTER 60 (Special Requirements).
 5. The location of the proposed boundary of the Resource Overlay is consistent with the resource categories and classifications of Table 60.37.15.1 and the map correction documentation of Table 60.37.15.2.
 6. Applications and documents related to the request, which will require further City approval, shall be submitted to the City in the proper sequence.

- D. Submission Requirements. An application for a Resource Overlay – Boundary Correction Type 1 shall be submitted by the owner of the subject property, or the owner's authorized agent, on a form provided by the Director and shall be filed with the Director. The application shall be accompanied by the information required by the application form, and by Section 50.25. (Application Completeness), and any other information identified through a Pre-Application Conference. A Resource Overlay – Boundary Correction Type 1 shall also include the following:
 - 1. Boundary Correction Map. For the entire subject property, a scaled map of the property that includes:
 - a. Location of the existing boundary of the Resource Overlay on the property.
 - b. Location of any known wetlands or other waters on the property.
 - c. Location of the proposed modified boundary of the Resource Overlay on the property.
 - 2. Basic Boundary Correction Documentation, consistent with Section 60.37.15.
 - 3. A narrative demonstrating the proposed map boundary corrections are consistent with the applicable standards for a Resource Overlay Boundary Correction in Section 60.37.15.
- E. Conditions of Approval. The decision-making authority may impose conditions on the approval of a Resource Overlay – Boundary Correction Type 1 application to ensure compliance with the approval criteria.
- F. Appeal of a Decision. Refer to Section 50.60.
- 3. **Resource Overlay – Boundary Correction Type 3**
 - A. Threshold. An application for Resource Overlay – Boundary Correction Type 3 shall be required to correct the boundary of the Resource Overlay for a reason that does not meet the thresholds for Resource Overlay – Boundary Correction Type 1.
 - B. Procedure Type. The Type 3 procedure, as described in Section 50.45 of this Code, shall apply to a Resource Overlay – Boundary Correction Type 3. The decision making authority is the Planning Commission.
 - C. Approval Criteria. To approve a Resource Overlay – Boundary Correction Type 3 application, the decision-making authority shall make findings of fact based on evidence provided by the applicant demonstrating that all the following criteria are satisfied:
 - 1. The proposal satisfies the threshold requirement for a Resource Overlay – Boundary Correction Type 3 application.
 - 2. All City application fees related to the application under consideration by the decision-making authority have been submitted.
 - 3. The proposal contains all applicable application submittal requirements as specified in Section 50.25.1 of the Development Code.
 - 4. The proposal complies with all applicable provisions in CHAPTER 60 (Special Requirements).
 - 5. The proposal demonstrates that the location and/or attributes of the inventoried natural resources on the site as described in the applicable Natural Resources Report is inaccurate and that natural resources meeting the criteria for inclusion in the Natural Resources Inventory were not present on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB.
 - 6. The location of the proposed boundary of the Resource Overlay is consistent with the detailed boundary correction documentation materials of Section 60.37.15.
 - 7. Applications and documents related to the request, which will require further City approval, shall be submitted to the City in the proper sequence.
 - D. Submission Requirements. An application for a Resource Overlay – Boundary Correction Type 3 shall be submitted by the owner of the subject property, or the owner's authorized agent, on a form provided by the Director and shall be filed with the Director. The application shall be accompanied by the information required

by the application form, and by Section 50.25. (Application Completeness), and any other information identified through a Pre-Application Conference. A Resource Overlay – Boundary Correction Type 3 shall also include the following:

1. Boundary Correction Map. For the entire subject property, a scaled map of the property that includes:
 1. Location of the existing boundary of the Resource Overlay on the property.
 2. Location of any known wetlands or other waters on the property.
 3. Location of the proposed modified boundary of the Resource Overlay on the property.
2. Detailed Boundary Correction Documentation, consistent with Section 60.37.15.
3. A narrative demonstrating the proposed map boundary corrections are consistent with the applicable standards for a Detailed Boundary Correction in Section 60.37.15.
- E. Conditions of Approval. The decision-making authority may impose conditions on the approval of a Resource Overlay – Boundary Correction Type 3 application to ensure compliance with the approval criteria.
- F. Appeal of a Decision. Refer to Section 50.65.
4. **Resource Overlay – Alternative Review**
 - A. Threshold. An application for Resource Overlay – Alternative Review shall be required when one or more of the following thresholds apply:
 1. Sites with proposed clearing, grading, or site improvements within the Resource Overlay that do not comply with the standards of Sections 60.37.35 or 60.37.50 or with the mitigation standards of Section 60.37.45.
 2. Initial land divisions of a property that contains Resource Overlay that do not comply with the standards applicable to land divisions in Section 60.37.30.
 - B. Procedure Type. The Type 3 procedure, as described in Section 50.45 of this Code, shall apply to a Resource Overlay – Alternative Review. The decision-making authority is the Planning Commission.
 - C. Approval Criteria. To approve an application for Resource Overlay – Alternative Review, the decision-making authority shall make findings of fact based on evidence provided by the applicant demonstrating that all the following criteria are satisfied:
 1. The proposal satisfies the threshold requirement for a Resource Overlay – Alternative Review application.
 2. All City application fees related to the application under consideration by the decision-making authority have been submitted.
 3. The proposal contains all applicable application submittal requirements as specified in Section 50.25.1. of the Development Code.
 4. The proposal complies with all applicable provisions in CHAPTER 60 (Special Requirements).
 5. Applications and documents related to the request, which will require further City approval, shall be submitted to the City in the proper sequence.
 6. Special conditions or circumstances exist on the site that make it physically difficult or impossible to develop an otherwise acceptable proposal without disturbing the Resource Overlay beyond the allowable limits in Section 60.37.30 or 60.37.40.
 7. The special conditions and circumstances do not result from the actions of the applicant and such conditions and circumstances do not merely constitute financial hardship or inconvenience.
 8. The proposal does not result in greater impacts to the ecological functions provided by the habitat areas that will be disturbed in the Resource Overlay, compared to other practicable alternatives presented in the Alternatives Analysis and Impact Evaluation

Attachment B



9. The proposed mitigation plan is consistent with the requirements of Section 60.37.45, or an alternative mitigation plan is consistent with the requirements of Section 60.37.50.1.B.
- D. Submission Requirements. An application for a Resource Overlay – Alternative Review shall be submitted by the owner of the subject property, or the owner's authorized agent, on a form provided by the Director and shall be filed with the Director. The application shall be accompanied by the information required by the application form, and by Section 50.25. (Application Completeness), and any other information identified through a Pre-Application Conference. A Resource Overlay – Alternative Review shall also include the following:
 1. Alternatives Analysis and Impact Evaluation consistent with the standards in Section 60.37.50.
 2. Mitigation Plan for Alternative Review consistent with the standards in Section 60.37.50.
 3. A narrative demonstrating the proposed alternative mitigation plan is consistent with the applicable design guidelines for Alternative Review in Section 60.37.50.
- E. Conditions of Approval. The decision-making authority may impose conditions on the approval of a Resource Overlay – Alternative Review application to ensure compliance with the approval criteria.
- F. Appeal of a Decision. Refer to Section 50.70.
- G. Expiration of a Decision. Refer to Section 50.90.
- H. Extension of a Decision. Refer to Section 50.93



Cooper Mountain Community Plan

Proposed Beaverton Code Amendments

- Commentary is for information only.
- Language that has been skipped is indicated by “***”

The entire Section 60.37 is proposed to be added to Chapter 60. To make it easier to read, it is not all shown in red and underlined.

DEVELOPMENT CODE OF THE CITY OF BEAVERTON

CHAPTER 60 - SPECIAL REQUIREMENTS

Chapter 60.37 – Resource Overlay

A new chapter 60.37 is proposed for the requirements related to the Resource Overlay. This section is written to be substantially compliant with the Metro Title 13 Model Code, which provides the framework for regulating natural resources in the urban growth boundary.

The Resource Overlay will only exist in parts of the Cooper Mountain Community Plan area..

60.37. Resource Overlay

60.37.05. Purpose.

1. The Resource Overlay regulations provide a framework for protection of Metro Title 13 lands and Statewide Planning Goal 5 natural resources within the City of Beaverton. The Resource Overlay is established for the following purposes:
 - A. Protect streams and riparian areas for their ecological function and as an amenity for the community.
 - B. Protect floodplains and wetlands to promote improved hydrology, flood protection, aquifer recharge, and habitat functions.
 - C. Protect upland habitats and enhance connections between the upland and riparian areas.
 - D. Maintain and enhance water quality and control erosion and sedimentation by placing limits on construction, impervious surfaces, and pollutant discharge in Resource Overlay areas, as defined in 60.37.10.
 - E. Conserve scenic, recreational, and educational values of significant natural resources.
 - F. Provide mitigation standards for the replacement of ecological functions and values lost through development of resource areas.

- G. Balance conservation and economic use by allowing reasonable economic use of property where adverse impacts to the resources can be mitigated.
- H. Provide clear and objective standards and a discretionary review process, applicable to development in Resource Overlay areas, consistent with Statewide Land Use Planning Goal 5.

Section 60.37.10 – Applicability

In Cooper Mountain, the Resource Overlay includes wetlands and water bodies, the approximated CWS vegetated corridor, Class I and Class II Riparian areas, and Upland Class A and B wildlife areas. These areas were identified through the *Cooper Mountain Community Plan Natural Resources Report and Wetlands Inventory*.

This chapter primarily regulates activities within the boundary of the Resource Overlay. However, the section is applicable to any property that contains the overlay because an important component of the natural resource protections are the standards for land divisions in Section 60.37.30.

The areas directly around Cooper Mountain Nature Park have additional buffer requirements that are outlined in the landscaping requirements (previous versions of this code described those buffering requirements as “Impact Areas” within the Resource Overlay section.)

60.37.10. Applicability.

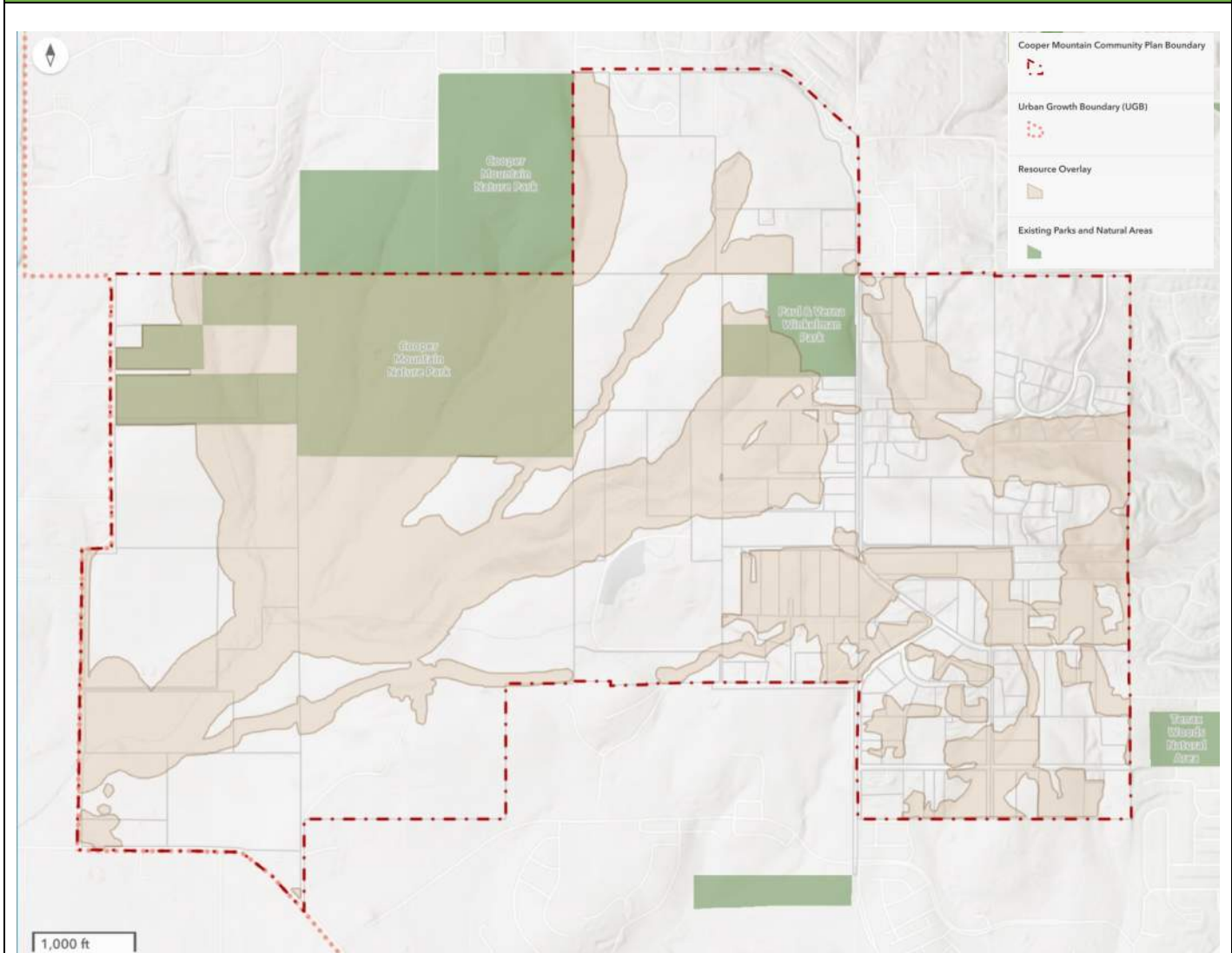
1. The requirements of this Section apply to properties within the Cooper Mountain Community Plan area that contain the Resource Overlay, as shown in Figure 60.37.10.1. The boundary of the Resource Overlay on each property shall be defined in Section 60.37.15.
2. The Resource Overlay includes wetlands and significant fish and wildlife habitat areas that the City of Beaverton has determined require a higher degree of regulation to protect and conserve natural resources in accordance with Metro Title 13 and Statewide Planning Goal 5.
3. The natural resources evaluation is based on the conditions of the property on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB. For the Cooper Mountain Community Plan area, the effective date is December 13, 2018.
4. For the purposes of this section, “land division” does not include middle housing land divisions, pursuant to Section 40.45, and “lot” does not include middle housing child lots.
5. The requirements of this section are in addition to the standards of the underlying base zone and to any other standards in the Development Code. Where conflicts may occur among standards, the more restrictive shall govern.
6. Development in or near wetlands, streams, and riparian areas may require a service provider letter from Clean Water Services (CWS) and permits from the Oregon Department of State Lands (DSL) and the U.S. Army Corps of Engineers (the Corps). If a state or federal permit is required, a water quality certification from the Oregon Department of Environmental Quality may also be required. Because these agencies may have more restrictive regulations than the City, applicants are encouraged to coordinate with regional, state, and federal agencies before they prepare their development plans.
7. For the purposes of this section, the following are approved plant lists:
 - A. City of Beaverton Tree List

Attachment B



- B. Clean Water Services' Design and Construction Standards, Appendix A (2019)
- C. Metro Native Plants for Willamette Valley Yards Booklet (2020)
- D. Portland Plant List (2016)

Figure 60.37.10.1: Resource Overlay Boundary



Disclaimer: The above map is intended for informational purposes only. It is not intended for legal, engineering, or surveying purposes. Please consult with Beaverton Planning staff for interpretation.

Mapping Note:

Map to be updated to include all three layers of resource overlay (Riparian Habitat, Riparian Upland Habitat, Upland Forest Habitat), as described below. Figure 60.37.10.1 is informational only. City will maintain official map in GIS online.

Section 60.37.15 – Boundary Verification and Correction

The boundary of the Resource Overlay is based on the requirements of Metro Title 13. The overlay contains riparian and upland habitat areas. The upland area classifications are based on the conditions at the time that the property was added to the UGB (December 13, 2018, for the Cooper Mountain Community Plan Area). Areas of significant trees (as of December 13, 2018) are included in the Resource Overlay. The regulations apply, regardless of the current vegetation status of the property.

The city will maintain a GIS map of the Resource Overlay in three layers:

- Resource Overlay, Riparian Habitat
- Resource Overlay, Riparian Upland Habitat
- Resource Overlay, Upland Forest Habitat

For applicants, the clear and objective path will be to accept the boundary of the Resource Overlay. No further natural resources evaluation would be required by this code section.

On many properties, the natural resources inventory was completed without direct access to each property in the planning area. As such, we anticipate that the locations of creeks and wetlands or the classification of streams (perennial vs. intermittent) may need to be corrected through onsite investigations. When those investigations are complete, applicants should get concurrence from DSL about the wetland or water delineation and the stream classification. With that concurrence from DSL, applicants may use the Type 1 process to submit for a boundary correction (see details in Table 60.37.15.2). This process is similar to the site assessment already required by Clean Water Services to define natural resource areas on developing properties.

Applicants who believe the natural resources report contain errors of other types must use the Type 3 process to explain the errors and seek changes to the boundary of the Resource Overlay. We anticipate that this process will be rare.

Land division or development activities may result in approved disturbance of the Resource Overlay, but those activities will not alter the boundary of the Resource Overlay.

60.37.15. Boundary Mapping and Correction.

1. The boundaries of the Resource Overlay are based on a GIS-supported application of the following mapping protocols.
 - A. The location of the Resource Overlay is based on analyses that have been carried out within specific areas of the City. The attributes and values for the different types of resource sites that are regulated by the Resource Overlay are described in the inventory section of each of the following adopted natural resource reports adopted as part of Volume III of the city's Comprehensive Plan:
 1. Cooper Mountain Community Plan Natural Resources Report
 2. Cooper Mountain Local Wetlands Inventory
 - B. The Resource Overlay includes the following areas:
 1. Wetlands: Regulated wetlands shown on National Wetland Inventory mapping, Local Wetland Inventory mapping, and protected wetlands identified in DSL-concurred, site-specific studies.

2. Riparian Habitat: The Class I and Class II riparian areas, associated with wetlands, rivers, streams, springs or other regulated waters, including natural lakes, ponds, and in-stream impoundments, as defined in Table 60.37.15.1.
3. Upland Riparian Habitat: Areas of Class A and B Upland Habitat associated with wetlands, rivers, streams, springs or other waters, as defined in Table 60.37.15.1.
4. Upland Forest Habitat: Areas of Class A and B upland wildlife habitat, mapped by Metro as part of the Title 13 adoption process. If the area contained forest canopy on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB, the area is included in the Resource Overlay
5. Cooper Mountain Nature Park

Table 60.37.15.1: Resource Overlay Areas

| Protected Feature | Riparian Habitat | Riparian Upland Habitat | Upland Forest Habitat |
|--|---|---|--|
| Existing or Created Wetlands | Clean Water Services (CWS) Vegetated Corridor | Forest canopy* within 300 feet of water feature | N/A |
| Natural lakes, ponds, and in-stream impoundments | CWS Vegetated Corridor | Forest canopy* within 300 feet of water feature | N/A |
| Perennial Stream – Priority | CWS Vegetated Corridor | 300 feet from centerline, regardless of vegetation | N/A |
| Perennial Stream – All Others | CWS Vegetated Corridor | Forest canopy* within 300 feet of stream centerline | N/A |
| Intermittent Streams and Springs | CWS Vegetated Corridor | None | N/A |
| Forested Wildlife Habitat | None | N/A | Forest Canopy* regardless of proximity to other protected features |

* For the purpose of this section, “Forest Canopy” means areas that are part of a contiguous grove of trees of one acre or larger in an area with 60% or greater tree canopy. Forest canopy is evaluated at the date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB. Forest canopy does not include planted timber or tree farms.

2. Basic Boundary Correction. An applicant seeking a Resource Overlay map adjustment for to address issues in Table 60.37.15.2 shall submit a Resource Overlay – Boundary Correction Type 1 application pursuant to Section 40.70.15. The applicant shall refer to the applicable natural resources report from 60.37.15.1.A to identify the types(s) of resources on the property and shall submit the applicable map correction materials described in Table 60.37.15.2 below.

Table 60.37.15.2: Map Correction Issues and Methodologies

| Map Correction Issue | Basic Map Correction Documentation |
|---|--|
| <p>(a) Resource Overlay map is inaccurate based on a clear misalignment of the GIS layers</p> | <p>The applicant shall provide documentation demonstrating the misalignment between the Resource Overlay 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 disparity between the Resource Overlay map and the property lot lines, and the amount of adjustment that would be appropriate to accurately depict habitat on the property.</p> |
| <p>(b) Location of wetland, stream, spring, or other water feature has been incorrectly identified or stream classification is inaccurate</p> | <p>The applicant shall provide an accurate delineation of the wetland or water feature boundary, which has concurrence from the Oregon Department of State Lands. Where applicable, the applicant shall provide documentation of the stream classification, with concurrence from the Oregon Department of State Lands.</p> <p>The applicant shall provide documentation to correct the location Riparian Habitat and Riparian Upland Habitat areas associated with the corrected location of the wetland or water feature, in accordance with Table 60.37.15.1.</p> <p>The applicant shall provide a map of the corrected boundary of the Resource Overlay, following the mapping protocols in Section 60.37.15.1.</p> |
| <p>(c) Upland Forest Habitat does not accurately reflect the site conditions that were present on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB</p> | <p>The applicant shall provide evidence demonstrating that the resources described in the applicable Natural Resources Report were no longer in existence on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB, such as:</p> <ul style="list-style-type: none"> • Approved building permits or other development plans and drawings; • For tree removal associated with forest practices, evidence that the Oregon Department of Forestry was notified of forest practices as required and trees were removed as proposed; and/or • Aerial photographs that clearly show that the site was developed and the extent of that development on or before the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB. |

3. Detailed Boundary Correction.

- A. An applicant seeking a Resource Overlay map adjustment for a reason not listed in Table 60.37.15.2 shall submit a Resource Overlay – Boundary Amendment Type 3 in accordance with Section 40.70.15 to request a detailed boundary correction.
- B. The applicant shall submit a report prepared and signed by either (1) a qualified professional, such as a professional wetland scientist, wildlife biologist, botanist, or hydrologist, or (2) a civil or environmental engineer registered in Oregon. The report shall include:
 - 1. The information described in Table 60.37.15.1, relevant to the verification of habitat location on the subject property;

2. A map showing the topography of the property shown by 2-foot contours in areas of slopes less than 15 percent, and at five-foot vertical contours of slopes 15 percent or greater; and
 3. Additional information necessary to demonstrate that the location and/or attributes of the inventoried natural resources on the site as described in the applicable Natural Resources Report is inaccurate and that natural resources meeting the criteria for inclusion in the Natural Resources Inventory were not present on the effective date of the ordinance adopted by the Metro Council to bring the subject property within the Metro UGB. If such information includes aerial photographs, the report shall include documentation of the date and process used to take the photos and an expert's interpretation of the additional information they provide.
4. Map Administration
- A. The City shall incorporate Resource Overlay map updates associated with approved Resource Overlay – Boundary Correction Type 1 and Type 3 applications after the land use decision is final.
 - B. The City shall update the Resource Overlay map to add a newly identified wetland, stream, or water feature when the City receives a delineation that has concurrence from the Oregon Department of State Lands. The City shall correct the location of the Resource Overlay to reflect the Riparian Habitat and Riparian Upland Habitat areas associated with the newly identified wetland or water feature, in accordance with Table 60.37.15.1.
 - C. Corrections to the boundary of the Resource Overlay shall not be considered Comprehensive Plan map amendments.

60.37.20. Prohibitions.

1. The following uses and activities are prohibited in the Resource Overlay.
 - A. New or expanded outdoor storage of materials and equipment.
 - B. Dumping of yard debris or trash.
 - C. Uncontained areas of materials defined as hazardous by the Department of Environmental Quality.
 - D. Grading, placement of fill, or the removal of vegetation, other than those allowed under 60.37.25 or as part of a regulated use that is approved with a Resource Overlay.
 - E. Any new gardens, lawns, structures, or development, other than those allowed under 60.37.25 or as part of a regulated use that is approved with a Resource Overlay permit.
 - F. Planting any vegetation listed as a nuisance or prohibited species listed on the approved plant lists in Section 60.37.10.



Section 60.37.25 – Exemptions

The exemptions are intended to allow for existing activities to continue in the Cooper Mountain Community Plan area. The regulations for the Resource Overlay will apply when properties are divided or developed.

In addition, development applications that apply the Resource Overlay protections through the land division process (Section 60.37.30) will not need to meet specific overlay protections on individual lots. In other words, applicants will define an allowable disturbance area and complete mitigation for those disturbances during the land division process and then individual building permits can proceed without further Resource Overlay applications.

The standards for land development in Section 60.37.40 will apply to development activity on lots that are NOT going through a land division process (such as a large existing lot that proposes to add a new structure).

60.37.25. Exemptions.

1. The following uses and activities are exempt from the requirements of this section. Where an exemption specifies an allowance of area for disturbance area or improvement, that area represents the total cumulative amount allowed on a site pursuant to that exemption. The amount of disturbance area or improvement permitted by each exemption shall be calculated independently.
 - A. Change of ownership.
 - B. New site improvements, disturbance, structures, or other development that are more than 25 feet from the Resource Overlay.
 - C. Previously approved development as follows:
 1. A building permit for a phased development project for which the current or previous applicant has already met the application requirements, provided that the disturbance area was identified on the original permit and no new portion of the Resource Overlay will be disturbed.
 2. On the individual lots where the location of the proposed improvements (disturbance area) was identified in the land division decision and mitigation was completed as part of the land division for the entirety of the proposed disturbance area, in accordance with Section 60.37.45.
 - D. Emergency procedures necessary for the immediate safety or protection of life or property, including removing hazardous trees, flood control, sanitary sewer overflow repair, and stream bank stabilization.
 - E. Agricultural/Farming practices such as grazing, plowing, planting, cultivating, and harvesting, that existed on the property prior to the [effective date of this ordinance] and do not include new or expanded structures, roads, or other constructed facilities.
 - F. Removal of plants identified as nuisance on the approved plant lists in Section 60.37.10 by hand, using low impact methods which do not create a permanent ground disturbance.
 - G. Enhancement and natural resource restoration activities that do not include clearing or grading of more than 500 square feet or 50 cubic yards.
 - H. Temporary and minor clearing of shrubs and brush, not to exceed 200 square feet within the Resource Overlay, for the purpose of site investigations, provided that such areas are restored to their original condition or replanted with vegetation that meets the quantity and species variety standards in Section 60.37.45(1) when the investigation is complete.

- I. Residential development activities, such as construction of home additions, decks, driveways, patios, sheds, gardens, and landscaping, provided that the new disturbance of the Resource Overlay does not exceed 500 square feet.
- J. Maintenance, repair, and replacement of existing public and private structures, public and private roads, public trails, public rest points, public viewing areas, public interpretative facilities, and utilities, provided the activity does not expand the footprint of the existing structure or facility within the Resource Overlay.
- K. Continued maintenance of existing gardens, pastures, lawns, and other planted areas, including the installation of new irrigation and drainage facilities, new erosion control features, and the installation of plants except those identified as nuisance on the Cooper Mountain Community Plan Tree List.
- L. Pruning trees and shrubs within 10 feet of buildings.
- M. Low impact outdoor facilities for public or private use, including but not limited to accessways, trails, picnic areas, overlooks, interpretive and educational displays, benches, or outdoor furniture, provided that the facility does not exceed 500 square feet of disturbance area to the Resource Overlay or result in more than 50 cubic yards of grading.

Section 60.37.30 – Standards for Land Divisions and Property Line Adjustments

Most development activity in the Cooper Mountain Community Plan area is expected to follow land division, so the protection standards in Section 60.37.30 will define the allowable disturbance areas for most new neighborhoods.

Based on the significance of the existing natural resources and the proposed land use types, the protection requirements are developed to be consistent with the “Moderate HCA” protection level in the Metro Title 13 Model Code.

The protection standards in Section 60.37.30 generally require that an applicant puts 80 percent of the Resource Overlay portion of the property into a protected tract during the land division process. The remaining 20 percent of the Resource Overlay portion of the property may be disturbed if appropriate mitigation is provided (Section 60.37.45). Applicants will need to plan for the allowable disturbance area to include areas where roads must cross the Resource Overlay. Applicants will also need to consider overlapping standards from CWS, DSL, the Corps, and other agencies that have strict protections for wetlands, waters, and riparian areas. Those existing regulations will create stronger protections for the higher quality habitat areas within the larger Resource Overlay.

Applicants may locate trails, stormwater management facilities, and underground linear utilities within the protected portions of the Resource Overlay if the areas are revegetated. These types of uses are compatible with the goals and intent of upland habitat areas.

60.37.30. Standards for Land Divisions and Property Line Adjustments.

- 1. Land divisions. Applicants who propose a land division of a property that contains the Resource Overlay shall comply with the following requirements:
 - A. Verify the location of the Resource Overlay, in accordance with Section 60.37.15.
 - B. Except as allowed pursuant to Subsection (C), when a property containing any Resource Overlay is divided, the applicant must place at least 80 percent of the Resource Overlay in one or more protected tracts. Any area of

the Resource Overlay that is proposed to be preserved shall be placed in a separate tract, which shall not be part of any lot used for construction of a dwelling unit or any other development. The separate tract(s) shall be shown on the preliminary plat.

- C. If the parent parcel is less than 22,000 square feet, a separate tract is not required. However, the applicant shall place at least 80 percent of the Resource Overlay in protected easements.
 - D. Prior to final plat approval, ownership of the Resource Overlay tract(s) shall be identified to distinguish it from lots intended for sale. The tract(s) may be identified as any of the following:
 - 1. Private natural area held by the owner or homeowners' association by a restrictive covenant.
 - 2. A public natural area where the tract has been dedicated to the City, Tualatin Hills Park & Recreation District (THPRD), Metro, or other conservation group.
 - 3. Private tract for stormwater management, where an easement conveying inspection access has been granted to the City.
 - 4. A public tract for stormwater management, where the tract has been dedicated to the City, CWS, or other public agency for stormwater facility ownership, operation, and maintenance.
 - E. All documents in Subsection (D) shall be submitted to the City for review with the Final Land Division application and recorded with Washington County.
 - F. When driveways of single-detached or middle housing dwellings are proposed within the Resource Overlay, the driveways shall be shared by at least two dwellings.
 - G. Mitigation
 - 1. Applicants may complete the mitigation requirements in accordance with Section 60.37.45 for all areas of the Resource Overlay that are not placed in a protected tract and thereby exempt all subsequent development on lots or parcels containing the Resource Overlay from the standards for specific development types in Section 60.37.40. Building permits may be issued once the mitigation plan has been approved and a Guarantee of Completion equal to 110 percent of the estimated cost of the mitigation implementation and maintenance is filed with the City. The Guarantee of Completion shall ensure site preparation and initial planting within one year of final plat approval.
 - 2. If mitigation is not completed in accordance with Section 60.37.45 for all areas of the Resource Overlay that are not placed in a protected tract, all subsequent land divisions shall be subject to further review under this section.
 - 3. If mitigation is not completed in accordance with Section 60.37.45 for all areas of the Resource Overlay that are not placed in a protected tract, development activity for the specific development types in Section 60.37.40 shall be subject to further review for compliance with the requirements of Section 60.37.40.
2. **Property line adjustments.** Applicants who propose a property line adjustment when either property contains the Resource Overlay shall comply with the following requirements:
- A. Except as specified below, a property line adjustment shall result in each lot having at least one building envelope outside the Resource Overlay that is at least 2,000 square feet and has minimum dimensions of 16 feet.
 - B. This standard does not apply in the following situations:
 - 1. Prior to the property line adjustment, both lots were entirely in the Resource Overlay.



2. Prior to the property line adjustment, both lots did not have building envelopes outside the Resource Overlay of at least 2,000 square feet and with minimum dimensions of 16 feet, provided that the property line adjustment does not cause either lot to move further out of conformance.
3. Following the property line adjustment, lots with less than the minimum building envelope will be dedicated or limited by deed restriction to the uses allowed in the overlay.

60.37.35. General Development Standards.

1. General Development Standards. The following standards apply to all regulated development on properties that contain the Resource Overlay.
 - A. Site development shall meet the requirements of Beaverton Code 9.05.
 - B. Site development shall meet the requirements of the City Engineering Design Manual and Standard Drawings.
 - C. Development activities within riparian areas shall meet the requirements of the Clean Water Services District Design and Construction Standards Manual. The City shall not issue a site development permit or building permit until the applicant has obtained a service provider letter from CWS.
 - D. All vegetation planted in the Resource Overlay shall be plants from the approved plant lists in Section 60.37.10.
 - E. Within the Resource Overlay, fences are allowed only within an approved disturbance area.
 - F. Lighting within 25 feet of the Resource Overlay and within 100 feet from the property line of Cooper Mountain Nature Park should comply with the Special Design Standards within or abutting Natural Areas in the Technical Lighting Standards of Table 60.05-1.H.
 - G. Temporary disturbance areas must be fully restored with vegetation that meets the quantity and species variety standards in Section 60.37.45(1).
 - H. During construction, the following standards apply:
 1. Trees in the Resource Overlay shall not be used as anchors for stabilizing construction equipment.
 2. Erosion control measures shall be in place prior to and maintained throughout the construction.
 3. No stockpiling of soil or debris is allowed within the Resource Overlay, except within an approved permanent or temporary disturbance area.
 4. Prior to construction, the Resource Overlay that is to remain undisturbed shall be flagged, fenced, or otherwise marked and shall remain undisturbed.
 5. Tree protection standards shall comply with Section 60.61.30.

Section 60.37.40 – Standards for Specific Development Types

Most development activity in the Cooper Mountain Community Plan area is expected to follow land division, so the protection standards in Section 60.37.30 will define the allowable disturbance areas for most new neighborhoods. The standards for land development in Section 60.37.40 will apply to development activity on lots that are not going through a land division process (such as an existing single-detached dwelling lot that proposes to add a new structure).

60.37.40. Standards for Specific Development Types.

1. Single-detached, middle housing, and five- and six-unit multi-dwellings. In addition to the general standards in Section 60.37.35, the following standards apply to the development of single-detached dwellings, middle housing, five- and six-unit multi-dwellings, small-scale commercial structures pursuant to 20.22.35, and related accessory structures and dwellings on existing legal lots of record.
 - A. If there is not at least 6,000 square feet of contiguous land outside of the Resource Overlay, encroachment into Resource Overlay shall be allowed but limited to the amount of area needed to make up for the deficit in square footage.
 - B. No more than 4,000 square feet within the Resource Overlay shall be permanent disturbance area. Any portion of the disturbance area that is replanted with vegetation that meets the quantity and species variety standards in Section 60.37.45(1) shall be considered as a temporary disturbance area.
 - C. When driveways for multiple properties with single-detached dwellings are proposed within the Resource Overlay, the driveways shall be shared by at least two properties.
 - D. Trees may be removed within the permanent and temporary disturbance areas in accordance with Section 60.61.
 - E. If mitigation has not been provided during a land division in 60.37.30, then mitigation must be provided for the permanent disturbance area, in accordance with Section 60.37.45.
2. Commercial and multi-dwellings of seven or more units. Unless the property has been reviewed and approved through the standards in Section 60.37.30, the following standards apply, in addition to the general standards in Section 60.37.35, the following standards apply to the development of commercial and multi-dwellings of seven units or more on existing legal lots of record.
 - A. The maximum disturbance area (permanent and temporary) allowed within the Resource Overlay on a lot is limited to 50 percent of the total area of Resource Overlay on the lot.
 - B. Any portion of the disturbance area that is replanted with vegetation that meets the quantity and species variety standards in Section 60.37.45(1) shall be considered as a temporary disturbance area.
 - C. Trees may be removed within the permanent and temporary disturbance areas in accordance with Section 60.61.
 - D. If mitigation has not been provided during a land division in 60.37.30, then mitigation must be provided for the permanent disturbance area, in accordance with Section 60.37.45.
3. Surface stormwater management facilities. In addition to the general standards in Section 60.37.35, the following standards apply to surface stormwater management facilities. These include publicly or privately owned and maintained facilities such as ponds, constructed wetlands, swales, vegetated basins, rain gardens, filter strips, and planters where stormwater runoff is collected or retained on the surface. Surface stormwater management facilities may be built, expanded, repaired, maintained, or replaced within the Resource Overlay provided that:
 - A. The facility provides stormwater management from public right of way or more than one lot of record.

Attachment B

- B. The facility does not contain an underground vault, tank, or structure for stormwater storage, retention, or treatment. Catch basin and manhole structures to collect, convey, and control the discharge of stormwater are allowed within the Resource Overlay.
 - C. The facility is planted with native vegetation from Clean Water Services' Design and Construction Standards, Appendix A.
 - D. Trees shall not be removed within the disturbance area for a surface stormwater management facility, except trees under 6-inches DBH, Hazardous Trees, Dead Trees, Dying Trees, and Nuisance Trees identified on the City of Beaverton Tree List.
 - E. Any portion of the facility that is planted with native shrubs and groundcover that meet the quantity and species variety standards in Section 60.37.45(1) shall be considered as a temporary disturbance area and mitigated in place.
 - F. Mitigation shall be provided for permanent disturbance areas that exceed 500 square feet in accordance with Section 60.37.45.
4. Linear Utility Facilities. In addition to the general standards in Section 60.37.35, the following standards apply to linear utility facilities (including private connections to existing or new utility lines, and new utilities or upgrades of existing utility lines) that are proposed as a standalone project. Linear utilities being proposed in conjunction with other development shall be subject to the Resource Overlay standards applicable to that development type rather than this section.
- A. The permanent disturbance area of the utility corridor shall be no greater than 20 feet wide.
 - B. The temporary disturbance area of the construction/access corridor shall be no greater than 50 feet wide.
 - C. Native trees greater than 24-inch DBH shall not be removed.
 - D. A utility corridor shall be considered temporary if the disturbance area is mitigated and revegetated in accordance with Section 60.37.45(1).
 - E. Placement of manholes, or other minor permanent disturbance areas associated with the utility construction shall be allowed without replacement mitigation.
 - F. Individual permanent disturbance areas greater than 500 square feet shall be mitigated in accordance with Section 60.37.45.
5. Non-Linear Utility Facilities. The following standards apply to non-linear municipal facilities associated with potable water, non-potable water, wastewater, and stormwater utilities. These facilities include, but are not limited to diversion structures, lift stations, pump stations, wells, and small water treatment facilities, and outfall devices. In addition to the general standards in Section 60.37.35, non-linear municipal utility facilities may be built, expanded, repaired, maintained, or replaced within the Resource Overlay, provided that:
- A. A disturbance area shall be considered temporary if the disturbance area is mitigated and revegetated in accordance with Section 60.37.45(1).
 - B. If the permanent disturbance area exceeds 6,000 square feet in the Resource Overlay, the portion of the disturbance area that exceeds 6,000 square feet shall be mitigated in accordance with Section 60.37.40.
 - C. Trees may be removed within the permanent and temporary disturbance area, in accordance with Section 60.61.
6. Public Accessways. In addition to the general standards in Section 60.37.35, public accessways may be built, expanded, repaired, maintained, or replaced within the Resource Overlay, provided that:

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- A. The proposed accessway is associated with a previously developed park infrastructure or identified on the Transportation System Plan, Active Transportation Plan, or an accessway associated with a park or public trail network to be owned by a public agency and associated with a park or public trail network.
 - B. The accessway is on public property or within a public easement.
 - C. No trees greater than 24 inches DBH shall be removed within the disturbance area.
 - D. Stream crossings must comply with Clean Water Services requirements and the Engineering Design Manual.
 - E. The temporary disturbance area of the construction/access corridor is no greater than 50 feet wide.
 - F. A disturbance area shall be considered temporary if the disturbance area is mitigated and revegetated in accordance with Section 60.37.45(1).
 - G. Any permanent disturbance area that exceeds 15 feet wide shall be mitigated in accordance with Section 60.37.45.
 - H. Low impact public viewing areas, such as picnic areas, overlooks, interpretive and educational displays, benches, or outdoor furniture are allowed adjacent to public accessways. If the permanent disturbance area of the public viewing area exceeds 500 square feet in the Resource Overlay, the area shall be mitigated in accordance with Section 60.37.45.
7. Right of way and public access easements. In addition to the general standards in Section 60.37.35, the following standards apply to public rights-of-way (ROW) and Public Access Easements, including roads and bridges (stream crossings).
- A. Within the Resource Overlay, standard ROW cross-section-width dedication shall be required, although the width of the street section improvements shall be reduced by eliminating medians, planter strips, and parking lanes.
 - B. Stream crossings shall be designed by an Engineer to comply with the Engineering Design Manual and Clean Water Services District Design and Construction Standards.
 - C. Stream crossing structures must be designed to provide passage for large mammals, including deer. The minimum dimensions for stream crossing structures shall be 8-foot rise and 20-foot span or 10-foot rise and 10-foot span.
 - D. Trees may be removed within the right-of-way in accordance with the removal standards in Section 60.61.40
 - E. A disturbance area shall be considered temporary if the disturbance area is mitigated and revegetated in accordance with Section 60.37.45(1).
 - F. Mitigation must be provided for the permanent disturbance area, in accordance with 60.37.45.
8. Parks. In addition to the general standards in Section 60.37.35, the following standards apply to the development of public and private parks.
- A. The maximum disturbance area (permanent and temporary) allowed within the Resource Overlay on a lot is limited to 50 percent of the total area of Resource Overlay on the lot.
 - B. Trees may be removed within the permanent and temporary disturbance areas in accordance with Section 60.61.
 - C. A disturbance area shall be considered temporary if the disturbance area is mitigated and revegetated in accordance with Section 60.37.45(1).
 - D. Mitigation must be provided for the permanent disturbance area, in accordance with 60.37.45.

Section 60.37.XX – Impact Areas

The “Impact Areas” section of this code has been removed from the Resource Overlay section. The area around the Cooper Mountain Nature Park will be protected through additional landscaping buffers. This buffer area will be restricted from building construction and have enhanced landscaping requirements to provide a natural transition between the developing area and Cooper Mountain Nature Park. Those requirements are now listed within the landscaping sections of the code.

Section 60.37.45 – Mitigation

The Metro Title 13 Model Code requires mitigation planting for most areas of disturbance of the Resource Overlay. Most disturbance is expected to occur during the land division process. Applicants are required to put at least 80 percent of the Resource Overlay area into a protected tract. The remaining area of the Resource Overlay may be disturbed if mitigation is provided. The amount of mitigation is based on the area of the overlay that will be disturbed, regardless of the presence or quality of vegetation.

The mitigation planting may occur within the Resource Overlay. The intent is to enhance and improve the habitat quality in the portions of the Resource Overlay that are being protected, which should also help to meet the tree canopy goals for the Cooper Mountain Community Plan Area.

A straight-forward mitigation formula is proposed. Planting is based on minimum numbers of trees and shrubs per 1,000 square feet of disturbed area. This gives applicants the flexibility to plant trees and shrubs throughout the upland and riparian areas, in locations with a stronger chance of survival. Trees planted to meet minimum canopy goals or CWS requirements for vegetated corridor enhancement can count toward the mitigation requirements if the planting is in a protected tract. The applicant will be required to monitor plant survival for 2 years and replant if the survival rate drops below 80 percent.

60.37.45. Mitigation.

1. Mitigation shall be provided for disturbances within the Resource Overlay according to the following standards:
 - A. All mitigation shall occur within the same stream basin as the disturbance area.
 - B. The mitigation area(s) may be located within the Resource Overlay or in an adjacent area outside the Resource Overlay. If the mitigation area is located outside the Resource Overlay, then the applicant shall preserve the mitigation area by placing it in a protected tract or easement in accordance with Section 60.37.30 or executing a deed restriction, such as a restrictive covenant.
 - C. All vegetation planted within a revegetation or mitigation area shall be native plants from the approved plant lists in Section 60.37.10.
 - D. Nuisance Plants shall not be planted in the mitigation area.
 - E. Invasive non-native plants growing in the revegetation area shall be removed prior to planting. Vegetation removal shall be conducted by hand or mechanically with small equipment that minimizes damage to existing native vegetation.
 - F. Plant Quantity. Plants shall be planted according to the following quantities:

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- a. Trees at least 1.5 inches in diameter at breast height shall be planted at a quantity of at least 10 per 1,000 square feet of disturbed area.
 - b. Shrubs shall be planted at a quantity of at least 50 per 1,000 square feet of disturbed area.
 - c. Live ground cover consisting of low-height plants, shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or shrubs. Bare gravel, rock, bark, or other similar materials may be used but are not a substitute for ground-cover plantings and shall be limited to no more than 25 percent of the required landscape area.
 - d. Trees and shrubs planted to satisfy tree canopy requirements, vegetated corridor enhancement requirements from Clean Water Services, or other natural resource mitigation actions required by another government agency may be counted toward the total number of plantings required.
- G. Plant Diversity.
- a. If there are 17 or fewer required trees, they may all be the same species. If there are at least 18 and less than 54 required trees, then no more than 33 percent can be of one species. If there are more than 54 required trees, no more than 25 percent can be of one species. This standard applies only to the trees being planted, not to existing trees that are preserved.
 - b. If there are more than 24 required shrubs, then no more than 75 percent of them can be of one species.
2. Mitigation Plan. A mitigation plan shall be prepared and signed by professional wetland scientist, wildlife biologist, botanist, or hydrologist, or by a civil or environmental engineer registered in Oregon. The Mitigation plan shall include the following elements:
- A. A map showing the location and size of the proposed disturbance area in the Resource Overlay;
 - B. A map showing the location of the proposed mitigation area(s);
 - C. Existing conditions and existing vegetation in the proposed mitigation area(s);
 - D. A detailed planting plan of the proposed mitigation area(s) with species and plant quantities in accordance with Section 60.37.45(1); and
 - E. A proposed monitoring plan in accordance with Section 60.37.45(5).
3. Requirements From Other Agencies. When mitigation is also required by DSL, the Corps, and/or CWS, a copy of the mitigation plan prepared for those agencies shall be submitted to the City. The City shall not issue a site development permit or building permit until all applicable local, Regional, State and Federal permit approvals have been granted.
4. Irrigation. Irrigation shall be provided to ensure all site plantings will survive their establishment period. Establishment period irrigation shall be provided through one of the following options or a combination of options:
- A. A permanent, in-ground irrigation system with an automatic controller.
 - B. An irrigation system designed and certified by a licensed landscape architect as part of a landscape plan that provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if a licensed landscape architect certifies that the plants chosen can be adequately served by the proposed irrigation system.
 - C. Irrigation by hand. New plantings shall be manually watered regularly during the first growing season. During later seasons, watering shall be done as needed to ensure survival of the plants. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering.
5. Monitoring. The applicant is responsible for monitoring and maintaining vegetation in the mitigation site for two years following planting. The applicant shall submit an annual monitoring report to the city during the monitoring

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period, demonstrating that the minimum thresholds for plant survival and invasive species eradication on the site are being met.

- A. On mitigation sites less than or equal to 0.25 acres in size, the monitoring report shall include:
 1. Photos from fixed locations
 2. Monitoring plan showing the location of plantings and photo points,
 3. A complete census of installed tree and shrub plantings,
 4. An estimate of the cover and species diversity of herbaceous plants, and
 5. A visual estimate of invasive plant coverage.
 6. Areas of invasive species removed and proposed trees and shrubs to be replanted to meet the plant survival thresholds.
 - B. On mitigation sites greater than 0.25 acres in size, the monitoring report shall include:
 1. Photos from fixed locations
 2. Monitoring plan showing the location of plantings and photo points and monitoring plots,
 3. Sampling data from permanent plots to estimate tree, shrub, herbaceous, and invasive plant species coverage. A minimum of 5 sample plots shall be used for mitigation areas of two acres or less. An additional two sample plots shall be used for each additional acre of mitigation. Each sample plot shall cover at least 700 square feet.
 4. Areas of invasive species removed and proposed trees and shrubs to be replanted to meet the plant survival thresholds.
 - C. Plant Survival. During the monitoring period, if survival of trees or shrubs drops below 80 percent of the initial required planting quantities, replacement plants shall be added to maintain 80 percent or greater survival of plantings. Prior to re-planting, the cause of plant mortality shall be determined and documented with a description of how the problem will be corrected.
 - D. Invasive Species. Invasive plant coverage shall not exceed 20 percent of the mitigation or cover 25 square feet of contiguous area within the mitigation area. Invasive species that exceed these thresholds shall be removed prior to the submittal of the annual monitoring report.
6. Financial guarantee, in the form of an instrument approved by the City, shall be submitted to the City before building permits are issued or, when no building permit is required, before development within the Resource Overlay commences. The guarantee shall be in an amount adequate to cover 110 percent of the cost of performing the mitigation. The City will release the guarantee at the end of the two-year monitoring period or earlier if the City determines that the trees and shrubs have been successfully established.

Section 60.37.50 – Alternative Review

The alternative review process is the discretionary path for applicants that would like to propose an alternative approach to the land division process, the allowable disturbance areas, or the mitigation requirements. The Alternative Review process may be needed when a proposed development is planned in an area that can only be accessed by constructing infrastructure (roads) across the Resource Overlay and those roads would require disturbance of more than 20 percent of the overlay area on a particular property. The applicant would need to demonstrate that the impacts to the resource overlay cannot reasonably be avoided, that the design has taken measures to minimize impacts to high quality habitat areas and ecological functions, and that the resulting impacts will be mitigated.

Alternative review is a Type 3 procedure.

Discretionary review for changes to the boundary of the Resource Overlay are addressed separately (through a Type 3 process) in Section 60.37.15 and Section 40.70.15.

60.37.50. Alternative Review

1. Applicants who cannot or choose not to comply with the standards of Section 60.37.30, 60.37.35, 60.37.40, or 60.37.45 may submit a Resource Overlay – Alternative Review application according to Section 40.70.15.4. The Alternative Review application shall include the information described in Subsections (A) through (C) and any additional information needed to demonstrate compliance with the approval criteria in Subsection 2.
 - A. Alternatives Analysis and Impact Evaluation. An alternatives analysis and impact evaluation shall be required to determine compliance with the approval criteria and to evaluate development alternatives for a particular property. For utility projects undertaken by public utilities on property that is not owned by the utility, the utility is not required to map or provide any information about the property except for the area within 100 feet of the location of the proposed disturbance area of the utility's project. The alternatives analysis and impact evaluation shall include all of the following items:
 1. Identification and assessment of the ecological functions provided by the habitat areas within the Resource Overlay on the project site, including:
 - i. Hydrologic Function (water storage and delay)
 - ii. Water Quality Function (sediment stabilization and retention, phosphorous retention, nitrate removal and retention)
 - iii. Aquatic Habitat Support Function (for anadromous and/or resident species)
 - iv. Terrestrial Habitat (for invertebrates, native plant diversity, pollinators, birds, reptiles, amphibians, and mammals)
 - v. Stream Temperature Moderation
 2. Documentation of the site conditions or circumstances that make it physically difficult or impossible to develop an otherwise acceptable proposal without disturbing an area of the Resource Overlay that exceeds the disturbance limits in Section 60.37.30 and Section 60.37.40.
 3. Evaluation of at least three practicable alternative designs or methods of development, with an analysis of the total disturbance area of each alternative and the resulting impacts on the ecological functions provided by the habitat areas within the Resource Overlay. The evaluation should include an explanation of the rationale behind choosing the preferred alternative and list measures that will be taken to avoid, minimize, and mitigate for adverse impacts to ecological functions.

4. With the exception of the standard(s) subject to the alternative review, the documentation that all other applicable Resource Overlay standards are met.
 5. The Alternatives Analysis and Impact Evaluation shall be prepared and signed by a knowledgeable and qualified professional, such as a professional wetland scientist, wildlife biologist, botanist, or other appropriate and knowledgeable discipline.
- B. Mitigation Plan for Alternative Review. The purpose of a mitigation plan is to compensate for impacts that result from the chosen development alternative as identified in the impact evaluation. The mitigation plan shall either demonstrate compliance with the requirements of Section 60.37.45 or present an alternative mitigation plan that includes the following:
1. An explanation of how the proposed mitigation will compensate for the impacts to ecological functions described in the impact evaluation. The mitigation that would be required under Section 60.37.45 is the assumed to be the baseline mitigation required to compensate for an average level of ecological functions resulting from impacts to the Resource Overlay.
 2. Documentation of permits or concurrence from Army Corps, DSL, and DEQ (if applicable).
 3. 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 and documentation of a deed restriction.
 4. The mitigation site monitoring, success criteria, and reporting plan.
 5. A complete list of proposed mitigation plantings and locations.
 6. If mitigation is proposed outside the Cooper Mountain Plan area, a narrative description of why mitigation cannot be completed within the plan area.
 7. The Alternative Mitigation Plan shall be prepared and signed by a knowledgeable and qualified natural resource professional, such as a professional wetland scientist, wildlife biologist, botanist, or other appropriate and knowledgeable discipline.
- C. Development Guidelines for Alternative Review
1. Avoid intrusion. The alternatives Analysis shall document the site conditions or circumstances that make it physically difficult or impossible to develop an otherwise acceptable proposal without disturbing an area of the Resource Overlay that exceeds the disturbance limits in Section 60.37.30 and Section 60.37.40.
 2. Minimize impacts. If there is no practicable alternative that will avoid disturbance of the Resource Overlay beyond the allowable limits of this section, then the proposal shall minimize the total disturbance area and minimize impacts to ecological functions of the disturbed habitat areas within the Resource Overlay to the extent practicable. The proposed development shall be located, designed and constructed to minimize grading, removal of native vegetation, disturbance and removal of native soils, adverse hydrological impacts on water resources, and impacts on wildlife corridors and fish passage.
 3. Mitigate impacts. The development shall mitigate for impacts in accordance with Section 60.37.45 or in an alternative mitigation plan that provides the equivalent quantity and of plantings and compensates for the impacts to ecological functions of disturbed habitat areas.
2. Financial guarantee, in the form of an instrument approved by the City, shall be submitted to the City before building permits are issued, or when no building permit is required, before development within the Resource Overlay commences. It shall be in an amount adequate to cover 110 percent of the cost of performing the mitigation. The City will release the guarantee at the end of the two-year monitoring period, or before, if it determines that the trees and shrubs have been successfully established.



CHAPTER 60 – SPECIAL REQUIREMENTS

Cooper Mountain Community Plan

Proposed Beaverton Code Amendments

- Commentary is for information only.
- Language that has been skipped is indicated by “***”

The entire Section 60.61 is proposed to be added to Chapter 60. To make it easier to read, it is not all shown in red and underlined.

Commentary: 60.61. Trees and Vegetation (Cooper Mountain)

This is a new code section that regulates trees within the Cooper Mountain Community Plan Area in both development and non-development situations. Different tree rules are being proposed for Cooper Mountain to meet Council goals and desired outcomes regarding natural resource and Tree Canopy. The intent is to apply development-related tree code standards for larger development projects and not for smaller projects such as building additions, plumbing permits, or landscape projects. These code sections are also not intended to regulate projects limited to right-of-way construction.

60.61. Trees and Vegetation - Cooper Mountain

60.61.05. Purpose.

The purpose of this code section is to provide regulations for preserving, planting, and maintaining trees inside the Cooper Mountain Community Plan area to preserve and enhance the benefits trees provide for all people.

Trees provide many benefits for community members including:

- Providing shade, which helps reduce the urban heat island effect by blocking the sun’s rays from heating homes, sidewalks, and driveways, decreasing the energy required to cool and heat buildings, and reducing watering needs for lawns;
- Supporting a cooler environment, which makes it more comfortable to walk and bike;
- Providing wildlife habitat, even in urban settings;
- Absorbing stormwater, which improves water quality by reducing runoff that flows to streams and wetlands;
- Reducing erosion by helping stabilize soil;
- Contributing to the local food supply;
- Sequestering carbon, a heat trapping gas that raises the Earth’s temperature;
- Absorbing pollutants and releasing oxygen, which improves the air quality;
- Helping reduce driving speeds in urban neighborhoods;
- Providing aesthetic benefits; and
- Contributing to health benefits.

Section 60.61 promotes these outcomes by establishing standards for tree preservation and Tree Canopy that can advance the environmental, economic, and social benefits that trees provide. This section also sets forth alternative, discretionary approaches that provide flexibility for meeting tree preservation and Tree Canopy minimums.

Commentary: 60.61.10. Applicability for Tree Preservation and Tree Canopy Standards and Guidelines

This section specifies that the development related tree code standards and/or guidelines apply concurrently when other site development review standards apply inside the Cooper Mountain Community Plan Area.

The term “preservation” refers to saving existing trees on a site at the time of development application. The term “canopy” refers to the ground area under a tree or trees, either the actual area for existing trees or the eventual area when the tree is 15 years old for newly planted trees – or in some cases a combination of both. To find definitions for canopy, reference “Tree Canopy” and “Tree Canopy, Mature” in Chapter 90.

Here are some example scenarios to illustrate how preservation and canopy work:

1. An applicant could preserve all the trees on a site. If the canopy preserved is large enough to satisfy the minimum Tree Canopy standard, the Tree Canopy standard is met without planting additional trees.
2. An applicant could preserve all the trees on a site. If the canopy coverage provided by those preserved trees is not large enough to satisfy the minimum Tree Canopy standard, the applicant would need to plant enough new trees to meet the standard.
3. An applicant preserves some trees on a site and removes some trees. If the Tree Canopy standard is not met, the applicant would need to plant enough trees to meet the standard.

Preservation standards apply inside and outside the Resource Overlay. Canopy standards generally apply inside the Resource Overlay with a few exceptions (some are described in this section, and others are described in other sections in Chapter 60).

Tree planting standards in other code sections. In addition to minimum tree preservation and minimum Tree Canopy rules in this section, other code sections also have tree planting standards. Unless otherwise noted, tree planting standards are in addition to preservation and canopy rules. For example:

1. **Development in all Cooper Mountain zones.** All proposed developments in all Cooper Mountain zones shall comply with Street Tree requirements in Section 60.55.30.
2. **Development in the CM-RM zone.** Generally, single-detached dwellings, middle housing, five- and six-unit multi-dwelling structures, and small-scale commercial uses that add a detached building or increase the existing square footage of an attached building shall meet the tree planting and tree preservation requirements in Section 60.05.
3. **Development in the CM-CS, CM-HDR or CM-MR zones.** Residential developments consisting of at least four units of attached housing or compact detached housing, non-residential development and mixed-use development shall comply with tree planting standards or guidelines in Section 60.05, unless the development is a Planned Unit Development (PUD). Developments proposed as a PUD shall comply with Section 60.36.

60.61.10. Applicability.

In the Cooper Mountain Community Plan area:

1. The applicability of tree preservation and tree canopy standards and guidelines of Sections 60.61.15 through 60.61.35 is as follows:
 - A. All Initial Development shall comply with tree preservation standards in Section 60.61.15 and tree canopy standards in Section 60.61.20. Applicants may instead choose to comply with tree preservation guidelines in Section 60.61.25 and/or Tree Canopy guidelines in Section 60.51.30. Applicants may choose to comply with standards in both sections, comply with guidelines in both sections, or comply with standards in one section and guidelines in another.
 - B. All Initial Development shall comply with technical specifications for tree protection and planting in Section 60.61.35 until the end of the monitoring period.
 - C. These standards do not apply to existing dwellings as of (effective date of this ordinance) that are adding floor area to the primary structure, subject to the limitations of the zoning district in which the dwelling is located or are being rebuilt after being unintentionally destroyed.
 - D. These standards do not apply to Middle Housing created through conversion of, or addition to, an existing single-detached dwelling.
 - E. If a duplex, triplex, quadplex, or cottage cluster has been divided by a Middle Housing Land Division, the standards that are applicable to the lot or applicable on a per-lot basis shall apply to the middle housing parent lot, not to the middle housing child lots.
2. The Tree Replacement and Maintenance standards of Section 60.61.40 apply to tree removal that is not associated with Initial Development and is not exempt per Section 40.91.10.

Commentary: 60.61.12 General Tree Provisions

The General Tree Provisions section includes detailed information about tree locations and classifications, Tree Canopy calculations and tree conditions that apply to all of Section 60.61, unless otherwise noted.

Tree Conditions. In the January draft code, the draft included the following tree conditions definitions: Good (no significant health issues); Fair (moderate health issues but likely viable for the foreseeable future); Poor (significant health issues and likely in decline); Very Poor (in severe decline), and Dead.

In the April draft code, tree definitions have been simplified, allowing more trees to count toward preservation requirements. Instead of regulating trees by whether they are in good, fair, poor or very poor conditions, staff has defined Dying Trees, Dead Trees and Hazardous Trees. If a tree is not dying, dead or hazardous, then it counts towards preservation and canopy standards and guidelines. This update simplifies the inventory process by avoiding a more striated approach where there might be subtle distinctions between a good tree and fair tree, or a fair tree and poor tree. Also, a fair tree can become a good tree, and a poor tree can become a fair tree or good tree with proper abatement.

Additional benefits to this approach include maintaining the ecological functions of the existing forest. By allowing what used to be called trees in fair condition to count towards preservation, the forest holds on to higher DBH trees. If we don't allow trees in fair condition to count towards preservation, and we expect applicants to meet the Tree Canopy standard, then the applicant would likely have to remove the trees in fair condition (potentially large trees) and replace them with 1.5-inch caliper broadleaf trees or 5-foot tall conifers, which could take decades to grow and replace the ecological functions of the original trees.

60.61.12. General Tree Provisions.

1. Tree Locations and Classifications.

- A. Native Trees and Nuisance Trees are identified on the City of Beaverton Tree List.
- B. If any part of a tree's trunk is on a property line, then that tree is considered an onsite tree for both lots for the purpose of meeting minimum tree preservation and Tree Canopy standards and guidelines.
- C. If any part of a tree's trunk is inside the Resource Overlay, then that tree is considered a tree within the Resource Overlay.
- D. If a tree trunk is completely within a right of way at ground level abutting the site, then that tree is considered a Street Tree.

2. Tree Canopy Calculations.

- A. If any part of a tree's trunk is on a property line, then each lot shall count 50 percent of the Tree Canopy towards minimum tree preservation or minimum Tree Canopy standards and guidelines.
- B. When calculating Tree Canopy to meet tree preservation and Tree Canopy standards and guidelines, no Tree Canopy area shall be counted more than once, including when preserved Tree Canopy and/or anticipated Mature Tree Canopy overlap.

3. Tree Conditions.

- A. Tree conditions for all Initial Development shall be assessed and documented in a report by an arborist certified in International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ) techniques. Tree conditions for proposed tree removal in Section 40.91 shall also be assessed and documented in a report by an arborist certified in ISA TRAQ techniques.

- 1. Dying. Dying Trees include evidence of disease, pests, deterioration, or rot. Signs of declining tree health include but are not limited to:

- (a) Crown and branches:

- (i) Crown damage, crown breakage or crown dieback more than 50 percent of canopy for deciduous trees and more than 30 percent of canopy for conifer trees.
 - (ii) Greater than 50 percent of leaves have damage (ragged leaves with holes; black or brown leaves; or spots or bumps that indicate insects or mites).
 - (iii) Tree is missing more than 50 percent of its leaves in leaf-on conditions between June 1 and September 30.
 - (iv) Dead crown limbs or cracks in branches or stems greater than 4 inches in diameter.
 - (v) Dead crown limbs with no fine twigs and bark peeling away, and in some cases, saprophytic fungal evidence.

- (b) Trunk:

- (i) Tree is leaning 15 degrees or more, as calculated by using a plumb line, or similar device, and measuring the angle between the vertical line and the tree's trunk.
 - (ii) Cavity opening or other stem damage greater than 30 percent of the circumference measured at any height of the tree trunk.

- (c) Roots and root collar:

- (i) Stem girdling root affects 40 percent or more of trunk circumference.

- (ii) More than 33 percent of roots are damaged within the root protection zone, as defined in Figure 60.61.35.1.A.1.c.
- (iii) Recent root breakage, soil mounding, cracks, or extensive decay evident.
- i. Dead. Dead Trees may be removed without an arborist's report if they comply with Section 40.91.
- ii. Hazardous. Hazardous trees are defined in Chapter 90.

Commentary: 60.61.15 Minimum Tree Preservation Standards

This section provides a clear and objective way to meet minimum tree preservation percentages by following the standards. A discretionary option to meet minimum tree preservation percentages by following guidelines is in Section 60.61.25.

Tree Inventory. A tree inventory will be required in the submittal requirements for Initial Development applications. More detailed information regarding what content is required in the inventory will be included in updated applications published outside of the Development Code. For each tree on site, the inventory will require information such as the tree number and location, the common name and scientific name, DBH, and Tree Canopy area.

Tree Multipliers Provide Extra Preservation Credit for Certain Trees. When calculating how much Tree Canopy counts toward Tree Canopy preservation, the draft code includes rules for multipliers. Multipliers mean Tree Canopy preserved from high-value count more toward the standard than other trees. Multipliers are proposed as an incentive for preservation. For example, using a multiplier for Oregon white oaks also has the benefit of allowing the lower density of oak canopy consistent with lower oak woodland habitat canopy levels.

Tree Classifications. A table is included which indicates which trees are eligible to count towards the minimum Tree Canopy preservation standard. Since the January 2024 draft code was released for public review, staff has been reviewing public comments about how to improve the tree classifications table. In response, a notable change is that non-native trees in the Resource Overlay shall now count towards the preservation and canopy requirements. By allowing them to count, applicants may be incentivized to keep older, non-native trees that provide important ecological services for the plan area. If we don't allow non-native trees to count towards preservation and canopy requirements, and we expect applicants to meet the Tree Canopy standard, then the applicant would likely have to remove non-native trees (potentially large trees) and replace them with 1.5-inch caliper broadleaf trees or 5-foot tall conifers, which could take decades to grow and replace the ecological functions of the original trees.

Regarding Agricultural Trees, the definition of Agricultural Trees was written to cover a range of agriculturally managed trees in the Cooper Mountain Community Plan Area. The definition does not include naturally occurring forested areas with a range of tree species, even if these areas are in forest deferral per Oregon Revised Statutes 527.722(2).

Tree Preservation Fee-in-Lieu. If trees are removed from inside the Resource Overlay, Section 60.37.45 will generally require replanting to mitigate for that removal. If trees are removed from outside the Resource Overlay in an amount that exceeds the standards, an in-lieu fee will be required, as described in Section 60.61.15.3. The in-lieu fee is intended to provide funding for the City to plant and maintain trees in places that are easy to access and maintain, such as the right of way and public spaces, further contributing to the tree canopy goals for this planning area.



60.61.15. Minimum Tree Preservation Standards.

1. Standards for Minimum Tree Preservation Percentages.

- A. For eligible, on-site trees, the minimum amount of tree preservation shall be:
 - 1. 65 percent of existing, on-site Tree Canopy within the Resource Overlay.
 - a. If a Parent Parcel containing any Resource Overlay meets the preservation requirement of 60.61.15.1.A at the time of initial development, Section 60.61.15.1.A shall be considered met for future development applications not involving tree removal of trees preserved in Section 60.61.15.1.A.
 - 2. 40 percent of existing, on-site Tree Canopy outside the Resource Overlay.
 - 3. Within a proposed development, minimum tree preservation standards shall be based on the eligible Tree Canopy within the boundaries of the development prior to right of way dedication .
- B. The following Tree Canopy multipliers shall be used when calculating how much certain tree species count toward the minimum tree preservation standards of Section 60.61.15.1.A above when they are preserved:
 - 1. 2 times existing Tree Canopy for the following trees: Madrone (*Arbutus menziesii*), Ponderosa pine (*Pinus ponderosa* var. *benthamiana*), Oregon white oak (*Quercus garryana*), and Pacific yew (*Taxus brevifolia*), and any native tree with a DBH that is 36 inches or greater; and
 - 2. 1.5 times existing Tree Canopy for the following trees: Grand fir (*Abies grandis*), Douglas-fir (*Pseudotsuga menziesii*), or any native tree with a DBH that is 20 inches or greater and less than 36 inches.
 - 3. Tree Canopy multipliers shall not be applied when calculating the total Tree Canopy on the site. The multipliers shall be applied when calculating the Tree Canopy of preserved trees.
 - 4. Only one Tree Canopy multiplier shall be applied to an individual tree.

2. Tree Classifications. Table 60.61.15.1 indicates which trees are exempt from the tree preservation standards in this Subsection and which are eligible for meeting minimum tree preservation requirements.



Table 60.61.15.1. Tree Classifications for Minimum Tree Preservation Standards

| Tree Category | Exempt | Eligible |
|--|--------|--|
| Species | | |
| A. Native and non-native ¹ | No | Yes |
| Size | | |
| C. Low stature ² | Yes | No |
| D. Less than 6 inches DBH ³ | Yes | No |
| Type | | |
| E. Nuisance | Yes | No |
| F. Agricultural | Yes | No |
| Condition | | |
| G. Dying or Dead | Yes | Yes (Within Overlay) ⁴ , No (Outside Overlay) |
| H. Hazardous | Yes | No |
| Location | | |
| I. Within rights of way, right-of-way dedication areas, and public easements ⁵ | Yes | No |
| Notes | | |
| <ol style="list-style-type: none"> 1. A native or non-native tree that also qualifies as a Nuisance Tree, Agricultural Tree, Hazardous Tree, Dying Tree, Dead Tree, tree less than 6 inches DBH, or low stature tree is exempt from the minimum tree preservation standards in Section 60.61.15. 2. For the purposes of complying with Section 60.61.15, plant species that cannot attain a mature height of at least 16 feet or are not classified as trees. 3. Refers to existing trees on a site plan when a land use application is submitted for development review. 4. Applies to eligible trees. Although a tree that is dying or dead is exempt from preservation requirements, applicants shall receive 100 square feet of preserved Tree Canopy area towards minimum preservation requirements if they retain a dying or dead tree on site because it provides valuable wildlife habitat. 5. Public easements include pedestrian easements. | | |

3. Tree Preservation In-Lieu Fee. When development activity reduces existing on-site Tree Canopy below the standards set in 60.60.15.1, the preservation standard may be met through an in-lieu fee, provided for every square foot of removal below the standard. The amount of the in-lieu fee shall be established by City Council by resolution.

Commentary: 60.61.20 Minimum Tree Canopy Standards

Standards. This section provides a clear and objective way to provide minimum Tree Canopy coverage by following the standards. Here are some example scenarios to illustrate how meeting Tree Canopy standards can work:

1. An applicant can meet canopy targets by preserving all eligible trees on a site (according to Section 60.61.20.2), as outlined in the preservation section, if the site has existing Tree Canopy of a sufficient size to meet the standard.

2. An applicant could preserve all native trees in good or fair condition on a site, but if there aren't enough existing trees then the applicant will still need to plant new trees to meet the canopy target in Section 60.61.20.1.
3. An applicant could preserve some native trees in good or fair condition on a site and remove some trees, and then plant new native trees to make up for the tree removal and meet the canopy target in Section 60.61.20.1.

Eligible Trees. Trees that are eligible to count towards the Tree Canopy standard are listed. If a tree type is not listed below, then it shall not count toward the minimum Tree Canopy percentage.

Tree Inventory. A tree inventory will be required as part of the submittal for development applications. More detailed information regarding what content is required in the inventory will be included in updated applications published outside of the Development Code. For meeting minimum Tree Canopy standards, the expectation is that the inventory will require information such as the number and location of trees, the common name and scientific name of each tree, the DBH of each tree, and the Tree Canopy area.

Tree Canopy In-Lieu Fee. If applicants cannot meet minimum Tree Canopy standards for areas inside the Resource Overlay, then the applicant shall pay an in-lieu fee based on the difference between the overall Tree Canopy of eligible trees and 65 percent. Proposed Tree Canopy coverage shall not be less than 50 percent. This value is based on the fact that existing canopy coverage inside the Resource Overlay, excluding Cooper Mountain Nature Park is approximately 55 percent. If the proposed Tree Canopy coverage is above 50 percent, then the site may be able to provide similar ecological functions to predevelopment conditions.

60.61.20. Minimum Tree Canopy Standards.

1. Standards for Minimum Tree Canopy Percentages.

- A. Within the Resource Overlay on the site, the development shall provide Tree Canopy coverage over at least 65 percent of the site area from eligible trees identified in Section 60.61.20.2, unless applicants pay the in-lieu fee consistent with Section 60.61.20.3.
- B. For the purpose of the minimum Tree Canopy standards, Tree Canopy shall be calculated consistent with the following:
 1. For all native trees planted to satisfy the requirements of Section 60.37.45 or Section 60.61.20.1.A, Tree Canopy coverage shall be based on Mature Tree Canopy coverage.
 2. For all existing native trees that are less than 6-inch DBH, Tree Canopy coverage shall be based on Mature Tree Canopy coverage.
 3. For each preserved or planted Street Tree, 50 percent of the Mature Tree Canopy for each Street Tree within 12 feet of the site area within the Resource Overlay shall count towards minimum Tree Canopy coverage for the site.
 4. The site area subject to the 65 percent Tree Canopy coverage standard includes the gross site area within the boundaries of the Resource Overlay minus existing rights of way and right-of-way dedication areas.

2. Eligible Trees. The following trees shall count toward meeting minimum Tree Canopy percentages:

- A. On-site trees that are preserved to count toward Section 60.61.15 Minimum Tree Preservation Standards;

- B. Trees planted to meet the mitigation requirements in Section 60.37.45 for disturbances to the Resource Overlay shall count toward meeting the requirements of Section 60.61.20.1;
 - C. All native trees planted to satisfy the requirements of Section 60.61.20.1 that are identified on the City of Beaverton Tree List, excluding trees in the ash (*Fraxinus*) genus; native trees planted to satisfy tree planting requirements in Section 60.05; and trees planted to satisfy parking area landscaping requirements in Section 60.30.15.10.
 - D. Preserved or planted Street Trees;
 - E. Existing native trees that are less than 6-inch DBH provided they would otherwise be eligible trees according to this Subsection; and
 - F. Trees planted to satisfy vegetated corridor enhancement requirements from Clean Water Services or other natural resource mitigation actions required by another government agency.
3. **Tree Canopy In-Lieu Fee.** If a development proposes less than 65 percent Tree Canopy coverage of the site area, the applicant shall pay an in-lieu fee based on the difference between the overall proposed Tree Canopy coverage of eligible trees and 65 percent. Proposed Tree Canopy coverage shall not be less than 50 percent of the site area, except as allowed by the exceptions below. The amount of the in-lieu fee shall be established by the City Council by resolution.
- A. For any portion of the Resource Overlay where a 10-foot by 10-foot square cannot entirely fit inside the overlay, an applicant may pay an in-lieu fee for that portion of the overlay.
 - B. If a site only includes site area within the Resource Overlay coverage that meets the criterion in Subsection 3.1, an applicant may pay an in-lieu fee for the entirety of the area within the overlay.

Commentary: 60.61.25 Minimum Tree Preservation Guidelines

This section provides a discretionary way to meet minimum tree preservation percentages by following the guideline(s). Section 60.61.15 provides a clear and objective approach that relies on standards. Applicants may choose which option is most compatible with their proposed development.

Tree Inventory. A tree inventory will be required as part of the submittal for development applications. More detailed information regarding what content is required in the inventory will be included in updated applications published outside of the Development Code. The inventory will require information such as the number and location of trees, the common name and scientific name of each tree, the DBH of each tree, and the Tree Canopy area. See the commentary box for Section 60.61.15 Minimum Tree Preservation Standards to read more about considerations of alternative ways to measure Tree Canopy, as well as the cost and timing of arborist’s reports.

Tree Multipliers Provide Extra Preservation Credit for Certain Trees. When calculating how much Tree Canopy counts toward Tree Canopy preservation, the draft code includes rules for multipliers. Multipliers mean Tree Canopy preserved from high-value, native trees that are in good condition counts more toward the standard than other trees. Multipliers are proposed as an incentive for preservation. For example, using a multiplier for Oregon white oaks also has the benefit of allowing the lower density of oak canopy consistent with lower oak woodland habitat canopy levels.

Trees Vulnerable to Windthrow. Both Planning Commission and the community asked staff to consider how the draft code could address risks associated with trees vulnerable to windthrow. As a result, staff added new content to Sections 60.61.25.1.B.1.e and 60.61.25.1.B.2 that provide additional guidance when it comes to tree preservation inside and outside the Resource Overlay.

60.61.25. Minimum Tree Preservation Guidelines.

1. Guidelines for Minimum Tree Preservation Percentages.

- A. For eligible, on-site trees, the minimum tree preservation percentage shall be 50 percent of existing Tree Canopy for the overall site provided that each development:
 - 1. Preserves at least 65 percent of existing, on-site Tree Canopy within the Resource Overlay.
 - 2. Provides the balance of required preserved Tree Canopy inside or outside the Resource Overlay; and
 - 3. If a Parent Parcel meets the preservation requirement of Section 60.61.25.1.A at the time of Initial Development, Section 60.61.25.1.A shall be considered met for future development applications that do not involve removal of trees preserved consistent with Section 60.61.25.1.A.
- B. Each development shall meet the following requirements.
 - 1. Inside the Resource Overlay, each development shall prioritize preserving trees in the situations below if the site includes the habitat or tree species described:
 - a. To promote healthy and resilient forests and tree groves, the development shall:
 - i. Prioritize preservation of a mix of native tree species and ages; and
 - ii. Prioritize preservation of a mix of native tree sizes; and
 - iii. Prioritize preservation of native trees that have a low overall tree risk rating according to the ISA Basic Tree Risk Assessment Form (2017); and
 - iv. Preserve understory trees that support natural succession; and
 - v. Preserve understory shrubs, forbs/wildflowers, grasses, sedges, and ferns that provide food for wildlife, flowers for native pollinators, organic material to build healthier soil, and resiliency against invasion by foreign weeds; and
 - vi. Reasonably maintain the ecological functions of the existing forest.
 - b. Prioritize protection of Interior Habitat over Edge Habitat to enhance habitat connectivity by preserving more trees inside the Resource Overlay and adjacent to Clean Water Services vegetated corridor(s), unless tree removal is necessary to:
 - i. Provide access, through a road or bridge, to developable land; or
 - ii. Provide infrastructure to support development; or
 - iii. Result in a reasonable amount of land to accommodate new housing that meets the minimum required density when that land is not available outside the Resource Overlay; or
 - iv. Result in a reasonable amount of space to provide a public trail.
 - c. Prioritize preservation of all Oregon white oak (*Quercus garryana*) trees unless tree removal is necessary for the same reasons described in 60.61.25.1.B.1.a.
 - d. Preserve a special habitat of concern, such as oak woodland habitat, madrone woodland habitat, or prairie habitat.
 - i. The scientific justification for preserved Tree Canopy within the boundary of a special habitat of concern shall be determined by a knowledgeable and Qualified Professional, such as an arborist, wildlife biologist or habitat expert, and included in a report.

Attachment B

- ii. If applicants choose to meet the requirement in Subsection 60.61.25.1.B.1.d, they may also choose to meet the requirements in Subsection 60.61.25.1.B.2.c.
- e. Avoid or minimize the preservation of:
 - i. Trees vulnerable to windthrow near structures and facilities within striking range of the trees; or roads, walkways and trails frequently accessed by people; recognizing that some blowdown is important for the stand renewal process since fallen trees can facilitate the growth of understory vegetation and provide wildlife habitat. Characteristics that increase the likelihood of windthrow vary by species, and may include but are not limited to:
 - a. Low live crown ratio, the ratio of crown length to total tree height, or the percentage of a tree's total height that has foliage; and
 - b. A high tree height-to-diameter ratio; and
 - c. Shallow root systems, root girdling, or poor horizontal root growth, which limits the anchoring ability of the tree; and
 - d. Location on steep slopes, which may have shallow soils; and other areas prone to soil saturation or poor soil stability; and
 - e. Location in a thinned stand or stand adjacent to open landscapes, such as exposed slopes, ridges, clearcuts, water bodies or agricultural fields, where high winds may accelerate as they move over the landscape.
 - ii. Trees that are currently impacted by or could reasonably be impacted by pests, weeds, or disease outbreaks.
- 2. Outside the Resource Overlay,
 - a. Prioritize tree preservation in the order below based on classifications in Table 60.61.15.1.
 - i. Tree groves that consist only of native trees.
 - ii. Tree groves that consist of a mix of native and non-native trees.
 - iii. Native trees, unless preservation makes them vulnerable to root damage that may affect the stability of the native tree being preserved or windthrow, as described in 60.61.25.1.B.1.e.
 - iv. Non-native trees, unless preservation makes them vulnerable to root damage that may affect the stability of the non-native tree being preserved or windthrow, as described in 60.61.25.1.B.1.e.
 - b. Avoid or minimize the preservation of trees vulnerable to pests, weeds, disease outbreaks, or windthrow, as described in 60.61.25.1.B.1.e.
 - c. If applicants choose to meet the requirement in Subsection 60.61.25.1.B.1.d and extend the boundary of a special habitat of concern outside the Resource Overlay, they may do so if the boundary for a special habitat of concern outside the Resource Overlay is preserved by executing a deed restriction, such as a restrictive covenant. If applicants choose to meet this requirement, they shall also meet the requirements in Section 60.61.30.1.B.2.
- C. Tree Canopy multipliers listed in Section 60.61.15.3.B apply to this subsection.
- D. Tree Canopy calculation standards in Section 60.61.15.3.C apply to this subsection.
- E. Tree conditions in Section 60.61.12.3 apply to this subsection.

2. **Exempt Trees.** Trees exempt from tree preservation standards, and therefore not eligible to count towards meeting minimum tree preservation requirements, are listed in Section 60.61.15.2.
3. **Replacement.** Tree replacement is required for trees outside the Resource Overlay and shall be based on the square footage of existing Tree Canopy removed below the minimum tree preservation percentage of 50 percent for the overall site. Replacement shall be provided as an in-lieu fee. To determine replacement value, applicants shall subtract the percentage of preserved, on-site Tree Canopy inside the Resource Overlay from 50 percent. The amount of the in-lieu fee shall be established by the City Council by resolution.

Commentary: 60.61.30 Minimum Tree Canopy Guidelines

This section provides two discretionary options to provide minimum Tree Canopy coverage by following the guideline(s). Section 60.61.20 provides a clear and objective approach that relies on standards. Applicants may choose which option is most compatible with their proposed development.

During public engagement, some community members asked staff to consider the relationship between higher tree canopy requirements and potential wildfire risk. Staff met with Tualatin Valley Fire & Rescue (TVF&R) to review the draft code and discuss this issue. Since there is no wildland-urban interface in or near the Cooper Mountain Community Plan area, the overall wildfire risk is low. What matters to TVF&R is transportation access and water supply, which are well planned for in this area. Therefore, no additional code updates have been made with wildfire risk in mind, such as lower tree canopy requirements, requirements for fire-resistant plantings, or requirements for defensible space around homes.

60.61.30. Minimum Tree Canopy Guidelines.

1. Guidelines for Minimum Tree Canopy Percentages (Type 2)

- A. Through any combination of on-site tree planting and eligible tree preservation, each development shall provide 50 percent Tree Canopy for the overall site provided that:
 1. On-site tree plantings meet the following requirements:
 - a. If there are 17 or fewer required on-site tree plantings, then each development shall provide no more than 30 percent of any one species.
 - b. If there are at least 18 and less than 54 required on-site tree plantings, then each development shall provide no more than 25 percent of any one species.
 - c. If there are more than 54 on-site required on-site tree plantings, then each development shall provide no more than 20 percent of any one species.
 2. Trees planted to satisfy tree planting requirements in Section 60.61.30.1 are sited in locations where the slope, aspect and soil type are suitable for the long-term growth of the tree.
 3. Street Trees shall not count toward the minimum Tree Canopy requirements of Section 60.61.30.1.
 4. The development satisfies the mitigation requirements in Section 60.37.45, if applicable.
 5. The development is a single-phase development. Multi-phase developments shall comply with minimum Tree Canopy standards in Section 60.61.20.
 6. If a development consists of a parent parcel that provides 50 percent Tree Canopy at the time of initial development, Section 60.61.30 shall be considered met for future development applications not involving Tree Canopy plans that previously satisfied the requirements in Section 60.61.30.1.A.

- B. In addition, each development shall meet one of the following requirements or a combination of the following requirements to achieve 50 percent Tree Canopy for the overall site.
1. Plant on-site trees adjacent to the Resource Overlay. Prioritize tree plantings in locations where Tree Canopy outside the Resource Overlay will be contiguous with Tree Canopy inside the Resource Overlay at 15 years maturity. Trees planted to satisfy this requirement shall be preserved by placing them in a separate tract and executing a deed restriction, such as a restrictive covenant.
 2. Enhance Tree Canopy within a special habitat of concern, such as oak woodland habitat or madrone woodland habitat.
 - a. The scientific justification for optimal Tree Canopy within the boundary of a special habitat of concern, inside and outside the Resource Overlay, shall be determined by a knowledgeable and qualified natural resources professional, such as an arborist, wildlife biologist or habitat expert, and included in a report.
 - b. If applicants choose to meet this requirement, they shall also meet the requirements in Section 60.61.25.1.B.1.d, and if applicable, Section 60.61.25.1.B.2.c.
 - c. If the boundary for the landscape plan with a special habitat of concern on the overall site includes land outside the Resource Overlay, then the applicant shall preserve the contiguous area by executing a deed restriction, such as a restrictive covenant.
 3. Enhance vegetation within a special habitat of concern that, even when a healthy ecosystem, has few trees, such as prairie habitat.
 - a. The scientific justification for the amount and type of native plants within the boundary of a special habitat of concern, inside and outside the Resource Overlay, shall be determined by a knowledgeable and qualified natural resources professional, such as a landscape architect, ecologist, or horticulturist, and included in a report.
 - b. For the purposes of requirement B.3, the area inside the special habitat of concern shall be assumed to have 50 percent Tree Canopy when calculating Tree Canopy for the overall site.
 - c. If the boundary for the landscape plan with a special habitat of concern on the overall site includes land outside the Resource Overlay, then the applicant shall preserve the contiguous area by executing a deed restriction, such as a restrictive covenant.
 4. Complete a wildlife corridor for birds, small mammals, or large mammals outside the Resource Overlay.
 - a. The wildlife corridor shall connect at least two noncontiguous portions of the Resource Overlay and extend through a site by abutting two lot lines.
 - b. The design of the wildlife corridor shall be based on the species that is primarily intended to benefit from the corridor and illustrate features, including but not limited to, width, shape and distance, that are critical for safe passage within the corridor, in a report by a knowledgeable and qualified natural resources professional, such as a wildlife biologist or habitat expert.
 - c. The scientific justification for minimum Tree Canopy inside the boundary of the wildlife corridor (outside the Resource Overlay) at 15 years maturity shall be determined by a knowledgeable and qualified natural resources professional and included in a report.
 - d. All lighting inside of a wildlife corridor shall be wildlife friendly. This could include dark sky techniques that minimize glare, reduce light trespass and reduce light pollution, which collectively reduce disruptions to migratory pattern and breeding behaviors. If the photometric distribution of lighting outside of a wildlife corridor includes light that falls into a wildlife

corridor, then this lighting shall also employ wildlife-friendly techniques as determined by a knowledgeable and qualified natural resources professional and included in a report.

- e. All fencing inside of a wildlife corridor shall incorporate wildlife friendly design features. Fencing design shall be based on the species that is primarily intended to benefit and may include features such as a low height which allows wildlife to jump over the fence, large openings which make it easier for wildlife to move through the fence, removable gates that support seasonal migration and durable markers that enhance visibility.
- f. The boundary of the wildlife corridor outside the Resource Overlay shall remain outside the Resource Overlay after implementation. However, the applicant shall preserve the wildlife corridor by executing a deed restriction(s), such as a restrictive covenant.

2. Guidelines for Minimum Tree Canopy Percentages (Type 3)

A. Through any combination of on-site tree planting and eligible tree preservation, each development shall provide as much canopy as reasonably possible, but the minimum Tree Canopy percentage shall not be lower than 40 percent for the overall site, unless otherwise noted, provided that:

- 1. On-site tree plantings include a variety of tree species to promote diverse forests that are more resilient to pests, disease, extreme weather events and other disturbances.
- 2. Trees planted to satisfy tree planting requirements in Section 60.05 and trees planted to satisfy parking area landscaping requirements in Section 60.30.15.10 shall not count towards the minimum Tree Canopy requirements of Section 60.61.30.2.
- 3. Street Trees shall not count toward the minimum Tree Canopy requirements of Section 60.61.30.2.
- 4. The development satisfies the mitigation requirements in 60.37.45, as applicable.
- 5. The development is a single-phase development. Multi-phase developments shall comply with minimum Tree Canopy standards in 60.61.20.
- 6. If a development consists of a Parent Parcel that meets the guidelines in 60.61.30.2 at the time of Initial Development, then 60.61.30 shall not be applied to future development applications.

B. In addition, each development shall meet at least one of the requirements in subsection B.1-B.4.

- 1. Demonstrate that a site with more than 40 percent Tree Canopy presents a significant hazard or risk to a utility or infrastructure, either on site or adjacent to the overall site.
- 2. Demonstrate that a site with more than 40 percent Tree Canopy presents a significant hazard or risk because the topography or hydrology, either on site or adjacent to the overall site.
- 3. Provide a large open space or series of smaller open spaces that preserve land for sustainable landscapes that clean the air and water, add to the local food supply, restore habitats or provide similar environmental or ecological benefits. To meet this requirement, the applicant shall provide approximately 4,000 square feet of landscape, open space or natural area for every two acres of developable land; and dedicate this space(s) by executing a deed restriction(s), such as a restrictive covenant.

3. Eligible Trees

- A. Preserved trees that satisfy the requirements in Section 60.61.15 (Minimum Tree Preservation Standards) or Section 60.61.25 (Minimum Tree Preservation Guidelines);
- B. The listed Mature Tree Canopy area of planted, on-site trees in the Resource Overlay that are identified as native trees in the City of Beaverton Tree List, excluding trees in the ash (*Fraxinus*) genus, native trees planted to satisfy tree planting requirements in Section 60.05, and trees planted to satisfy parking area landscaping requirements in Section 60.30.15.10.

- C. The listed Mature Tree Canopy area of planted on-site trees outside the Resource Overlay that are on any of the lists in subsection 3.B, except for Nuisance Trees.
- D. 50 percent the canopy of planted or preserved Street Trees within 20 feet of the site;
- E. Preserved trees that are less than 6-inch DBH are eligible to count as Mature Tree Canopy provided they are not dead, dying or hazardous and would otherwise be eligible trees according to this subsection.

60.61.35. Technical Specifications for Tree Protection and Planting.

All proposed new development that includes trees that count towards preservation or canopy requirements in Sections 60.61.15 through 60.61.30 shall be protected or planted in accordance with the following requirements, with the exception of Street Trees which are subject to the City of Beaverton Tree Planting & Maintenance Policy, Beaverton City Code and Beaverton Engineering Design Manual.

Commentary: 60.61.35.1 Tree Protection Standards

Creates a clear and objective path and a discretionary path for a tree protection plan.

1. Tree Protection Standards

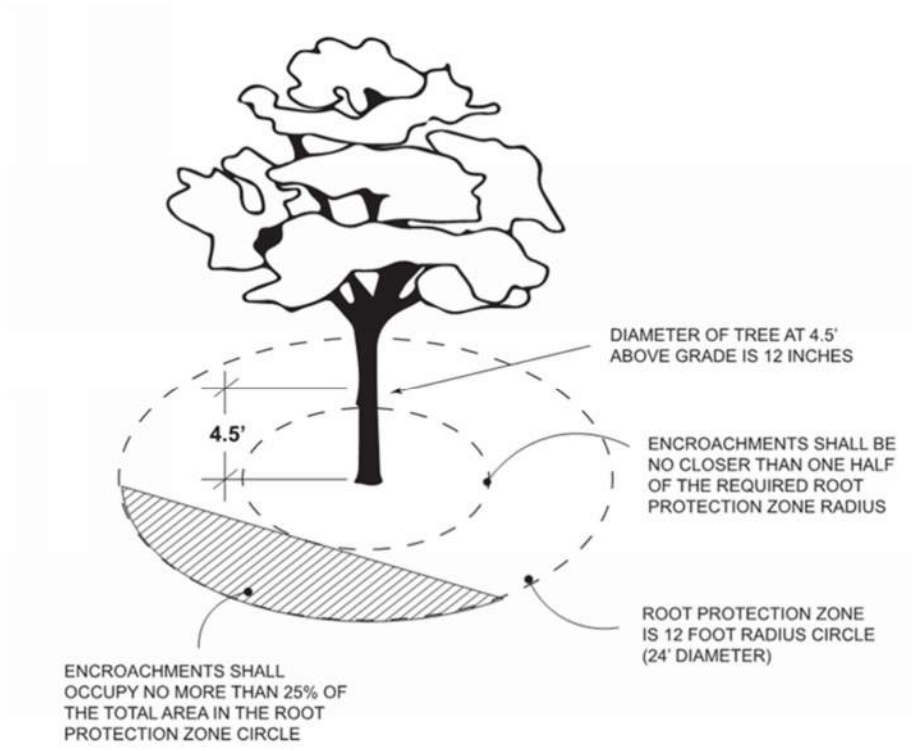
A tree protection plan by a Certified Arborist or Oregon Registered Landscape Architect shall demonstrate that it meets the requirements of Section 60.61.35. Tree protection methods and specifications shall be consistent with the American National Standards Institute (ANSI) A300 Tree Care Standards (2023) using either the standards in Section 60.61.35.1.A or guidelines in Section 60.61.35.1.B:

A. Standards for Tree Protection from Construction Impacts (Type 1)

1. Establish a root protection zone:

- a. For on-site trees and off-site trees with root protection zones that extend into the site – a minimum of 1 foot radius (measured horizontally away from the center of the tree trunk) for each inch of DBH. Root protection zones for offsite trees may be estimated if no access is available to measure the DBH.
- b. Existing encroachments into the root protection zone, including structures, paved surfaces and utilities, may remain.
- c. New encroachments into the root protection zone are allowed provided:
 - i. the area of all new encroachments is less than 25 percent of the remaining root protection zone area when existing encroachments are subtracted; and
 - ii. no new encroachment is closer than one-half the required radius distance (see Figure 60.61.35.1.A.1.c);

Figure 60.61.35.1.A.1.c: Root Protection Zone



d. The following is prohibited within the area of the root protection zone that is within one-half of the required radius distance from the tree:

- i. Ground disturbance or construction activity, including machinery, equipment or vehicles, but excluding access on existing streets or driveways,
- ii. Storage of equipment or materials, including soil,
- iii. Temporary or permanent stockpiling,
- iv. Proposed buildings,
- v. Impervious surfaces,
- vi. Underground utility transmission lines,
- vii. Excavation or fill,
- viii. Soil compaction and vegetation removal, unless approved by a Certified Arborist,
- ix. Trees used as rigs or anchors for stabilizing construction equipment,
- x. Construction or grading, unless there is a plan approved by a Certified Arborist and the area is inspected before, during, and after work by a Certified Arborist, and
- xi. Trenching or other work activities.

e. Installation of landscaping is not an encroachment if proposed work is approved by a Certified Arborist and entirely installed with hand tools. Any in-ground irrigation systems are considered encroachments.

2. Tree protection fence:

- a. The tree protection fence is required to be installed before any ground disturbing activities, including clearing and grading, or construction starts; and will remain in place until final inspection.
- b. Tree protection fencing consisting of a minimum 4-foot-high metal chain link or no-climb horse fence, secured with 6-foot metal posts shall be established at the edge of the root protection zone and permissible encroachment area on the site. Existing structures and/or existing secured fencing at least 3.5 feet tall can serve as the required tree protection fencing.
- c. When a root protection zone extends beyond the site, tree protection fencing is not required to extend beyond the development site.
- d. Signs designating the tree protection zone and describing penalties for violations shall be secured in a prominent location on each tree protection fence.

B. Guidelines for Tree Protection from Construction Impacts (2)

The applicant may propose alternative measures to modify the prescriptive root protection zone, provided the following standards are met:

1. The alternative root protection zone is prepared by a Certified Arborist who has examined the specific tree's size, location, and root system; evaluated the tree's tolerance to construction impact based on its species and health; and identified any past impacts that have occurred within the root protection zone.
2. The Certified Arborist has prepared a plan providing the rationale used to demonstrate that the alternate method provides an adequate level of protection based on the findings from the site visit.
3. The alternative root protection zone is marked with signage, stating that penalties will apply for violations, and providing contact information for the arborist.
4. If the alternative tree protection method involves alternative construction techniques, an explanation of the techniques and materials used shall be provided by the Certified Arborist.

Commentary: 60.61.35.2 Tree Planting Standards

The Tree Planting Standards section of the draft Development Code includes technical specifications that shall guide tree planting associated with development activity. For the ease of review, all associated standards are included in this draft code. In future updates, some of this content may be moved to either the City of Beaverton Tree Planting & Maintenance Policy or Engineering Development Manual. Among other things, both documents include additional specifications for Street Tree planting and when Street Tree planting will be completed by the City of Beaverton versus by the developer.

Species diversity requirements are loosely based on City of Portland diversity standards. Some are included to further increase species diversity. Other are to help protect against complete losses of trees due to pests, diseases, or other tree stressors.

2. Tree Planting Standards

A tree planting plan by a Certified Arborist or Oregon Registered Landscape Architect is required for trees on individual lots. Tree planting methods, specifications, and procedures shall be consistent with the ANSI A300 Tree Care Standards (2023) and applicable provisions of the City of Beaverton Tree Planting & Maintenance Policy.

- A. The minimum size of planted trees is 1.5-inch caliper for broadleaf trees and 5-foot tall for conifers unless otherwise approved by the City Arborist or required by Clean Water Services, the Department of State Lands, or

Army Corps of Engineers. Nursery stock shall be in good health with the size and quality consistent with ISA standards and the most current version of the ANSI Z-60.1 standards adopted by City Council.

B. The minimum spacing and setback requirements in Table 60.61.35.2.B shall be met based on Mature Tree Canopy coverage identified on the City of Beaverton Tree List unless otherwise specified in the City of Beaverton Tree Planting & Maintenance Policy, approved by the City Arborist, or required by Clean Water Services, the Department of State Lands, or Army Corps of Engineers:

Table 60.61.35.2.B. Minimum Spacing and Setback Requirements for Tree Plantings

| Spacing/Setback | Small Stature | Medium Stature | Large Stature |
|--------------------------------|---------------|----------------|---------------|
| between existing and new trees | 15 feet | 25 feet | 35 feet |
| from habitable buildings | 10 feet | 15 feet | 20 feet |
| from pavement | 2 feet | 3 feet | 4.5 feet |

* The City of Beaverton Tree Planting & Maintenance Policy supersedes any conflicting standards and specifications in this Code Section 60.61.

C. If there are 17 or fewer required on-site tree plantings, then they may all be the same species. If there are at least 18 and less than 54 required on-site tree plantings, then no more than 33 percent can be of one species. If there are 54 or more required trees, then no more than 25 percent can be of one species. This standard applies only to the trees being planted, not to existing trees that are preserved.

D. At least 25 percent of the required trees to be planted shall be conifers.

E. Root barriers shall be installed according to the manufacturer’s specifications when a tree is planted within 10 feet of pavement or an underground utility box unless otherwise approved by the City Arborist. The City of Beaverton Engineering Design Manual supersedes any conflicting standards in this requirement.

F. Irrigation shall be provided to ensure planted trees will survive their establishment period. Establishment period irrigation shall be provided through one of the following options or a combination of options:

1. A permanent, in-ground irrigation system with an automatic controller.
2. An irrigation system designed and certified by a licensed landscape architect as part of a landscape plan that provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if a licensed landscape architect certifies that the plants chosen can be adequately served by the proposed irrigation system.
3. Irrigation by hand.

G. Monitoring. The applicant is responsible for monitoring and maintaining tree plantings used to meet the requirements of Section 60.61.20 or 60.61.30 for three years following planting. The applicant shall submit an annual monitoring report to the city during the monitoring period, demonstrating that the minimum thresholds for plant survival and invasive species eradication on the site are being met.

1. On tree planting sites less than or equal to 0.25 acres in size, the monitoring report shall include:
 - a. Photos from fixed locations
 - b. Monitoring plan showing the location of plantings and photo points,
 - c. A complete census of installed tree plantings, and
 - d. A visual estimate of invasive plant coverage.

- e. Areas of invasive species removed and proposed trees to be replanted to meet the plant survival thresholds.
2. On tree planting sites greater than 0.25 acres in size, the monitoring report shall include:
 - a. Photos from fixed locations
 - b. Monitoring plan showing the location of plantings and photo points and monitoring plots,
 - c. Sampling data from permanent plots to estimate tree and invasive plant species coverage. A minimum of 5 sample plots shall be used for tree planting areas of two acres or less. An additional two sample plots shall be used for each additional acre of tree planting. Each sample plot shall cover at least 700 square feet.
 - d. Areas of invasive species removed and proposed trees to be replanted to meet the plant survival thresholds.

H. Plant Survival. During the monitoring period, if survival of trees drops below 80 percent of the initial required planting quantities, replacement trees shall be added to maintain 80 percent or greater survival of plantings. Prior to re-planting, the cause of plant mortality shall be determined and documented with a description of how the problem will be corrected.

I. Invasive Species. Invasive plant coverage shall not exceed 20 percent of the tree planting area or cover 25 square feet of contiguous area within the tree planting area. Invasive species that exceed these thresholds shall be removed prior to the submittal of the annual monitoring report.

Commentary: 60.61.35.3 Soil Volume Standards

Creates a clear and objective path and a discretionary path for providing a minimum soil volume standard of 1,000 cubic feet of soil volume per tree.

- The City of Tigard has required 1,000 cubic feet of soil volume per parking lot tree and from 400 to 1,000 cubic feet of soil volume per Street Tree since 2012.
- The City of Milwaukie requires 1,000 cubic feet of soil volume for all trees in their recently adopted code.
- James Urban, FASLA and creator of the Landscape Architectural Graphic Standard for tree/soil volume relationships, recommends cities create soil volume targets of 1,000 cubic feet per tree.

The city considered the option of creating soil volume minimums based on mature tree size of 300 cubic feet for small trees, 600 cubic feet for medium trees, and 1,000 cubic feet for large trees which is generally accepted in urban forestry. However, these small and medium tree standards could eliminate future opportunities to plant large trees, which are shown in peer-reviewed scientific studies to provide the most public benefits.

Therefore, the staff recommendation is to require 1,000 cubic feet of soil volume for all trees to increase current and future opportunities for large stature trees.

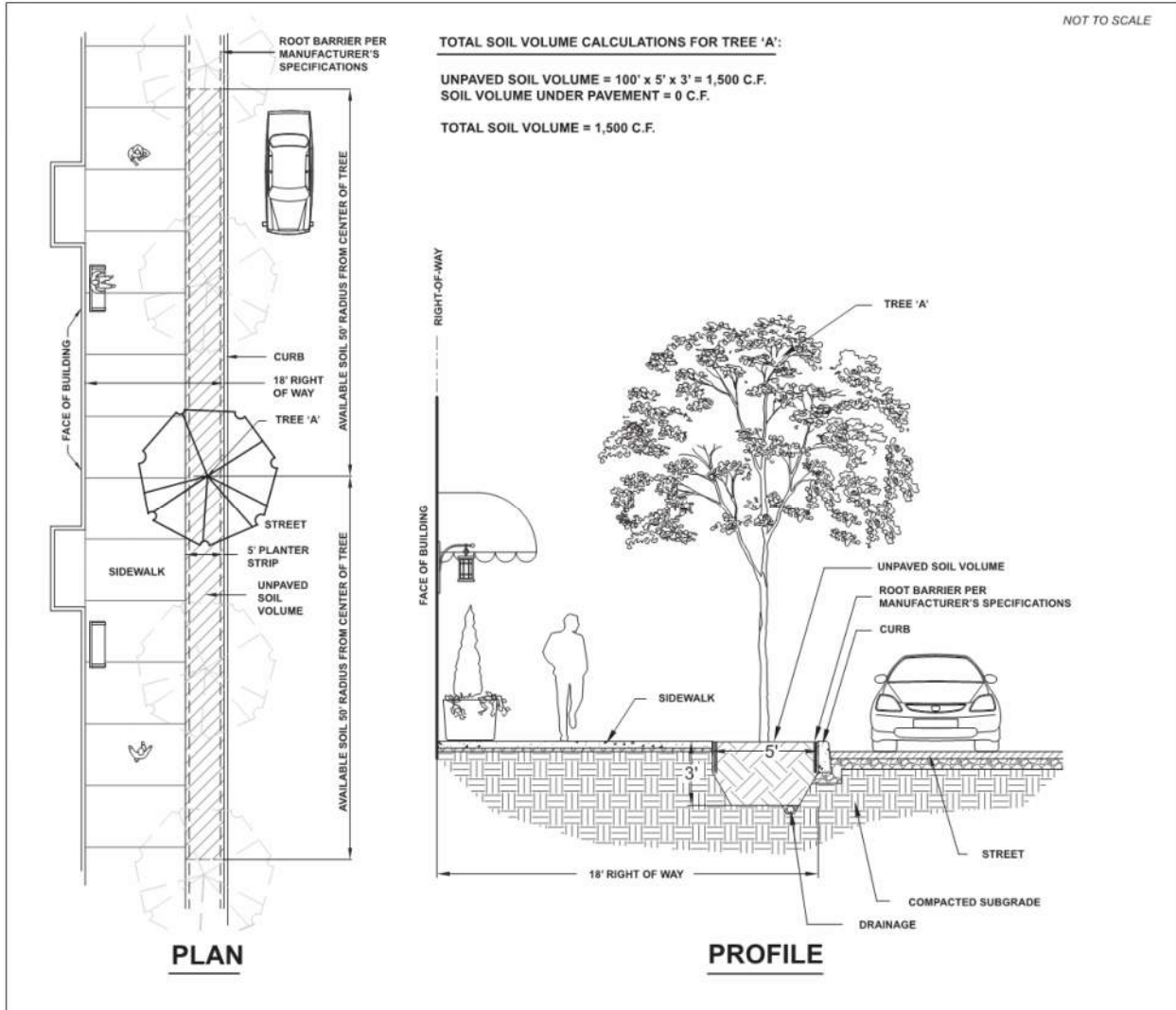
Figure 60.61.35.3.A provides an example of how to achieve larger soil volumes with root pathways under adjacent sidewalks so trees can access soils in front yard setbacks. This option is used in Tigard currently for achieving minimum soil volumes for Street Trees, and it can be applied to sidewalks and parking lots internal to large development sites.

3. Soil Volume Standards

A soil volume plan by a Certified Arborist or Oregon Registered Landscape Architect is required that demonstrates at least 1,000 cubic feet of soil volume is available per planted tree. Soil volume methods and specifications shall be consistent with the ANSI A300 Tree Care Standards (2023) using either the prescriptive path or performance path soil volume methods. A Certified Arborist shall verify the soil volume plan was successfully implemented prior to tree planting.

A. Standards for Soil Volume (Type 1) (see Figure 60.61.35.3.A for prescriptive path for soil volume example).

1. If a Certified Arborist provides a narrative and site plan that demarcates the surface area of existing soils at the site and abutting sites that are adequate to support healthy tree growth to maturity based on factors including but not limited to compaction levels, drainage, fertility, pH, and potential contaminants, the existing soils may be used to meet the soil volume requirements. The Certified Arborist shall estimate soils at abutting sites if access is not available.
2. For the purposes of calculating soil volume, the soil depth shall be assumed to be 3 feet unless a Certified Arborist confirms the soil depth is not 3 feet or provides a determination that the assumption should be different in the planting location. When the assumed depth of the soil volume is 3 feet, the surface area at ground level for the soil volume shall be at least 333 square feet per tree.
4. The surface area of the soil volume at ground level shall be contiguous and within a 50-foot radius of the tree to be planted. Contiguous surface areas shall be at least 5 feet wide for the entire area.
5. Trees may share an area with the same soil volume provided that all spacing requirements are met.
6. Soil volumes shall be protected from construction impacts through any combination of the following methods:
 - a. Soil protection fencing:
 - i. Fencing consisting of a minimum 4-foot-high metal chain link or no-climb horse fence, secured with 6-foot metal posts established at the edge of the soil volume area on the site. Existing secured fencing at least 3.5 feet tall can serve as the required soil protection fencing.
 - ii. When a soil volume extends beyond the site, soil protection fencing is not required to extend beyond the development site. Fencing at least 3.5 feet tall can serve as the required soil protection fencing.
 - iii. Signage designating the soil protection zone and penalties for violations shall be secured in a prominent location on each soil protection fence.
 - iv. Compaction prevention options for encroachment into soil volumes:
 - a. Steel plates placed over the soil volume area.
 - b. A 12-inch layer of course wood chips over geotextile fabric continuously maintained over the soil volume.
 - c. A 6-inch layer of crushed gravel over geotextile fabric continuously maintained over the soil volume.
7. Soil contaminants with the potential to damage trees or their root systems are prohibited from the soil volume.



B. Guidelines for Soil Volume (Type 2) (see Figure 60.61.35.3.A for performance path for soil volume example).

1. If the existing soils at the site and abutting sites are determined to be inadequate to support healthy tree growth to maturity based on factors such as compaction levels, drainage, fertility, pH, and potential contaminants prior to or resulting from development, a performance path soil volume plan is required. The Certified Arborist may estimate soils at abutting sites if access is not available.
2. Soils in areas of construction access that do not receive compaction prevention treatment and soils in areas of grading, paving, and construction are considered inadequate for tree growth unless a performance path soil volume plan is provided.
3. The performance path soil volume plan shall demonstrate the methods that will be used to provide at least 1,000 cubic feet of soil volume with the capacity to support healthy growth to maturity per tree to be planted.
4. Areas with soil volumes shall be contiguous, as close as practicable, and within a 50-foot radius of the tree to be planted. Contiguous soil volumes shall be at least 5 feet wide for the entire area.
5. Trees may share an area with the same soil volume provided that all spacing requirements are met.



6. The following items may be addressed in performance path soil volume plans but are dependent on specific site conditions and should be verified on a project basis in coordination with other knowledgeable and Qualified Professionals such as civil and geotechnical engineers, landscape architects, and soil scientists as needed:

a. Compaction Reduction

- i. tilling
- ii. backhoe turning
- iii. subsoiling

b. Soil Amendments

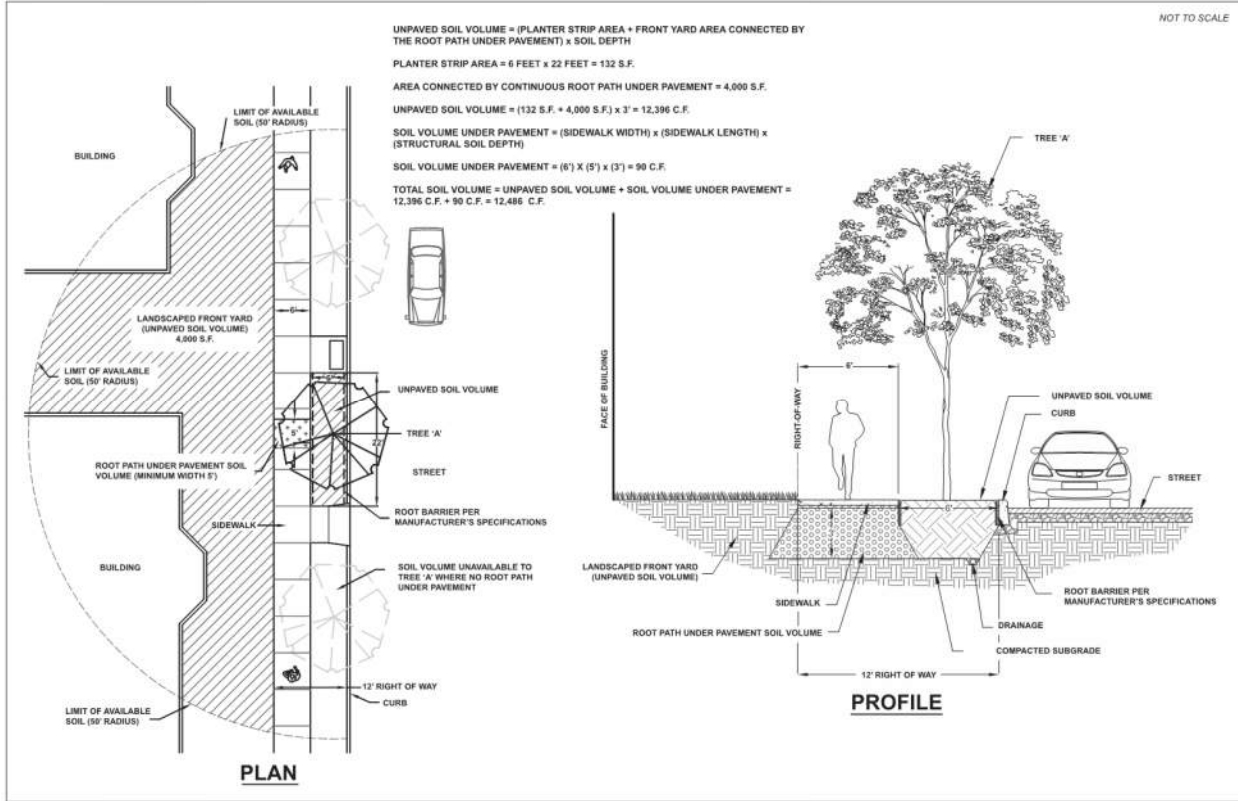
- i. organic amendments
- ii. mineral amendments
- iii. biological amendments
- iv. chemical amendments

c. Topsoil Replacement (when soil contamination or soil removal occurs)

d. Soil Under Pavement (see Figure 60.61.35.3.B for soil under pavement examples)

- i. structural soil cells
- ii. soils under suspended pavement
- iii. structural tree soils
- iv. soil vaults

7. If structural tree soils under pavement are used to provide over 50 percent of the required soil volume, the eligible soil volume from the structural tree soils may be discounted based on the percentage of soil within the structural tree soil mix. For limited uses of structural tree soils such as roots paths under sidewalks that contribute less than 50 percent of the required soil volume, the structural tree soil volume is not required to be discounted (see Figure 60.61.35.3.A for root path example).



Structural Cells

Modular manufactured cells that support pavement and are filled with loose soils that encourage root growth



Suspended Sidewalks

Sidewalks with a supporting understructure that allows loose root-friendly soils to be continued under the walk



Structural Soils

A blend of crushed rock and soil that is able to support pavement and can also support root growth



Commentary: 60.61.40 Tree Removal and Tree Maintenance

The tree removal and tree maintenance section applies to situations where rules pertaining to the Resource Overlay, minimum tree preservation and minimum Tree Canopy do not apply. Tree removal allowed by this section is covered by the tree and vegetation applications in Section 40.91.

60.61.40. Tree Replacement and Maintenance Standards.

1. Tree Replacement Standards

- A. Tree removal on lots less than 3,500 square feet developed with a single-detached or middle housing dwelling is exempt from tree replacement requirements of this Subsection.
- B. For every 6-inches of DBH removed, one replacement tree shall be planted. If the resulting number of required replacement trees is not a whole number, the number shall be rounded to the nearest whole number as follows: If the decimal is equal to or greater than 0.5, then the number is rounded up. If the decimal is less than 0.5, then the number is rounded down.
- C. If a report prepared by a Certified Arborist or the City Arborist determines that it is not possible to plant replacement trees consistent with the ratio in Section 60.61.40.1.B, tree replacement may be provided in part or in full as a fee-in-lieu payment. The amount of the in-lieu fee shall be specified in the Community Development In-Lieu Fee schedule.
- D. The minimum size of replacement trees shall be 1.5-inch caliper for broadleaf trees and 5-foot tall for conifers unless otherwise approved by the City Arborist or required by Clean Water Services, the Department of State Lands, or Army Corps of Engineers.
- E. Nursery stock shall be in good health with the size and quality consistent with ISA standards and the most current version of the ANSI Z60.1 standards adopted by City Council.
- F. Replacement trees shall be planted in a manner consistent with (ANSI) A300 Tree Care Standards (2023).
- G. For every tree removed, the replacement tree shall be capable of achieving the same or greater Mature Tree Canopy area as the removed tree.
- H. Replacement tree(s) shall be planted on the subject property or site.

2. Ongoing Maintenance: Trees that require an application pursuant to Section 40.91 to be removed or replaced shall be maintained according to (ANSI) A300 Tree Care Standards (2023). Maintenance requirements include:

- A. Proper pruning of branches and roots;
- B. Protection from damage from construction, vehicle parking, storage, waste, and contaminants (the City may condition tree protection measures when the City Arborist determines construction or development projects may impact trees);
- C. Watering for early tree establishment;
- D. Removal of vines and other vegetation growth that could result in tree death, smothering, or structural damage; and
- E. Replacement of trees that die.



Commentary: 60.61.45 Enforcement

The enforcement subsection mirrors the enforcement subsection in section 60.60 so that civil violation procedures are consistent with the rest of the Beaverton Development Code.

60.61.45. Enforcement.

A person found responsible for causing damage to a non-exempt, regulated tree in a manner inconsistent with ISA standards or for the removal of a non-exempt regulated tree in violation of the standards or guidelines set forth in Section 60.61, shall be subject to monetary penalties. In cases of unlawful removal, the person shall also replace the removed or damaged tree as set forth in the requirements of Section 60.61.35 and Section 60.61.40.

1. Monetary penalties imposed by a court of competent jurisdiction upon conviction for violating any provision of CHAPTER 60 Section 61 of this Ordinance shall be deposited into the City's Tree Mitigation Fund.

Attachment C

This document summarizes one aspect of the draft proposed Development regulations for Cooper Mountain. Visit www.BeavertonOregon.gov/CM for more information about the Cooper Mountain Community Plan project, including an overall draft code summary and draft proposed Development Code changes to implement Cooper Mountain.

Resource Overlay

What is the Resource Overlay?

The Resource Overlay indicates where additional environmental rules apply to achieve the Cooper Mountain Community Plan goals related to natural resources as well as to meet state and regional requirements. The Resource Overlay protects:

- streams and associated riparian areas;
- floodplains;
- wetlands;
- upland habitat (generally areas near streams/wetlands or important tree groves).

Inside the overlay, development rules are designed to:

- promote water quality
- control erosion,
- reduce sedimentation in streams;
- conserve the scenic, recreational, and educational value of natural resources;
- balance conservation and economic use by allowing reasonable economic use of property when resource impacts can be mitigated.

Where does the Resource Overlay Apply?

The Resource Overlay boundary is shown on the Cooper Mountain zoning map.

The overlay was applied to wetlands, water bodies (such as streams), areas near water bodies, and upland habitat (areas that provide wildlife habitat). These areas include Clean Water Services vegetated corridors, Class I and II riparian areas, and Class A and B upland habitat. More detail can be found in the Cooper Mountain Community Plan Natural Resources Report and Wetlands Inventory, which can be found at www.beavertonoregon.gov/CM.

The upland area classifications are based on the conditions at the time that Cooper Mountain was added to the urban growth boundary, which was Dec. 13, 2018. Areas of significant trees as of December 13, 2018, are included in the Resource Overlay.

Attachment C

The development rules related to the resource overlay allows property owners/developers to conduct on-site investigations of creek and wetland locations and apply for a boundary correction (see details in draft proposed Development Code Section 60.37.15). Applicants who believe the natural resources reports contain errors other than creek and wetland locations also can apply for changes through a discretionary process that requires Planning Commission approval.

What are the rules inside the overlay?

For most development, the development rules will limit how much land inside the overlay can be disturbed by development. The rules are found in Section 60.37 of the Development Code.

Generally:

- During land division, 80 percent of the Resource Overlay on the property will be required to be protected from disturbance and separated into its own lot (also called a tract) where future development will be not allowed (with exceptions such as for trails or utilities). See Section 60.37.30. Figure 1 shows an example lot with Resource Overlay covering part of the lot before a land division occurs and the tract is established to protect most of the overlay. Figure 2 shows that same example lot where a property owner has proposed development (which can include dividing land into lots for homes) and 80 percent of the Resource Overlay area is required to be protected in a separate lot.
- The remaining 20 percent of the overlay on the property can be disturbed if the property owner/developer mitigations the disturbance, such as by planting native plants to make up for the disturbance.
- Some smaller properties (where a land division is not required) that are fully or extensively covered with Resource Overlay would still have an opportunity for some development. The development rules would allow up to 6,000 square feet or disturbance areas in these cases. Mitigation is required. This is shown in Figure 3.
- Properties that are not developing will be allowed to continue with current uses. Existing structures, landscaping, and other prior developments are not affected by the overlay.

Attachment C

Figure 1: Existing lot with Resource Overlay on 75 percent of the lot

Resource Overlay on an existing lot

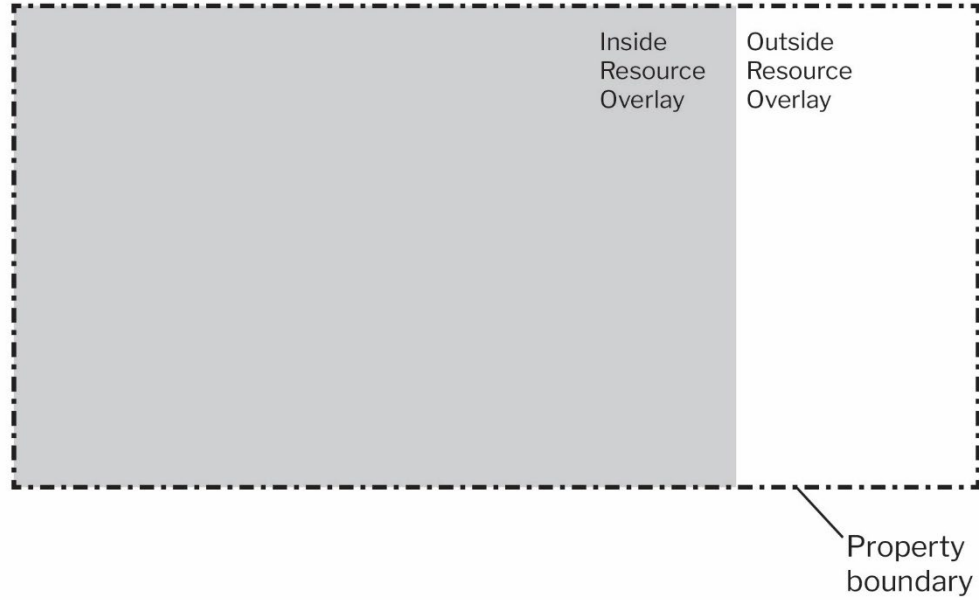
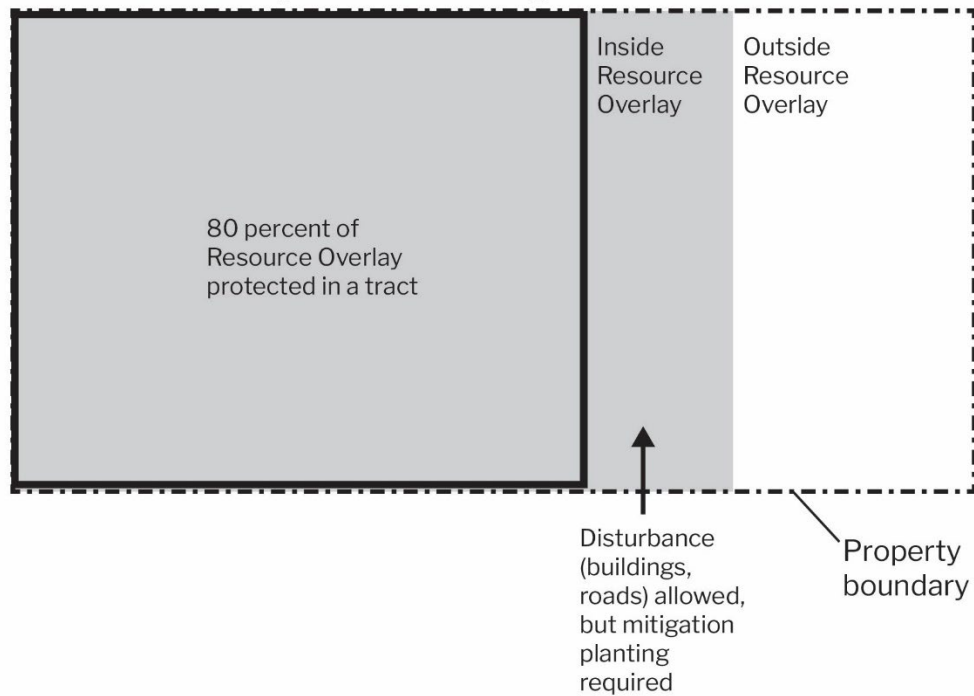


Figure 2: Example showing 80 percent of Resource Overlay protected in a tract

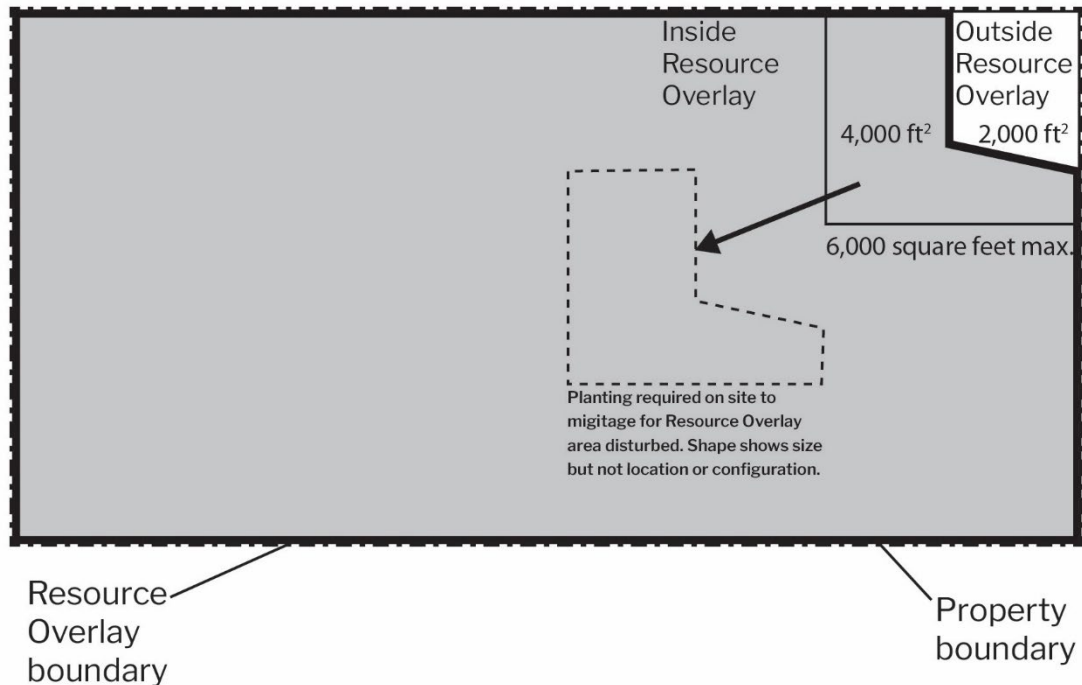
Resource Overlay: When creating new lots



Attachment C

Figure 3: Maximum disturbance area for development on existing lot mostly covered by Resource Overlay

Resource Overlay: Development on existing lot



Discretionary path

An alternative review process is available for property owners/developers that would like to propose an alternative approach to the land division process, the allowable disturbance areas, or the mitigation requirements.

Mitigation

Mitigation, including planting trees and shrubs, often is required when land in the Resource Overlay is disturbed regardless of the presence or quality of existing vegetation.

The development rules require the mitigation area to be at least as large as the disturbance area. Required planting is based on minimum numbers of trees and shrubs per 1,000 square feet of mitigation area. The applicant will be required to monitor plant survival for three years and replant if the survival rate drops below 80 percent. Mitigation rules are in Section 60.37.45.

The mitigation planting may occur within the Resource Overlay. The intent is to enhance and improve the habitat quality in the portions of the Resource Overlay that are being protected.