ATTACHMENT C

Draft Goal 5 Report:

Metro Urban Growth Management Functional Plan Title 13 Compliance

and

Economic, Social, Environmental, and Energy (ESEE) Analysis

Prepared for:

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Executive Summary

Washington County is proposing to amend its regulatory program for Riparian Wildlife Habitat and Upland Wildlife Habitat within the Urban Unincorporated Area (UUA); that area within the Metro Urban Growth Boundary (UGB) that is outside incorporated cities. When making updates to natural resource regulations, Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) directs local governments in Oregon to comply with Oregon Administrative Rule (OAR) 660, Division 23 (the "Goal 5 rule"). 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 Portland Metro region, the Goal 5 rule requires that local governments comply with the natural resource requirements in Metro's Urban Growth Management Functional Plan (UGMFP) Title 13 for those resources that Metro has determined are **Regionally Significant Resources**.

The Habitat Inventory Report (DEA, 2024) identified the following Significant Habitat within the UUA: 3,173 acres of Riparian Wildlife Habitat and 1,094 acres of Upland Wildlife Habitat. This report addresses compliance with UGMFP Title 13 for Regionally Significant Resources. For all other Significant Habitat identified in the Inventory, this report provides an ESEE analysis and program recommendations in compliance with the Goal 5 rule (these resources which Washington County found to be significant, but which are not Regionally Significant Resources, are referred to herein as "**Locally Significant Resources"**).

UGMFP Title 13 Compliance for Regionally Significant Resources

- Approximately 96% (3,041 acres) of Riparian Wildlife Habitat and 36% (398 acres) of Upland Wildlife Habitat within the UUA are classified by Metro as Regionally Significant Resources that are required to be protected in accordance with Title 13. Regionally Significant Upland Wildlife Habitat is found primarily within areas that were added to the Metro Urban Growth Boundary (UGB) after Dec. 28, 2005 (the adoption date of Title 13).
- The County is proposing updates to maps and regulations that will impact Regionally Significant Resources. These updates require findings that the County remains substantially compliant with Title 13 for Regionally Significant Resources, including Regionally Significant Upland Wildlife Habitat in areas added to the UGB after Dec. 28, 2005, and Regionally Significant Riparian Wildlife Habitat in all areas within the UUA.
- The analysis in this report finds that the proposed map and program changes affecting these Regionally Significant Resources are in substantial compliance with the requirements of Title 13.

Economic, Social, Environmental, and Energy (ESEE) Analysis for Locally Significant Resources

- An ESEE analysis evaluates the economic, social, environmental, and energy consequences of allowing, limiting, or prohibiting conflicting uses within significant resources and impact areas. The purpose of the ESEE analysis is to inform the program and help determine the policies and standards used to carry out the program decision. To do this, the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use must be analyzed for each conflicting use.

- A conflicting use is a land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal 5 resource.
- Approximately 829 acres of Upland Wildlife Habitat on land that was within the UGB prior to the adoption of Title 13 is being evaluated by Washington County as a Locally Significant Resource. This also includes a portion of the Riparian Wildlife Habitat (133 acres) that is expected to be outside of the verified Riparian Wildlife Habitat boundary but will be regulated as Upland Wildlife Habitat. These Significant Habitats are subject to the "standard" Goal 5 process which includes an ESEE analysis.
- The draft ESEE analysis for Upland Wildlife Habitat in this report uses a series of tables to consider trade-offs within six conflicting use categories. The draft ESEE analysis reaches the following conclusions:

Conflicting Use Category	**Conclusion whether to Allow, Limit or Prohibit Conflicting Use**
- High Intensity Urban (including commercial, industrial and mixed use districts) - Parks/Open Space - Utilities - Transportation	**Allow** Conflicting Use within Upland Wildlife Habitat
- Other Urban (including most urban residential districts) - Non/Future Urban	**Lightly Limit** Conflicting Use within Upland Wildlife Habitat

Contents

I. Introduction and Overview

For many years Washington County has had a program to protect significant natural resources, including fish and wildlife habitat such as wetlands and streams and some forested areas, as required by Statewide Planning Goal 5. In recent years there have been changes to the state requirements for these types of programs brought about, in large part, by the housing crisis. These include changes to needed housing statutes in ORS 197 related to planning within urban growth boundaries and the types of regulations that can be applied to protect natural resources. As a result of these changes, the County must update how it implements its Goal 5 program to continue to protect these significant Goal 5 resources, particularly for the area within the Metro regional Urban Growth Boundary (UGB).

When making updates to natural resource regulations, Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces (Oregon Administrative Rule (OAR) 660-015-0000(5)) directs local governments in Oregon:

> *…to adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. These resources promote a healthy environment and natural landscape that contributes to Oregon's livability.*

OAR 660, Division 23 (the "Goal 5 rule") establishes procedures and requirements for complying with Goal 5, including preparation of an ESEE analysis to help evaluate potential changes. Within the Metro region, the Goal 5 rule also requires that local governments comply with the natural resource requirements in Metro's Urban Growth Management Functional Plan (UGMFP), Title 13 (Nature in Neighborhoods).

Therefore, this report addresses both compliance with UGMFP Title 13 and the necessary ESEE analysis, where applicable.

OAR 660-023-0040(1) Local governments shall develop a program to achieve Goal 5 for all significant resource sites based on an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use…

The ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected.

NOTE: The acreages in this report are estimates based on the Draft Washington County Habitat Inventory Report (DEA, July 2024) and other GIS data. The data is subject to change (e.g., due to new information related to annexations). Also note that the numbers in the table have been rounded to the nearest whole number.

II. UGMFP Title 13 Compliance

A. Background

In 2005, the Metro Council voted to approve a regional Nature in Neighborhoods program (including Title 13 of the UGMFP) to meet the requirements of Goal 5, an Oregon statewide planning goal for Riparian Corridors and Wildlife Habitat. This means that for regionally significant Riparian Corridors (OAR 660-023-0090) and Wildlife Habitat (OAR 660-023-0110) within Metro's boundary, Washington County must comply with the Metro functional plan rather than the standard provisions of the Goal 5 rule.

OAR 660-023-0800(3) "…Upon acknowledgment of Metro's regional resource functional plan, local governments within Metro's jurisdiction shall apply the requirements of the functional plan for regional resources rather than the requirements of this division.

Metro conducted a habitat inventory and adopted a Regionally Significant Fish and Wildlife Habitat Inventory Map and the underlying GIS data that the map represents. The map identifies the areas that have been determined to contain regionally significant fish and wildlife habitat. The map divides habitat into two general categories, riparian and upland wildlife. As a part of the adoption process Metro Council considered the results of the ESEE analysis of the consequences of protecting or not protecting the habitat, public input, technical review, and the Metro Council's subsequent decision to balance conflicting uses in habitat areas.[1] When adopting Title 13 (effective date of Dec. 28, 2005), the Metro Council designated as "Habitat Conservation Areas (HCA)[2]" regionally significant riparian habitat (Class I and II) that was within the Metro boundary at that time. The Metro Council also determined that Regionally Significant Upland Wildlife Habitat (Class A and B) that was outside of the Metro UGB at that time would be designated as HCA when those areas were brought within the Metro UGB.

In 2005, the County coordinated with cities in the County, Clean Water Services, the Tualatin Hills Park & Recreation District (THPRD) and Metro, to adopt a comprehensive program for the protection of fish and wildlife habitat in the Tualatin Basin to comply with Metro's new Goal 5 mandate. This group, the Tualatin Basin Partners, conducted a Goal 5 ESEE analysis of the portion of Metro's Inventory for Washington County located near and within the UGB, including all waterways that feed the Tualatin River. The results of that analysis led to the "Tualatin Basin Program." Washington County complied with the requirements of Title 13 through participation in the Tualatin Basin Program pursuant to Title 13 (3.07.1330(b)(5)). The County adopted policies and minor changes to Community Development Code (CDC) Section 422 that implemented and demonstrated substantial compliance with Title 13.

Updates to the natural resource inventory and regulations impacting regional resources require findings that the County remains substantially compliant with Title 13 for Regionally Significant Resources, including Regionally Significant Upland Wildlife Habitat in areas added to the UGB after the effective date of Title 13 (Dec. 28, 2005), and Regionally Significant Riparian Wildlife Habitat in all areas within the UGB. For Regionally Significant Resources subject to Title 13, no further ESEE analysis is required.

[1] Title 13 ESEE Analyses, Metro Ordinance 05-1077C, Attachments 3 (Phase I ESEE) & 4 (Phase II ESEE) to Exhibit F.

[2] "Habitat Conservation Area" or "HCA" means an area identified on the Habitat Conservation Areas Map and subject to the performance standards and best management practices described in Metro Code section 3.07.1340.

Title 13 does not preclude local governments from identifying additional riparian and wildlife habitat resources. However, for proposed amendments to natural resource standards and maps that either impose greater limits on development than those already found to be in substantial compliance or that include other additional resource areas, Title 13 (3.07.1330(a)) requires that the jurisdiction follow the standard Goal 5 rule and seek acknowledgement of such provisions from the Land Conservation and Development Commission (LCDC) or treat such provisions as post-acknowledgement plan amendments under ORS chapter 197.[3]

B. Findings of Substantial Compliance with UGMFP Title 13

Title 13 (3.07.1330(b)) includes several implementation alternatives for cities and counties to demonstrate substantial compliance with Title 13. In compliance with subsection 3.07.1330(b)(5), as a member of the Tualatin Basin Natural Resources Coordinating Committee (TBNRCC), Washington County amended its comprehensive plan and implementing ordinances[4] to comply with the maps and provisions of the TBNRCC Goal 5 Program (the "Tualatin Basin Program"), subject to the intergovernmental agreement entered into between Metro and the TBNRCC (see page 8 for UGMFP 3.07.1330(b)(5) which lists the conditions of the Tualatin Basin approach). **As summarized below, the map and program changes currently proposed will not negatively impact Washington County's compliance with Title 13.**

Draft Habitat Inventory

The purpose of the updated inventory and determination of significance is to reflect the best available data on the location of natural resources, and to recognize the changes in the landscape that have occurred since the natural resources were first inventoried by Washington County and Metro. Changes to the inventory are detailed in the Draft Washington County Habitat Inventory Report (DEA, July 2024). Changes include removing areas that have been developed, annexed, or are no longer significant due to habitat patch size or other factors.

The updated inventory incorporates Metro's habitat data as it is more recent and more accurate than the County's original Significant Natural Resources inventory, which was developed in the 1980s. The updated inventory also adjusts the mapped boundaries of the County's water-related resource areas for accuracy

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[3] UGMFP 3.07.1330(a)

(1) A city or county shall apply the requirements of division 23 of OAR chapter 660 in order to adopt comprehensive plan amendments or land use regulations that (i) would otherwise require compliance with division 23 of OAR chapter 660 but for the adoption of this title (i.e., amendments or regulations adopted to protect Goal 5 resources), and (ii) will limit development in areas not identified as riparian habitat on the Inventory Map, unless such provisions (a) are part of a program intended to comply with Metro Code Section 3.07.1330(b)(3) and apply only to areas identified as upland wildlife habitat on the Inventory Map (i.e., they do not apply to areas not identified as habitat); or (b) apply to areas identified as Class A or B upland wildlife habitat on the Inventory Map that are brought within the UGB after December 28, 2005. Such a city or county shall seek acknowledgement of such provisions from LCDC or treat such provisions as post-acknowledgement plan amendments under ORS chapter 197;…

(3) After a city or county has demonstrated that it is in substantial compliance with the requirements of this title, if the city or county wishes to adopt comprehensive plan amendments or land use regulations applicable to areas identified as riparian habitat on the Inventory Map that have the effect of imposing greater limits on development than those imposed by provisions that are in substantial compliance with the requirements of this title, such a city or county shall comply with the provisions of division 23 of OAR chapter 660, and shall seek acknowledgement of such provisions from LCDC or treat such provisions as post-acknowledgement plan amendments under ORS chapter 197.

[4] Implementing ordinance (Ord. No. 662) adopted on Oct. 24, 2006.

and qualitative classification of the Riparian Wildlife Habitat to align with Metro's SNR Riparian Habitat Class I and II. Combining these distinct but overlapping inventories results in a consolidated County inventory update within the map refinement area. Also, inventories of resources in new urban areas that have been updated by the County or cities in accordance with UGMFP Title 11 have been incorporated where available.

Code Concepts – Title 13 Compliance

Table II-1, below, summarizes the estimated acreage of Significant Habitat (Riparian and Upland) subject to Title 13 compliance. The acreage data in Table II-1 is based on the County's Habitat Inventory Report.

Table II-1 Significant Habitat subject to Title 13 Compliance

Category	Acres	Approach
Riparian Wildlife Habitat (3,173 acres as shown on the County's Inventory) – all resources on the County inventory were also identified by Metro as regionally significant Riparian Habitat (Class I and II)		
Riparian Wildlife Habitat within a verified Riparian Wildlife Habitat boundary (area comparable to CWS vegetated corridor) on all lands within the UGB	3,041 (est.)*	Habitat within a verified Riparian Wildlife Habitat boundary will continue to follow the Tualatin Basin Program in all areas within the UGB. The specific standards depend on whether the resource is within the CWS service area boundary or not. See assessment of **Title 13 compliance** below. No further ESEE analysis is required.
Riparian Wildlife Habitat outside verified Riparian Wildlife Habitat boundary on land within UGB on Dec. 28, 2005	133 (est.)*	Where Metro-mapped regionally significant Class I and II Riparian Wildlife Habitat boundaries are wider (i.e., they extend further from the water resource) than a verified Riparian Wildlife Habitat boundary, the extended area is proposed to remain Significant Habitat, but be regulated as Upland Wildlife Habitat. On land within the UGB on Dec. 28, 2005, an estimated 5% of Riparian Wildlife Habitat is evaluated in the **ESEE analysis** as Upland Wildlife Habitat (5% of 2,650 acres Riparian Wildlife within the UGB on Dec. 28, 2005). See Part III of this report.
Upland Wildlife Habitat (1,094 acres as shown on the County's Inventory) – includes both regionally significant Upland Wildlife Habitat (Class A and B) and locally significant Upland Wildlife Habitat		
Upland Wildlife Habitat on land within UGB on Dec. 28, 2005	696	This Upland Wildlife Habitat is evaluated in the **ESEE analysis**. See Part III of this report.
Upland Wildlife Habitat on land added to the UGB after Dec. 28, 2005	398	This Upland Wildlife Habitat is subject to Title 13 and no further ESEE analysis is required. See assessment of **Title 13 compliance** below.
* Because the verified riparian boundary (area comparable to CWS vegetated corridor) is not determined until the time of development, it is not possible to know how many acres of Riparian Wildlife Habitat are outside of the verified Riparian Wildlife Habitat boundary. The verified boundary may be wider or narrower than the Significant Riparian Habitat boundary shown on the Inventory map. Based on a sample of sites where data is available, it appears that approximately 95% of Riparian Wildlife Habitat on land within UGB on Dec. 28, 2005, shown on the County's Inventory will fall within a verified Riparian Wildlife Habitat boundary.		

Regionally Significant Riparian Wildlife Habitat (Class I and II):

- For the estimated 3,041 acres of Class I and II Significant Riparian Wildlife Habitat within a verified Riparian Wildlife Habitat boundary, the regulatory approach will continue to follow the Tualatin Basin Program outlined in UGMFP 3.01.1330(b)(5) to ensure protection of these resources.
    - Conflicting uses within a verified Riparian Wildlife Habitat boundary will be limited by the standards of CDC Section 422.
    - For approximately 74% of Riparian Wildlife Habitat that is within the CWS service boundary, CWS standards for vegetated corridors will apply.
    - For the approximately 26% of Riparian Wildlife Habitat outside the CWS service boundary, in most cases development opportunities are limited by the Farm/Forest, Rural, and Future Development land use districts. In addition, tree inventory and preservation standards in CDC Section 422 are proposed as a replacement for the current discretionary standards. This approach is expected to provide a level of protection for these resources that is comparable to the Tualatin Basin Program.
- For the estimated 133 acres where the mapped Riparian Wildlife Habitat boundaries are wider (i.e., they extend further from the water resource) than the verified Riparian Wildlife Habitat boundary (comparable to CWS vegetated corridor), the extended area is proposed to remain Significant Habitat, but be regulated as Upland Wildlife Habitat. Some additional protection for habitat (mature native trees) is proposed within the extended area (see ESEE analysis, program recommendations on page 41).

Table II-2. All Mapped Riparian Wildlife Habitat by CWS Status and Land Use Category

Conflicting Use / Land Use Categories	**Mapped Riparian Wildlife Habitat**		
	Within CWS Service Boundary (acres)	**Outside of CWS Service Boundary (acres)**	**Total (acres)**
High Intensity Urban (HIU)			
Commercial (including NC, OC, CBD, GC, and NCC NB districts)	16	0	16
Industrial (including IND and MAE districts)	95	37	132
Mixed Use and Regional Centers, Town Centers, Station Areas, Employment Areas, Corridors (including Transit Oriented Districts: TO: R40-80, TO:R80-120, TO:RC, TO:EMP, TO:BUS; Pedestrian-Oriented Mixed Use Districts: CCMU and NMU; and North Bethany District: NCMU NB)	44	0	44
Institutional: INST - Portland Community College, Rock Creek Campus	*	*	*
Other Urban (OU)			
Residential single-family and multi-family (including R-5, R-6, R-6 NB, R-9, R-9 NB, R-15, R-15 NB, R-24, R-24 NB, R-25+, and R-25+ NB	1,814	81	1,895

Conflicting Use / Land Use Categories	Mapped Riparian Wildlife Habitat		
	Within CWS Service Boundary (acres)	Outside of CWS Service Boundary (acres)	Total (acres)
districts and Transit Oriented Districts: TO:R9 -12, TO:R12-18, TO:R18-24, TO:R-24-40)			
Other (INST district and INST NB - other than PCC Rock Creek Campus	288*	0	289*
Non-Urban/Future Urban (NFU)			
Farm/Forest (including EFU, EFC, AF-20 districts)	3	63	66
Rural (including RR-5, AF-5, AF-10 districts)	0	12	12
Future Development (including FD-10, FD-20 districts)	90	629	719
Parks/Open Space	**	**	**
Total Acres	2,351	822	3,173

* Title 13 (3.07.1340 (e)(B)(i)(9) designates PCC Rock Creek Campus, which has a land use designation of INST as High Urban Value.
** Parks and Open Space occur in a variety of land use districts. Of the 3,173 acres of Riparian Wildlife Habitat, an estimated 861 acres are in parks and natural areas, cemeteries, and homeowner association open space. An additional 228 acres are in golf courses, schools and other open space.

Regionally Significant Upland Wildlife Habitat (Class A and B):

- With limited exceptions[5], the 696 acres of Upland Wildlife Habitat on land within the Metro UGB on Dec. 28, 2005, are not required by Title 13 to be protected. Regionally Significant Upland Wildlife Habitat that was in the Metro UGB on or before Dec. 28, 2005, received no Habitat Conservation Area (HCA) designation in Title 13 (Table 3.07-13a). Therefore, local governments are not required to establish regulations to protect these resources. However, while Title 13 does not direct local governments to establish a regulatory program to protect these resources, Washington County is not precluded from doing so based on its own ESEE analysis (see Section III, ESEE Analysis).

- The 398 acres of Upland Wildlife Habitat (Class A and B) that was added to the Metro UGB after Dec. 28, 2005, received a Metro HCA designation of “moderate” or “high” in Title 13 (Table 3.07-13a). Therefore, regulations will ensure substantial compliance with the provisions of Metro Code Section 3.07.1330(b)(1) to (b)(3).
    - As shown in Table II-3, development opportunities are limited by the Farm/Forest, and Future Development land use districts.

[5] The exception is certain publicly owned parks and open spaces. Pursuant to UGMFP Table 3.07-13a: Method for Identifying Habitat Conservation Areas ("HCA"). All Class A and B upland wildlife habitat in publicly-owned parks and open spaces, except for parks and open spaces where the acquiring agency clearly identified that it was acquiring the property to develop it for active recreational uses, shall be considered High HCAs.

- Tree inventory and preservation standards in CDC Section 422 are proposed which are higher than for other areas within the UGB. The amount of tree preservation and replacement is proposed to be 80% of the tree points. This reflects the Metro designation of these areas as "moderate" or "high" HCA.

Table II-3. All Mapped Upland Wildlife Habitat by UGB Status and Land Use Category

Land Use Categories	**Mapped Upland Wildlife Habitat**		
	On land within UGB on Dec. 28, 2005 (acres)	**On land added to UGB after Dec. 28, 2005 (acres)**	**Total (acres)**
High Intensity Urban (HIU)			
Commercial (including NC, OC, CBD, GC and NCC NB districts)	1	0	1
Industrial (including IND and MAE districts)	9	0	9
Mixed Use and Regional Centers, Town Centers, Station Areas, Employment Areas, Corridors (including Transit Oriented Districts: TO: R40-80, TO:R80-120, TO:RC, TO:EMP, TO:BUS; Pedestrian-Oriented Mixed Use Districts: CCMU and NMU; and North Bethany District: NCMU NB)	13	0	13
Institutional: INST - Portland Community College, Rock Creek Campus	*	*	*
Other Urban (OU)			
Residential single-family and multi-family (including R-5, R-6, -6 NB, R-9, R-9 NB, R-15, R-15 NB, R-24, R-24 NB, R-25+, and R-25+ NB districts and Transit Oriented Districts: TO:R9 -12, TO:R12-18, TO:R18-24, TO:R-24-40)	389	0	389
Other (INST district and INST NB - other than PCC Rock Creek Campus and public parks)	119*	0*	119
Non-Urban/Future Urban (NFU)			
Farm/Forest (including EFU, EFC, AF-20 districts)	0	31	31
Rural (including RR-5, AF-5, AF-10, R-IND districts)	0	0	0
Future Development (including FD-10, FD-20 districts)	166	366	532
Parks/Open Space	**	**	**
Total Acres	**696**	**398**	**1,094**

* Title 13 (3.07.1340 (e)(B)(i)(9) designates PCC Rock Creek Campus, which has a land use designation of INST as High Urban Value.
** Parks and Open Space occur in a variety of land use districts. Of the 1,094 acres of Upland Wildlife Habitat, an estimated 394 acres are in parks and natural areas, cemeteries, and homeowner association open space. An additional 63 acres are in golf courses, schools and other open space.

Other Measures

In compliance with the Tualatin Basin Program, Washington County will continue its partnership with Clean Water Services (CWS) to implement the Healthy Streams Plan and the other measures prescribed in UGMFP 3.07.1330(b)(5), including:

- Comply with the six steps identified in section B of Chapter 7 of the Tualatin Basin Program.
- Renew and extend partnership to implement the projects on the Healthy Streams Project List and target projects that protect and restore Class I and II Riparian Wildlife Habitat, including habitat that extends beyond the Clean Water Services "vegetated corridors."
- Adopt provisions to facilitate and encourage the use of habitat-friendly development practices, where technically feasible and appropriate, in all areas identified as Class I and II Riparian Wildlife Habitat areas on the Metro Regionally Significant Fish and Wildlife Habitat Inventory Map.
- Adopt provisions to allow for the reduction of the density and capacity requirements of Title 1 of the UGMFP. These provisions apply only to properties that were within the Metro UGB on Jan. 1, 2002; require the protection of regionally significant habitat on the property, such as via a public dedication or restrictive covenant; and allow only for a reduction in the minimum number of units required to be built based on the amount of area protected.
- Comply 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 UGB after Dec. 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 the requirements of 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; and
- Comply with the monitoring and reporting requirements of Metro Code Section 3.07.1360.

III. ESEE Analysis Process and Considerations

An ESEE analysis evaluates the economic, social, environmental, and energy consequences of allowing, limiting, or prohibiting conflicting uses within significant resources and impact areas.

The four steps in the standard ESEE process are as follows:

A. Identify conflicting uses
B. Determine the impact area
C. Analyze the ESEE consequences
D. Develop a program to achieve Goal 5

A. Conflicting Uses

The first step in the ESEE analysis is to identify conflicting uses that "exist or could occur" within significant resource areas or within their identified impact areas.[6] Identifying conflicting uses is important in order to focus the ESEE consequences analysis on various land uses and related disturbance activities that may negatively impact significant resources.

Under the Goal 5 rule, a conflicting use is a "land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal 5 resource" [OAR 660-023-0010(1)].

A wide range of disturbance activities can occur throughout urban Washington County. However, the degree to which these disturbances occur, and their impacts to Goal 5 resources, depends in large part on the intensity of land use (e.g., low density residential vs. mixed-use town centers), and the form and layout of development (cluster development vs. evenly distributed development). The Goal 5 rule (OAR 660-23-040(5)) allows a jurisdiction to "address each of the identified conflicting uses, or it may address a group of similar conflicting uses."

Governments are directed to examine land uses allowed outright or conditionally within the land use districts applied to the resource site and in its impact area. If a local government finds that no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are "no conflicting uses" must be based on the applicable land use district rather than ownership of the site (OAR 660-023-0040(2)).

In the 2005 ESEE analysis prepared by the TBNRCC, conflicting uses were grouped into four Conflicting Use Categories. Each of the four original categories represented a group of conflicting uses (land uses) with the potential for similar impacts to the significant resource and its impact area. These categories were specific to the Tualatin Basin, but also coordinated with Metro's ESEE analysis at the regional level.

The new approach (shown in Table III-1) updates the conflicting use categories used in the 2005 Tualatin Basin ESEE analysis with some modifications to reflect the focus of this 2024 ESEE on urban unincorporated Washington County. The previous conflicting uses are revised and expanded to create six conflicting use categories -- three based on the four in the 2005 Tualatin Basin ESEE analysis (with minor modifications and the combination of two of the categories into one) and three new categories (open space, utilities,

[6] OAR 660-023-0040(2) Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site.

transportation). The three new categories are intended to allow the County to better evaluate the unique impacts of those activities.

Table III-2 identifies the amount of Significant Habitat (Upland and Riparian Wildlife Habitat outside of a verified Riparian boundary) in the High Intensity Urban (HIU), Other Urban (OU), and Non-Urban /Future Urban (NFU),. The Utilities and Transportation Facilities conflicting use categories are not included as separate line items in Table III-2 because they are distributed across all land use districts. However, they can represent a significant amount of the land area (e.g., 20 - 25% or more in urban areas).

*Table III-1. Conflicting Use Categories and Associated Disturbance Activities**

Category	Corresponding General Land Use Designations (Districts)	Characterization and Impacts	Commonly Associated Disturbance Activities
High Intensity Urban (HIU)	Commercial (including NC, OC, CBD, GC and NCC NB (North Bethany) districts) – Industrial (including IND and MAE districts) – Mixed Use and Regional Centers, Town Centers, Station Areas, Employment Areas, Corridors (including Transit Oriented Districts: TO: R40-80, TO:R80-120, TO:RC, TO:EMP, TO:BUS; Pedestrian-Oriented Mixed Use Districts: CCMU and NMU; and North Bethany District: NCMU NB) – INST - Portland Community College, Rock Creek Campus	High potential for impacts to regionally significant riparian corridor and upland wildlife habitat resources due to the intensity of activity and the existing or expected amount of impervious surface area due to increased lot coverage and larger buildings. Also, there is a high expectation for development or redevelopment in these areas.	– Vegetative clearing and removing native soil – Grading, filling, soil compaction, excavation, and hauling – Placement of impervious surfaces by constructing buildings, sidewalks, driveways, parking areas – Stream modification, including channelization, piping, and increasing capacity for flood control. – Landscaping with exotic or non-native vegetation (e.g., establishment of lawns, addition on nonnative landscape features – trees, shrubs, groundcover, etc.) – Creation of barriers to wildlife movement by constructing fences, buildings, etc. – Water usage and groundwater draw-down Exterior light/glare and noise; 24/7 human activity – Temporary construction activities – Direct impacts to wildlife – physical and behavioral (e.g., roadkill, habituation to human food) – Litter, toxins, heavy metals and other pollutants – Pesticides, herbicides, and fertilizer use – Pet ownership
Other Urban (OU)	– Residential single-family and multi-family (including R-5, R-6, R-6 NB, R-9, R-9 NB,R-15, R-15 NB, R-24, R-24 NB, R-25+, and R-25+ NB districts and Transit Oriented Districts: TO:R9 -12, TO:R12-18, TO:R18-24, TO:R-24-40) – Other (INST district and INST NB - other than PCC Rock Creek Campus and public parks)	Medium potential for impacts to regionally significant riparian corridor and upland wildlife habitat resources and medium to low expectation for development or redevelopment.	– Same as HIU except lower impact for most activities. Key differences include: o Generally lower rates of vegetation clearing, impervious surface area, stream modification, grading/fill/soil compaction, toxins/heavy metals o Somewhat less nighttime noise and human activity o Generally higher rates of landscaping, pesticides/herbicides/fertilizer use, and pet ownership
Non-Urban /Future Urban (NFU)	Typically, within Urban Growth Boundary (UGB) Expansion Areas – Farm/Forest (including EFU, EFC, AF-20 districts)	Low potential for impacts to regionally significant riparian corridor and upland wildlife habitat resources from increases in impervious surface area, but more potential for impact from loss of habitat	– Landscaping and crop raising with non-native vegetation. – Water usage and groundwater draw-down, primarily for irrigation. – Stream/hydrology modification due to irrigation activity – Creation of barriers to wildlife movement by constructing fences, roads, or other physical infrastructure or utilities

Category	Corresponding General Land Use Designations (Districts)	Characterization and Impacts	Commonly Associated Disturbance Activities
	– Rural (including RR-5, AF-5, AF-10 districts) – Future Development (including FD-10, FD-20 districts)	due to agricultural practices under current designations. There is a high expectation for development in these areas and a corresponding potential for future protection upon annexation.	– Direct impacts to wildlife – physical and behavioral (e.g., roadkill, hunting/trapping, habituation to human food sources) – Toxins, heavy metals and other pollutants – Pesticides, herbicides, and fertilizer use – Pet ownership and livestock raising – Noise, vibration, light, etc. from mining (gravel quarries), shooting ranges, contractor yards and other uses permitted in rural areas – Relatively low impacts from placement of impervious surfaces due to development
Parks/Open Space	These uses/activities can occur in any land use district, including the INST district and State and Regional Park Overlay District. They include active and passive parks and open space, trail corridors, and similar facilities.	Typically has a relatively small amount of impervious area. May cause erosion and damage to vegetation from construction, maintenance. Use of pesticides and fertilizer in maintained areas may affect water quality.	– Direct impacts to wildlife, primarily from human activity (e.g., roadkill, noise, presence of pets, human food sources) – Vegetative clearing for trails – Sports and recreation facilities o Vegetative clearing o Landscaping with non-native species o Pesticides, herbicides, and fertilizer use o Water usage o Impervious surfaces from parking and other sport facilities o Lighting and glare, noise
Utilities	Utilities can occur in any land use district. They include facilities for water, wastewater, electricity, natural gas, communications and similar services.	Although operation of existing facilities may have few adverse environmental effects, construction and maintenance practices for new basic utilities have some adverse effects associated with clearing or grading. Where facilities include a building or parking area, impacts are similar to commercial development. Activities may include installation and maintenance of utilities such as sewers and stormwater pipes/piping control structures and building sewer pump stations and water towers.	– Vegetative clearing for utility lines and facilities – Grading and soil compaction for construction/siting of certain facilities – Creation of barriers to wildlife movement by constructing fences and linear utility facilities – Disruption of habitat connectivity through fragmentation of intact habitat patches – Temporary or routine construction and maintenance activities and associated noise, vegetation clearing, and potential erosion/soil removal
Transportation Facilities	Transportation facilities can occur in any land use district (including the Private Use Airport Overlay Zone and Public Use Airport Overlay District).	Transportation infrastructure and facilities may create barriers to wildlife movement. Often entails vegetation clearing, soil removal and/or compaction, grading, filling, excavation and hauling. Generates	– Vegetative clearing and removing native soil – Grading, filling, soil compaction, excavation and hauling – Placement of impervious surfaces from road construction – Construction and maintenance activities

Category	Corresponding General Land Use Designations (Districts)	Characterization and Impacts	Commonly Associated Disturbance Activities
		toxins, heavy metals, and other pollutants. May include stream crossings (i.e., bridges) and culvert installation. Adds impervious surfaces from road construction and other transportation facilities.	– Barriers to wildlife movement and disruption of habitat connectivity through fragmentation of intact habitat patches – Direct physical impacts to wildlife (e.g., noise, light/glare, roadkill) – Stream crossings (e.g. bridges), installing culverts – Toxins, heavy metals and other pollutants

* NOTE: The Washington County CDC does allow some additional conflicting uses through the use of overlay districts, including:

Aggregate and Mineral Resources – The Mineral and Aggregate Overlay District (Section 379) protects significant mineral and aggregate resources for future use, to provide for their development and utilization consistent with Goal 5. It is only the mining or quarrying of these resources that causes significant impacts to riparian and wildlife habitat. The impacts from mining and quarrying include vegetative clearing and removal of native soil, excavation and hauling, construction and mining activities (noise, light/glare, dust) and barriers to wildlife movement and disruption of habitat connectivity through fragmentation of intact habitat patches and fencing. However, the Mineral and Aggregate Overlay District must be applied to a site in order to allow commercial mining or quarrying. Section 379 requires site specific consideration of significant natural resources for each site at the time the overlay district is applied. Pursuant to subsection 379-4.2.F. "If existing conflicting uses are identified, the applicant shall provide a program based upon the economic, social, environmental and energy consequences analysis that will minimize any negative effects of the mineral and aggregate resource related activities on the identified conflicting uses;…." Therefore, consideration of the ESEE consequences of allowing, limiting or prohibiting this conflicting use is addressed on a case-by-case basis for each aggregate and mineral resource site at the time the Mineral and Aggregate Overlay District is applied.

In considering the conflicting uses, the ESEE considers the implications for jobs, housing and "ecosystem services," and a wide range of other factors (see page 17 for discussion of ecosystem services).

High Intensity Urban (HIU)

The High Intensity Urban (HIU) category includes the County's primary employment lands and two highest density land use districts.

Commercial Districts

- Neighborhood Commercial (NC) intended "…to allow small to medium sized shopping and service facilities and limited office use."
- Office Commercial (OC) intended "…to encourage office complex development of institutional, professional, medical/dental, governmental and other office business uses."
- Community Business District (CBD) intended "to provide the community with a mix of retail, service and business establishments on a medium-to-large-scale."
- General Commercial (GC) intended "…to provide for commercial land to serve the traveling public and to provide for commercial uses which require large sites and a high degree of visibility."
- Neighborhood Corner Commercial – North Bethany (NCC NB) allows small shopping and service uses with residential uses allowed above ground floor retail or office uses.

Industrial and Employment Districts

- Industrial (IND) intended "…to provide sites for all types of industrial uses, to provide for the recognition and regulation of existing industrial sites and to provide the regulatory framework for future industrial development…."
- Land Extensive Industrial District (MAE) intended to "provide land for farm and forest related uses needed to support the natural resource base and consistent with the rural character and level of services."

Mixed Use

- Transit Oriented Retail Commercial District (TO:RC) allows a wide range of office and commercial uses; manufacturing uses are not allowed.
- Transit Oriented Business District (TO:BUS) allows a wide range of office and commercial uses; manufacturing uses are not allowed.
- Transit Oriented Employment District (TO:EMP) allows a wide range of office uses and manufacturing uses; commercial uses are limited.
- Community Core Mixed-Use District (CCMU) allows Professional and Administrative Offices and Service Businesses and commercial uses (with limits on the size of commercial uses).
- Neighborhood Mixed-Use District (NMU) allows Professional and Administrative Offices and Service Businesses and commercial uses (with greater limits on the size of commercial uses).
- Transit Oriented Residential District, 40-80 units per acre (TO:R40-80) – In addition to high density residential, a range of office uses are also allowed.
- Transit Oriented Residential District, 80-120 units per acre (TO:R80-120) – In addition to high density residential, a range of office uses are also allowed.
- Neighborhood Commercial Mixed Use District – (NCMU NB) allows services and retail goods, high density attached multi-family residential uses may be allowed on upper floors.

Institutional (INST): Portland Community College, Rock Creek Campus

- Portland Community College, Rock Creek Campus located at 17865 NW Springdale Rd., Portland is listed by Metro in UGMFP 3.07.1340(e)(B)(i) as "… owned by a regionally significant educational or medical facility and, for that reason, should be designated as of high urban development value because of the economic contributions the facility provides to the citizens of the region."

Other Urban (OU)

The availability of land for housing is an important consideration. The County's two highest density land use districts (TO:R40-80 and TO:R80-120) are categorized as High Intensity Urban; however, most of the residential land in the County is categorized as Other Urban.

Residential

- R-5 District (Residential 5 Units per Acre)
- R-6 District (Residential 6 Units per Acre) and R-6 NB
- R-9 District (Residential 9 Units per Acre) and R-9 NB
- R-15 District (Residential 15 Units per Acre) and R-15 NB
- R-24 District (Residential 24 Units per Acre) and R-24 NB
- R-25+ (Residential 25 Units or More per Acre) and R-25+ NB
- Transit Oriented Residential District, 9-12 units per acre (TO:R9-12)
- Transit Oriented Residential District, 12-18 units per acre (TO:R12-18)
- Transit Oriented Residential District, 18-24 units per acre (TO:R18-24)
- Transit Oriented Residential District, 24-40 units per acre (TO:R24-40)

Institutional (INST): Not including PCC Rock Creek and Existing Public Parks and Open Space

- INST district and INST NB - In some cases, schools, fire stations and other public facilities are designated Institutional, although those uses can occur in other land use districts as well (e.g., schools are commonly found in lower density residential districts). The OU category does not include Public Parks and Open Space as these tend to have a different pattern of disturbance activities. PCC Rock Creek was not included in OU as it was identified by Metro as being of particular economic significance (as noted above).

Non-Urban/Future Urban (NFU)

The land use districts in the NFU category do not allow higher intensity "urban" levels of development. While these districts do provide some housing, they offer relatively limited opportunities to develop new housing. They do provide opportunities for some types of employment. Upland Wildlife Habitat on lands that were added to the UGB after Dec. 28, 2005, are subject to the requirements of Title 13 and not evaluated as a part of the ESEE analysis.

- Farm/Forest (including EFU, EFC, AF-20 districts)
- Rural (including RR-5, AF-5, AF-10 districts)
- Future Development (including FD-10, FD-20 districts)

Parks / Open Space

Parks and open space can occur in a wide range of land use districts. However, they have been categorized separately as they are associated with a distinct set of disturbance activities. In addition, Metro emphasized

the importance of protecting parks and open space. UGMFP Table 3.07-13a states that "*All Class A and B upland wildlife habitat in publicly-owned parks and open spaces, except for parks and open spaces where the acquiring agency clearly identified that it was acquiring the property to develop it for active recreational uses, shall be considered High HCAs.*"[7]

Of the 1,094 acres of Upland Wildlife Habitat, an estimated 394 acres are in parks and natural areas, cemeteries, and homeowner association open space. An additional 63 acres are in golf courses, schools and other open space.

Utilities and Transportation Facilities

Utilities and transportation facilities occur in all land use districts. However, they have been categorized separately as they are associated with a distinct set of disturbance activities. While the exact acreage is not known, these types of facilities can represent a significant amount of the land area (e.g., 20 - 25% or more in urban areas).

Table III-2 identifies Significant Habitat that is the subject of the ESEE analysis. The ESEE analysis evaluates:

- Significant Upland Wildlife Habitat on land within UGB on Dec. 28, 2005.
- Significant Riparian Wildlife Habitat outside a verified Riparian Wildlife Habitat boundary on all lands within the UGB. As noted in Table II-1, where regionally significant Class I and II Riparian Wildlife Habitat boundaries are wider (i.e., they extend further from the water resource) than a verified Riparian Wildlife Habitat boundary, the extended area is proposed to remain Significant Habitat, but be regulated as Upland Wildlife Habitat.

Table III-2.
Significant Habitat subject to the ESEE Analysis by Conflicting Use/Land Use Category

Conflicting Use / Land Use Categories	**Upland Wildlife Habitat** on land within UGB on Dec. 28, 2005 **(acres)**	**Riparian Wildlife Habitat Outside of Verified Boundary** on land within UGB on Dec. 28, 2005 **(acres (est.))**	**Total Significant Habitat Subject to ESEE Analysis**
High Intensity Urban (HIU)			
Commercial (including NC, OC, CBD, GC, and NCC NB districts)	1	1	2
Industrial (including IND and MAE districts)	9	6	15
Mixed-Use (including Transit Oriented Districts: TO: R40-80, TO:R80-120, TO:RC, TO:EMP, TO:BUS; Pedestrian-Oriented	13	2	15

[7] A "Habitat Conservation Area" or "HCA" means an area identified on Metro's Habitat Conservation Areas Map and subject to the performance standards and best management practices described in UGMFP Title 13. HCAs are classified as "High," "Moderate," or "Low" with High HCAs requiring the greatest degree of protection.

Conflicting Use / Land Use Categories	**Upland Wildlife Habitat** on land within UGB on Dec. 28, 2005 **(acres)**	**Riparian Wildlife Habitat Outside of Verified Boundary** on land within UGB on Dec. 28, 2005 **(acres (est.))**	**Total Significant Habitat Subject to ESEE Analysis**
Mixed Use Districts: CCMU and NMU; and North Bethany District: NCMU NB)			
INST district: Portland Community College, Rock Creek Campus, 17865 NW Springdale Rd., Portland	*	*	*
Other Urban (OU)			
Residential single-family and multi-family (including R-5, R-6, R-6 NB, R-9, R-9 NB, R-15, R-15 NB, R-24, R-24 NB, R-25+, and R-25+ NB districts and Transit Oriented Districts: TO:R9 -12, TO:R12-18, TO:R18-24, TO:R-24-40)	389	94	484
INST and INST NB districts (not including PCC Rock Creek and public parks)	119*	14*	133
Non-Urban/Future Urban (NFU)			
Farm/Forest (including EFU, EFC, AF-20 districts)	0	0	0
Rural (including RR-5, AF-5, AF-10 districts)	0	0	0
Future Development (including FD-10, FD-20 districts)	166	14	180
Parks/Open Space	**	**	**
Total Acres	**696**	**133**	**829**

* Title 13 (3.07.1340 (e)(B)(i)(9) designates PCC Rock Creek Campus, which has a land use designation of INST as High Urban Value.
** Parks and Open Space occur in a variety of land use districts. Of the 696 acres of Upland Wildlife Habitat on land within the UGB on Dec. 28, 2005, an estimated 394 acres are in parks and natural areas, cemeteries, and homeowner association open space. An additional 63 acres are in golf courses, schools and other open space.

Ecosystem Services

As Statewide Planning Goal 5 notes: “These resources promote a healthy environment and natural landscape that contributes to Oregon's livability.” However, the value of natural resources, such as Significant Habitat, can be difficult to fully capture and quantify. The National Geographic Society defines an “ecosystem” as “a geographic area where plants, animals, and other organisms, as well as weather and

landscape, work together to form a bubble of life."[8] Ecosystem services are commonly defined as benefits people obtain from ecosystems. The Millennium Ecosystem Assessment[9] – a four-year United Nations assessment of the condition and trends of the world's ecosystems - categorizes ecosystem services as:

- Provisioning Services or the provision of food, fresh water, fuel, fiber, and other goods;
- Regulating Services such as climate, water, and disease regulation as well as pollination;
- Supporting Services such as soil formation and nutrient cycling; and
- Cultural Services such as educational, aesthetic, and cultural heritage values as well as recreation and tourism.

For example, mature trees are beneficial because they intercept at least 30% of precipitation that falls on the canopy, filter stormwater, help prevent erosion, support nutrient cycling, and provide shade that cools the air and stormwater runoff. In addition, native trees have essential, highly specialized relationships with pollinators (birds and insects) that ultimately provide the foundation of our food supply.

In addition to providing habitat, trees also increase property values and help support adaptation to climate change and carbon sequestration. Further, mitigating for the removal of mature trees is difficult as it can take decades for new trees to provide equivalent benefits. A 2021 report, The Economic Footprint and Quality-of-Life Benefits of Urban Forestry in the United States,[10] found that trees provide a $73 billion benefit to society from environmental benefits including carbon sequestration, reduced air pollution, and reduced stormwater runoff. Another recent study in Northern California found that living in areas with higher levels of tree canopy can reduce health care costs.[11]

B. Impact Area

The impact area is to be drawn to include only the area in which allowed uses could adversely affect the identified resource. This defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site. In addition, any regulatory program that may result from the Goal 5 process is limited to those areas mapped as significant resource sites or impact areas.

In the 2005 Tualatin Basin ESEE analysis, two types of Impact Areas were identified:

- *Inner Impact Areas. The inner impact areas are comparable to the impact areas established by Metro for the purposes of the Regional ESEE analysis. They include:*
    - *The area within 150 feet of a stream, wetland or lake that is not within a significant resource site; and*

[8] National Geographic Encyclopedic Entry: "Ecosystem." https://education.nationalgeographic.org/resource/ecosystem/
[9] http://www.millenniumassessment.org/en/Index.aspx

[10] Prepared for the Arbor Day Foundation, 2021 https://www.arborday.org/urban-forestry-economic/

11 Environment International Volume 163, May 2022, 107174 "Association between residential green cover and direct healthcare costs in Northern California: An individual level analysis of 5 million persons" https://www.sciencedirect.com/science/article/pii/S0160412022001003?via%3Dihub

- *The area within 25 feet of Wildlife Habitat and HOC* [Habitats of Concern[12]] *significant resource sites and within 25 feet of the edge of remaining Riparian Corridor significant resource sites (not already covered in first part)*

- *Outer Impact Areas. The outer impact areas include all land within the Tualatin Basin ESEE Study Area which is not within a resource or an inner impact area. Establishing outer impact areas supports a watershed approach and may be utilized in the management of overall Effective Impervious Area within the Basin. Literature cited throughout Metro's work establishes a nexus between the levels of general development throughout watersheds to the viability of significant resources. For example, Booth and Jackson, 1997, establish that altered hydrology and increased impervious surfaces increase flooding and damage streams.*

  Recognizing that riparian corridor and wildlife habitat health is the responsibility of the entire watershed will enable the impacts of any eventual program to be more equitably shared among beneficiaries and property owners.

The 2005 Tualatin Basin ESEE analysis identified both an inner and outer impact area, as noted above. The Inner Impact Area was primarily applicable to Riparian Wildlife Habitat. The Outer Impact Area, while focused on hydrological impacts, did include both Riparian and Upland Wildlife Habitat. This 2024 ESEE analysis is focused on Upland Wildlife Habitat, so for consistency, the 2024 ESEE analysis retains the same Outer Impact Area. The 2005 Tualatin Basin ESEE analysis found that given the large amount of land within the Outer Impact Area, conflicting uses should be allowed, and the focus of future programs in the Outer Impact Area should emphasize education and outreach, voluntary stewardship, development incentives for low-impact and green design approaches, and similar non-regulatory approaches. The 2024 ESEE analysis remains consistent with this finding and approach.

C. Analysis of the ESEE Consequences

The purpose of the ESEE analysis is to inform the program and help determine the policies and standards used to carry out the program decision. To do this, the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use must be analyzed for each ESEE category of conflicting uses. While an ESEE analysis does incorporate available research, there is also a reliance on qualitative considerations, for example based on community values and policies. A systematic approach can be helpful to organize and synthesize the data so that the public and decision-makers can more easily evaluate the trade-offs and suggest additional considerations.

ESEE analyses are intended to help communities consider and balance the trade-offs of allowing, limiting or prohibiting conflicting uses. To do this, the ESEE analysis in Section IV uses a series of tables and identifies the expected net effect of either allowing, limiting or prohibiting the conflicting use as either positive (+1), neutral (0) or negative (-1). The fifth table under each scenario reflects the cumulative end result (either positive, neutral or negative) of the preceding tables. The approach is summarized below.

[12] Title 10 of the Metro Urban Growth Management Functional Plan defines Habitats of Concern as follows: "Habitats of Concern" means the following unique or unusually important wildlife habitat areas as identified based on cite specific information provided by local wildlife or habitat experts: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

Scenario A - Allowing conflicting uses within the resource and impact areas. In evaluating the consequences of **allowing** conflicting uses, the assumption is that significant resources would be subject to the conflicting uses allowed by base zone regulations.

- Table A-1 Economic Consequences of Allowing Conflicting Uses
- Table A-2 Social Consequences of Allowing Conflicting Uses
- Table A-3 Environmental Consequences of Allowing Conflicting Uses
- Table A-4 Energy Consequences of Allowing Conflicting Uses
- Table A-5 Summary of Consequences of Allowing Conflicting Uses

Scenario B - Limiting conflicting uses within the resource and impact areas. In evaluating the consequences of **limiting** conflicting uses, the assumption is that regulations would be established to limit the impacts of allowable development in areas containing significant resources. Areas containing significant resources could still be developed to some degree, but additional development restrictions (e.g., mitigation requirements) would be put in place in addition to land use district regulations. A "limit" decision could be further refined, for example as "strictly limit," "moderately limit," and "lightly limit" and those terms can be defined by the program. NOTE: This was done in the Tualatin Basin ESEE analysis. In that analysis, the conclusion for mapped Metro Upland Wildlife Habitat was "lightly limit." In that context, the non-regulatory implementation measures included education, stewardship recognition, restoration funds, tax incentives, technical assistance, promotion of voluntary activities and acquisition.

- Table B-1 Economic Consequences of Limiting Conflicting Uses
- Table B-2 Social Consequences of Limiting Conflicting Uses
- Table B-3 Environmental Consequences of Limiting Conflicting Uses
- Table B-4 Energy Consequences of Limiting Conflicting Uses
- Table B-5 Summary of Consequences of Limiting Conflicting Uses

Scenario C - Prohibiting conflicting uses within the resource and impact areas. In evaluating the consequences of **prohibiting** conflicting uses, the assumption is that regulations and/or other mechanisms would be established that preclude development in significant natural resource areas.

- Table C-1 Economic Consequences of Prohibiting Conflicting Uses
- Table C-2 Social Consequences of Prohibiting Conflicting Uses
- Table C-3 Environmental Consequences of Prohibiting Conflicting Uses
- Table C-4 Energy Consequences of Prohibiting Conflicting Uses
- Table C-5 Summary of Consequences of Prohibiting Conflicting Uses

D. Develop a Program to Achieve Goal 5

Based on the ESEE analysis, local governments must determine whether to allow, limit or prohibit identified conflicting uses for significant resource sites. A decision to prohibit or limit conflicting uses is intended to provide increased protection for the resource. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5 provided it is supported by the ESEE analysis. One of the following determinations must be reached:

- Allow conflicting uses - The conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site and must indicate why measures to protect the resource to some extent should not be provided per OAR 660-23-040(5)(b).

- Limit conflicting uses - Both the resource site and the conflicting uses are important compared to each other; and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent (e.g., strictly, moderately, or lightly limit).
- Prohibit conflicting uses - The significant resource is of such importance compared to the conflicting uses and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.

The ESEE analysis in Section IV concludes with program recommendations as to whether to allow, limit, or prohibit identified conflicting uses within significant natural resources areas based on a summation of the preceding analysis. A final table identifies the "net effect" from Summary Tables A-5, B-5, and C-5 and provides a general recommendation for each use category. The overall program recommendation is based on encouraging the strongest positive outcome.

IV. ESEE Analysis –Significant Habitat

Significant Habitat provides food, shelter, and mating sites for fish and/or wildlife. As noted in Table III-2 (page 16-17), this economic, social, environmental, and energy (ESEE) analysis considers the consequences of allowing, limiting or prohibiting conflicting uses within the approximately 829 acres of Significant Habitat (excluding Significant Habitat that is within a verified riparian boundary) as shown on the Draft Washington County Habitat Inventory.

As discussed, potential conflicting uses can generally be grouped into one of six categories. In the tables that follow each of the six conflicting use categories is considered under each scenario (i.e., Allow, Limit, Prohibit) and the expected net effect of either allowing, limiting or prohibiting the conflicting use is identified as either positive (+1), neutral (0) or negative (-1). In some situations, a mix of both positive and negative outcomes is possible. The net effect is intended to reflect the cumulative end result (either positive, neutral or negative) of all potential consequences.

In all cases, a County decision to allow, limit or prohibit conflicting uses would not diminish or alter the regulations of other agencies or alter prior land use decisions.

Index to ESEE Analysis Tables

Consequences	**Scenario**		
	Allow	**Limit**	**Prohibit**
Economic	Table A-1, page 23	Table B-1, page 30	Table C-1, page 37
Social	Table A-2, page 25	Table B-2, page 32	Table C-2, page 38
Environmental	Table A-3, page 26	Table B-3, page 33	Table C-3, page 39
Energy	Table A-4, page 28	Table B-4, page 35	Table C-4, page 41
A/L/P Summary	Table A-5, page 29	Table B-5, page 36	Table C-5, page 42
Overall Summary	ESEE Summary Table, page 43		

Scenario A – Allow Conflicting Uses

In evaluating the consequences of **allowing** conflicting uses, the assumptions are that:

- Significant Habitat could be developed subject to the types of development allowed by the County's development regulations with no additional County land use regulations to protect the resource, except as follows:
    - This would not alter or diminish the regulations of other agencies.
    - Areas that have been set aside or protected through prior land use decisions (e.g., as part of a land division) would continue to be subject to the limitations prescribed by the prior decision.

Table A-1. Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
High Intensity Urban (HIU)	The high intensity urban development potential of parcels is fully realized, thereby supporting local economic development. The HIU category provides the greatest opportunity for high density/intensity development in the UUA. Local improvements may increase property tax base. No mitigation is required, which reduces development costs. Depending on development type, potential increase in property values for adjacent landowners. Supports local and regional employment and housing opportunities and growth.	Loss of trees and "ecosystem services" provided by resource areas results in higher costs, either to replace services or repair impacts. This ultimately could lead to increased cost to residents related to infrastructure and potentially increased income disparity as resource landowners gain value, while lower income groups see no property value gains but incur higher rates and fees as environmental impacts need to be addressed. Loss of amenity value associated with proximity to natural areas.	+1
Other Urban (OU)	Same as HIU, but with fewer potential economic benefits resulting from development due to less intense or less dense development.	Same as HIU, but with potentially fewer impacts to resource areas due to less dense/intense development but potentially greater loss of amenity value for residents.	0
Non/Future Urban (NFU)	Existing non-urban uses continue unaffected by additional resource regulations and mitigation. Until urban land uses are applied, these	Same as HIU/OU, but with potentially fewer potential impacts to resource areas due to less dense/intense development,	0

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	areas provide relatively limited opportunities for housing and employment. Property owners realize full use of non-urban land.	although the potential for income disparity is potentially increased as fewer property owners benefit relative to the number of people impacted.	
Parks/Open Space	May improve amenity values for community by permitting more active use park facilities (e.g., turf fields, sport courts, etc.). Some ecosystem services may be preserved with open space or trail development. Trail use as a transportation alternative could have economic benefits for users. Recreation activities associated with trails and open space may support or supplement local economic development opportunities.	Loss of trees and habitat areas due to active use park facilities results in loss of ecosystem services. May negatively affect adjacent property values if recreation facilities generate increased traffic volume, attract crowds, or create excessive noise or light (e.g., ball fields). Expanded park use/activity may lead to higher service provider costs relating to parks maintenance, law enforcement, etc.	+1
Utilities	Placement and maintenance of utilities systems can be maximized for cost effectiveness and efficiency. No mitigation is required, which reduces the cost to develop utilities. Helps to satisfy long-term capital facility needs.	Loss of ecosystem services results in higher costs, either to replace services or repair impacts. Loss of amenity value for nearby or adjacent property owners. Siting of certain types of facilities may increase natural hazard risks (e.g., transmission lines causing wildfires) and may damage or destroy nearby facilities and property.	+1
Transportation	Potential for improved connectivity facilitates movement of people and goods thereby reducing transportation costs. Potential to co-locate utilities, thereby saving utility costs to providers and users.	Loss of ecosystem services results in higher costs, either to replace services or repair impacts. Property damage, County roadway maintenance, and healthcare costs associated with wildlife-vehicle collisions.	+1

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	No mitigation is required, which reduces the cost (public and private) to develop streets and roads.		

Table A-2. Social Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
High Intensity Urban (HIU)	Additional civic, commercial, and mixed-use development could be developed which provide community gathering places and help create compact amenity-rich neighborhoods. Employment and housing development opportunities would not be impacted by cost of complying with resource regulations.	Loss of public health benefits associated with mature trees including air quality/shade/air cooling. Loss of scenic, passive recreational and educational benefits provided by trees, green spaces and wildlife.	+1
Other Urban (OU)	Affordable housing and other housing development opportunities would not be impacted by cost of complying with resource regulations.	Same as HIU; however, loss of scenic, recreation, and public health benefits may also be more impactful in residential and institutional areas.	0
Non/Future Urban (NFU)	Property owners in non-urban zones would not be impacted by additional resource regulations although the positive consequences are provided to relatively few people.	Same as HUI/OU, although the loss could have a direct impact on fewer people in these low density areas, it could have an indirect impact on more densely populated areas.	-1
Open Space	Parks and open space provide community gathering places. Opportunities for active recreation provide important community health benefits.	Same as HIU/OU, but with fewer potential impacts to resource areas due to smaller development footprints and less impervious areas.	+1
Utilities	Placement and maintenance of utilities can be maximized for reliability, safety, and other social benefits.	Same as HIU/OU, but could be less impactful or temporary depending on type of utility facility (e.g., restoration of vegetation below transmission lines).	+1

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Transportation	Small blocks, trail/path facilities, and good connectivity encourage the use of active transportation modes, which can improve public health. Reduced travel times allows people to enjoy other activities.	Same as HIU/OU development. In addition, increased road noise/pollution in some locations may have a localized negative impacts on public health.	+1

Table A-3. Environmental Consequences of Allowing Conflicting Uses

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
High Intensity Urban (HIU)	Opportunities for voluntary good stewardship practices by property owners. Land designated for compact urban development is retained for development, thereby reducing development pressure on other more outlying lands. In particular, development in Mixed Use and Regional Centers, Town Centers, Station Areas, Employment Areas, Corridors can reduce the environmental impacts associated with low density urban sprawl and auto-oriented development.	Loss of mature trees, habitat functions and ecosystem services. Interrupted wildlife passage/mobility and connectivity due to habitat fragmentation, fencing and other development.[13] Increased risks to local and regional biodiversity from habitat loss and introduction of invasive species, especially for sensitive, threatened, or endangered species. More stress on remaining resources impairs climate change adaptation and resiliency of forest resources and regional wildlife communities. Closer proximity of encroachments to protected resources increases wildfire risk by bringing combustion sources (fire pits, cast off	0

[13] Larger habitat patches of undisturbed land provide greater opportunity for foraging, breeding, and rearing to a larger number and greater diversity of species. Small patches of land that are well-connected to other patches also provide important functions for wildlife. Connections between various aquatic and terrestrial habitat types (such as rivers, streams, wetlands, forests, and meadows) are important to the survival of many wildlife species.

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
		cigarettes, fireworks) to the wildland urban interface.	
Other Urban (OU)	Same as HIU except that the positive environmental consequences associated with compact urban development are significantly less, particularly in the lower density residential zones.	Same as HIU, but with potentially less impact due to lower density development and less impervious area.	-1
Non/Future Urban (NFU)	Same as HIU/OU except with greater stewardship and conservation opportunities due to proximity to other natural areas and larger property sizes and significantly lower positive environmental consequences associated with compact urban development.	Same as HIU/OU, but with potentially less impact due to less impervious area. Pesticides/herbicides from agricultural activities degrade watershed health. Livestock may impact watershed health by disturbing native wildlife, contributing to soil erosion and native vegetation loss. Farming practices can introduce non-native species into watershed.	-1
Parks/Open Space	Public parks help ensure that a system of resource areas are maintained in the future in locations that are distributed throughout the Urban Unincorporated Area.	Those areas within parks that are developed as active uses displace native wildlife habitat and create impacts from light and noise. Maintenance practices may introduce pesticides and fertilizers.	0
Utilities	Placement and maintenance of utilities are maximized for efficiency, which reduces waste.	Same as HIU/OU, but potentially fewer permanent impacts (e.g., if installation is underground and site is restored). Installation may cause impacts (some are temporary) by removing native vegetation and disturbing stable slopes and soil.	0
Transportation	Small blocks and good connectivity encourage the use of active transportation modes and lessen travel times and vehicle miles	Same as HIU/OU, with potentially greater impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facility,	0

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
	traveled which can reduce greenhouse gas emissions.	habitat fragmentation, wildlife-vehicle collisions, and vulnerability that accidents may introduce high levels of pollutants.	

Table A-4. Energy Consequences of Allowing Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
High Intensity Urban (HIU)	Urban areas can be sited and designed with compact form to maximize efficiency which may reduce energy cost due to decreased transportation and infrastructure distances. Layout can be optimized for solar access.	Increased energy consumption due to loss of trees and microclimate effects.	0
Other Urban (OU)	Same as HIU, but with fewer positive consequences due to lower density.	Same as HIU.	0
Non/Future Urban (NFU)	Same as HIU/OU, but with fewer positive consequences due to low development potential and fewer opportunities to develop new infrastructure and solar facilities.	Same as HIU/OU, although impacts could be less depending on the amount of impervious area and tree removal.	0
Parks/Open Space	Allowing trails encourages non-motorized modes of transportation. Parks and open space provide opportunities to preserve trees and vegetation, thus reducing heat island effect.	Same as HIU/OU, although impacts could be less depending on the amount of impervious area and tree removal associated with active recreation.	+1
Utilities	Potential for energy savings as a result of maximizing efficiency of system design.	Same as HIU/OU, although impacts may be fewer or temporary depending on the type of utility facility.	+1
Transportation	Small blocks and good connectivity (especially for collectors and arterials) may encourage the use of active transportation modes and lessen travel times and vehicle miles traveled.	Same as HIU/OU.	+1

Table A-5, below, summarizes the net effect of allowing the conflicting uses with no additional County land use regulations within Significant Habitat (excluding areas within the verified Riparian Habitat boundary). The cumulative net effect column shows the "strength" of the positive or negative consequences of allowing the conflicting use. The maximum positive score is +4 and the maximum negative score is -4. A strong positive score suggests that, on the whole, allowing the conflicting use would provide a net benefit to the County, whereas a negative score would suggest that the use should not be allowed outright. Results of this table are carried forward to the Program Recommendation section of this analysis.

As shown in Table A-5, the net effect of allowing conflicting uses is negative for Other Urban and Non-Urban development. This is primarily due to the negative environmental and social consequences and the fact that the positive economic benefits to property owners are offset by the costs to the community associated with the loss of ecosystem services.

In the case of High Intensity Urban, transportation and utility facilities, the environmental consequences of allowing the conflicting use are balanced with the environmental benefits of creating a compact urban form and grid in order to reduce vehicle miles traveled and encourage active transportation. Similarly for utilities, allowing the conflicting use within the resource and impact area can result in a more efficient system that could avoid the need for engineered solutions, which require energy to build and operate.

Table A-5. Summary of Consequences of Allowing Conflicting Uses

Use Category	Economic	Social	Environmental	Energy	Cumulative Effect
High Intensity Urban (HIU)	+1	+1	0	0	**+2**
Other Urban (OU)	0	0	-1	0	**-1**
Non/Future Urban (NFU)	0	-1	-1	0	**-2**
Parks/Open Space	+1	+1	0	+1	**+3**
Utilities	+1	+1	0	+1	**+3**
Transportation	+1	+1	0	+1	**+3**

Scenario B – Limit Conflicting Uses

In evaluating the consequences of **limiting** conflicting uses, the assumption for this scenario is that rules would be established to limit the impacts of allowable development in areas containing Significant Habitat. Areas containing Significant Habitat could still be subject to some development, but extra development regulations to protect resources would apply in addition to the County's general development regulations. The nature of these additional development regulations is still to be determined but they would be drafted to balance the factors described below to the extent possible.

Table B-1. Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
High Intensity Urban (HIU)	Some of the development potential of parcels is realized, but large-scale development may be difficult without significantly impacting resources. Potential for local economic development by providing some opportunities for development. Some of the ecosystem services and value provided by mature trees are retained, including pollution control and detoxification, groundwater recharge/ discharge, erosion protection, and nutrient cycling. The loss of other services could be mitigated. Some of the amenity/development premium for adjacent parcels is preserved and may be enhanced by mitigation.	Some loss of development potential of parcels could occur depending on the extent of the regulations. Some loss of some ecosystem services and value provided by mature trees. Some additional natural resource regulations would be applied which could increase the cost to develop and/or limit land available for development.	0
Other Urban (OU)	Same as HIU, but potentially property owners realize most of the development potential of parcels, though clustering or density transfers may be required.	Same as HIU, but with less potential for increased costs due to lost ecosystem services. For example, due to lower density/intensity of development, there is potentially greater opportunity to avoid impacts through site design, therefore there is less need for mitigation	+1
Non/Future Urban (NFU)	Property owners continue most economic uses of non-urban lands.	Some additional natural resource regulations would be applied which	+1

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	Some of the ecosystem services and value provided by mature trees are retained, including pollution control and detoxification, groundwater recharge/ discharge, erosion protection, and nutrient cycling. The loss of other services could be mitigated. Some of the amenity and recreation values associated with private open spaces are retained.	could impact some economic uses of land. Partial loss of some ecosystem services possible. Partial loss of amenity and recreation values associated with private open spaces.	
Parks/Open Space	To the extent that a limited amount of parks, open space and trail development is allowed within the resource or impact area, these facilities may improve the amenity value for adjacent parcels. To the extent that recreation facilities are allowed, they may serve as a community attraction that supports or supplements local economic development. To the extent that these facilities are allowed, trail use as a transportation alternative will have economic benefits for users. Most ecosystem services could be preserved within open space.	To the extent that active recreation uses are developed, these could have some negative affect adjacent property values to the extent they generate increased traffic volume, attract crowds, or create excessive noise or light. Some additional natural resource regulations would be applied which could increase the cost to develop recreation and maintain sites. May lead to higher service provider costs relating to parks maintenance. Partial loss of some ecosystem services possible (e.g. with active recreation facilities).	0
Utilities	To the extent that utilities can be sited in resource areas, their placement and maintenance can be maximized for cost effectiveness and efficiency. Helps satisfy long-term capital facilities needs.	Loss of ecosystem services still possible. If mitigation is required, it could increase the cost to develop utilities. Some loss of amenity value for nearby or adjacent property owners.	0

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	Regulations could ensure that some ecosystem services are preserved or the loss is mitigated.	Siting of certain types of facilities may increase natural hazard risks (e.g., transmission lines causing wildfires) and may damage or destroy nearby facilities and property.	
Transportation	Same as Utilities, except that to the extent that some facilities are allowed within resources, improved connectivity can be achieved which can reduce travel time and transportation costs.	Same as Utilities, except that property damage, County roadway maintenance, and healthcare costs associated with wildlife-vehicle collisions could still occur.	0

Table B-2. Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
High Intensity Urban (HIU)	To the extent they are allowed, civic, commercial, and mixed-use development provide community gathering places and help create walkable amenity-rich neighborhoods. The community gathering places may be enhanced due to their proximity to any remaining/mitigated natural areas.	Some potential impacts to resources could still occur, which cannot be offset by mitigation. Opportunities for mitigation within a compact urban setting may be more difficult to achieve. Some potential loss of passive recreational and educational opportunities is still possible. Some potential loss of scenic and public health benefits associated with green spaces/natural areas is still possible.	0
Other Urban (OU)	Affordable housing and other housing development opportunities could still be achieved through clustering and/or mitigation. Community scenic, recreational, educational, and cultural values may be preserved and enhanced by mitigation.	Same as HIU, but with fewer potential impacts resulting from lower density development and potentially increased opportunities to preserve natural areas to improve amenity values.	+1

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
	Mitigation sites can become an amenity.		
Non/Future Urban (NFU)	Proximity to natural areas may improve the cultural and scenic value of some working lands	Some loss of passive recreational opportunities and aesthetic value may still be possible.	+1
Parks/Open Space	Parks and open space provide community gathering places, and their scenic and recreational value may be improved due to proximity to natural areas. Opportunities for active recreation provide community health benefits.	Same as HIU/OU, but with fewer potential impacts to resource areas due to less impervious areas. Limitation on use could increase the cost to provide public parks and open space, thus reducing the amount that can be provided.	0
Utilities	The placement and maintenance of utilities systems can still be maximized for safety, provided impacts to resources can be mitigated.	Same as HIU/OU, but could be less or temporary depending on type of utility facility (e.g., underground transmission lines).	+1
Transportation	To the extent they can be achieved, small blocks, trail/path facilities, and good connectivity encourage the use of active transportation modes, which can improve public health. Efficient well-connected transportation systems reduce travel time.	Same as HIU/OU, but with greater potential for impacts to resource areas due to facilitation of other development types/conflicting uses, noise, light, and glare.	0

Table B-3. Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
High Intensity Urban (HIU)	To the extent that development activity occurs outside of the resource area, many ecosystem services and habitat functions, including pollution control and detoxification, groundwater recharge/ discharge, carbon sequestration, erosion protection, habitat for resident or transient	Some loss of ecosystem services and habitat functions could still occur that cannot be offset by mitigation. Many of the negative environmental consequences discussed for HIU in Table A-3 may still be possible, although	0

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
	species, and nutrient cycling could be retained. To the extent that development footprint is limited and occurs outside of resource areas, many of the negative environmental consequences discussed for HIU in Table A-3 can be avoided.	potentially minimized by the natural resource regulations.	
Other Urban (OU)	Same as HIU, but with greater opportunity for habitat enhancement or restoration activities and clustering of development.	Same as HIU, but with less potential for impact due to lower density and less impervious area	0
Non/Future Urban (NFU)	Same as HIU/OU except with greater stewardship and conservation opportunities due to proximity to other natural areas and larger property sizes.	Same as HIU/OU, but with less potential for impact due to very low density and less impervious area. Use of pesticides/herbicides and fertilizers that harm watershed health may still be possible.	0
Parks/Open Space	Same as HIU/OU, except that public ownership may help ensure that resource areas are maintained in the future.	Same as HIU/OU, but potentially fewer impacts due to development. Limitation on use could increase the cost to provide public parks and open space, thus reducing the amount that can be provided.	0
Utilities	Placement and maintenance of utilities can still be maximized for efficiency, which reduces waste. Mitigation and restoration could improve resource quality where resources are degraded.	Same as HIU/OU, but potentially fewer permanent impacts if installation is underground and site is restored. Installation may introduce impacts (some are temporary) by removing native vegetation and disturbing stable slopes and soil.	0
Transportation	To the extent that connectivity can be achieved, small blocks can be developed which encourage the	Same as HIU/OU, but may still have greater impact due to possibility of light and noise from	0

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
	use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions. Mitigation measures may include green stormwater facilities, wildlife crossing structures, low-light fixtures, or noise barriers, which may support intact habitats and watershed health.	automobile traffic, introduction of polluted runoff from the transportation facility, habitat fragmentation, wildlife-vehicle collisions, and vulnerability that accidents may introduce high levels of pollutants.	

Table B-4. Energy Consequences of Limiting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
High Intensity Urban (HIU)	Urban areas can be sited and designed with compact form to maximize efficiency provided impacts are minimized or mitigated. Some ecosystem services are preserved and others are mitigated which help decrease energy consumption due to the loss of vegetation and microclimate effects.	Some loss of ecosystem services could still occur which cannot be offset by mitigation resulting in possible increased energy consumption due to the loss of vegetation and microclimate effects. Additional energy is required to construct mitigation and it may be difficult to mitigate impacts within HIU areas.	0
Other Urban (OU)	Same as HIU, but with potentially greater opportunities to minimize impacts through site design or mitigate onsite due to lower density development.	Same as HIU, but with fewer impacts due to more opportunities to minimize impacts through site design or mitigated onsite due to lower density development.	+1
Non/Future Urban (NFU)	Same as HIU/OU, although new development is less likely in these areas.	Same as HIU/OU, although impacts could be less depending on amount of impervious area.	+1
Parks/Open Space	The provision of trails could encourage non-motorized modes of transportation. Providing parks and open space in distributed	Same as HIU/OU, except impacts could be less as amount of impervious area is likely to be less.	0

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
	locations could reduce travel times to recreation facilities. Site could provide more opportunities for mitigation on site.		
Utilities	Siting facilities within resource areas may be possible if impacts can be mitigated, thus producing energy savings by maximizing efficiency of system design.	Same as HIU/OU. However, increased energy costs may be associated with facilities that are required to avoid resource areas if mitigation is not possible.	0
Transportation	Small blocks and good connectivity are possible if impacts can be mitigated, thus encouraging the use of active transportation modes and lessen travel times and vehicle miles traveled.	Same as Utilities.	0

Table B-5, below, summarizes the net effect of limiting the conflicting uses in Significant Habitat (excluding areas within the verified Riparian Habitat boundary). The cumulative net effect column shows the "strength" of the positive or negative consequences of allowing the conflicting use. The maximum positive score is +4 and the maximum negative score is -4. A strong positive score suggests that, on the whole, allowing the conflicting use would provide a net benefit to the County, whereas a negative score would suggest that the use should not be allowed outright. Results of this table are carried forward to the Program Recommendation section of this analysis.

As shown in Table B-5, the net effect of limiting conflicting uses is positive for all categories except HIU and Transportation. This is primarily due to the positive social and energy consequences. The environmental consequences are neutral in recognition that mitigation may be costly and may not provide all of the ecosystem services that are lost.

Table B-5. Summary of Consequences of Limiting Conflicting Uses

Use Category	Economic	Social	Environmental	Energy	Cumulative Effect
High Intensity Urban (HIU)	0	0	0	0	0
Other Urban (OU)	+1	+1	0	+1	+3
Non/Future Urban (NFU)	+1	+1	0	+1	+3
Parks/Open Space	0	0	0	+1	+1
Utilities	0	+1	0	0	+1
Transportation	0	0	0	0	0

Scenario C – Prohibit Conflicting Uses

In evaluating the consequences of **prohibiting** conflicting uses the assumption is that rules and/or other mechanisms would be established that preclude all development in Significant Habitat.

Table C-1. Economic Consequences of Prohibiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
High Intensity Urban (HIU)	Mature trees and existing ecosystem services are preserved, eliminating need to replace services or repair impacts. Amenity value associated with proximity to natural areas is preserved. Environmental impact costs are avoided.	The high intensity development potential of parcels is not fully realized. Reduces potential for local/regional economic development. Resource area lands are not developed for housing and jobs and thus improvements do not increase property tax base.	-1
Other Urban (OU)	Same as HIU.	Same as HIU, but with potentially less impact on jobs and property tax base due to less dense development.	-1
Non/Future Urban (NFU)	Same as HIU/OU, however due to larger parcel sizes preservation of ecosystem services may provide even greater value.	Some impact on jobs and property tax base. Property owners may not realize full use of all of their non-urban land.	0
Parks/Open Space	Same as HIU/OU, however due to larger parcel sizes preservation of ecosystem services may provide even greater value. In addition, may improve adjacent property values if having adjacent recreation activities (e.g., ball fields) would have created a nuisance from traffic volume, crowds, or excessive noise or light. Lower service provider costs relating to parks maintenance, law enforcement, etc.	Active recreation facilities, which are a community attraction that may enhance potential for local and regional economic development, are not provided.	0

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Utilities	Mature trees and existing ecosystem services are preserved, eliminating need to replace services or repair impacts. Amenity value for nearby or adjacent property owners is maintained.	The construction and operating costs of utilities are increased as a result of facilities being designed to completely avoid resource areas. Does not help satisfy long-term capital facilities needs.	-1
Transportation	Same as Utilities.	Potential for improved connectivity and movement of people and goods may be restricted, thereby impacting local/regional economic development opportunities. Cost of building transportation facilities is increased. No cost savings from co-location with utilities.	-1

Table C-2. Social Consequences of Prohibiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
High Intensity Urban (HIU)	Scenic and public health benefits associated with green spaces/natural areas are preserved. Passive recreational and educational opportunities of existing resources are preserved.	Civic and commercial developments could be impacted, reducing the number/size of community gathering places and employment opportunities. Further limiting developable land could exacerbate shortage of housing.	-1
Other Urban (OU)	Same as HIU.	Same as HIU, but with fewer negative impacts to civic and commercial development and potentially additional impacts on housing.	0

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Non/Future Urban (NFU)	Same as HIU.	Property owners in non-urban zones are impacted by additional resource regulations.	0
Parks/Open Space	Same as HIU/OU.	Open space which provides community gathering places could be impacted. Opportunities for active recreation could be precluded, thus negatively impacting public health.	0
Utilities	Same as HIU/OU.	Placement and maintenance of utilities systems may not be able to be maximized for reliability, safety, and other social values.	0
Transportation	Same as HIU/OU.	Small blocks and good connectivity, which encourage active transportation and can improve public health, may not be possible. Travel time may be increased.	-1

Table C-3. Environmental Consequences of Prohibiting Conflicting Uses

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
High Intensity Urban (HIU)	Habitat functions and ecosystem services including pollution control and detoxification, groundwater recharge/ discharge, carbon sequestration, erosion protection, habitat for resident or transient species, and nutrient cycling that are provided by resource areas are preserved. The negative environmental consequences discussed for HIU in Table A-3 are avoided.	No mitigation would be required; thus, opportunities for enhancement of degraded resource areas may be fewer. Land designated for compact urban development is not available for development, thereby increasing development pressure on other more outlying lands.	0
Other Urban (OU)	Same as HIU.	Same as HIU, except that the environmental benefits associated with compact urban development	+1

Use Category	Positive Env. Consequences	Negative Env. Consequences	Net Effect
		are less, particularly in the lower density residential zones.	
Non/Future Urban (NFU)	Same as HIU/OU, however, potentially fewer conflicts from development and impervious surfaces and more impacts from livestock and use of pesticides/herbicides and fertilizers are avoided.	Same as HIU/OU except for lower positive environmental consequences associated with compact urban development.	+1
Parks/Open Space	Developed (active use) parks and open space do not displace native wildlife habitat. Maintenance practices that introduce pesticides and fertilizers do not occur.	No mitigation would be required; thus, opportunities for enhancement of degraded resource areas may be fewer. Public interest in establishing parks and open space may be reduced if no active use of spaces is allowed, thus reducing the number of parks provided.	0
Utilities	Same as HIU/OU.	Placement and maintenance of utilities systems cannot be maximized for efficiency, thus increasing need for additional powerlines, pump stations, and other facilities to work around resource areas.	0
Transportation	Same as HIU/OU, plus impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facility, habitat fragmentation, wildlife-vehicle collisions, and vulnerability that accidents that may introduce high levels of pollutants are avoided.	Out of direction travel is increased. Small blocks and good connectivity, which encourage the use of active transportation modes and lessen travel time and vehicle miles traveled, thus reducing greenhouse gases, may be precluded.	0

Table C-4. Energy Consequences of Prohibiting Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
High Intensity Urban (HIU)	No increased energy consumption resulting from additional loss of vegetation and microclimate effects.	Less ability to site development efficiently, reducing potentially increasing energy cost due to transportation, solar access, and the provision of infrastructure services. Less developable land is available within the County's most high intensity land use districts.	-1
Other Urban (OU)	Same as HIU.	Reduces opportunities to provide compact development patterns with grid pattern streets that reduce out-of-direction travel.	0
Non/Future Urban (NFU)	Same as HIU/OU, although benefits could be greater due to larger parcel sizes.	Same as HIU/OU, but impacts are could be less due to limited development potential in NFU areas.	0
Parks/Open Space	Same as HIU/OU, although impacts could be less depending on the amount of active recreation space provided relative to treed areas.	Reduced opportunities for trail development, which support non-motorized modes of transportation. Providing parks and open space in distributed locations could reduce travel times to recreation facilities.	0
Utilities	Same as HIU/OU.	Placement and maintenance of utilities systems cannot be maximized for efficiency thus increasing the need for additional power lines, pump stations, and other facilities to work around resources and impact areas.	-1
Transportation	Same as HIU/OU.	Small blocks and good connectivity encourage the use of active transportation modes and lessen travel times and vehicle miles traveled.	-1

Table C-5 summarizes the net effect of prohibiting the conflicting uses in Significant Habitat (excluding areas within the verified Riparian Wildlife Habitat boundary). The cumulative net effect column shows the "strength" of the positive or negative consequences of allowing the conflicting use. The maximum positive score is +4 and the maximum negative score is -4. A strong positive score suggests that, on the whole, prohibiting the conflicting use would provide a net benefit to the County, whereas a negative score would suggest that the use should not be prohibited. Results of this table are carried forward to the program recommendation section of this analysis.

As shown in Table C-5, the net effect of prohibiting conflicting uses is negative for HIU, utilities and transportation development. This is primarily due to the positive environmental consequences being offset by the negative economic consequences associated with lost efficiency for siting and design of compact urban development and utility and transportation facilities. The consequences for prohibiting every other conflicting use are neutral or slightly positive largely due to preserved ecosystem services and habitat functions, scenic and cultural values, and passive recreation opportunities balancing or slightly outweighing the negative consequences of prohibiting conflicting uses in these areas.

Table C-5. Summary of Consequences of Prohibiting Conflicting Uses

Use Category	Economic	Social	Environmental	Energy	Cumulative Effect
High Intensity Urban (HIU)	-1	-1	0	-1	-3
Other Urban (OU)	-1	0	+1	0	0
Non/Future Urban (NFU)	0	0	+1	0	+1
Parks/Open Space	0	0	0	0	0
Utilities	-1	0	0	-1	-2
Transportation	-1	-1	0	-1	-3

Summary of Net Effect of Allowing, Limiting, or Prohibiting Conflicting Uses within Significant Habitat (excluding lands within verified Riparian Wildlife Habitat boundary)

The Summary Table, below, shows the "Cumulative Effect" column from Tables A-5, B-5, and C-5. This summarizes the net effect of allowing, limiting, or prohibiting conflicting uses in Significant Habitat.

- High Intensity Urban – The Allow score of +2 is higher than Limit or Prohibit, which suggests that **Allow** may be most appropriate.
- Other Urban and Non/Future Urban – With a Limit score of +3 and negative scores on Allow, a **Lightly Limit** approach may be most appropriate.
- Parks/Open Space, Utilities and Transportation – The Allow score of +3 is higher than Limit or Prohibit, which suggests that **Allow** may be most appropriate for these three conflicting uses.

ESEE Summary Table

Conflicting Use Category	**Allow** (Cumulative Effect from Table A-5)	**Limit** (Cumulative Effect from Table B-5)	**Prohibit** (Cumulative Effect from Table C-5)	**Outcome**
High Intensity Urban (HIU)	**+2**	0	-3	Allow
Other Urban (OU)	-1	**+3**	0	Lightly Limit
Non/Future Urban (NFU)	-2	**+3**	+1	Lightly Limit
Parks/Open Space	**+3**	+1	0	Allow
Utilities	**+3**	+1	-2	Allow
Transportation	**+3**	0	-3	Allow

Program recommendations to implement results of ESEE Analysis. The County's Goal 5 program for Significant Habitat (excluding lands within verified Riparian Wildlife Habitat boundary) should accomplish the following objectives in order to achieve the net benefit to the County anticipated by the approach described above:

- Where conflicting uses are limited:
    - Mature native trees in larger habitat patches that are proximate to other habitats (e.g., riparian areas) provide the greatest degree of ecosystem services. Limiting impacts to mature native trees within these resource areas should be prioritized.
    - Where impacts cannot be avoided, site disturbance areas in such a way that trees with the highest ecosystem services value are protected by observing additional tree protections for native trees over 6 inches diameter breast height, especially White Oak, Willamette Valley Ponderosa Pine, and Madrone.
    - Provide a clear and objective path for mitigation as well as options that allow flexibility in mitigation design and opportunities to allow for variations in site conditions.
    - Support the clustering of residential development away from resources so that the economic and social benefits of providing housing are accomplished in conjunction with environmental benefits of protecting resources.
- Recognize that High Intensity Urban uses impact relatively few acres of Significant Habitat (excluding lands within verified Riparian Wildlife Habitat boundary) and that these lands provide the greatest opportunity for compact urban development of housing and jobs.
- Recognize that Parks and Open Space provide important positive ESEE impacts and that the negative environmental impacts of active use recreation facilities and other development within this use category are relatively limited in terms of overall area and that these active use facilities provide important social benefits and potentially lead to greater public support for parks and recreation overall.

- Recognize that allowing the most efficient design of utility and transportation facilities can have positive ESEE impacts, and that in order to achieve efficient design it may be necessary to impact resources.

V. Compliance with OAR 660-023-0050

A program to achieve Goal 5 is a plan or course of proceedings and action either to prohibit, limit, or allow uses that conflict with significant Goal 5 resources, adopted as part of the comprehensive plan and land use regulations. As described in the previous sections of this report, updates to the County's Goal 5 program are needed to comply with Title 13 and the findings of the 2024 ESEE analysis. The Goal 5 rule (Section 660-023-0050) outlines a number of requirements for Goal 5 programs.

> ***OAR 660-023-0050*** *Programs to Achieve Goal 5*
>
> *(1) For each resource site, local governments shall adopt comprehensive plan provisions and land use regulations to implement the decisions made pursuant to OAR 660-023-0040(5). The plan shall describe the degree of protection intended for each significant resource site. The plan and implementing ordinances shall clearly identify those conflicting uses that are allowed and the specific standards or limitations that apply to the allowed uses. A program to achieve Goal 5 may include zoning measures that partially or fully allow conflicting uses (see OAR 660-023-0040(5)(b) and (c)).*
>
> *(2) When a local government has decided to protect a resource site under OAR 660-023-0040(5)(b), implementing measures applied to conflicting uses on the resource site and within its impact area shall contain clear and objective standards. For purposes of this division, a standard shall be considered clear and objective if it meets any one of the following criteria:*
>
> > *(a) It is a fixed numerical standard, such as a height limitation of 35 feet or a setback of 50 feet;*
> >
> > *(b) It is a nondiscretionary requirement, such as a requirement that grading not occur beneath the dripline of a protected tree; or*
> >
> > *(c) It is a performance standard that describes the outcome to be achieved by the design, siting, construction, or operation of the conflicting use, and specifies the objective criteria to be used in evaluating outcome or performance. Different performance standards may be needed for different resource sites. If performance standards are adopted, the local government shall at the same time adopt a process for their application (such as a conditional use, or design review ordinance provision).*
>
> *(3) In addition to the clear and objective regulations required by section (2) of this rule, except for aggregate resources, local governments may adopt an alternative approval process that includes land use regulations that are not clear and objective (such as a planned unit development ordinance with discretionary performance standards), provided such regulations:*
>
> > *(a) Specify that landowners have the choice of proceeding under either the clear and objective approval process or the alternative regulations; and*
> >
> > *(b) Require a level of protection for the resource that meets or exceeds the intended level determined under OAR 660-023-0040(5) and 660-023-0050(1).*

Title 13 (3.07.1330(c)) includes requirements for clear and objective standards comparable to those outlined in the Goal 5 rule as well as a similar provisions for discretionary standards.

The proposed program includes comprehensive plan provisions and land use regulations to implement the findings of the draft ESEE analysis and Title 13 compliance. The Significant Natural and Cultural Resources Maps in the Community Plans and Map B in Comprehensive Framework Plan for the Urban Area (CFP) Policy 41 identify whether the Significant Habitat is Riparian Wildlife Habitat or Upland Wildlife Habitat and whether the Significant Habitat is on land that was added to the UGB after Dec. 28, 2005, and thus subject to additional requirements pursuant to Title 13. Thus, the maps describe the degree of protection intended for each significant resource site. The proposed plan and implementing ordinances identify those conflicting uses that are allowed and limited and the specific standards or limitations that apply.

The proposed ordinances include clear and objective standards to regulate conflicting uses on Riparian Wildlife Habitat in CDC Sections 422-8. For Upland Wildlife Habitat, Section 422-9 (Tree Inventory and Retention Requirements) provides clear and objective standards. Section 422-9 defines "Regulated Trees" as native trees identified on the Washington County Native Tree list. Applicants are required to inventory Regulated Trees and identify the point value of each Regulated Tree. Applicants must then demonstrate how they will retain or replace 50% of tree points (80% is required within areas that were added to the UGB after Dec. 28, 2005).

CDC Section 422 also specifies that applicants have the choice to proceed under the clear and objective standards in Section 422-9 or to comply with one of two discretionary approaches in Sections 422-10 and 422-11. As summarized below, the discretionary options require a level of protection for the Upland Wildlife Habitat that meets or exceeds the level provided by the "lightly limit" determination in the ESEE Analysis and the clear and objective standards.

Clear and Objective Standards CDC Section 422-9 (Tree Inventory and Retention Requirements)	**Discretionary Option 2** CDC Section 422-10 (Tree Canopy Assessment and Protection Requirements)	**Discretionary Option 2** CDC Section 422-11 (Detailed Environmental Report)
• The regulations apply to native trees 6" DBH or greater that are within Upland Wildlife Habitat. • Land within Upland Wildlife Habitat is developable provided the necessary tree points are retained or replaced. • 50% of tree points can be removed without replacement within post-2005 UGB. • Can count smaller understory trees or native trees outside Habitat for replacement.	• 25 - 30% of the Upland Wildlife Habitat must be placed in a designated Tree Canopy Preservation Area (TCPA). • Within the TCPA, the applicant must maintain or establish 75% tree canopy cover. • The TCPA must be placed in a non-buildable tract. • Native understory vegetation must be removed within the TCPA and invasive species removed.	• A detailed evaluation of the ecological functions is required. • The approval criteria require that all adverse impacts to Upland Wildlife Habitat that cannot be avoided are fully mitigated.