

EXHIBIT 19

STATEWIDE PLANNING GOAL 5 ANALYSIS FOR COOPER MOUNTAIN:

ECONOMIC, SOCIAL, ENVIRONMENTAL, AND ENERGY (ESEE) ANALYSIS

TO: City of Beaverton
FROM: Andrew Parish and Cathy Corliss, MIG
DATE: August 20, 2024

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Introduction

Purpose

Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces (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 Economic, Social, Environmental, and Energy (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).

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...

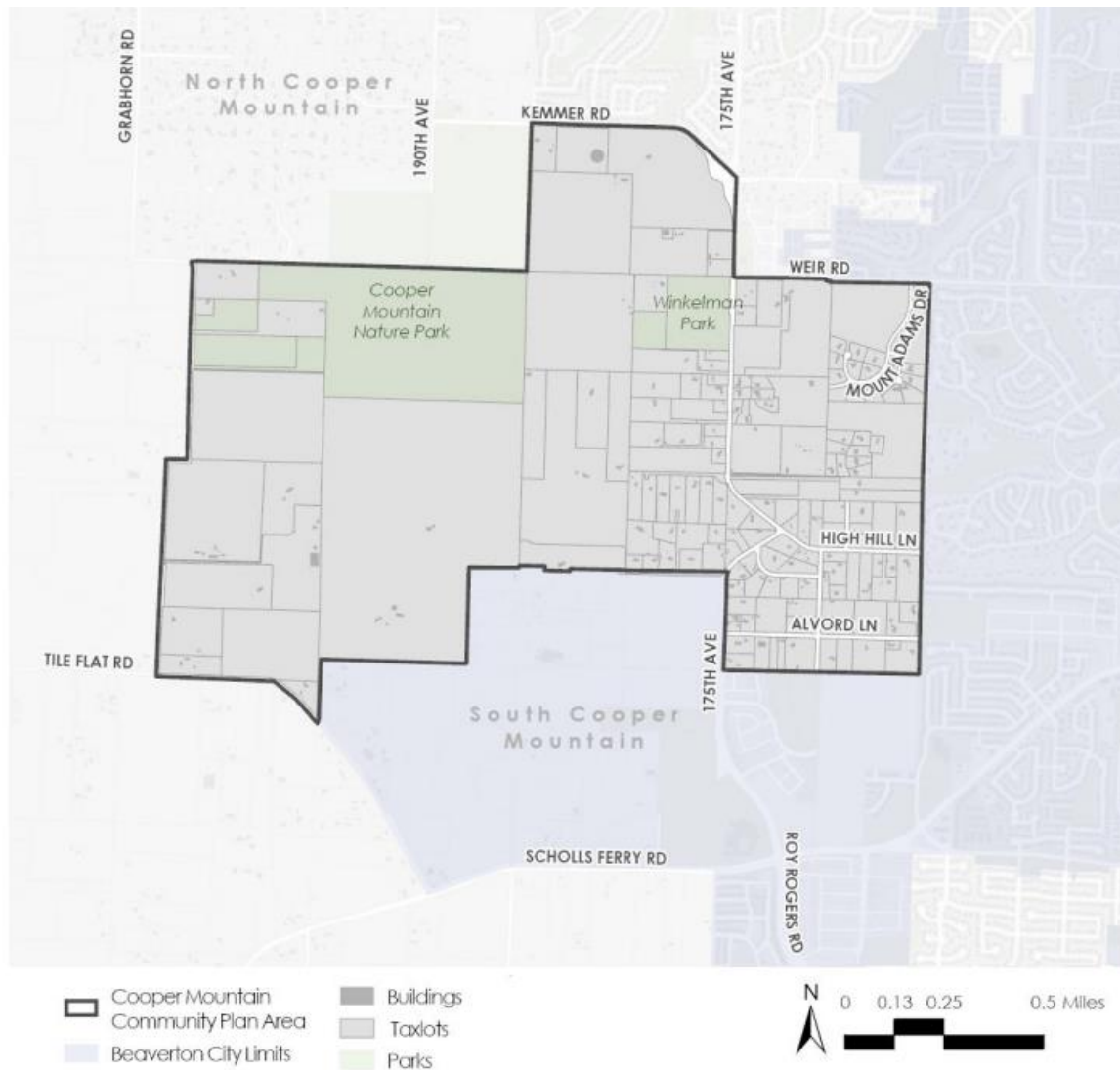
The ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected.

This memorandum addresses both compliance with UGMFP Title 13 (Nature in Neighborhoods) and provides the necessary ESEE analysis, where applicable for the following types of natural resources within the Cooper Mountain Community Plan Area:

- Riparian corridors (OAR 660-023-0090)*
 - Wetlands (OAR 660-023-0100)
 - Wildlife habitat (OAR 660-023-0110)*
- * UGMFP Title 13 addresses both riparian corridors and wildlife habitat

The Cooper Mountain Community Plan Area is shown on Figure 1. The study area is within the larger South Cooper Mountain Concept Plan Area, which encompasses 2,300 acres in the southwestern portion of the City and includes South Cooper Mountain and North Cooper Mountain plan areas.

Figure 1. Study Area Map (Cooper Mountain Community Plan Area)



Regulatory Framework

UGMFP Title 13

In 2005, the Metro Council voted to approve a regional Nature in Neighborhoods program (including Title 13 of the Urban Growth Management Functional Plan (UGMFP)) to meet the requirements of Goal 5 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, the City of Beaverton must comply with the Metro UGMFP 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, and 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. **(NOTE: this requirement is applicable to Cooper Mountain Community Plan area.)**

In 2005, the City of Beaverton coordinated with Washington County, the other cities in the County, Clean Water Services (CWS), the Tualatin Hills Park & Recreation District 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 Urban Growth Boundary (UGB), including all waterways that feed the Tualatin River. The results of that analysis led to the "Tualatin Basin Program." The City of Beaverton complied with the requirements of Title 13 through participation in the Tualatin Basin Program pursuant to Title 13 (UGMFP 3.07.1330(b)(5)).

In addition to protecting significant riparian habitat through participation in CWS's Healthy Streams program, Tualatin Basin members must meet several conditions to remain in compliance, including:

UGMFP 3.07.1330(b)(5)(f) The city or county complies with the provisions of Metro Code Section 3.07.1330(b)(1) to (b)(3) as those provisions apply to upland wildlife habitat in territory added to the Metro urban growth boundary after December 28, 2005. For example, (1) each city and county shall either adopt and apply Metro's Title 13 Model Ordinance to upland wildlife habitat in new urban areas, (2) substantially comply with 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.

Section 3 of this memorandum outlines how the draft proposed program provides an alternative program that will achieve protection and enhancement of upland wildlife habitat

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.

in the Cooper Mountain Community Plan area comparable with the protection and restoration that would result from applying Metro's Title 13 Model Ordinance.

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 This provision is applicable to the Cooper Mountain Nature Park and its proposed impact area. The City is considering whether additional standards (beyond those identified in Title 13) are needed within the immediate surrounding area of the Nature Park to protect the Cooper Mountain Nature Park from conflicting uses; therefore, the standard Goal 5 process has been followed for this resource (including an ESEE analysis (see Section 2 of this memorandum)).

“Standard” Goal 5 Process

For natural resources which have not been identified in the UGMFP as regional resources or where the City is proposing regulations that would be more protective of a resource than is required by Title 13, the process outlined in the Goal 5 rule apply. This includes the following steps:

- **Conduct an inventory of natural resources and make a determination of significance.** See Section 1 for summary of the inventory process and the determination of significance. (NOTE: inventories of natural resources in the Cooper Mountain Community Plan area are available on the project website.)
- **Prepare an Economic, Social, Environmental and Energy (ESEE) analysis** to identify and weigh the consequences to natural resources resulting from allowing, limiting, or prohibiting “conflicting uses” in the Cooper Mountain Community Plan

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.

area. See Section 2 for an ESEE analysis which considers the potential for conflicting uses to impact significant wetland resources and the Cooper Mountain Nature Park.

- **Develop a program to implement the results of the ESEE analysis** (or in the case of regionally significant resources, a program in substantial compliance with the requirements of UGMFP Title 13 and the Tualatin Basin IGA). See Section 3 of this memorandum for program recommendations and findings of substantial compliance with UGMFP Title 13.

Inventory and Regulation of Wetlands

In Oregon, wetlands are regulated through the authority of a of federal and state laws. If development activities involve earthwork (filling, excavating, ditching, grading, leveling, etc.) within a wetland, state, federal, and/or local permits are often required.

- The **U.S. Army Corps of Engineers (ACE)** regulates wetlands under the jurisdiction of the Rivers and Harbors Act and Clean Water Act
- The **Oregon Department of State Lands (DSL)** regulates wetlands under the state Removal-Fill Law, which was enacted in 1967 to protect public navigation, fishery and recreational uses of "waters of the state", which includes wetlands.
- **OAR 141-086-0185** requires that, once approved by DSL, a Local Wetland Inventory is needed to fulfill the requirements of Goal 5. An LWI provides information for planning purposes on the location of potentially regulated wetlands and other waters such as lakes and streams, but is not of sufficient detail for permitting, as smaller wetlands may not be mapped, and wetlands may be missed due to lack of onsite access, tree canopy cover and other constraints. A wetland delineation or determination report may be needed for parcels without LWI-mapped wetlands. A Department-approved wetland delineation report for wetlands identified in an LWI is usually needed prior to site development.
- **Protection of Wetlands as a Goal 5 resource requires an ESEE analysis.**

Section 1. Inventory and Determination of Significance

Natural resources in the study area are documented in a separate Natural Resources Report authored by David Evans and Associates (DEA) and MIG⁴. The following summary includes excerpts from that report. The standard Goal 5 process directs local governments to determine which of the inventoried natural resources are significant based on information such as quality, quantity, and location. The City may determine that a particular resource site is not significant. In that case, the City would not proceed with the Goal 5 process for such sites and may not regulate land uses in order to protect such sites under Goal 5. However, in the case of regional riparian and upland habitat resources and wetlands, the determination of significance varies from the standard Goal 5 process as described below.

1.1 Riparian and Wildlife (Upland) Habitat

As noted previously, for regionally significant Riparian Corridors and Wildlife Habitat within Metro’s boundary, the City of Beaverton must comply with the Metro UGMFP rather than the standard provisions of the Goal 5 rule. Metro completed a Regionally Significant Fish and Wildlife Habitat Inventory. Following completion of an ESEE analysis, the Metro Council designated as “Habitat Conservation Areas” the regionally significant fish and wildlife habitat that has been identified as riparian Class I and II habitat within the Metro boundary. In addition, the Metro Council also determined that the regionally significant fish and wildlife habitat identified as upland wildlife Class A and B habitat that is currently outside of the Metro UGB shall be designated as “Habitat Conservation Areas” at such time that those areas are brought within the Metro UGB.

As part of the Cooper Mountain Community Plan, DEA completed an assessment of riparian corridors and wildlife habitat. Metro’s 2005 inventory of regionally significant riparian corridors and wildlife habitat provided the technical basis and starting point for this assessment. Title 13 recognizes that when lands are added to the UGB, the inventory must be updated to reflect changes and outlines a methodology for making updates to regional resources.⁵ Figure 2 and **Error! Reference source not found.** depict the areas where the Cooper Mountain Natural Resources Inventory differ from Metro Title 13 data for the reasons noted above.

By starting with Metro’s inventory, DEA was able to incorporate and build on the extensive research, technical analysis, and public review that shaped Metro’s regional inventory. As part of their work, DEA updated riparian habitat mapping where updated stream locations created gaps and when habitat appeared to have changed since previous mapping efforts

⁴ Natural Resources Report, December 2023, David Evans and Associates and MIG
<https://content.civicplus.com/api/assets/f38e7f88-c5b4-4767-8174-bca108c1c633>

⁵ UGMFP 3.07.1370(b) states that “At the time such territory is brought within the Metro UGB...Metro shall prepare an inventory of regionally significant fish and wildlife habitat for such territory using the same methodology used by Metro to establish the Metro Inventory Map.” While Metro has not conducted these inventories for new urban areas in recent years, Metro has funded and acknowledged area plans that contain natural resource inventories that accomplish this. The CMCP Natural Resources Inventory is such a product.

were conducted. Riparian area boundaries were defined in accordance with Clean Water Services (CWS) vegetated corridor width determination methods.⁶

Similar to riparian habitats, upland habitat mapping was revised based on site reconnaissance and aerial photo review. Forested areas that had been harvested as of December 13, 2018, which is the date of the area's inclusion in the Metro UGB, were removed from mapping, as were areas where residential development had occurred prior to December 13, 2018.

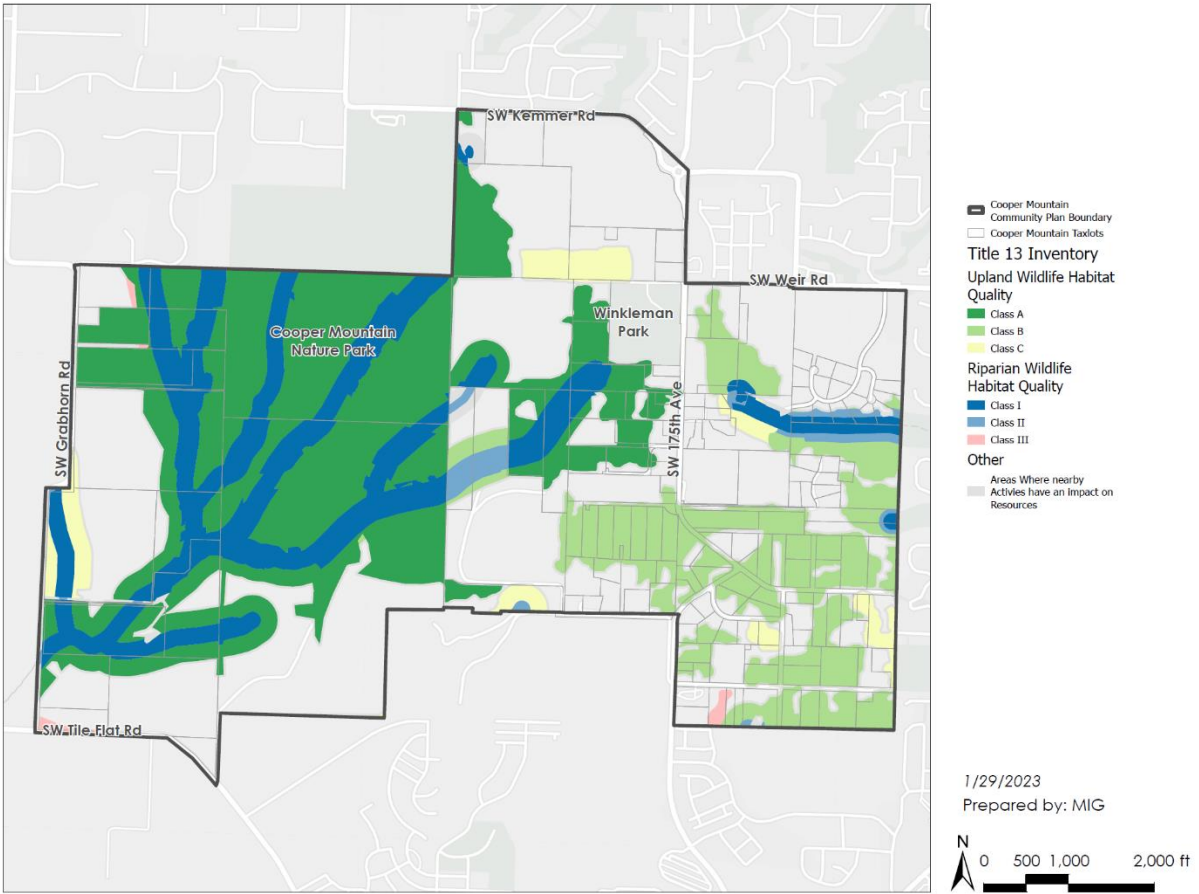
The updated Riparian Class I and II resources were found to provide valuable ecological services for the local flora and fauna and have environmentally beneficial impacts much further downstream. Upland habitat Class A and Class B represent land with substantial ecological value today or potentially substantial ecological value in the future if protected through land use regulations. Upland Class C in the Cooper Mountain Community Plan area was found to be significantly degraded through development or agricultural use and is not located along priority drainages.

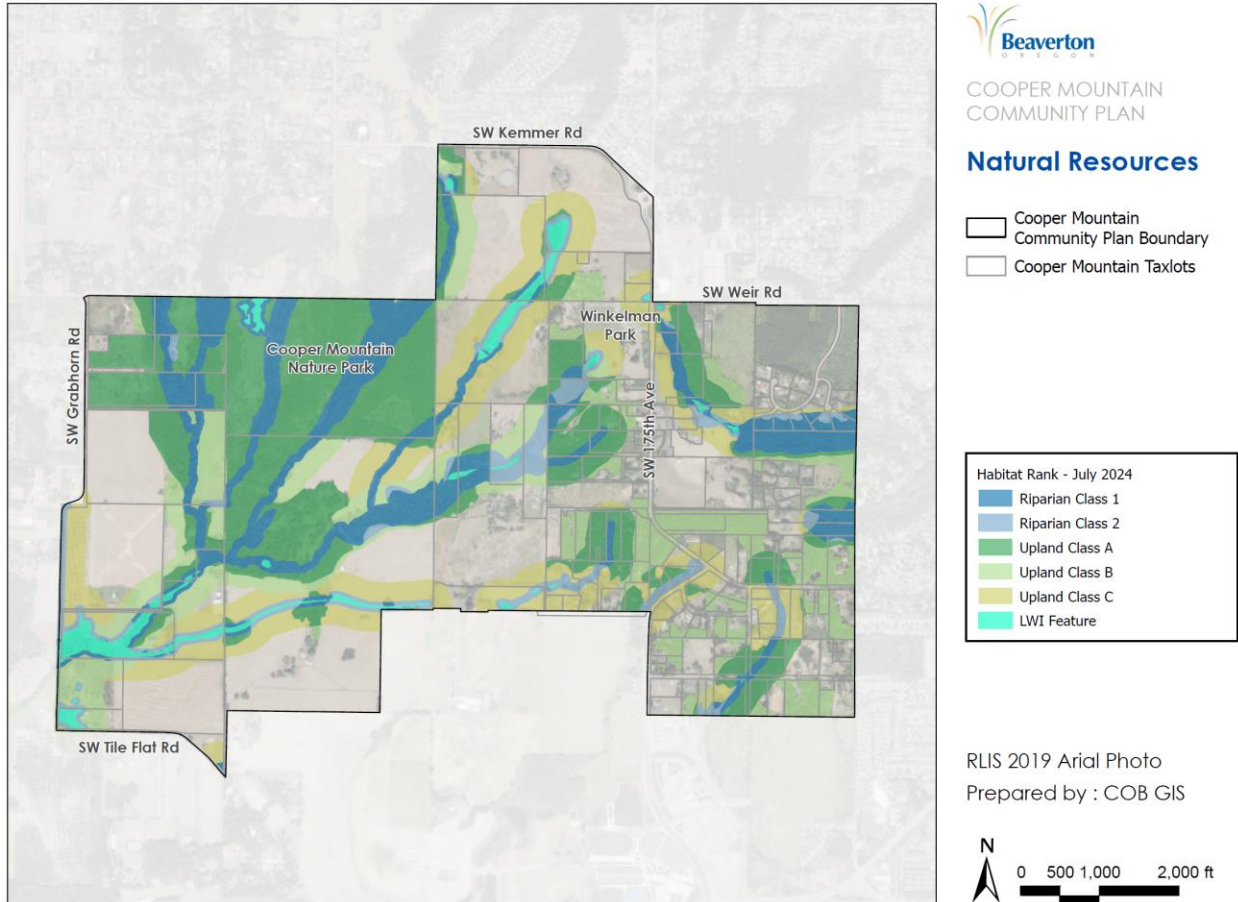
Consistent with Goal 5 and the UGMFP, within the Cooper Mountain Community Plan area **Riparian Habitat Areas Class I and Class II and Upland Habitat Class A and Class B are determined to be significant resources.**

Except for Cooper Mountain Nature Park, **these regional resources are not addressed in the ESEE analysis because they are covered by Title 13** Cooper Mountain Nature Park is a regional resource (Class A Upland Habitat); however, because the City is considering whether additional standards (beyond those identified in Title 13) are needed within the immediate vicinity of the Nature Park to protect the Park from conflicting uses, the standard Goal 5 process has been followed for this resource (including an ESEE analysis comprising Section 2 of this memorandum).

⁶ <https://cleanwaterservices.org/development/dnc/view-the-standards/>

Figure 2. Metro Title 13 Inventory for CMCP Area





1.2 Wetlands

For wetlands inside the UGB, the Goal 5 rule (660-023-0100(3)) outlines the process to inventory and make a determination of significance, including:

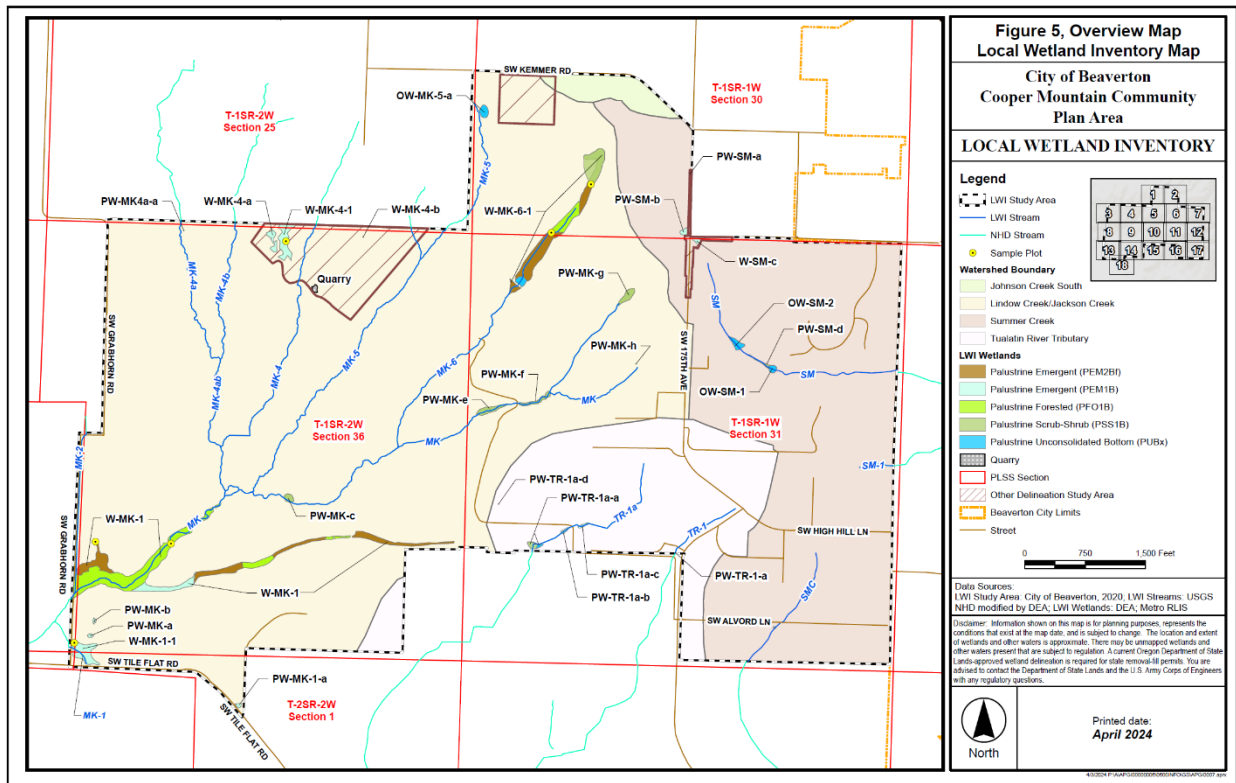
- (a) Conduct a local wetlands inventory (LWI) using the standards and procedures of OAR 141-086-0110 through 141-086-0240 and adopt the LWI as part of the comprehensive plan or as a land use regulation; and
- (b) Determine which wetlands on the LWI are “significant wetlands” using the criteria adopted by the Division of State Lands (DSL) pursuant to ORS 197.279(3)(b) and adopt the list of significant wetlands as part of the comprehensive plan or as a land use regulation.

Cooper Mountain Community Plan area wetlands are identified in the Local Wetland Inventory (LWI), which follows the Division of State Lands (DSL) requirements. Wetlands were determined to be significant based on the DSL criteria. Additional wetlands were determined to be significant within the Cooper Mountain Community Plan area because

they meet the criteria for protection through CWS Vegetated Corridors⁷. **Therefore, all wetlands in the inventory were determined to be significant.**

In accordance with OAR 660-023-0100(4)(a), the City of Beaverton has completed the Goal 5 process for significant wetlands (including preparing an ESEE analysis (see Section 2 of this memorandum)) and will be adopting a program to achieve the goal.

Figure 3. Local Wetland Inventory Map



⁷ The Clean Water Services Design and Construction Standards Manual (R&O 07-20), defines a “Vegetated Corridor” as “a corridor adjacent to a Sensitive Area that is preserved and maintained to protect the water quality functions of the Sensitive Area.” Sensitive Areas include all existing or created wetlands of any size, including isolated wetlands and wetlands connected to streams or other surface water bodies. Constructed wetlands, such as those developed as a stormwater facility are not regulated as created wetlands unless they have been created to serve as wetland mitigation.

Table 1. LWI Wetland Summary Results for the Community Plan Area

Wetland ID ¹	Cowardin ²	HGM	Acres ⁴
PW-MK-1-a	PEM1B	Slope	0.07
PW-MK-4a-a	PEM1B	Depressional	0.002
PW-MK-a	PEM1B	Depressional	0.06
PW-MK-b	PEM1B	Depressional	0.04
PW-MK-c	PSS1B	Slope	0.22
PW-MK-e	PSS1B	Slope	0.48
PW-MK-f	PSS1B	Slope	0.38
PW-MK-g	PSS1B	Slope	0.41
PW-MK-h	PSS1B	Depressional	0.002
PW-SM-a	PEM1B	Slope	0.002
PW-SM-b	PEM1B	Slope	0.13
PW-SM-d	PSS1B	Riverine	0.12
PW-SMC-a	PSS1B	Slope	0.002
PW-TR-1-a	PSS1B	Riverine	0.17
PW-TR-1a-a	PEM1B	Slope	0.002
PW-TR-1a-b	PEM1B	Slope	0.08
PW-TR-1a-c	PEM1B	Slope	0.09
PW-TR-1a-d	PEM1B	Depressional	0.002
W-MK-1	PEM2Bf	Slope	4.01
W-MK-1	PEM1B	Slope	1.10
W-MK-1	PFO1B	Slope	7.26
W-MK-1-1	PEM1B	Slope	1.31
W-MK-4-1	PEM1B	Slope	1.14
³ W-MK-4-a	PEM1B	Depressional	0.37
³ W-MK-4-b	PSS1B	Depressional	0.003
W-MK-6-1	PSS1B	Slope	1.79
W-MK-6-1	PEM2Bf	Slope	3.21
W-MK-6-1	PFO1B	Slope	1.05
³ W-SM-c	PEM1B	Slope	0.11
Probable Wetland Acreage			2.262
Wetland Acreage			21.353
Grand Total			23.615

¹ "W" = wetland, "PW" = probable wetland

² PEM2Bf= Palustrine Emergent, Nonpersistent, Seasonally Saturated, farmed

PEM1B = Palustrine Emergent, Persistent, Seasonally Saturated

PSS1B= Palustrine Scrub-shrub, Broad-leaved Deciduous, Seasonally Saturated

PFO1B= Palustrine Forested, Broad-leaved Deciduous, Seasonally Saturated

³ Feature has been mapped as a wetland instead of a probable wetland despite being less than 0.5 acres. This is because the feature was part of a past wetland delineation that received DSL concurrence.

⁴ Probable wetlands with acreage of 0.002 are rough estimates of very small features that may be wetlands.

1.3 Wildlife Corridors

As described in the “Wildlife Corridors” section of the Cooper Mountain Natural Resources Report, the wildlife corridors in the Cooper Mountain area are generally coincident with riparian and upland habitat and will be subject to land use regulation and environmental protection through federal, state, and local law. The limited number of Wildlife Corridors that lie outside of protected Riparian/Upland Habitat areas are not specific to an identified location but represent more general “focus areas” for further study.

For this reason, those **wildlife corridors outside of inventoried riparian/upland habitat areas were not determined to be significant resources** for the purposes of Statewide Planning Goal 5.

Section 2. ESEE Analysis

2.1 ESEE Components

The Goal 5 Rule (OAR 660-015-0050) requires that the ESEE analysis include the following steps:

1. **Determine the impact area**, defined as the area in which allowed uses could adversely affect the identified significant natural resources. The impact area defines the geographic limits within which to perform ESEE analysis.
2. **Identify conflicting uses**. 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.
3. **Analyze the ESEE Consequences**. This is an analysis of the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The narratives and tables within this analysis include a thorough explanation of the consequences. The final ESEE decision will inform land use actions to address natural resources.
4. **Develop a program to achieve Goal 5**, based on and supported by the ESEE Consequences.

As noted in Section 1: Inventory and Determination of Significance, natural resources in the study area are documented in the Natural Resources Report authored by DEA and MIG. Some of these resources are “regionally significant” and are required to comply with UGMFP Title 13. Compliance with Title 13 for these resources is addressed in Section 3. For other significant resources an ESEE analysis is needed to consider the consequences of allowing, limiting or prohibiting a conflicting use. Within the Cooper Mountain Area Plan area, the resources which are the subject of the ESEE analysis include:

- Wetlands identified in the Local Wetland Inventory (LWI)
- Cooper Mountain Nature Park and its immediate vicinity

2.2 Impact Area

The "Impact area" is a geographic area within which conflicting uses could adversely affect a significant Goal 5 resource. Significant resources (other than those addressed by Metro Title 13) and their impact areas are summarized in

Table 2. Additional detail about each resource is provided below.

Table 2. Summary of Significant Resources and Impact Areas

Resource	Inventoried Acres of Resource	Acres of Impact Area	Total Acres of Resource and Impact Area
Wetlands	21.4 Acres	40.4 Acres*	62.1 Acres
Cooper Mountain Nature Park	144.4 Acres	20.2 Acres**	164.6 Acres

* The Clean Water Services Design and Construction Standards Manual (R&O 07-20), defines a “Vegetated Corridor” as “a corridor adjacent to a Sensitive Area that is preserved and maintained to protect the water quality functions of the Sensitive Area.” For the purposes of the ESEE analysis, the vegetated corridor is assumed to be 50 feet from identified wetlands and has been identified as the impact area.

** Calculated as 100’ buffer along perimeter of Metro-owned properties, excluding study area boundary. Includes land with other natural resource designations.

2.2.1 Wetlands

The Clean Water Services Design and Construction Standards Manual (R&O 07-20), defines a “Vegetated Corridor” as “a corridor adjacent to a Sensitive Area that is preserved and maintained to protect the water quality functions of the Sensitive Area.” For the purposes of the ESEE analysis, this vegetated corridor has been identified as the impact area for wetlands.

Chapter 3 of the CWS D&C requires that vegetated corridor widths be measured from the “Edge of Sensitive Area.” For wetlands, the edge is the delineated boundary of the wetland, per DSL / Corps procedures for wetland delineation. Vegetated Corridor width for wetlands which are over 0.5 acres in size is 50 feet, unless slopes are over 25% in which case corridor widths are increased. Inventoried wetlands within the Study Area total 21.4 acres of land.

2.2.2 Cooper Mountain Nature Park

Cooper Mountain Nature Park is the crown jewel park and greenspace on Cooper Mountain. It is 230 acres in total, about half of which is inside the Urban Growth Boundary as of this writing. The southern portion (140 acres) is within the Community Plan area. The Community Plan calls for the entirety of the park to be within Beaverton’s Significant Natural Resource Area Overlay zone, with an Impact Area around the park’s perimeter.

The impact area evaluated is 100 feet from the park boundary (defined as the contiguous tax lots owned by Metro, shown in the following figure). Discussions with Metro Nature Park managers and scientists conducted as part of the Cooper Mountain Community Plan process have identified the contiguous interior habitat of the park as a primary source of its unique value.

Figure 4. Cooper Mountain Nature Park



2.3 Conflicting Uses

The study area is primarily designated for residential uses. Additionally, two Neighborhood Centers are proposed which will include locally-serving commercial uses and mixed-use structures. Small commercial uses will be allowed in residential neighborhoods outside of these neighborhood centers. The Community Plan Land Use Map is shown in Figure 5, and the Proposed Zoning Map is shown in Figure 5. The zoning districts are described on the following pages.

Uses allowed as part of the Cooper Mountain Community Plan’s zoning districts are described in

Table 3. A detailed list of draft development regulations can be found on the project website. The impacts to natural resources associated with these uses are described in

Table 4. The estimated prevalence of these land uses in the Cooper Mountain Community Plan area's zones is shown in Table 5.

Figure 5. Community Plan Proposed Land Use Map

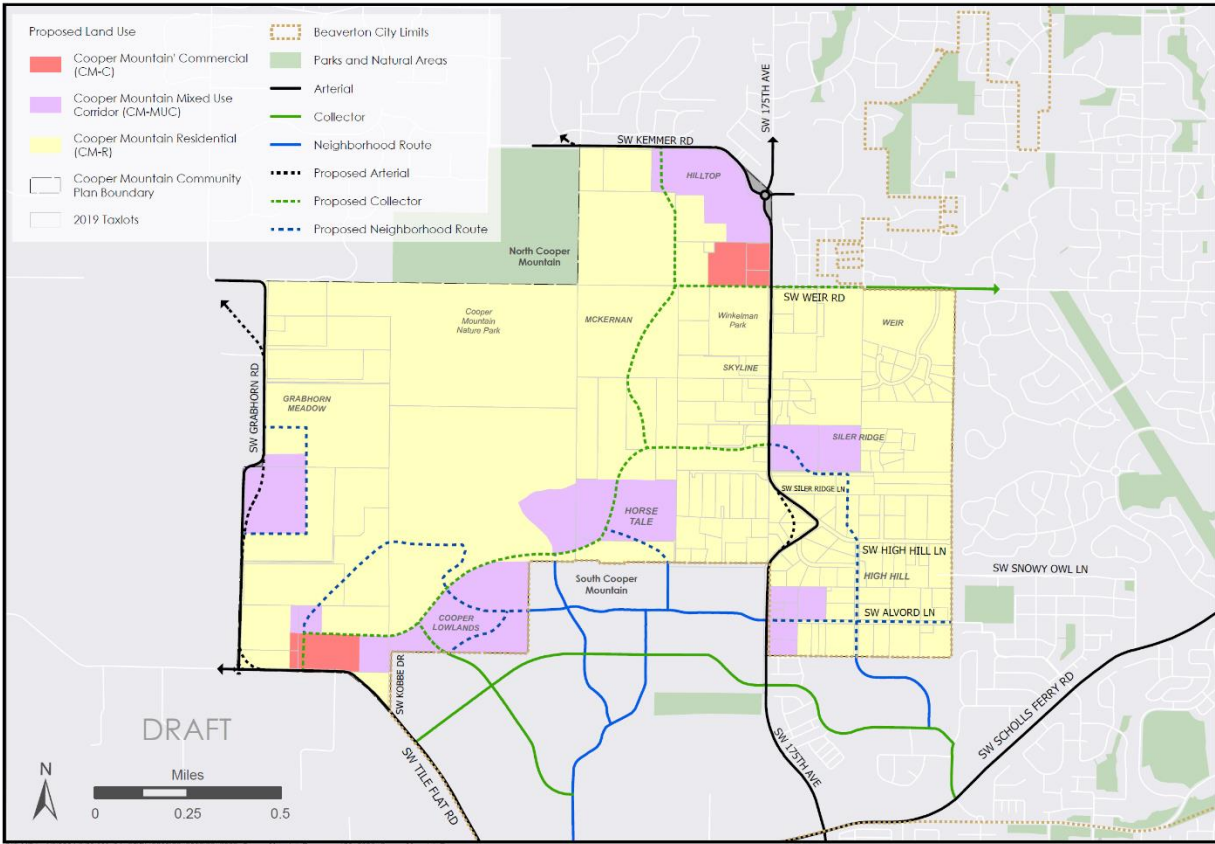


Figure 6. Community Plan Proposed Zoning Map

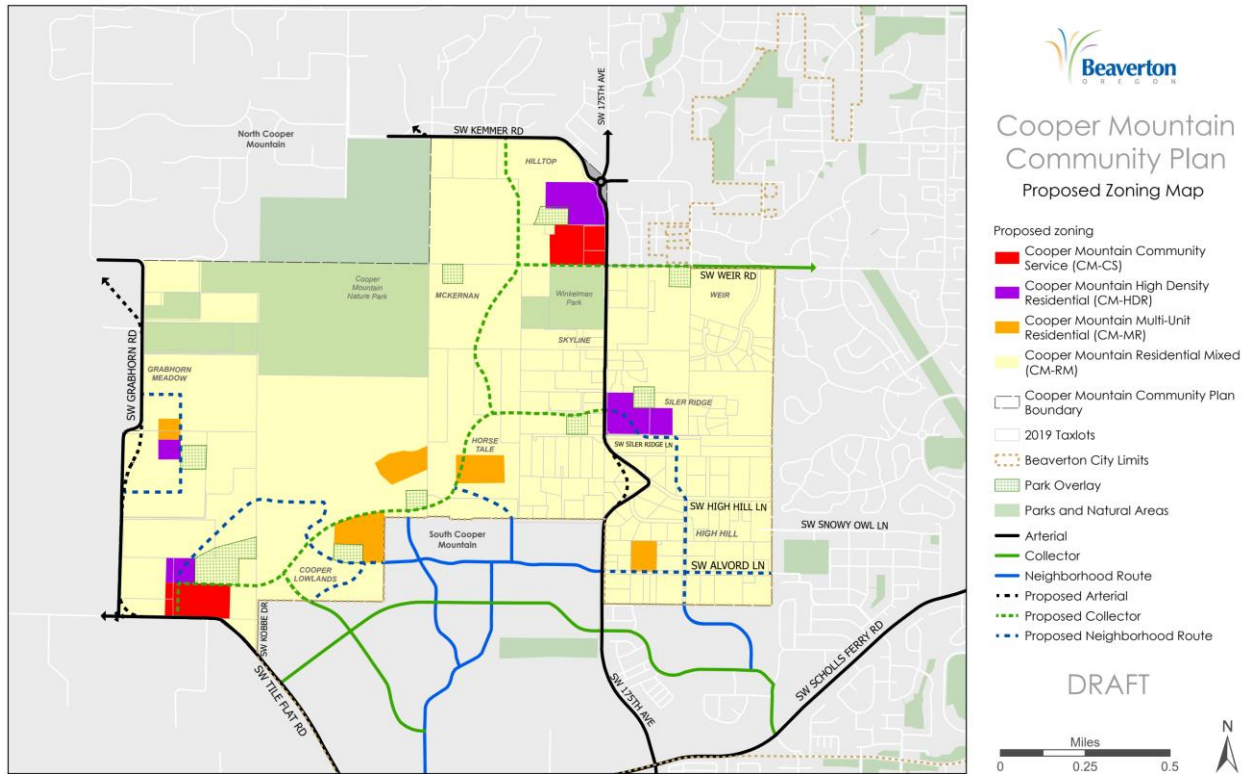


Table 3. Zoning, Allowed Uses, and Housing Types by Plan Designation

Zoning District	Description	Uses & Housing Types Allowed
CM-CS	Cooper Mountain – Community Service (CM-CS): The CM-CS District is intended to require a minimum amount of commercial uses to provide access to goods and services within Cooper Mountain while allowing residential development. This district allows a wide range of commercial uses without significant limits on the size of commercial uses.	Commercial, office, and attached/multi-dwelling residential uses allowed outright (some amount of commercial is required). Light industrial uses allowed outright. Utility transmission lines, public and private parks, dog parks, community gardens, and shelters allowed outright. Schools, social organizations, and places of worship allowed outright.
CM-HDR	Cooper Mountain – High Density Residential (CM-HDR): The CM-HDR District is intended to be primarily a residential district with the highest number of units per acre in Cooper Mountain. Commercial uses are also among the uses allowed. CM-MR development contributes to the vitality of Cooper Mountain’s neighborhood commercial centers and establishes focal points of attached housing in neighborhoods.	Commercial, office, and residential uses allowed outright (commercial is not required). Utility transmission lines, public and private parks, dog parks, community gardens, and shelters allowed outright. Schools, social organizations, and places of worship allowed outright.
CM-MR	Cooper Mountain – Multi-dwelling Residential (CM-MR): The CM-MR District is intended to result in predominantly attached residential developments with the highest number of units per acre of Cooper Mountain’s zones that allow residential development.	Middle housing and multi-dwelling units allowed outright. Utility transmission lines, public parks, dog parks, community gardens, and shelters allowed outright. Schools, social organizations, and places of worship allowed conditionally.
CM-RM	<p>Cooper Mountain Residential Mixed (CM-RM): The CM-RM District is intended to allow a mix of housing types, including detached and attached housing, at the lowest number of units per acre of Cooper Mountain’s residential zones as well as opportunities for small-scale commercial uses.</p> <p>Small-scale commercial uses are limited to land within 100 feet of a THPRD Neighborhood Park, within 300 feet of property zoned CM-MR, or within 100 feet of a designated “Neighborhood Route” in the Beaverton TSP.</p>	<p>Attached housing (up to 6 units), detached housing allowed outright. Small-scale (1,500 sf max) Childcare; Eating and drinking establishments; Offices; Retail; and Service businesses or professional services (hair salons, insurance sales, etc.) allowed in certain locations.</p> <p>Utility transmission lines, public parks, dog parks, community gardens, and shelters allowed outright. Schools, social organizations, and places of worship allowed conditionally.</p>

Table 4. Potential Impacts of Land Uses to Natural Resources

Use Types	Potential Impacts to Natural Resources
All uses	Construction impacts, including clearing of vegetation, grading, excavation, filling, hauling, and soil compaction.

Use Types	Potential Impacts to Natural Resources
All uses	Addition of impervious surfaces by constructing buildings, sidewalks, driveways, parking areas, trails, bike and pedestrian paths, and roads.
All uses	Ground surface and underground impacts from utility connections such as sewers and stormwater pipes, stormwater control structures, landscaping with non-native vegetation (e.g., lawns, trees, shrubs, groundcover).
Residential Uses	Use of toxins in households and yards generating contaminated runoff from household activities. Impacts from pets and human activity, including noise, garbage, the creation and use of informal or unauthorized walking trails.
Non-Residential and Mixed Use Development	Same as residential development except: <ul style="list-style-type: none"> • Potentially larger development area sizes than single detached residential uses increase clearing, placement of fill, • Potentially lower levels of pet ownership. • Toxins, heavy metals and other pollutants as part of commercial activity or landscaping.
Parks, Open Space, and Trails	Impacts from pets and human activity similar to residential uses. Erosion due to intensive recreational activity (e.g., off-road cycling). Use of pesticides and fertilizer in maintained areas may have water quality impacts.
Transportation Facilities	Transportation facilities can create barriers to the movement of animals. Significant Vegetative clearing and removing native soil, Grading, filling, soil compaction, excavation and hauling. Placement of significant impervious surfaces from road construction. Stream crossings (e.g., bridges), installing culverts. Toxins, heavy metals and other pollutants from vehicles and tire wear.
Public and Private Utilities	Where facilities include a building or parking area, impacts are similar to non-residential and mixed-use development. Installation and maintenance of large-scale utility facilities.

Table 5. Expected Prevalence of Conflicting Use Categories within Zones

	Residential development	Non-Res. or Mixed Use Development	Parks, open space and trails	Transportation facilities	Public and private utilities
CM-CS	M	H	L	H	H
CM-HDR	H	L-M	L	H	H
CM-MR	H	M	L	H	H
CM-RM	H	L	L-M	H	H

Key: L = Low; M = Moderate; H = High

As shown in **Figure 6**, the majority of the CMCP area has a proposed zoning designation of CM-RM. **Table 6** describes the acreage of resources and impact areas evaluated in this ESEE and the estimated minimum number of dwelling units that could be developed on that acreage in the CM-RM zone. This information will inform further discussion in the ESEE evaluation.

Table 6. Summary of Conflicting Uses and Impact Areas

Resource	Acres in Resources and Impact Areas	Estimated Number of Dwelling Units at CM-RM Density*
Wetlands	62.1	620
Cooper Mountain Nature Park	164.6	1,646 (200 in evaluated impact area of 100')

* Minimum density in the CM-RM zone, which is the designation applied the majority of the CMCP area, is 10 units/acre.

2.4 ESEE Consequences

Based on the economic, social, environmental, and energy (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 protects a resource site. 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 with regard to conflicting uses for a significant resource site:

- A. 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).
- B. 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.

C. 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**.

In this section, the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use are analyzed for each category of conflicting uses.

As described above, potential conflicting uses can generally be grouped into one of five categories. In the tables that follow each of the five 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.

2.4.1 ESEE Consequences of Prohibiting, Limiting, or Allowing Conflicting Uses in Wetlands and Associated Impact Areas

The following section addresses wetlands and associated impact areas.

2.4.1.A Scenario W-A: Allow Conflicting Uses within Wetlands and Associated Impact Areas

In evaluating the consequences of **allowing** conflicting uses, the assumption is that wetlands and their associated impact areas would be subject to development allowed by the City’s proposed zoning regulations.

Table W-A-1. Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential Development	<p>Property owners realize full development potential of parcels; clustering of residential development is not required.</p> <p>Residential improvements increase property tax base.</p> <p>No mitigation is required, which reduces the cost to develop land.</p>	<p>Loss of ecosystem services⁸ results in higher costs, either to replace services or repair impacts (e.g., construct storm water storage facilities or repair flood damage).</p> <p>Amenity/development premium for parcels adjacent to resource areas is reduced or eliminated.</p>	0

⁸ Ecosystem Services are commonly defined as benefits people obtain from ecosystems. The [Millennium Ecosystem Assessment](#) – 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.

Source: United States Department of Agriculture, Forest Service
https://www.fs.fed.us/ecosystemservices/About_ES/

Wetlands can provide ecosystem services, which in turn provide economic and social value. Ecosystem services include, but are not limited to, water storage, retention and conveyance, flood control, pollution control and detoxification, groundwater recharge/ discharge, erosion protection and habitat for resident or transient species, and nutrient cycling. Ecosystem services can also include opportunities for tourism and recreational activities, aesthetic appreciation of natural scenery, opportunities for formal and informal education and training. For a detailed review see: Ramsar Technical Report No. 3, CBD Technical Series No. 27, “Valuing wetlands: Guidance for valuing the benefits derived from wetland ecosystem services” by Rudolf de Groot , Mishka Stuij, Max Finlayson, and Nick Davidson, Ramsar Convention Secretariat Gland, Switzerland November 2006.

Source: http://www.ramsar.org/sites/default/files/documents/pdf/lib/lib_rtr03.pdf

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	<p>Economic development is facilitated by providing additional residential land for Beaverton residents and employees.</p> <p>Additional housing supply (on the order of 620 additional units) positively impacts housing affordability elsewhere in the City and region.</p>	<p>Environmental impact costs passed on to City could lead to increased taxes for property owners.</p>	
Commercial, Civic, and Mixed Use Development	<p>Development potential of parcels fully realized, enhancing potential for local economic development.</p> <p>Commercial and mixed-use residential improvements increase property tax base, generally at a higher rate than other residential uses due to higher valuation of land and structures.</p> <p>Depending on development type, potential increase in property values for adjacent landowners.</p> <p>Siting of civic uses may help to satisfy long-term capital facilities needs for such uses (e.g. satisfying an identified need for additional schools).</p>	<p>Same as residential, but with greater potential for increased costs resulting from lost ecosystem services due to larger development area and greater proportion of impervious surface associated with commercial development.</p>	+1
Parks, Open Space, and Trails	<p>May create a development premium/amenity for adjacent parcels.</p> <p>Recreation facilities that are a community attraction may enhance potential for local economic development.</p> <p>Use of trail system as low-cost transportation infrastructure will have economic benefits for users.</p> <p>Some ecosystem services could still be provided as part of open space development.</p> <p>May be co-located with utilities, potentially saving costs overall.</p>	<p>May decrease property values for adjacent landowners if higher pedestrian traffic or active recreation (e.g., ball fields) create a nuisance (or perception thereof).</p> <p>Higher municipal service costs relating to maintenance.</p>	+1
Transportation Facilities	<p>Potential for improved connectivity and movement of people and goods.</p> <p>Providing alternatives to 175th may allow for a less expensive roadway design for that regional facility.</p>	<p>Loss of ecosystem services (e.g., higher potential costs due to flood damage risk).</p>	+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. May be co-located with utilities, potentially saving costs overall.	Environmental impact costs could be passed on to City, thus increasing taxes.	
Public and Private 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 facilities needs for utilities.	Potential loss of ecosystem services (e.g., higher potential costs due to flood damage risk), although most severe impacts may be temporary due to construction. Depending on use (e.g., substation), property value for adjacent landowners could be negatively impacted.	+1

Table W-A-2. Social Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential Development	Regulated and subsidized affordable housing would not be impacted by the cost of complying with Goal 5 requirements. Potentially greater number of units are built overall, providing needed housing.	Potential loss of passive recreational and educational opportunities. Potential loss of scenic benefits.	0
Commercial, Civic, and Mixed Use Development	Civic, commercial and mixed-use development provide community gathering places and help create walkable amenity-rich neighborhoods.	Same as residential, but with greater potential for impacts to due to development size.	0
Parks, Open Space, and Trails	Parks and open space provide community gathering places. Opportunities for active recreation provide community health benefits.	Consequences similar to but less than residential, depending on amount of active recreation area and non-native landscaping provided.	0
Transportation Facilities	Small blocks and good connectivity encourage the use of active transportation modes, which can improve public health.	Similar to residential development.	0
Public and Private Utilities	Placement and maintenance of utilities systems can be maximized for safety, aesthetics, and other social goods.	Consequences similar to residential, could be less or temporary depending on type of utility facility (e.g., underground transmission lines)	0

Table W-A-3. Environmental Consequences of Allowing Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential Development	Opportunities for voluntary good stewardship practices by property owners.	Loss of ecosystem services including water storage, retention and conveyance, flood control, pollution control and detoxification, groundwater recharge/ discharge, erosion protection and habitat for resident or transient species, and nutrient cycling. Interrupted wildlife passage due to fencing and other development.	-1
Commercial, Civic, and Mixed Use Development	Same as residential development.	Similar to residential, but with potentially greater impacts from the size of the development and amount of impervious area and fewer impacts from domestic animals.	-1
Parks, Open Space, and Trails	Public ownership may help ensure that resource areas are maintained in the future.	Developed parks and open space may displace native riparian and wildlife habitat. Maintenance practices may introduce pesticides and fertilizers. Activity of humans and pets may disrupt wildlife and their movement.	-1
Transportation Facilities	Small blocks and good connectivity encourage the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions.	Similar to residential, with potentially greater impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facility, and vulnerability that accidents that may introduce high levels of pollutants	-1
Public and Private Utilities	Placement and maintenance of utilities systems is maximized for efficiency which reduces waste.	Similar to residential, but potentially fewer permanent impacts. Installation may introduce impacts (some are temporary) by removing native vegetation and disturbing stable slopes and soil.	0

Table W-A-4. Energy Consequences of Allowing Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential Development	Opportunities to provide compact development patterns with grid pattern streets and reduce out-of-direction travel are increased.	Additional energy is required to build and maintain water quality and stormwater facilities, and manage impacts from flooding.	0

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
	Structures may be sited for best solar access.	Possible increased energy consumption due to loss of vegetation and microclimate effects.	
Commercial, Civic, and Mixed Use Development	Efficient siting may reduce energy cost due to transportation, solar access, and the provision of infrastructure services. Less energy would then be needed to access and operate the facilities.	Same as residential development.	0
Parks, Open Space, and Trails	Similar to civic and commercial. In addition, allowing trails encourages non-motorized modes of transportation.	Similar to residential, although impacts could be less depending on the amount of impervious area.	0
Transportation Facilities	Small blocks and good connectivity encourage the use of active transportation modes and lessen travel times and vehicle miles traveled.	Same as residential development.	0
Public and Private Utilities	Potential for energy savings as a result of maximizing efficiency of system design.	Similar to residential development, although impacts may be fewer or temporary depending on the type of utility facility.	0

Summary of Scenario W-A – Allow Conflicting Uses in Wetlands and Associated Impact Areas

Table A-5 summarizes the net effect of Scenario W-A - allowing conflicting uses in wetlands and associated impact areas. 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 City, 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 residential development. This is primarily due to negative environmental 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 transportation facilities, civic and commercial development, parks, open space and trails, the environmental consequences of allowing the conflicting use are balanced with the environmental benefits of creating a compact urban grid and amenity-rich neighborhood, which would have positive effects including a reduction in vehicle miles traveled and increase in active transportation mode share. Similarly for utilities, allowing certain conflicting uses within wetlands and impact areas may result in a more efficient system which could avoid the need for pump stations, or other (potentially costly) engineered solutions.

Table W-A-5. Scenario A Summary of ESEE Consequences of Allowing Conflicting Uses

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	0	0	-1	0	-1
Commercial, Civic, and Mixed Use Development	+1	0	-1	0	0
Parks, Open Spaces, and Trails	+1	0	-1	0	0
Transportation Facilities	+1	0	-1	0	0
Public and Private Utilities	+1	0	0	0	+1

2.4.1.B Scenario W-B: Limit Conflicting Uses within Wetlands and Associated Impact Areas

In evaluating the consequences of **limiting** conflicting uses, the assumption is that rules would be established to limit the impacts of allowable development in areas containing wetlands and associated impact areas. These areas could still be subject to some degree of development, but additional development restrictions would apply. Draft development code provisions include:

- A mapped Resource Overlay, a portion of which must be placed into a separate tract and protected from most development at the time of land division. The remaining portion of the overlay can be disturbed if mitigation measures are undertaken such as planting native vegetation to make up for the disturbance. Small properties that are fully or extensively covered by the Resource Overlay would be allowed a maximum of 6,000 square feet of disturbance.
- Tree preservation, protection, removal, mitigation, and planting requirements with the goal of ensuring preservation of trees and creating an adequate tree canopy.
- Compliance with Clean Water Services and DSL regulations.

Table W-B-1. Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential Development	Property owners realize most of the development potential of parcels, though clustering of residential development to avoid resource areas may be required. Economic development is still facilitated by allowing development of residential land for relocating/new employees.	Loss of some ecosystem services still possible. Most of the mapped resource area is not available for residential development, potentially reducing property value. Mitigation is required, which increases the cost of development.	+1

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
	<p>Most ecosystem services are retained reducing costs to replace services or repair impacts (e.g., construct storm water storage facilities or repair flood damage).</p> <p>Most of the amenity/development premium for parcels adjacent to natural resource areas is preserved and may be enhanced by mitigation.</p>		
<p>Commercial, Civic, and Mixed Use Development</p>	<p>Some of the development potential of parcels is realized, but may be difficult to allow larger uses without impacting the resource to some degree.</p> <p>Enhances potential for local economic development by providing some opportunities for commercial development.</p> <p>Depending on development type, potential increase in property values for adjacent landowners.</p> <p>Siting of civic uses may help to satisfy long-term capital facilities needs for such uses.</p>	<p>Similar to residential, but with greater potential for increased costs resulting from lost ecosystem services and greater need for mitigation as a result of larger scale facilities.</p>	<p>0</p>
<p>Parks, Open Space, and Trails</p>	<p>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 create a development premium and amenity for adjacent parcels and a community attraction may enhance potential for local economic development.</p> <p>Recreation facilities that are a community attraction may enhance potential for local economic development.</p> <p>To the extent these facilities are allowed, use of trail system as low-cost transportation infrastructure will have economic benefits for users.</p> <p>Most ecosystem services could be retained/provided as part of open space development.</p> <p>May be co-located with utilities, potentially saving costs overall.</p>	<p>May decrease property values for adjacent landowners if higher pedestrian traffic or active recreation (e.g., ball fields) create a nuisance (or a perception thereof).</p> <p>Higher municipal service costs relating to maintenance, etc.</p>	<p>0</p>

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Transportation Facilities	<p>To the extent that some facilities are allowed within resources and impact areas, connectivity can be achieved.</p> <p>Walking/biking connectivity likelier to be achievable than automobile connectivity.</p> <p>Potential for local economic development is enhanced by providing access for goods and people.</p> <p>Providing alternatives to 175th may allow for a less expensive roadway design for that regional facility.</p> <p>May be co-located with utilities, potentially saving costs overall.</p>	<p>Loss of some ecosystem services still possible.</p> <p>Mitigation required, increasing the cost to develop.</p> <p>Mitigation costs could be passed on to City, thus increasing taxes.</p> <p>Potentially less automobile connectivity than Scenario A (Allow), requiring travel to rely on 175th to a greater extent.</p>	0
Public and Private Utilities	<p>Placement and maintenance of utilities systems are somewhat limited by resource areas, though exceptions are available to enable cost effectiveness and efficiency.</p> <p>Helps to satisfy long-term capital facilities needs.</p>	<p>Some loss of ecosystem still possible.</p> <p>Mitigation required, increasing costs.</p> <p>Depending on use (e.g., substation), property value for adjacent landowners could be negatively impacted.</p> <p>Mitigation costs may be passed to rate payers.</p>	0

Table W-B-2. Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential Development	<p>Subsidized and regulated affordable housing can still be sited in the area, though may face some modest locational restrictions. Similar number of units to Scenario A (Allow) are built overall, providing needed housing.</p> <p>Community scenic and cultural values are preserved for the most part and may be enhanced by mitigation.</p> <p>Mitigation sites can become an amenity for residents and visitors.</p>	<p>Potential loss of passive recreational and educational opportunities, scenic areas, and cultural benefits that cannot be mitigated.</p>	+1
Commercial, Civic, and Mixed Use Development	<p>To the extent they are allowed, civic, commercial and mixed-use development provide community</p>	<p>Same as residential, but with greater potential for impacts to due to development size.</p>	+1

	gathering places and help create walkable amenity-rich neighborhoods.		
Parks, Open Space, and Trails	Same as Commercial, Civic, and Mixed Use development. Opportunities for active recreation provide community health benefits.	Consequences similar to, but less than, residential, depending on amount of active recreation area and non-native landscaping provided.	+1
Transportation Facilities	To the extent they can be achieved, small blocks and good connectivity encourage the use of active transportation modes, which can improve public health.	Similar to residential, but with greater potential for impacts to wetlands due to development size, potential for noise, light and glare.	+1
Public and Private Utilities	Though there are restrictions, placement and maintenance of utilities systems can be sited for safety, aesthetics, and other social goods.	Consequences similar to residential, could be less or temporary depending on type of utility facility (e.g., underground transmission lines)	+1

Table W-B-3. Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential Development	Most ecosystem services including water storage, retention and conveyance, flood control, pollution control and detoxification, groundwater recharge/ discharge, erosion protection and habitat for resident or transient species, and nutrient cycling are retained. Opportunities for mitigation and restoration of degraded resources.	Some loss of ecosystem services could still occur which cannot be offset by mitigation.	0
Commercial, Civic, and Mixed Use Development	Same as residential development.	Similar to residential, but with potentially greater impacts from light and glare and fewer impacts from domestic animals.	0
Parks, Open Space, and Trails	Same as residential development. Public ownership may help ensure that resource units are maintained in the future.	Similar to residential, but with potentially fewer impacts if limits require native vegetation and limit the use of pesticides and fertilizers.	0
Transportation Facilities	To the extent that connectivity can be achieved, small blocks can be developed which encourage the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions.	Similar to residential, with potentially higher impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facility, and vulnerability that accidents that may introduce high levels of pollutants.	+1

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Public and Private Utilities	Placement and maintenance of utilities systems can still be maximized for efficiency which reduces waste provided impacts can be mitigated. Mitigation and restoration could improve resource quality where resources are degraded.	Similar to residential, but potentially with potentially fewer permanent impacts. Installation may introduce impacts (some are temporary) by removing native vegetation and disturbing stable slopes and soil.	+1

Table W-B-4. Energy Consequences of Limiting Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential Development	Most ecosystem services are retained reducing the energy needed to build and maintain water quality and stormwater facilities, and manage impacts from flooding. Opportunities to provide compact development patterns with grid pattern streets and reduce out-of-direction travel are possible with mitigation.	Some loss of ecosystem services could still occur which cannot be offset by mitigation resulting in possible increased energy consumption due to flood impacts and the loss of vegetation and microclimate effects. Additional energy is required to construct mitigation.	+1
Commercial, Civic, and Mixed Use Development	Efficient siting is possible if impacts can be mitigated. Less energy would then be needed to access and operate the facilities.	Same as residential development.	+1
Parks, Open Space, and Trails	Similar to residential. In addition, allowing trails encourages non-motorized modes of transportation.	Similar to residential, although impacts could be less depending on the amount of impervious area.	+1
Transportation Facilities	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.	Similar to residential. In addition, increased energy costs may be associated with facilities that are required to avoid resource areas if mitigation is not possible.	+1
Public and Private Utilities	Siting facilities within resource areas may be possible if impacts can be mitigated, thus producing energy savings by supporting efficiency of system design	Same as transportation facilities.	+1

Summary of Scenario W-B – Limit Conflicting Uses in Wetlands and Associated Impact Areas

Table W-B-5 summarizes the net effect of limiting the conflicting uses. 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 City, 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 W-B-5, the net effect of limiting conflicting uses is positive for all use categories. This is primarily due to the positive social and energy consequences. The economic and environmental consequences are often neutral in recognition that mitigation may be costly and may not provide all of the ecosystem services that are lost through development.

Table W-B-5. Scenario B Summary of ESEE Consequences of Limiting Conflicting Uses

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	+1	+1	0	+1	+3
Commercial, Civic, and Mixed Use Development	0	+1	0	+1	+2
Parks, Open Spaces, and Trails	0	+1	0	+1	+2
Transportation Facilities	0	+1	+1	+1	+3
Public and Private Utilities	0	+1	+1	+1	+3

2.4.1.C Scenario W-C: Prohibit Conflicting uses within Wetlands and Associated Impact Areas

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 natural resource areas.

Table W-C-1. Economic Consequences of Prohibiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential Development	Existing ecosystem services are preserved, eliminating need to replace services or repair impacts (e.g., construct stormwater storage facilities or repair flood damage). Amenity/development premium for adjacent parcels is preserved Environmental impact costs are avoided	Property owners don't realize full development potential of parcels. Property tax base lessened Economic development is impacted by loss of land for housing relocating/new employees.	-1

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
		Lack of additional housing supply negatively impacts housing affordability elsewhere in the City and region.	
Commercial, Civic, and Mixed Use Development	Same as residential development.	Development potential of parcels not realized. Reduces potential for local economic development. Does not help satisfy civic long-term facility needs.	-1
Parks, Open Space, and Trails	Similar to residential uses. May increase property values for adjacent landowners if adjacent recreation activities (e.g. ball fields) would have created a nuisance. Lower municipal service costs relating to maintenance, law enforcement, etc.	May decrease property values for adjacent landowners if higher pedestrian traffic or active recreation (e.g., ball fields) create a nuisance. Higher municipal service costs relating to maintenance, law enforcement, etc. Lack of trail system as low-cost transportation infrastructure is an economic burden for would-be users. Utilities would not be co-located with trails or other open spaces, potentially incurring higher costs.	0
Transportation Facilities	Existing ecosystem services are preserved, reducing costs due to impervious surfaces, etc. Environmental impact costs and mitigation costs avoided.	Less automobile connectivity than Scenario A, requiring travel to rely more on 175th. Reduced potential for local economic development due to connected transportation facilities. No cost savings due to co-location with utilities.	-1
Public and Private Utilities	Same as transportation facilities.	The construction and operating costs of utilities are increased as a result of facilities being designed to avoid resources and impact areas. No use of resilient stream corridors – channel incision continues to be a problem for utilities. Does not help satisfy long-term capital facilities needs.	-1

Table W-C-2. Social Consequences of Prohibiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential Development	All scenic and other values of existing resources preserved. Passive recreational and educational opportunities of existing resources preserved.	Subsidized and regulated affordable housing would be impacted by cost of complying with Goal 5 requirements. Fewer housing units are developed overall, providing less relief to housing need city- and region-wide	-1
Commercial, Civic, and Mixed Use Development	Same as residential development	Civic and commercial developments could be impacted, reducing the number/size of community gathering places.	0
Parks, Open Space, and Trails	Same as residential development	Parks and open space impacted, reducing the number/size of community gathering places. Opportunities for active recreation and outdoor education could be precluded.	-1
Transportation Facilities	Same as residential development	Small blocks and good connectivity, which encourage active transportation and can improve public health, may not be possible.	-1
Public and Private Utilities	Same as residential development	Placement and maintenance of utilities systems may not be able to be maximized for safety and other social values.	-1

Table W-C-3. Environmental Consequences of Prohibiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential Development	Ecosystem services including water storage, retention and conveyance, flood control, pollution control and detoxification, groundwater recharge/ discharge, erosion protection and habitat for resident or transient species, and nutrient cycling that are provided by the existing resources are preserved.	No mitigation would be required; thus there may be fewer opportunities for enhancement of degraded resources through development activity.	+1
Commercial, Civic, and Mixed Use Development	Same as residential development.	Same as residential development	+1
Parks, Open Space, and Trails	Developed parks and open space don't displace native riparian and wildlife habitat. Maintenance practices which could introduce pesticides and fertilizers don't occur.	Same as residential development	+1
Transportation Facilities	Same as residential development.		-1

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
	Impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facility, 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 times and vehicle miles traveled, thus reducing greenhouse gas emissions, may be precluded.	
Public and Private Utilities	Same as residential development. Impacts from installation, which may introduce impacts (some are temporary) by removing native vegetation and disturbing stable slopes and soil, are avoided.	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

Table W-C-4. Energy Consequences of Prohibiting Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential Development	Additional energy is not required to build and maintain water quality and stormwater facilities, and manage impacts from flooding. No increased energy consumption due to loss of vegetation and microclimate effects.	Reduces opportunities to provide compact development patterns with grid pattern streets and reduce out-of-direction travel.	0
Commercial, Civic, and Mixed Use Development	Same as residential development.	Less ability to site development efficiently, reducing potentially increasing energy cost due to transportation, solar access, and the provision of infrastructure services.	0
Parks, Open Space, and Trails	Similar to residential, although benefits could be less depending on the amount of impervious area.	Similar to civic and commercial. Allowing trails encourages non-motorized modes of transportation.	0
Transportation Facilities	Same as residential development	Less ability to provide small blocks and good connectivity, lessening use of active transportation modes and increasing travel times and vehicle miles traveled.	-1
Public and Private Utilities	Same as residential development	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

Summary of Scenario W-C – Prohibit Conflicting Uses

Table W-C-5 summarizes the net effect of prohibiting the conflicting uses. 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 City, 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 W-C-5, the net effect of prohibiting conflicting uses is negative for most development. This is primarily due to the positive environmental consequences being offset by the economic impacts to property owners. The consequences to parks, trails and open space are generally neutral; however, the social consequences would likely be negative as trails and other passive recreation opportunities within the resource and impact area would be precluded. In the case of transportation facilities, the localized environmental benefits of prohibiting the conflicting use are balanced with the economic and energy consequences of increased out-direction-travel and vehicle miles traveled. Similarly for utilities, prohibiting the conflicting use within the resource and impact area could preclude development of an efficient system thus creating the need for additional pump stations, or other engineered solutions.

Table W-C-5. Scenario C Summary of ESEE Consequences

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	-1	-1	+1	0	-1
Commercial, Civic, and Mixed Use Development	-1	0	+1	0	0
Parks, Open Spaces, and Trails	0	-1	+1	0	0
Transportation Facilities	-1	-1	-1	-1	-4
Public and Private Utilities	-1	-1	-1	-1	-4

2.4.1.D Summary of Net Effect of Allowing, Limiting, or Prohibiting Conflicting Uses within Wetlands and associated Impact Areas

The Summary Table, below, shows the “Cumulative Effect” column from Tables W-A-5, W-B-5, and W-C-5. This summarizes the net effect of allowing, limiting, or prohibiting conflicting uses in wetlands associated impact areas.

The overall recommendation is based on encouraging the strongest positive outcome. In this case, the Limit Scenario offers the greatest net benefit overall; thus, a **general recommendation of “Limit”** is appropriate. However, within the scope of a Limit decision, the regulatory approach can range from “Lightly Limit” to “Moderately Limit” to “Strictly Limit,” and these refinements can vary by conflicting use category based on the relative strength of the score:

- Residential Uses, Commercial, Civic, and Mixed Use Development – The Limit score was higher than Allow or Prohibit, which suggests that an approach that allows these uses with limits may be most appropriate.
- Parks, Open Spaces, and Trails and Transportation Facilities – The Limit score was higher than Allow or Prohibit, which suggests that an approach that allows these uses with limits may be most appropriate. However, the negative score in the Prohibit category suggests some additional flexibility for these uses may be appropriate.
- Public and Private Utilities had a slight positive score in the Allow category and a stronger negative score in the Prohibit category which suggests that an approach that allows these uses with limits may be most appropriate.

Table 7. ESEE Summary Table - Wetlands

Use Category	Allow (Cumulative Effect from Table A-5)	Limit (Cumulative Effect from Table B-5)	Prohibit (Cumulative Effect from Table C-5)
Residential Uses	-1	+3	-1
Commercial, Civic, and Mixed Use Development	0	+2	0
Parks, Open Spaces, and Trails	0	+2	0
Transportation Facilities	0	+3	-4
Public and Private Utilities	+1	+3	-4
Total	0	13	-9

2.4.2 ESEE Consequences of Prohibiting, Limiting, or Allowing Conflicting Uses in Cooper Mountain Nature Park Impact Area

This section addresses the ESEE consequences related to conflicting uses within a 100' impact area of the Cooper Mountain Nature Park. Much of the rationale follows tables in section 2.4.1; areas with notable differences are called out in the following tables.

2.4.2.A Scenario NP-A: Allow Conflicting Uses within Nature Park Impact Area

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	+1 Lesser loss of ecosystem services; resource itself is not developed but only impact area	0	-1	0	0
Commercial, Civic, and Mixed Use Development	+1 Same as above	0	0	0	+1
Parks, Open Spaces, and Trails	+1	+1 These uses provide social benefit while maintaining buffer; fewer downsides than scenario evaluated in 2.4.1	+1 Formalized trails and open spaces may reduce informal paths into nature park. Environmental buffer largely maintained by this use.	0	+3

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Transportation Facilities	+1	0	0 Depending on design, transportation facilities can support buffer	0	+1
Public and Private Utilities	+1	+1 Utilities may provide benefit while supporting buffer	0	0	+2

2.4.2.B Scenario NP-B: Limit Conflicting Uses within Nature Park Impact Area

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	+1	+1	+1 Interior of Nature Park area remains intact with limits to abutting uses	+1	+4
Commercial, Civic, and Mixed Use Development	0	+1	0	+1	+2
Parks, Open Spaces, and Trails	0	+1	+1 Same as residential	+1	+3
Transportation Facilities	0	+1	+1	+1	+3
Public and Private Utilities	0	+1	+1	+1	+3

2.4.2.C Scenario NP-C: Prohibit Conflicting Uses within Nature Park Impact Area

Use Category	Economic Effect	Social Effect	Environmental Effect	Energy Effect	Cumulative Effect
Residential Uses	-1	-1	+1	0	-1
Commercial, Civic, and Mixed Use Development	-1	0	+1	0	0

Parks, Open Spaces, and Trails	0	-1	+1	0	-1
Transportation Facilities	-1	-1	-1	-1	-1
Public and Private Utilities	-1	-1	-1	-1	-4

2.4.2.D Summary of Net Effect of Allowing, Limiting, and Prohibiting Conflicting Uses in Nature Park Impact Area

The Summary Table, below, shows the “Cumulative Effect” column from Tables NP-A, NP-5, and NP-C. This summarizes the net effect of allowing, limiting, or prohibiting conflicting uses in wetlands and the Cooper Mountain Nature Park and its impact area.

The overall recommendation is based on encouraging the strongest positive outcome. In this case, the Limit Scenario offers the greatest net benefit overall; thus, a **general recommendation of “Limit”** is appropriate. However, given the high benefit of the “Allow” scenario, it is recommended that the regulated impact area of the nature park be reduced from 100’ to a lesser amount. This would allow for many or most of the benefits of protection of the interior habitat of the Nature Park while allowing for the economic, social, and energy benefits of private development on the remaining land.

Table 8. ESEE Summary Table – Nature Park Impact Area

Use Category	Allow (Cumulative Effect from Table NP-A)	Limit (Cumulative Effect from Table NP-B)	Prohibit (Cumulative Effect from Table NP-C)
Residential Uses	0	+4	-1
Commercial, Civic, and Mixed Use Development	+1	+2	0
Parks, Open Spaces, and Trails	+3	+3	-1
Transportation Facilities	+1	+3	-1
Public and Private Utilities	+2	+3	-4
Total	7	15	-7

Section 3. Conclusions and Program Recommendations

This section includes draft recommendations as to whether to allow, limit, or prohibit identified conflicting uses within significant natural resources areas based on the ESEE analysis in Section 2.

3.1 Summary of Recommendations

As noted above, the **limit scenario (Scenario B)** offers the greatest net benefit in all use categories; thus, a program that limits conflicting uses is appropriate. More specifically, the program should accomplish the following objectives in order to achieve the net benefit to the City anticipated by this approach:

- Avoid impacts where possible. Where impacts cannot be avoided require mitigation for resource impacts to help ensure that lost ecosystem services are replaced to the extent possible. Mitigation can be achieved by enhancing the resource overlay or by planting in other onsite areas.
- Clear identification of the area that is protected and activities that are limited through a Resource Overlay and associated mapping managed by the City.
- Exemptions/exceptions for some uses, such as the construction and maintenance of low-impact outdoor recreation facilities, removal of invasive species, and select other uses.
- Limit the temporary and permanent disturbance area associated with development in natural resource areas and impact areas.
- Recognize that the Private and Public Utilities and Facilities and Transportation use categories may require a greater degree of flexibility to allow for the crossing of resources and the temporary impacts associated with underground utilities. In the case of the Cooper Mountain Nature Park's impact area, the use of a 100' buffer in which no conflicting uses were allowed would place a significant burden on adjacent properties within the Grabhorn Meadow and McKernan neighborhoods, while not significantly protecting the nature park's interior habitat to a greater extent than a smaller landscape buffer. For this reason, a 25' buffer is recommended.



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MEMORANDUM

TO: Project File

FROM: Alisa Maxwell, Capital Planning Project Manager

DATE: September 27, 2024

SUBJECT: Addendum to Statewide Planning Goal 5 Analysis for Cooper Mountain:
Economic, Social, Environmental, and Energy (ESEE) Analysis

On September 19, 2024, the Oregon Department of State Lands (DSL) approved the Cooper Mountain Community Plan, Local Wetlands Inventory (LWI). The approved LWI includes minor changes from the April 2024 LWI that was used to develop the Cooper Mountain ESEE Analysis.

The final approved LWI includes updates to naming and classification of wetland features. Specifically, wetland features previously classified as “open water” in the April 2024 LWI report have been classified as “probable wetland” and are included in LWI Wetland Summary Results Tables. As such, information in the Statewide Planning Goal 5 Analysis for Cooper Mountain: Economic, Social, Environmental, and Energy (ESEE) Analysis (August 2024) is superseded by the following:

- Figure 3 (page 12) is superseded by the figure below from the approved LWI, dated September 2024.
- Table 1 is superseded by the table below.

The locations and sizes of wetland features used in the ESEE analysis are unchanged. The open water features were previously included in the mapping of wetland features for the purposes of identifying riparian and upland habitat areas. The analysis, conclusions and recommendations throughout the ESEE analysis are unchanged.

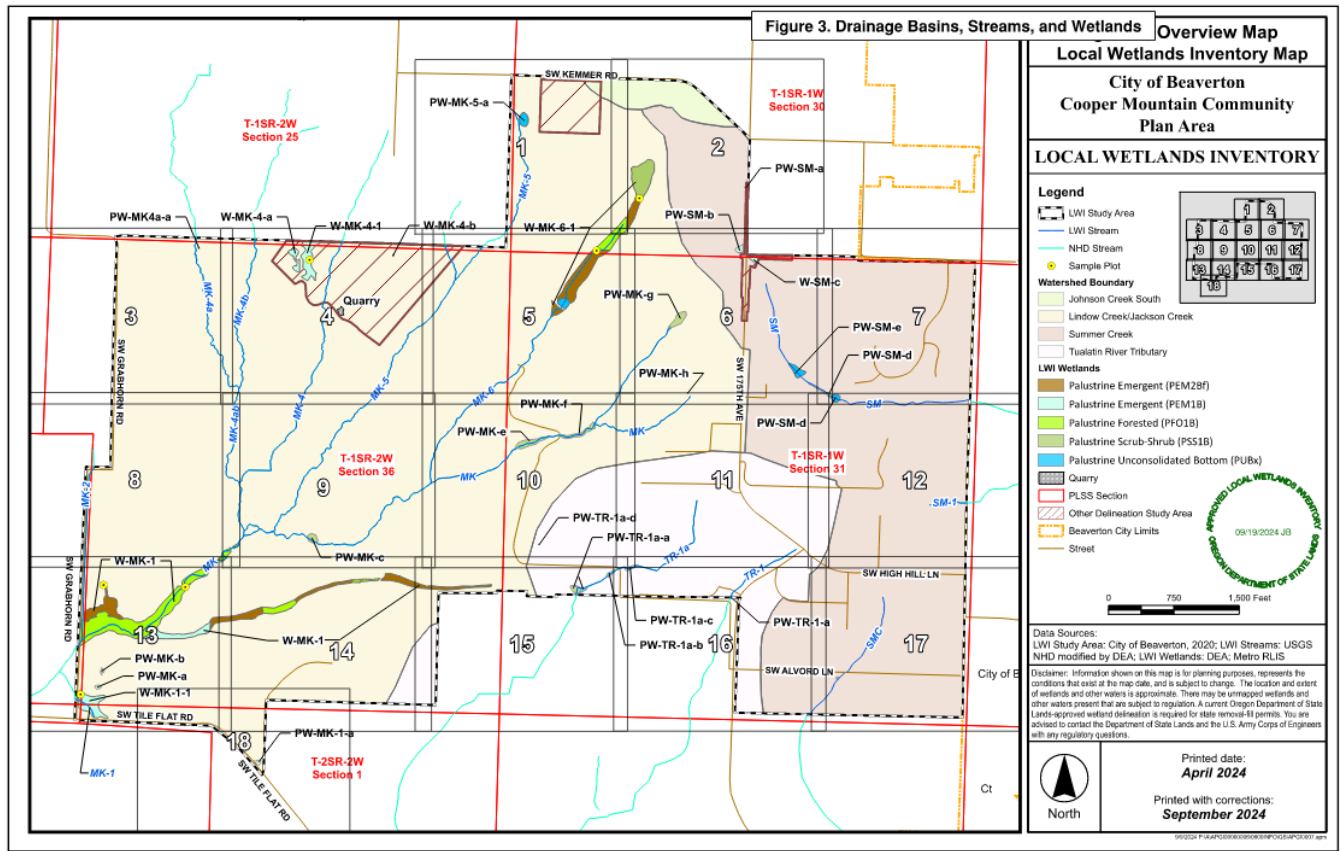


Table 1. LWI Wetland Summary Results for the Community Plan area

Wetland ID ¹	Cowardin ²	HGM	Acres ⁴
PW-MK-1-a	PEM1B	Slope	0.07
PW-MK-4a-a	PEM1B	Depressional	0.002
PW-MK-a	PEM1B	Depressional	0.06
PW-MK-5-a	PUBx	Depressional	0.30
PW-MK-b	PEM1B	Depressional	0.04
PW-MK-c	PSS1B	Slope	0.22
PW-MK-e	PSS1B	Slope	0.48
PW-MK-f	PSS1B	Slope	0.38
PW-MK-g	PSS1B	Slope	0.41
PW-MK-h	PSS1B	Depressional	0.002
PW-SM-a	PEM1B	Slope	0.002
PW-SM-b	PEM1B	Slope	0.13
PW-SM-d	PSS1B	Riverine	0.12
PW-SM-d	PUBx	Depressional	0.17
PW-SM-e	PUBx	Depressional	0.33
PW-SMC-a	PSS1B	Slope	0.002
PW-TR-1-a	PSS1B	Riverine	0.17

Wetland ID ¹	Cowardin ²	HGM	Acres ⁴
PW-TR-1a-a	PEM1B	Slope	0.002
PW-TR-1a-b	PEM1B	Slope	0.08
PW-TR-1a-c	PEM1B	Slope	0.09
PW-TR-1a-d	PEM1B	Depressional	0.002
W-MK-1	PEM2Bf	Slope	4.01
W-MK-1	PEM1B	Slope	1.10
W-MK-1	PFO1B	Slope	7.26
W-MK-1-1	PEM1B	Slope	1.31
W-MK-4-1	PEM1B	Slope	1.14
³ W-MK-4-a	PEM1B	Depressional	0.37
³ W-MK-4-b	PSS1B	Depressional	0.003
W-MK-6-1	PSS1B	Slope	1.79
W-MK-6-1	PEM2Bf	Slope	3.21
W-MK-6-1	PFO1B	Slope	1.05
W-SM-c	PEM1B	Slope	0.11
Probable Wetland Acreage			3.062
Wetland Acreage			21.353
Grand Total			24.415

¹ "W" = wetland, "PW" = probable wetland

² PEM2Bf= Palustrine Emergent, Nonpersistent, Seasonally Saturated, Farmed

PEM1B = Palustrine Emergent, Persistent, Seasonally Saturated

PSS1B= Palustrine Scrub-shrub, Broad-leaved Deciduous, Seasonally Saturated

PFO1B= Palustrine Forested, Broad-leaved Deciduous, Seasonally Saturated

PUBx= Palustrine Unconsolidated Bottom, Excavated

³ Feature has been mapped as a wetland instead of a probable wetland despite being less than 0.5 acres. This is because the feature was part of a past wetland delineation that received DSL concurrence.

⁴ Probable wetlands with acreage of 0.002 are rough estimates of very small features that may be wetlands.