

Report

Supplemental Goal 5 Economic, Social, Environmental and Energy (ESEE) Analysis

Multnomah County, East and West of the Sandy River Areas

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Prepared by

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1. INTRODUCTION

Statewide Planning Goal 5 directs local governments to protect natural resources and conserve scenic and historic areas and open spaces. OAR 660-023 establishes procedures and criteria for inventorying and evaluating Goal 5 resources and for developing land use programs to conserve and protect significant Goal 5 resources. For some types of natural resources, local jurisdictions may opt to use a “safe harbor” approach to identifying and/or regulating resources. Alternatively, the jurisdiction may analyze the economic, social, environmental, and energy (ESEE) consequences of different protection scenarios and use the results to establish a regulatory program. For some resources, a safe harbor approach is not available and an ESEE analysis is needed to establish the regulatory program.

Multnomah County has previously adopted inventories, ESEE analyses, and protection programs for most of the previously identified significant natural resources within the County. However, as part of an update of the County’s Comprehensive Plan in 2014-2016, additional resources were inventoried and determined to be significant. The County elected to prepare an ESEE analysis for these newly identified resources in order to develop a regulatory protection program for them.

The purpose of this ESEE analysis and report is to address the Goal 5 requirements for two types of natural resources (Riparian Corridors and Wildlife Habitat) within the eastern unincorporated portions of Multnomah County, including portions of the West of Sandy River and East of Sandy River subareas. A separate report addresses similar resources in the western unincorporated portions of the County.

The process to comply with Goal 5 follows three main steps.

1. Inventory natural resources and determine which resources are significant. Because Multnomah County has previously adopted inventories, ESEE analyses, and protection programs for most significant resources within the County, only a limited number of resources are evaluated in this report. Within the study area inventories include:
 - a. Riparian Corridors inventoried by:
 - i. Metro Title 13 Resource for areas mapped within one mile of the Metro urban growth boundary
 - ii. The State of Oregon and found in the Oregon Explorer database
 - iii. Multnomah County and identified as “Policy 21” streams (described in more detail on page 15 of this report)

- b. Wildlife Habitat areas outside of the Columbia River Gorge National Scenic Area¹ (CRGNSA) and within the West and East of Sandy River subareas which are not currently subject to SEC overlays but which have been mapped by the Oregon Department of Fish and Wildlife (ODFW) and the United States Fish and Wildlife Service (USFWS) as areas of critical habitat and winter range.
2. Complete an economic, social, environmental, and energy (ESEE) analysis. An ESEE Analysis involves evaluating the potential tradeoffs associated with managing significant natural resources relative to the expected use scenario.
3. Develop a program to protect significant natural resources. For example, Multnomah County's existing Goal 5 program consists of a series of Significant Environmental Concern (SEC) overlays for different types of resources.

1.1. STUDY AREA AND BACKGROUND

The study area for this ESEE analysis is the eastern unincorporated portions of Multnomah County. This includes two subareas – the West of Sandy River and East of Sandy River subareas. The County previously prepared Rural Area Plans for these areas as part of its land use planning program. The East of Sandy River Rural Area Plan was adopted in 1996 and West of Sandy River Plan was adopted in 2002. The East of Sandy River Wildlife Habitat and Stream Corridor ESEE Report (1997) summarized an ESEE analysis for Goal 5 wildlife and riparian resources in that area. The West of Sandy Natural Resource Inventory and ESEE Report (2001) provided a similar analysis for the area West of the Sandy River. In 2014-2016, the County completed a major overhaul of its Comprehensive Plan, including combining and updating information from previously adopted Rural Area Plans for the West Hills, Sauvie Island/Multnomah Channel (SIMC), East of Sandy River and West of Sandy River areas. The updated Comprehensive Plan includes a variety of policies applicable to this report as listed below.

Applicable Policies and Strategies from the Multnomah County Comprehensive Plan

General Policies and Strategies

Policy 5.2 *Protect natural areas from incompatible development and specifically limit those uses which would significantly damage the natural area values of the site.*

Strategy 5.2-1: *Utilize the Oregon Natural Heritage Resources Register to maintain a current inventory of ecologically and scientifically significant natural areas.*

¹ Within the Columbia River Gorge National Scenic Area, wildlife habitat, along with a variety of other natural, scenic, cultural, and historic resources are managed and protected by policies and requirements of the Columbia River Gorge National Scenic Area Management Plan. As a result, the County does not apply its own additional protections beyond those that are required by the Scenic Area Act.

Policy 5.4 Review Goal 5 inventories and programs periodically in order to consider any new data and, if necessary, initiate amendments to the inventories and protection programs.

Wetland and Riparian Area Policies and Strategies

Policy 5.18 Designate as areas of Significant Environmental Concern, those water areas and adjacent riparian areas, streams, wetlands and watersheds that warrant designation as a protected Goal 5 resource or have special public value in terms of the following:

1. Economic value, including ecosystem services value (the benefits people derive from ecosystems, including but not limited to: nutrient recycling, air purification, climate regulation, carbon sequestration, water purification, food, temperature regulation and aesthetic experience);
2. Natural area value (areas valued as habitats for plant, animal or aquatic life, or having a state or federally listed plant or animal species);
3. Recreation value, where compatible with underlying natural area value;
4. Educational research value (ecologically and scientifically significant lands), or;
5. Public safety (municipal water supply watersheds, water quality, flood water storage areas, vegetation necessary to stabilize river banks and slopes).

Strategy 5.18-1: Maintain inventories and continue to protect all significant riparian corridors and wetlands in accordance with applicable ESEE Analysis Reports.

Strategy 5.18-2: Update the inventory of riparian corridors, including water areas and adjacent riparian areas, to include significant riparian corridors identified in Metro's Urban Growth Management Functional Plan Title 13, Nature in Neighborhoods inventory within unincorporated Multnomah County.

Strategy 5.18-3: As appropriate, rely upon the findings contained within Metro's analysis of "Economic, Social, Environmental and Energy" (ESEE) consequences to apply the Significant Environmental Concern overlay for streams (SEC-s) to riparian corridors that have been added to the updated inventory.

Strategy 5.18-6: Periodically review and consider new data to update the inventory of significant wetlands and riparian corridors.

Wildlife Habitat Policies and Strategies

Policy 5.26 Designate as areas of Significant Environmental Concern, those habitat areas that warrant designation as a protected Goal 5 resource or have special public value in terms of the following:

1. Economic value, including ecosystem services value (the benefits people derive from ecosystems, including but not limited to: nutrient recycling, air purification, climate regulation, carbon sequestration, water purification, food, temperature regulation and aesthetic experience);
2. Natural area value (areas valued as habitats for plant, animal or aquatic life, or having a state or federally listed plant or animal species);
3. Recreation value, where compatible with underlying natural area value;
4. Educational research value (ecologically and scientifically significant lands), or;
5. Public safety (municipal water supply watersheds, water quality, flood water storage areas, vegetation necessary to stabilize river banks and slopes).

Strategy 5.26-1: *Maintain inventories and continue to protect all significant wildlife habitat in accordance with applicable ESEE Analysis Reports.*

Strategy 5.26-2: *Periodically review and consider new data to update the inventory of significant wildlife habitat.*

Strategy 5.26-3: *Update the inventory of wildlife habitat and associated wildlife corridors in accordance with Statewide Planning Goal 5.*

Strategy 5.26-4: *Designate wildlife habitat and corridors mapped by Oregon Department of Fish and Wildlife as significant.*

Strategy 5.26-5: *Conduct an analysis of “Economic, Social, Environmental, and Energy” (ESEE) consequences on wildlife habitat that has been added to the inventory.*

Strategy 5.26-6: *If warranted by an ESEE analysis, apply the Significant Environmental Concern overlay for wildlife habitat (SEC-h) to any newly identified significant wildlife habitat.*

Policy 5.27 *Protect significant native fish and wildlife habitat and wildlife corridors and specifically limit conflicting uses within natural ecosystems and sensitive big game winter habitat areas.*

1.2. RESOURCES SUBJECT TO ESEE ANALYSIS

The resources which are the subject of this ESEE analysis include those riparian corridors and wildlife habitat areas identified in the inventories established by Metro and the Oregon Department of Fish and Wildlife (ODF&W) within the West of Sandy River and East of Sandy River areas which are not already subject to Multnomah County’s SEC-wr, SEC-h or SEC-s overlay zones and which are outside the Columbia River Gorge National Scenic Area. These include the following areas as illustrated in Figures 2 and 3:

- Metro one-mile riparian areas, including:
 - Riparian corridors within and adjacent to unnamed creeks, located approximately parallel to and north of E Bell Road. These corridors flow through a mix of open and wooded areas used for rural residential and agricultural purposes.
 - Riparian corridors associated with Smith Creek and its tributaries, including a portion paralleling SE Hurlburt Road, as well as Pounder Creek. These corridors flow through a mix of open and wooded areas used for rural residential and agricultural purposes.
- Riparian corridors mapped by ODF&W as fish-bearing streams within and connected to Buck Creek, Gordon Creek, and Trout Creek. These corridors are within primarily wooded areas on slopes of varying degree within or near Oxbow Regional Park and the Buck and Gordon Creek Natural Area. Portions of Trout Creek and Gordon Creek in this area are crisscrossed by Gordon Creek Road and includes a mix of residential and agricultural uses.
- Riparian areas previously identified as “Policy 21” streams by the County, including portions of Buck, Gordon, and Trout Creeks. Smith and Pounder Creeks (noted above) also fall into this

category. Some portions of these corridors also are coincident with the ODF stream corridors noted above.

- Portions of the Sandy River corridor where the channel has migrated since the County's SEC overlay was established in this area and/or where the SEC-s designation was not previously applied. These areas vary in character. Some are fairly flat while others are steeply sloped. Most are undeveloped with a mix of wooded and open undeveloped areas.
- Wildlife habitat located in the northwest corner of the rural portion of the County just south of the Columbia River Gorge National Scenic Area (CRGNSA). The bulk of the habitat is located in the East of the Sandy River area. This area includes big game (black bear, elk, and/or black tailed deer) habitat mapped by the ODF&W. These areas include a mix of farm uses, forest land, and rural residential areas, including the rural center of Springdale.

**Figure 1 - West
Multnomah County
Unincorporated
Areas**

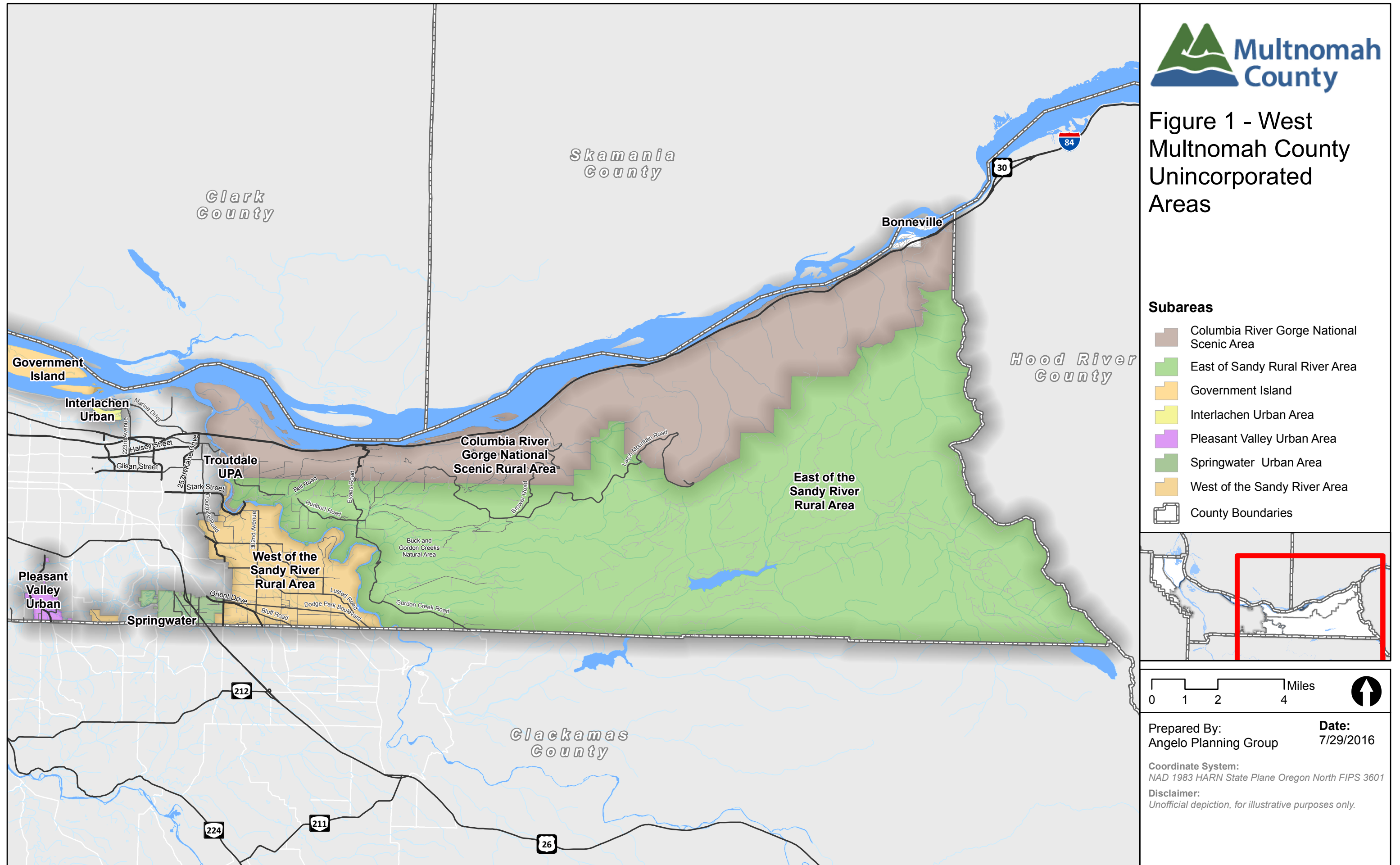


Figure 2 - Riparian Corridors within the Study Area

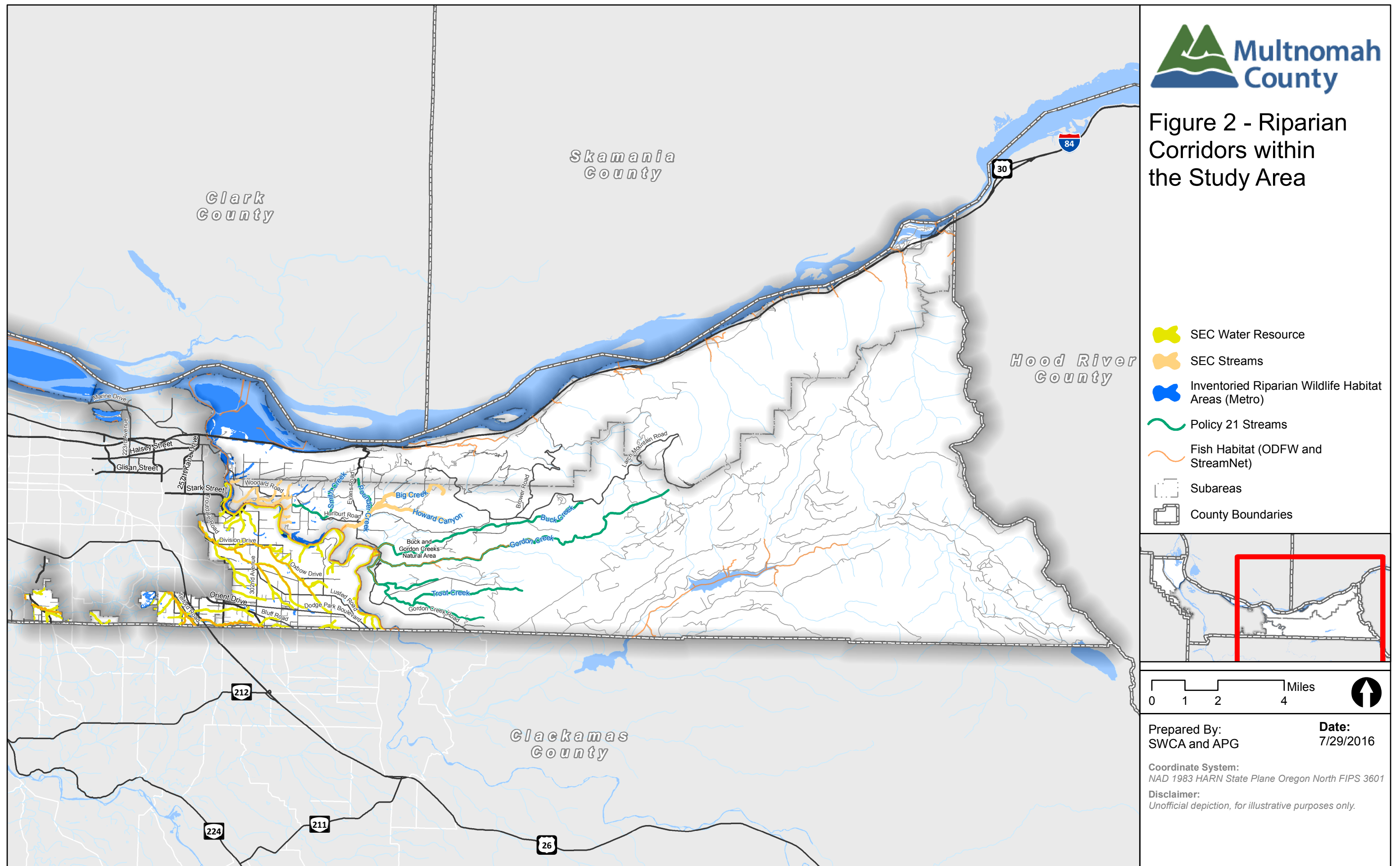
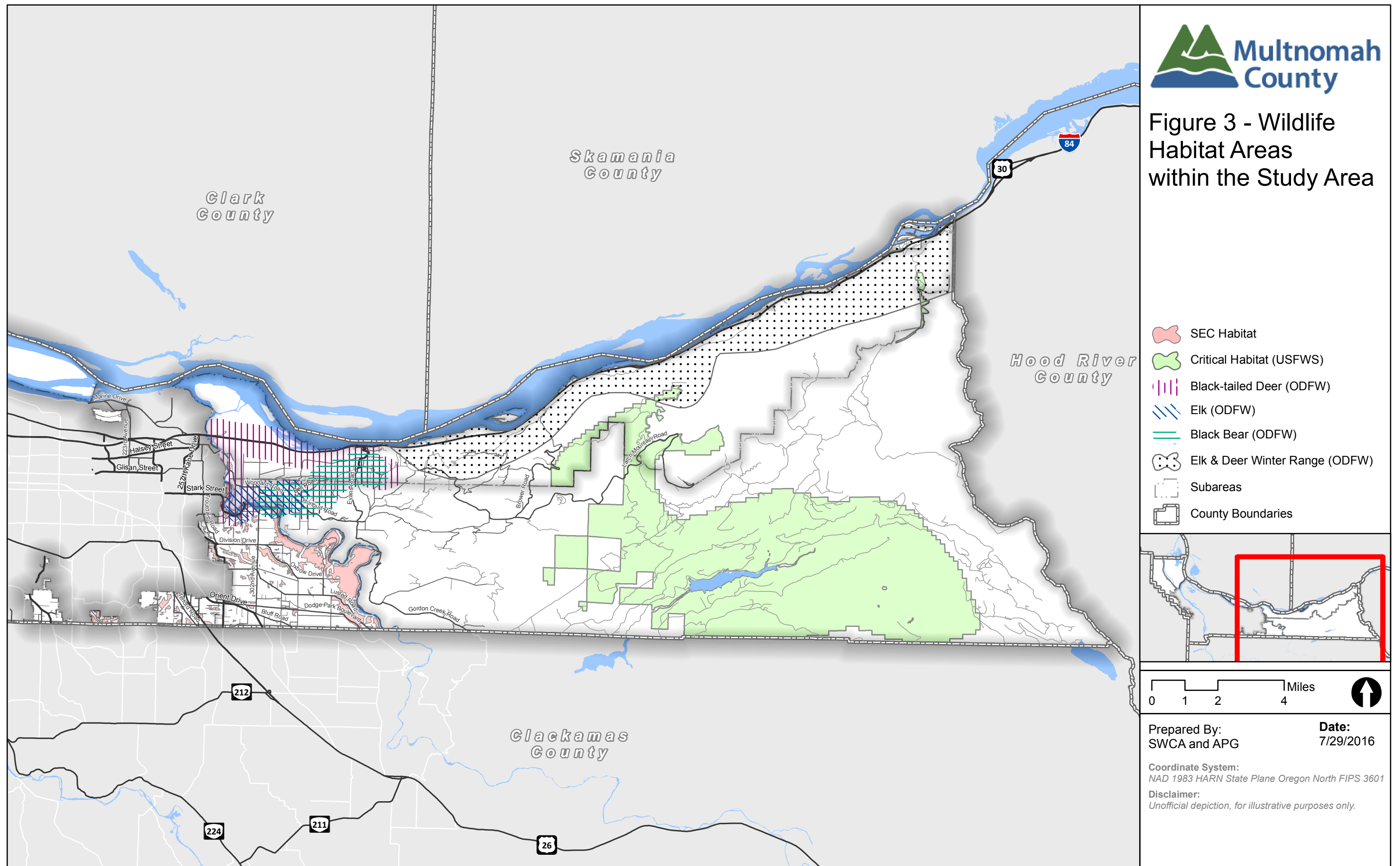


Figure 3 - Wildlife
Habitat Areas
within the Study Area



1.3. STUDY AREA ZONING

As shown in Figure 4 and Table 1 below, zoning within the study area for the riparian corridors includes a mix of Exclusive Farm Use (EFU), Commercial Forestry Use (CFU), Multiple Use Agriculture (MUA-20), Rural Residential (RR), and Rural Center (RC) designations.

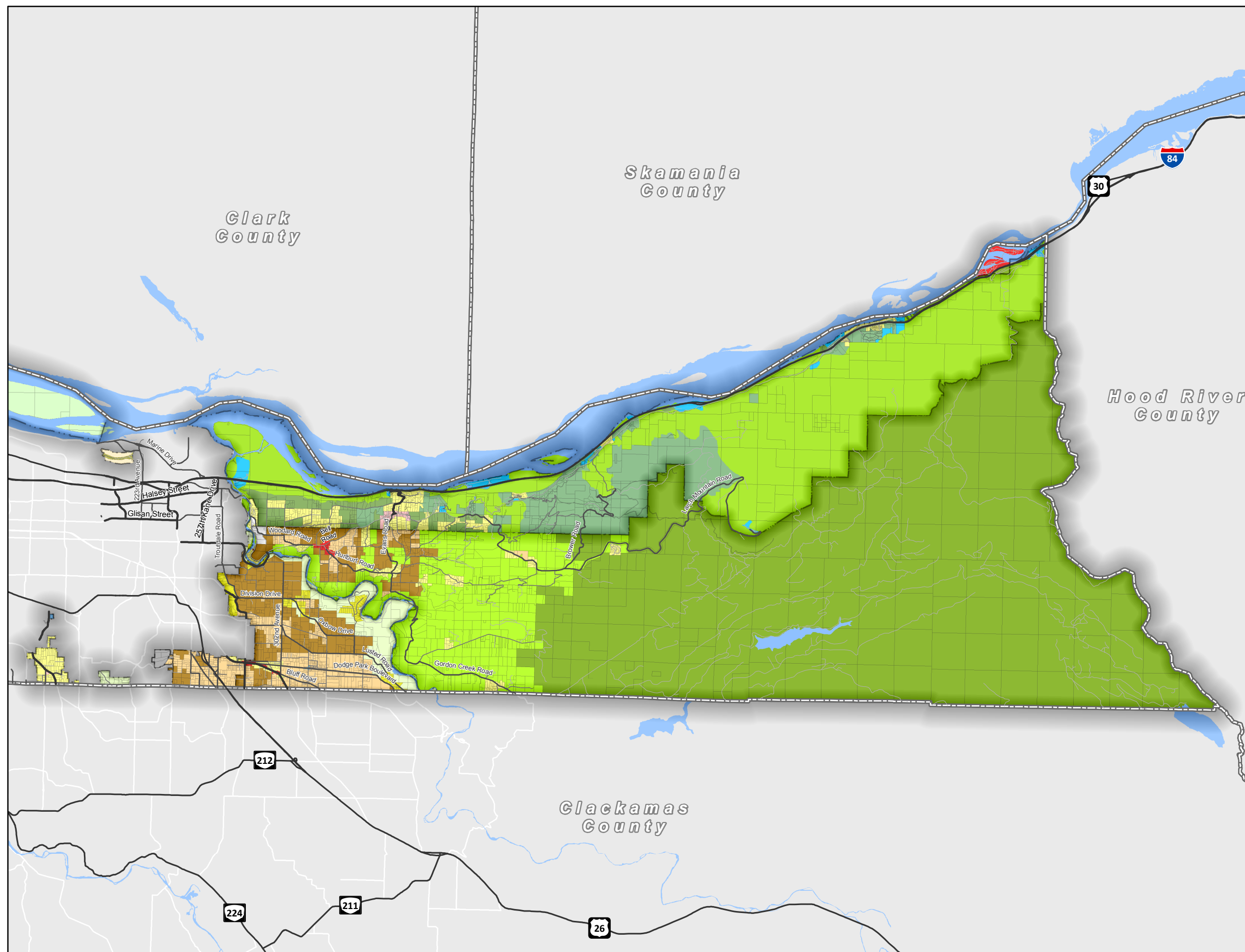
Table 1: Zoning in Riparian Corridors and Wildlife Habitat Areas and Associated Impact Areas

Resource Area	Zoning Designations
Riparian corridors adjacent to unnamed creeks, located approximately parallel to and north of E Bell Road.	EFU and RC
Riparian corridors associated with Smith Creek and its tributaries, including a portion paralleling SE Hurlburt Road, and Pounder Creek.	CFU-4, EFU, MUA-20, and RC
Riparian corridors within and adjacent to Buck Creek, Gordon Creek and Trout Creek.	CFU-3 and CFU-4
Portion of the Sandy River.	CFU, CFU-4
Wildlife habitat located in the northwest corner of the rural portion of the County just south of the CRGNSA.	CFU, CFU-4, EFU, MUA-20, and RR

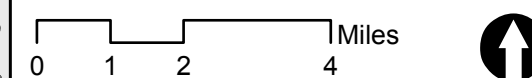
Table 2 identifies the type of land uses that are allowed within these designations, including uses that are permitted outright, those that require staff review prior to approval ("Review Uses"), and those allowed conditionally.



Figure 4 - Multnomah County Zoning



- County Boundaries
Subareas
Taxlots
- Columbia River Gorge**
GGA; GSA
GGC
GGCR; GGPR; GSPR
GGF; GSF
GGO; GSO
GGR; GSR
GGRC
- Interlachen**
LR10
LR5 (overwater zone)
LR7
- Pleasant Valley**
C3
LM
RR
UF20
- West of Sandy River**
CFU
EFU
MUA20
OCI
OR
PHRC
RR
- East of Sandy River**
CFU3
CFU4
EFU
MUA20
RC
RR
- Government Island and Bonneville**
CFU
CFU3
RC



Prepared By: Angelo Planning Group
Date: 7/29/2016

Coordinate System:
NAD 1983 HARN State Plane Oregon North FIPS 3601

Disclaimer:
Unofficial depiction, for illustrative purposes only.

Table 2: Zoning, Allowed Uses & Housing Types by Designation

Comprehensive Plan Designation	Zoning District	Uses & Housing Types Allowed		
		Uses Permitted Outright*	Review Uses**	Uses Allowed Conditionally***
Rural Center	RC	Single family detached housing, accessory structures, farm uses, forest propagation & harvesting, livestock, honeybee & other animal raising, home occupation (Type A), family day care, conservation areas, solar & wind energy, transportation facilities	Manufactured dwellings, wholesale or retail sales of farm or forest products grown on premises, wireless communication facilities, home occupation (Type B)	Community service uses, small scale, low impact rural service commercial uses, selected industrial uses within enclosed structures, commercial and industrial uses allowed in EFU and CFU districts, Type C home occupations, farm stands
Rural Residential	RR	Single family detached housing, accessory structures, farm uses, forest propagation & harvesting, livestock, honeybee & other animal raising, home occupation (Type A), family day care, conservation areas, solar & wind energy, transportation facilities	Manufactured dwellings, wholesale or retail sales of farm or forest products grown on premises, wireless communication facilities, home occupation (Type B)	Feed lots, fowl raising & processing, raising swine & fur bearing animals, commercial processing of agricultural products grown in the region, cottage industries, limited rural service commercial, mineral & aggregate exploration & processing, community service uses, geothermal mining & processing
Multiple Use Agriculture	MUA-20	Single family detached housing, farm uses, livestock and honeybee raising, home occupation (Type A), conservation areas, family day care, transportation facilities, solar & wind energy	Manufactured dwellings, wholesale or retail sales of farm or forest products, wireless communication facilities, home occupation (Type B)	Planned developments, farm and forest products processing, other animal raising, , home occupation (Type C, mineral & aggregate exploration & processing, community service uses, geothermal mining, processing and production

Comprehensive Plan Designation	Zoning District	Uses & Housing Types Allowed		
		Uses Permitted Outright*	Review Uses**	Uses Allowed Conditionally***
Exclusive Farm Use	EFU	Farm uses, livestock, honeybee and other animal raising, , home occupation (Type A), Forestry, filming, conservation areas, wetland enhancements, replacement dwellings, mineral aggregate exploration, fire stations, churches & cemeteries, solar energy, geothermal, oil & gas operations	Utility facilities (including radio, television and telecommunications towers and facilities), farm help and accessory farm dwellings, heritage tract dwellings, farm stands, wineries, farm product processing, home occupations (Type B)	Dwellings associated with farm operations Forest products processing, agricultural processing, , home occupation (Type C), dog kennels, aquatic species, mineral & aggregate processing, transportation facilities, geothermal, oil & gas mining, processing and production, commercial solar systems
Commercial Forest Use	CFU, CFU-3, CFU-4	Forest uses, farm uses, temp. Forest processing, water intake, temp. labor camp, , home occupation (Type A), mineral aggregate exploration, conservation areas, caretaker structures for parks or fish hatcheries, solid waste disposal, solar energy, geothermal exploration, lookout tower, wind turbines	Single family detached housing (Replacement, Template, Hardship, Heritage, or Large Acreage), wireless communication facilities, home occupations (Type B)	Forest products processing (permanent), reservoir, forest management research, logging equipment repair & storage, log scaling & weigh stations, , home occupation (Type C), fire stations, community service uses, sanitary landfills, private park, campground, hunting & fishing, mineral & aggregate processing, geothermal mining & processing
<p>* In all zones noted here, signs, accessory structures, and actions taken in response to an emergency are permitted outright</p> <p>** In all zones noted here, temporary structures, structures required for continued public safety, off-street parking and loading, and certain land use actions are allowed as review uses</p> <p>*** In all zones noted here, schools, parks and, churches certain other commercial & civic uses are allowed conditionally.</p>				

2. RIPARIAN CORRIDORS

2.1. INVENTORY AND DETERMINATION OF SIGNIFICANCE

2.1.1. METRO TITLE 13 INVENTORY

At the regional level, Metro completed the required process to comply with State Land Use Planning Goal 5 in developing the Nature in Neighborhoods program. First, Metro developed an inventory of regionally significant riparian corridors and wildlife habitat based on a scientific assessment of functional values (initial Metro Council endorsement in August 2002). In developing the inventory Metro produced technical reports, GIS data and models, and maps showing natural resource features and relative quality ranks. Metro then completed an ESEE analysis to assess the tradeoffs of protecting or not protecting the resources identified in the inventory. Metro completed this inventory for the area within the Portland Metropolitan area UGB, as well as for areas within one mile outside the UGB (“one-mile streams”).

The Metro Council established Title 13 through adoption of Ordinance NO. 05-1077C (September 2005) and as amended through Ordinance NO. 05-1097A (December 2005). Through this action the Metro Council adopted the inventory of regionally significant fish and wildlife habitat and its ESEE analysis as the basis for the Nature in Neighborhoods program for the areas within the UGB. Because it was outside its jurisdiction, Metro did not formally adopt the inventory or analysis for the areas outside the UGB.

While Metro did not adopt the inventory and analysis for the “one-mile streams”, the methodology used to identify the resources was identical to that used to identify Title 13 resources within the UGB. As a result, our analysis assumes that Metro’s inventory (Riparian Corridors / Habitat Class I and II) can be relied upon and no additional riparian inventory work will be conducted in these areas.

These areas were determined to be significant as part of the Comprehensive Plan update process based on recommendations from County staff and Community Advisory Committee members because they have the same characteristics as other resources also determined to be regionally significant by Metro and local jurisdictions within the urban growth boundary. This determination of significance and direction to conduct an ESEE analysis of these resources is found in the Comprehensive Plan policies cited on page 3 of this report.

As noted previously, streams for this inventory proposed to be included in the County’s Goal 5 inventory include the following (see Figure 2):

- Unnamed Creek reaches parallel to and north of E Bell Road
- Portions of Smith Creek and its tributaries, including in the vicinity of SE Hurlburt Road

2.1.2. ODF&W FISH-BEARING STREAMS INVENTORY

Several streams in Multnomah County which are not currently covered by the County’s SEC overlays have been identified and inventoried as fish-bearing streams by the ODF&W and are included in the agency’s Oregon Fish Habitat Distribution data layer (2013). These streams are determined to be significant

because they have been classified as fish-bearing streams by the ODF&W. This determination of significance and direction to conduct an ESEE analysis of these resources is found in the Comprehensive Plan policies cited on page 3 of this report.

These streams include portions of Buck Creek, Gordon Creek and Trout Creek in the vicinity of Oxbow Regional Park, the Buck Creek and Gordon Creek Natural Area, and Gordon Creek Road (see Figure 2). The Bull Run River and its tributaries, including the Bull Run Reservoir, also are included in the ODF&W inventory. However, these areas are entirely within the jurisdiction of the US Forest Service and therefore are not included in the inventory for this ESEE, similar to the ESEE previously prepared for the East of Sandy River Area (1997).

2.1.3. POLICY 21 STREAMS

Several streams were included and evaluated in the 1997 East of the Sandy River (ESR) ESEE Report but have not been included in the County's SEC-s overlay designation. Policy 21 of the ESR Rural Area Plan and an associated implementation strategy direct the County to protect those streams by applying the County's SEC overlay district to them and by establishing buffer areas on either side of the streams where development will be restricted or limited. These riparian areas have been referred to by the County as "Policy 21" streams. They include portions of Smith, Pounder, Buck, Gordon, and Trout Creeks. Some portions of these corridors are coincident with the Metro and ODF stream corridors noted above. In consultation with the County's Planning Commission in 2013, County staff recommended addressing the task of protecting these streams during its next update of the East of Sandy River Rural Area Plan. The County's recent Comprehensive Plan Update represents that update process.

2.2. IMPACT AREA

The "Impact area" is a geographic area within which conflicting uses could adversely affect a significant Goal 5 resource.

For "one-mile streams" proposed to be added to the County's Goal 5 inventory Metro's methodology identified an impact area that took into account a variety of factors and a significant amount of technical analysis.

Metro identified the impact area as the land extending approximately 150 feet from a water body, and the land extending 25 feet from edge of inventoried wildlife habitat (includes Habitats of Concern), with the width varying to some degree based on conditions within a given stream corridor. Metro's intent was to:

- Provide all fish and wildlife habitat with an impact area and provide the most sensitive habitat with wider impact areas (note: developed floodplains do not have an impact area).
- Provide an impact area to address tree root zones.
- Address areas that are already degraded, but where development or disturbance could influence onsite and downstream water quality and key wildlife habitat (such as wetlands)

- Meet the requirements of the Goal 5 rule.

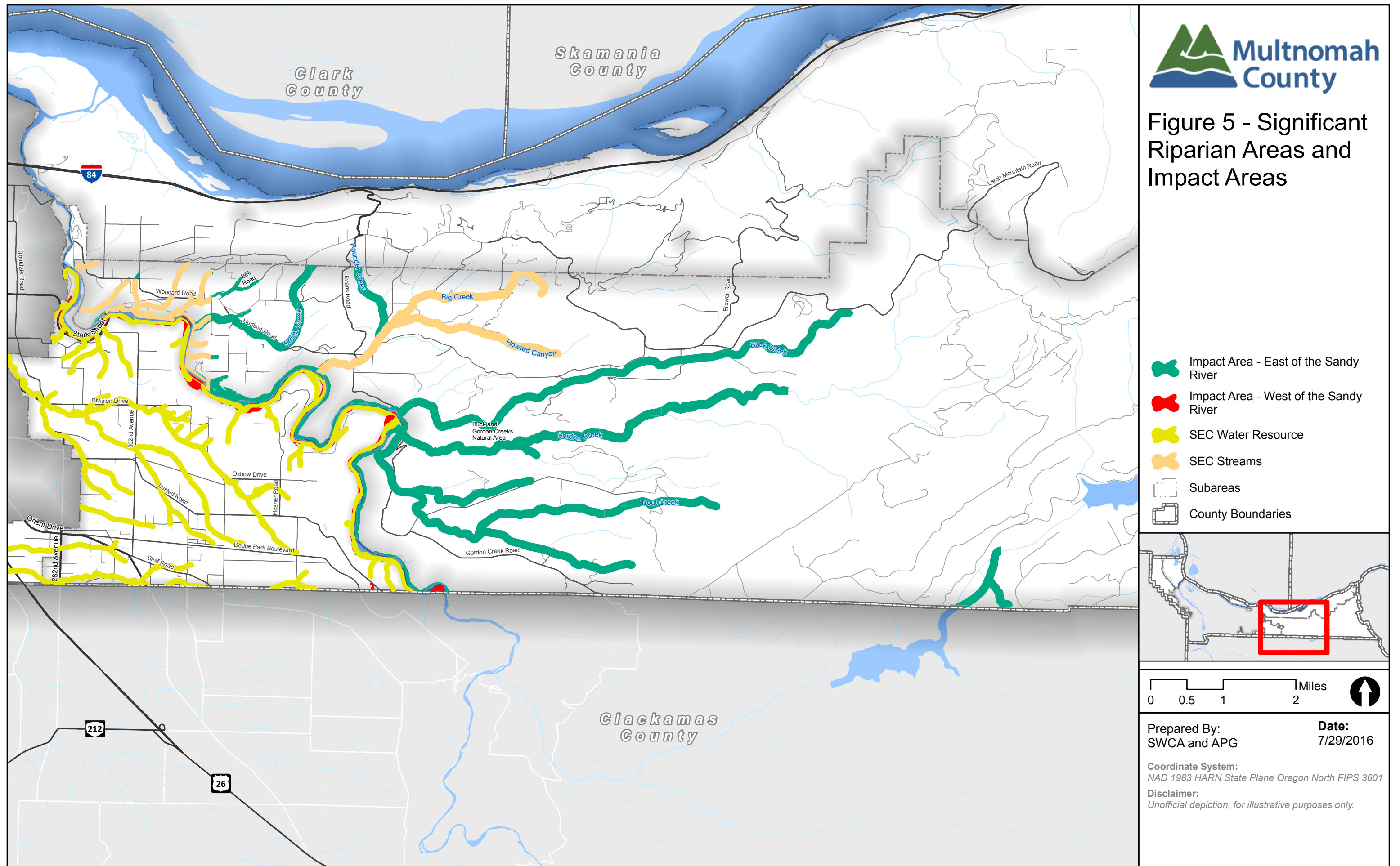
This same methodology has been used for other ESEE analyses in Multnomah County. For example, in an ESEE Analysis conducted for West Hayden Island, the City of Portland elected to use the same general methodology to define the impact area for riparian areas there. The City noted that the intention is to provide an impact area around all existing ranked natural resources and to provide a minimum impact area for water bodies.

For the ODF&W and Policy 21 streams, the impact area also is 150 feet on either side of the centerline of the riparian corridor. This is consistent with the area identified in the ESR ESEE analysis and with the area currently used for other SEC-s overlay areas east of the Sandy River, as well as County Policy 21. When the County applies a protection program to these areas, it may vary requirements within the buffer area, as contemplated in the County's evaluation of Policy 21 requirements.

The impact area is illustrated in Figure 5 and Table 3.

Table 3: Summary of Impact Areas by Zone

	CFU	CFU3	CFU4	EFU	MUA 20	RC	RR	Total
East of Sandy River Subarea	-	517.9	1,658.6	138.4	55.1	16.9	67.5	2,454.5
West of Sandy River Subarea	60.7	-	-	0.2	0.3	-	7.3	68.5
Total	60.7	517.9	1,658.6	138.6	55.4	16.9	74.9	2,523.0



2.3. CONFLICTING USES

The primary purpose of the ESEE analysis is to determine whether potential “conflicting uses” should be allowed, limited, or prohibited, based on the overall net benefits associated with each of these scenarios. The areas where riparian corridor resources are located are zoned rural center, rural residential, exclusive farm use, multiple use agriculture, and/or commercial forest use on the County’s zoning map. These zones allow for a wide variety of land uses, including farm and forestry operations and associated uses, residential uses, commercial businesses, civic uses, transportation and utility facilities, and mining and processing of minerals and other energy sources.

Goal 5 provides direction about the types of land uses that should be considered conflicting uses. In general 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 (except as provided in OAR 660-023-010(1)(b)).” The administrative rule goes on to say that “Local governments are not required to regard agricultural practices as conflicting uses.” In addition, OAR 660-023-0090 (7)(b)(C) states the County does not have to consider the removal of vegetation on lands designated for agriculture or forest use. As a result, farm uses are not considered as conflicting uses in this analysis. Similarly, timber harvesting also is not considered a conflicting use, consistent with the OAR provisions and because timber harvesting for commercial purposes is regulated by the Oregon Forest Practices Act. Processing of forest products is considered a conflicting use in combination with other commercial activities, given that impacts would be similar.

Other potential conflicting uses which are permitted outright or conditionally by Multnomah County within the zones having significant riparian corridors within the study area fall into the following six general categories, with types of impacts associated with these uses described very briefly. A more detailed discussion of impacts associated with the four ESEE factors occurs in the next section.

- **Residential development.** Single family detached dwellings and accessory structures are allowed in all zones within the study area. The potential negative impacts of residential development include: clearing of vegetation; grading, excavation, filling, hauling, and soil compaction; adding impervious surfaces by constructing buildings, walkways, driveways and parking areas ; installing utility connections such as water lines and stormwater pipes where a public system exists; building stormwater control structures; landscaping with non-native vegetation (e.g., establishment of lawns, addition of non-native landscape features – trees, shrubs, groundcover, etc.); using toxins (cleaners, fertilizers, pesticides, and herbicides) in households and yards and generating contaminated runoff from household activities; and other general impacts from pets, noise, litter, garbage, etc. For larger lots, many of these impacts could be avoided by locating residential structures and other improvements on portions of the lot outside the impact area.
- **Civic and small-scale commercial development** (e.g., Type A, B or C home occupations, sales of agricultural products, small-scale commercial good and services, health care, schools, churches, fire stations, and cemeteries). A number of civic and commercial uses are permitted outright or permitted as review or conditional uses within the zones within the study area. Forest products processing, forestry experimentation and research, and log scaling and weighing also are included

in this category because their impacts are similar to those of commercial uses. The potential impacts of these uses are similar to those described for residential uses; however, civic and commercial developments may have larger building footprints and more impervious area due to parking requirements than residential development.

- **Parks, open space, and trails.** Parks require conditional use approval. Where parks include buildings or parking areas, the impacts of these activities are similar to those described for civic and commercial uses except that normally a smaller percentage of land area is covered by impervious surfaces. Parks and open areas construction and maintenance practices can cause erosion and damage vegetation. Intensive recreational activity such as cycling also causes erosion, particularly when it occurs off maintained trails. The use of pesticide and fertilizer in maintained areas may impact water quality within wetlands.
- **Transportation facilities.** Similar to other types of development, constructing streets and sidewalks results in the removal of vegetation, grading, excavation, filling, hauling, and new impervious surfaces. The construction of streets can result in concentration of surface water, higher runoff rates, and alteration to groundwater recharge (alteration of area hydrology). Streets also can include impacts associated with crossings and the installation of culverts as well as the building of stormwater control structures. Where stormwater isn't managed, there can be the potential for impacts from runoff.
- **Public and private utilities.** This category includes water, sewer and storm drainage pipes, telecommunication facilities, electric power lines and substations, and gas pipelines. Other than transmission lines, which are permitted outright, these uses require conditional use approval. 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.
- **Energy exploration, production, and processing.** This category includes activities associated with solar and wind power generation, mineral/aggregate excavation and processing, geothermal exploration and production, and oil and gas exploration and operations. Impacts of these uses are similar to those from civic and commercial development but may have greater impacts on land form and topography due to excavation and other activities, including potential stream diversions and significant changes in runoff into streams.

2.4. TYPES OF IMPACTS

The uses described in the previous section can have a variety of positive or negative consequences on economic, social, environmental, and energy resources and conditions. Following is a summary of the different types of impacts considered and which are referenced in the text and tables in the following section of the Report.

2.4.1. ECONOMY

Economic values and potential impacts associated with riparian corridors in the study area include the following.

Economic value derived from development. The ability to develop a property to the maximum level or density of development allowed under County zoning will increase the economic or market value of a property or allowed improvements. This type of impact is most important for residential, commercial, and energy uses. It is relatively less applicable to transportation, utility, or community facilities, or to parks, open spaces, or trails. Allowing conflicting uses provides the highest economic benefit in this regard, while prohibiting those uses provides the lowest benefits.

Tax revenues. A large percentage of tax revenues in Oregon come from a combination of property, income, and payroll taxes. Maximizing the development of a property will generally increase the property tax revenues associated with it. Income and payroll taxes also will increase for employment-related uses (primarily commercial, civic, and energy uses, with a smaller impact from transportation, utilities and parks, recreation, and open space). In general, the highest positive economic consequences in this regard will be for allowing employment-related uses, followed by residential uses, with parks, open space, and trails uses receiving the lowest net benefit in this regard. For larger properties, the relative positive consequences for allowing residential uses will be lessened if it is possible to located residential structures and other improvements on portions of the lot outside the impact area. Prohibiting uses will generally have a negative economic impact in relation to tax revenues.

Employment. For commercial or other uses that provide job opportunities, employment generates personal and business income, which has a positive economic consequence if development is allowed and a negative impact if it is prohibited.

Self-sufficiency and economic equity. The majority of County households earn enough money to cover their basic household needs – i.e., are economically self-sufficient and do not depend on government assistance programs. However, a certain percentage of households do not. In particular, workers in the food and drink service and retail sectors are less likely to earn wages that result in self-sufficiency while workers in construction, manufacturing, and distribution jobs are more likely to do so. Land uses that promote economic self-sufficiency have a higher economic net benefit associated. Development of transportation facilities allows transportation of goods produced or distributed in higher-wage sectors and provides higher-wage jobs associated with construction and maintenance of transportation and utility facilities.

Open space value. People value open space for its potential recreational amenities, as well as its scenic value and it is possible to quantify this intrinsic value. Developing open space for non-park or open space purposes has a negative economic consequence in this regard, with larger scale development having a greater impact. Prohibiting such development can have a positive economic consequence.

Ecosystem services. Riparian corridors provide ecosystem goods and services, which in turn provide economic and social value. Ecosystem services include water conveyance, purification, and flood control, air cooling and purification, carbon sequestration, soil fertilization and pollination. Ecosystem goods include commodities like food, fuel, fisheries, timber, minerals, etc. Ecosystem goods also include supporting recreation and tourism. In general, wetlands provide the highest level of ecosystem services, followed by shallow water riparian areas and then by upland habitat (e.g., forest/woodlands, shrubland and grassland). Allowing conflicting uses will result in negative economic consequences in this regard while prohibiting them will have positive consequences. The degree of impact will depend on the amount of area affected, the type of resources and the proximity to it.

The economic benefits of ecosystem services come in large part from the savings associated with building infrastructure (stormwater conveyance systems, water filtration plants, etc.) to otherwise serve development or mitigate the impacts of it, as well as from amenity values associated with natural areas which increase property values. While the economic value of ecosystem services associated with certain types of resources can be relatively high, they are typically lower than economic values associated with employment and tax revenues.

2.4.2. SOCIAL

Social values and potential impacts associated with riparian corridors in the study area include the following.

Human health and welfare. Physical and mental health and welfare are related to a variety of factors that can be impacted positively or negatively by conflicting uses. They include:

- *Employment opportunities.* Household income is one of the most important factors in determining human health and welfare and is directly dependent on employment. Income can provide access to better quality food and housing, as well as health care services. Similar to economic self-sufficiency, jobs with higher wages will have a more positive impact on social welfare. Allowing conflicting uses that will provide employment opportunities will have a positive impact on social resources in this regard while prohibiting them will have a negative impact.
- *Access to nature and recreation.* Access to natural areas and the recreational opportunities they provide have positive impacts on physical and mental health. Recreation has multiple health benefits, including improving overall physical health, strengthening immune systems, and preventing a variety of diseases and medical conditions. In addition, studies show that viewing vegetation and wildlife can reduce stress and aggression, improve cognitive development, and enhance medical recovery. Allowing conflicting uses will generally have a negative impact on social resources in this regard while limiting or prohibiting them will have a positive impact.

- *Air and water quality.* Air and water pollution adversely impact human health. Conflicting uses can impact air quality in two ways, either by introducing pollutants into the air or by eliminating vegetation that can help filter pollutants and improve air quality. Relatively few of the specific conflicting uses allowed in these zones produce point sources of air or water pollution. However, increased use of automobiles or equipment that produce carbon or other emissions associated with virtually all of the uses allowed can have some impact on air quality, as well as water quality via stormwater runoff from roads or other impervious surfaces or via erosion. In all cases, consequences would be negative for allowing or limiting uses and positive for prohibiting uses, except possibly for parks and open space uses where natural areas would be retained. Energy exploration uses likely would have the highest negative impacts due the size of areas impacted, while park and open space and residential uses typically would result in the lowest level of impacts.
- *Light, noise, and traffic.* Both noise and light can have negative consequences, including reducing enjoyment of leisure activities; contributing to health effects such as hypertension, heart disease, and sleep interruption; reduction of property values; and/or elimination of the ability to see the night sky (for light). Noise and light can come from human activity, equipment, and/or traffic associated with the majority of the conflicting uses described previously. Similar to air and water quality, consequences would be negative for allowing or limiting uses and positive for prohibiting uses, except possibly for parks and open space uses where natural areas would be retained. Energy exploration uses likely would have the highest negative impacts due the size of areas impacted, the type of equipment used, and truck traffic generated, while park and open space and residential uses typically would result in the lowest level of impacts.
- *Opportunities for social interaction.* Opportunities for social interaction have positive benefits on psychological health, formation of social networks, and the ability for community members to collectively discuss and achieve community goals. Allowing uses that promote or provide opportunities for social interaction will have positive effects in this regard. Prohibiting or limiting such uses will have negative impacts, with the highest negative impacts from prohibiting them.

Cultural values associated with Native American values and habitation. The first Europeans to explore the Columbia and Willamette Rivers arrived in the late 18th century. Prior to that, the area was populated by various aboriginal tribes who settled along sections of these rivers for 6,000 to 9,000 years. The creation stories of these tribes held that the people were created in these places. The rivers provided a travel route for trade of goods among tribes, and also provided a rich diversity of food that was fairly obtainable for most of the year. Besides fish that could be caught over a period of several months a year, and game and fowl that could be hunted, Native peoples also gathered plants that were available much of the year in the temperate climate. Most types of land use and development have the potential to disturb Native American artifacts during the course of grading or other soil-disturbing activities. To the extent that land use or development degrades environmental resources, it also has potential negative impacts on the cultural value associated with those resources. Limiting development can significantly lessen these impacts by either shifting the location of development to minimize impacts or requiring

investigation, documentation, and preservation of archeological resources if they are discovered during the course of development.

Other historic and heritage values. Multnomah County residents value historic structures and resources as evidenced by policies in the County's Comprehensive Plan (updated in 2016) which direct the County to inventory and establish protection programs for such resources. Allowing land uses or development of properties with historic resources could negatively impact them. Limiting development to avoid such impacts would lessen these impacts.

Other cultural values. Multnomah County and Oregon residents place a high value on the environment and quality of life. Numerous policies in the County's Comprehensive Plan aimed at protecting and conserving these resources confirm these values. Allowing development which can adversely impact riparian corridors and impact areas can have an effect on these values. At the same time, many rural residents live in the rural areas of the County out of a desire for privacy and the ability to manage their own land and resources. They also have a strong history of valuing individual property rights and opposing what they consider to be undue levels of regulation. As a result, allowing development has both potentially negative and positive impacts on these somewhat conflicting cultural values.

2.4.3. ENVIRONMENT

Environmental functions and potential impacts associated with riparian corridors in the study area include the following.

Microclimate and shade. Streams and riparian wetlands, and surrounding trees and woody vegetation are associated with localized air cooling, increased humidity, and soil moisture. Shading from riparian vegetation also creates localized areas of cool water which is important to fish and other aquatic species.

Bank stabilization and control of sediments, nutrients, and pollutants. Trees, vegetation, roots, and leaf litter intercept precipitation, hold soils, banks and steep slopes in place, slow surface water runoff, take up nutrients, and filter sediments and pollutants found in surface water.

Stream flow moderation and flood storage. Waterways, floodplains, and wetlands provide conveyance and/or storage of stream flows, floodwaters, and groundwater discharge. Trees and vegetation intercept precipitation and promote infiltration which tempers the stream flow fluctuations or "flashiness" that often occurs in urban watersheds.

Large wood and channel dynamics. Streams, riparian wetlands, floodplains and standing or downed large trees and woody vegetation contribute to the natural changes in location, configuration, and structure of stream channels over time.

Organic inputs, food web, and nutrient cycling. Water bodies, wetlands, and nearby vegetation provide food and nutrients for aquatic and terrestrial species (e.g., plants, leaves, twigs, seeds, berries, and insects) and are part of an ongoing chemical, physical, and biological nutrient cycling system.

Wildlife habitat/corridors. Vegetation, water bodies, and associated landscape features (e.g. downed logs) provide wildlife habitat functions such as food, cover, breeding and nesting opportunities, and migration corridors. Vegetated corridors along waterways and between waterways and uplands allow wildlife to migrate and disperse among different habitat areas, and provide access to water. Vegetation creates a buffer between human activities and wildlife. Noise, light, pollution, and domestic animals all impact wildlife and vegetation retention can reduce those impacts.

Development within riparian resource areas can impact these functions. In general, allowing development would have the greatest potential impacts while limiting it to avoid or reduce impacts to the resource areas would have a lower impact. Prohibiting development would have the least impact.

2.4.4. ENERGY

The following types of energy related impacts are considered in this analysis.

Transportation. Different types of development will have varying impacts on energy associated with transportation. In general, allowing more residential development in rural communities increases the expenditure of energy associated with transportation between new homes and available retail and commercial services and employment centers in nearby urban areas. Conversely, allowing commercial and other services that support local residents can decrease energy associated with transportation. Allowing for schools, parks, and trails can have similar impacts. Allowing extractive uses can increase energy costs associated with transportation of extracted materials in general, but it can reduce those energy costs if the sources of materials are relatively closer to nearby urban areas than similar resources in other parts of the region or state. Allowing streets to cross riparian corridors can reduce out of direction travel. Similarly, utilities may need to cross corridors to ensure an efficient network.

Energy production. Allowing energy extraction and transmission uses will generally have positive energy impacts by allowing energy to be distributed to homes and businesses that need it and by reducing energy related transportation impacts to the extent that energy production in the study area is relatively closer to nearby market areas in comparison to other energy production sources.

2.5. ESEE CONSEQUENCES

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. Within the study area, riparian corridors represent a total of approximately 3,088 acres and the area within the riparian corridor impact area (including riparian resources) is 2,523 acres. It is within these 2,523 acres that the consideration of allowing, limiting, or prohibiting conflicting uses takes place.

As described in section 2.4, 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.

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

Scenario B - Limiting conflicting uses within the resource and impact areas. In evaluating the consequences of **limiting** conflicting uses, the assumption is that rules would be established to limit the impacts of allowed development in areas containing significant riparian corridor resources. Areas containing significant resources could still be subject to development, but development restrictions in addition to base zone regulations would be imposed.

Scenario C - Prohibiting conflicting uses within the resource and 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 allowed development in significant riparian corridors and associated impact areas.

2.5.1. SCENARIO A - ALLOWING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario there would be no land use regulations restricting conflicting uses within the Goal 5 (riparian) resources or impact areas. Tables A-1 through A-4 identify the likely positive and negative consequences to both the riparian resource and the conflicting use of *allowing* the conflicting use including both the economic goods and services provided by the conflicting uses and the ecosystem services provided by the significant riparian corridor. The expected net effect of allowing the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table A-1 Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Property owners realize full development potential of parcels; structures not required to avoid riparian areas. Residential improvements increase property tax base. No mitigation is required, which reduces the cost to develop. 	<ul style="list-style-type: none"> Loss of ecosystem services results in higher costs, either to replace services or repair impacts (e.g., repair flood or erosion damage). Amenity/development premium for parcels adjacent to resource areas is eliminated. Environmental impact costs passed on to County could lead to increased taxes. Potential loss of value for downstream property owners with water rights due to reduced water quality from increased turbidity or pollution. Higher cost to develop and maintain private utilities. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Development potential of parcels fully realized enhancing potential for local economic development. Commercial improvements increase property tax base. Depending on development type, potential increase in property values for adjacent landowners. Helps to satisfy governmental long-term capital facility needs. Potential benefits associated with economic self-sufficiency 	<ul style="list-style-type: none"> Same as residential, but with lesser loss of amenity value and greater potential for increased costs resulting from lost ecosystem services due to larger development area size associated with civic and commercial development. 	+1
Parks, open space, and trails	<ul style="list-style-type: none"> May create a development premium and amenity for adjacent undeveloped parcels or developed parcels, respectively. Recreation facilities that are a community attraction may enhance potential for local economic development. Some ecosystem services could still be provided. 	<ul style="list-style-type: none"> May decrease property values for adjacent landowners if higher pedestrian traffic or active recreation create a nuisance. Higher municipal service costs relating to maintenance, law enforcement, etc. Some loss of ecosystem services possible with certain types of parks facilities (e.g., active recreation facilities). 	0

Table A-1 Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Transportation facilities	<ul style="list-style-type: none"> • Potential for improved connectivity and movement of people and goods. • No mitigation is required, which reduces the cost to develop streets and roads. • Potential positive benefits associated with economic self-sufficiency. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Environmental impact costs could be passed on to County, thus increasing taxes. 	+1
Public and private utilities	<ul style="list-style-type: none"> • Provides essential services for other land uses. • No mitigation is required, which reduces costs to develop facilities. • Potential positive benefits associated with economic self-sufficiency. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Environmental impact costs could be passed on to County, thus increasing taxes. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> • Energy use achieves full potential for economic use of property. • Improvements to jobs and tax base associated with increased economic activity. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Amenity/development premium for parcels adjacent to resource areas is eliminated. • Potential adverse impacts are relatively more significant than for other uses. 	0

Table A-2 Social Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Provides residents with access to nature and recreation. Positive impacts of allowing for rural residential lifestyle. 	<ul style="list-style-type: none"> Potential impact to historic, aesthetic, and cultural values or resources. Potential loss of passive recreational opportunities. Potential impacts to air and water quality result in potential negative health impacts. Residences located relatively far from most needed services. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Civic and commercial development provide community gathering places with positive social benefits. Employment opportunities represent positive social benefits. 	<ul style="list-style-type: none"> Same as residential, but with greater potential for impacts to riparian corridors due to development size and lesser health-related impacts. Potential light, noise, and traffic impacts on residents associated with additional commercial traffic. 	-1
Parks, open space, and trails	<ul style="list-style-type: none"> Parks and open space provide community gathering places. Opportunities for active recreation provide community health benefits. 	<ul style="list-style-type: none"> Consequences similar to, but less than, residential, depending on amount of active recreation area and non-native landscaping provided. 	0
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages the use of active transportation modes, which can improve public health. Provides enhanced ability to access social activities, benefits. 	<ul style="list-style-type: none"> Same as residential, but with a potentially lower degree of impact, depending on nature of improvements. Potential light, noise, and traffic impacts on residents associated with additional commercial traffic. 	0
Public and private utilities	<ul style="list-style-type: none"> Utilities and telecommunication facilities provide ability for residents to communicate, gather, and socialize. 	<ul style="list-style-type: none"> Same as residential, but with potentially lower degree of impact, depending on nature of improvements. 	0
Energy exploration, production or processing	<ul style="list-style-type: none"> Positive impacts associated with employment, income, and living standards. 	<ul style="list-style-type: none"> Consequences similar to residential, but with greater potential for impacts due to potential size and intensity of uses. Noise and related impacts have negative impact on rural character and quality of life. 	-1

Table A-3 Environmental Consequences of Allowing Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Opportunities for voluntary good stewardship practices by property owners. 	<ul style="list-style-type: none"> • Potential adverse impacts on microclimates and shade. • Potential adverse impacts on water quality. • Potential changes in stream flow, channel dynamics, and flood storage. • Potential adverse impacts on riparian species habitat. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Similar to residential, but with potentially greater impacts from the size of the development and amount of impervious are. 	-1
Parks, open space, and trails	<ul style="list-style-type: none"> • Public ownership may help ensure that resource units are maintained in the future. 	<ul style="list-style-type: none"> • Developed parks and open space may displace native riparian and wildlife habitat. • Maintenance practices may introduce pesticides and fertilizers. 	-1
Transportation facilities	<ul style="list-style-type: none"> • Good connectivity encourages the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing vehicle miles traveled, and greenhouse gas emissions. 	<ul style="list-style-type: none"> • Similar to residential, with varying impacts due to size and scope of facility. 	-1
Energy exploration, production or processing	<ul style="list-style-type: none"> • Production of wind or solar energy can have positive impacts in relation to other forms of energy. 	<ul style="list-style-type: none"> • Similar to transportation but with potential greater impacts due to increased areas of activity and potential greater impacts to land form, topography, and drainage. 	-1

Table A-4 Energy Consequences of Allowing Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Opportunities to reduce out-of-direction travel are increased. 	<ul style="list-style-type: none"> • Possible increased energy consumption due to loss of vegetation and microclimate effects. • May encourage residential uses away from more cost-effective, urban locations to serve with public facilities. • Increased energy to travel from new homes in rural areas to urban area employment and services. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> • Providing needed services reduces energy needed for transportation by nearby residents. 	<ul style="list-style-type: none"> • Similar to residential development. 	0
Parks, open space and trails	<ul style="list-style-type: none"> • Similar to civic and commercial. In addition, allowing trails encourages non-motorized modes of transportation. 	<ul style="list-style-type: none"> • Similar to residential, although impacts could be less depending on the amount of impervious area. 	0
Transportation facilities	<ul style="list-style-type: none"> • Good connectivity encourages use of active transportation modes and lessen travel times and vehicle miles traveled. 	<ul style="list-style-type: none"> • Possible increased energy consumption due to loss of vegetation and microclimate effects. 	+1
Public and private utilities	<ul style="list-style-type: none"> • Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing energy usage. • Improves efficiency of energy grid and potentially reduces transmission-related energy losses. 	<ul style="list-style-type: none"> • Same as residential development but to a lesser degree. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> • Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> • Similar to residential development but with potential greater impacts due to increased areas of activity. 	0

Table A-5 summarizes the net effect of allowing 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 County, whereas a negative score would suggest that the use should not be allowed without limitations or should be prohibited entirely. 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 positive for transportation facilities and utilities and negative for all other uses. The economic and energy consequences are positive or neutral for most uses. Environmental consequences are negative for all uses and social consequences are neutral or negative for all uses.

Table A-5 Summary of Consequences of Allowing Conflicting Uses

Use Category	Economic	Social	Environ- mental	Energy	Cumulative Effect
Residential Development	-1	-1	-1	-1	-4
Limited Civic and Commercial Development	+1	-1	-1	0	-1
Parks, Open Space and Trails	0	0	-1	0	-1
Transportation Facilities	+1	0	-1	+1	+1
Public and Private Utilities	+1	0	-1	+1	+1
Energy Exploration, Production and Processing	0	-1	-1	0	-2

2.5.2. SCENARIO B - LIMITING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario conflicting uses would be limited (by regulations) within the Goal 5 resource or its impact area. Uses would be permitted in resource or impact areas if it could be demonstrated that they would have a positive effect on Goal 5 resources or if their negative effects can be mitigated or minimized and uses and activities would be located on portions of a land parcel which are outside the resource and impact areas, where feasible. Tables B-1 through B-4 identify the likely positive and negative consequences of limiting the conflicting use. The expected net effect of limiting the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table B-1 Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Property owners realize most of the development potential of parcels through clustering of residential development. Economic development still facilitated by allowing development of residential land for relocating/new employees. Most ecosystem services are retained reducing costs to replace services or repair impacts (e.g., repair erosion or flood related damage). Most of the amenity/development premium for adjacent parcels is preserved and may be enhanced by mitigation. 	<ul style="list-style-type: none"> Loss of some ecosystem services still possible. Steps to enhance Goal 5 resources are required, which increases the cost to develop. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> Some of the development potential of parcels fully realized. Enhances potential for local economic development by providing some opportunities for commercial development and employment. Depending on development type, potential increase in property values for adjacent landowners. Helps to satisfy governmental district long-term capital facility needs. 	<ul style="list-style-type: none"> 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. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Limited amount of parks, open space, and trail development allowed within the resource or impact area may create a development premium and amenity for adjacent parcels and a community attraction, enhancing potential for local economic development. Most ecosystem services are provided. 	<ul style="list-style-type: none"> Similar to residential, but to these extent these facilities are allowed, they may decrease property values for adjacent landowners if higher level of use creates a nuisance. Higher municipal service costs relating to maintenance, law enforcement, etc. 	0
Transportation facilities	<ul style="list-style-type: none"> To the extent that some facilities are allowed within resources and impact areas, connectivity can be achieved. Potential for local economic development is enhanced by providing access for goods and people. 	<ul style="list-style-type: none"> Loss of some ecosystem services and economic value of open space still possible. Mitigation is required, which increases the cost to build facilities. Mitigation costs could be passed on to County, thus increasing taxes. 	+1

Table B-1 Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Public and private utilities	<ul style="list-style-type: none"> Similar to transportation, with economic development enhanced through provision of essential services to support it in some areas. 	<ul style="list-style-type: none"> Similar to transportation with costs to develop passed on to taxpayers or consumers. 	0
Energy exploration, production and processing	<ul style="list-style-type: none"> Energy use achieves most of its potential for economic use of property. Some improvements to jobs and tax base associated with increased economic activity. 	<ul style="list-style-type: none"> Similar to transportation facilities except that negative impacts are potentially greater and mitigation costs are passed on to consumers rather than to tax payers. 	+1

Table B-2 Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Community scenic, historic, and cultural values are preserved for the most part and may be enhanced by mitigation. Mitigation sites can become an amenity. Supports cultural values associated with desire for rural lifestyle. Access to nature and recreation provides social benefits for residents. 	<ul style="list-style-type: none"> Some potential loss of scenic, historic and cultural values could still occur which cannot be offset by mitigation. Light, noise, and traffic impacts associated with new development may negatively impact existing residents. Air and water quality impacts may negatively impact existing residents. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> To the extent that these uses are permitted within resources and impact areas, they provide community gathering places. Potential jobs and other economic impacts have beneficial social consequences. 	<ul style="list-style-type: none"> Similar to residential, but impacts may be more significant due to the larger size of the developments. 	0
Parks, open space and trails	<ul style="list-style-type: none"> Same as civic and commercial. Opportunities for active recreation provide community health benefits. Enhanced access to clean air and water provide positive health benefits. 	<ul style="list-style-type: none"> Similar to residential, but with potentially fewer or minimal impacts depending on amount of active recreation area and non-native landscaping provided. 	+1
Transportation facilities	<ul style="list-style-type: none"> If achieved, connectivity can help encourage use of active transportation modes, which can improve public health. 	<ul style="list-style-type: none"> Similar to residential, but with greater potential for impacts to riparian areas due to development size, potential for noise, light, and glare. 	0
Public and private utilities	<ul style="list-style-type: none"> Telecommunications facilities can allow for telecommuting, reducing pollution and improving public health. 	<ul style="list-style-type: none"> Similar to residential. 	0

Table B-2 Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Energy exploration, production or processing	<ul style="list-style-type: none"> Positive impacts associated with employment, income, and living standards. 	<ul style="list-style-type: none"> Consequences similar to residential, but with greater potential for impacts due to potential size of use; consequences reduced by limitations or mitigation requirements. Noise and related impacts have negative impact on rural character and quality of life; can be mitigated by limitations, requirements. 	-1

Table B-3 Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Most ecosystem services are retained. Opportunities for mitigation and restoration of degraded resources. 	<ul style="list-style-type: none"> Some loss of ecosystem services could still occur but more opportunities to reduce impacts, given rural densities. Potential adverse impacts on microclimates and shade, but can be substantially minimized by placement of dwellings. Potential changes in stream flow, channel dynamics, and flood storage, but can be minimized. Some potential impacts on water quality and riparian wildlife habitat but can be minimized. 	0
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> Similar to residential, but with potentially greater impacts from light and glare. 	0
Parks, open space and trails	<ul style="list-style-type: none"> Same as residential development, with increased potential for resource enhancement. Public ownership may help ensure that resource units are maintained in the future. 	<ul style="list-style-type: none"> Similar to residential, but with potentially fewer impacts if limits require native vegetation and limit the use of pesticides and fertilizers. 	+1
Transportation facilities	<ul style="list-style-type: none"> Connectivity and access can encourage the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions. 	<ul style="list-style-type: none"> Similar to residential, with potentially higher impact due to light and noise from automobile traffic, introduction of polluted runoff from the transportation facilities, and vulnerability that accidents that may introduce high levels of pollutants. 	0

Table B-3 Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Public and private utilities	<ul style="list-style-type: none"> Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing impacts on air pollution and carbon emissions. 	<ul style="list-style-type: none"> Similar to transportation. 	0
Energy exploration, production or processing	<ul style="list-style-type: none"> Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> Similar to residential development but with potential greater impacts due to increased areas of activity. 	0

Table B-4 Energy Consequences of Limiting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Most ecosystem services are retained reducing the energy needed to build and maintain public facilities. Opportunities to reduce out-of-direction travel are increased. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. Increased energy to travel from new homes in rural areas to urban area employment and services. 	0
Limited civic and commercial development	<ul style="list-style-type: none"> Providing needed services reduces energy needed for transportation by nearby residents. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential. In addition, allowing trails encourages non-motorized modes of transportation. 	<ul style="list-style-type: none"> Similar to residential, although impacts could be less depending on the amount of impervious area. 	+1
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages use of active transportation modes and lessen travel times and vehicle miles traveled. 	<ul style="list-style-type: none"> Similar to residential development but to a lesser degree. 	+1
Public and private utilities	<ul style="list-style-type: none"> Most ecosystem services are retained reducing the energy needed to build and maintain public facilities. Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing energy usage. 	<ul style="list-style-type: none"> Similar to transportation but to a lesser degree. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> Similar to residential development but with potential greater impacts due to increased areas of activity. 	+1

Table 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 limiting 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 limiting the conflicting use would provide a net benefit to the County, whereas a negative score would suggest that the use should not be limited, but should be either allowed or prohibited if one of those scenarios provides a greater net benefit. 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. This is primarily due to the positive economic and energy consequences. The environmental consequences are more often neutral in recognition that mitigation may be costly and may not provide all of the ecosystem services that are lost. Social consequences are typically positive or neutral except for energy exploration, production, and processing uses.

Table B-5 Summary of Consequences of Limiting Conflicting Uses

Use Category	Economic	Social	Environ- mental	Energy	Cumulative Effect
Residential Development	+1	+1	0	0	+2
Limited Civic and Commercial Development	+1	0	0	+1	+2
Parks, Open Space and Trails	0	+1	+1	+1	+3
Transportation Facilities	+1	0	0	+1	+2
Public and Private Utilities	0	0	0	+1	+1
Energy Exploration, Production and Processing	+1	-1	0	+1	+1

2.5.3. SCENARIO C - PROHIBITING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario conflicting uses would be completely prohibited within the Goal 5 resource or its impact area. Existing water quality regulations implemented by the Oregon Department of Environmental Quality, the Corps of Engineers, and the Division of State Lands would remain in effect. Tables C-1 through C-4 identify the likely positive and negative consequences of prohibiting the conflicting use. The expected net effect of prohibiting the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table C-1 Economic Consequences of Prohibiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Existing ecosystem services are preserved eliminating need to replace services or repair impacts. Amenity/development premium for adjacent parcels is preserved. Environmental impact costs are avoided. 	<ul style="list-style-type: none"> Property owners don't realize full development potential of parcels. Decrease in potential tax revenues to County. 	0
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> Development potential of parcels not realized. Reduces potential for local economic development. Decrease in potential tax revenues to County. Does not help to satisfy governmental long-term capital facility needs. Loss of potential economic self-sufficiency benefits. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential. Lower municipal service costs relating to maintenance, law enforcement, etc. 	<ul style="list-style-type: none"> Recreation facilities, which are a community attraction that may enhance potential for local economic development, are not provided. 	0
Transportation facilities	<ul style="list-style-type: none"> Existing ecosystem services (e.g., higher potential costs due to flood damage risk) are preserved. Environmental impact costs are avoided. 	<ul style="list-style-type: none"> Connectivity and movement of people and goods is restricted, impacting potential for local economic development and economic self-sufficiency. Cost of building transportation facility is increased. 	-1
Public and private utilities	<ul style="list-style-type: none"> Same as transportation. 	<ul style="list-style-type: none"> Ability to obtain essential services needed for economic activity is not available. Loss of potential economic self-sufficiency benefits. Cost of building facilities is increased. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> Same as residential uses. 	<ul style="list-style-type: none"> Property owners lose portion of economic value of their property. The cost of obtaining and processing energy resources increases. Reduced economic development and tax base revenue potential. Loss of potential economic self-sufficiency benefits. 	-1

Table C-2 Social Consequences of Prohibiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Scenic, historic, and cultural values of existing resources are preserved. • Passive recreational and educational opportunities of existing resources are preserved. 	<ul style="list-style-type: none"> • " Negatively impacts cultural values associated with desire for rural lifestyle. • Diminishes direct access to nature and recreation and associated social benefits for additional residents. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Reduces social benefits associated with income and employment. • Civic and commercial developments could be impacted, thus reducing community gathering places. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Parks and open space, which provide community gathering places, are impacted. • Opportunities for active recreation and outdoor education, which provide community benefits, could be precluded or reduced. 	-1
Transportation facilities	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Good connectivity, which encourages the use of active transportation modes and can improve public health, may not be possible. • Reduces social benefits associated with income and employment. 	-1
Public and private utilities	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Access to essential services for communication, social well-being, and health are more limited or costly. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> • Same as residential development • Potential noise, pollution impacts of energy-related activities are eliminated. 	<ul style="list-style-type: none"> • Cost of energy could increase. 	+1

Table C-3 Environmental Consequences of Prohibiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Microclimate and shade benefits are maintained. • Water quality and ecosystem services values are maintained. • Riparian wildlife habitat is maintained. • Stream flow and dynamics and flood storage are maintained. 	<ul style="list-style-type: none"> • None. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> • Same as residential uses. 	<ul style="list-style-type: none"> • None. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> • Developed parks and open space don't displace native riparian and wildlife habitat. • Maintenance practices don't occur which could introduce pesticides and fertilizers. 	<ul style="list-style-type: none"> • None. 	+1
Transportation facilities	<ul style="list-style-type: none"> • Similar to residential uses but to a lesser degree. • 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. 	<ul style="list-style-type: none"> • Out-of-direction travel is increased. • Good connectivity, which encourages the use of active transportation modes and lessen travel times and vehicle miles traveled, thus reducing greenhouse gas emissions, may be precluded. 	0
Public and private utilities	<ul style="list-style-type: none"> • Similar to transportation uses but to a lesser degree. 	<ul style="list-style-type: none"> • Lack of ability to telecommute or purchase goods and services online requires increased use of automobiles, increasing air & water pollution and runoff. 	0
Energy exploration, production and processing	<ul style="list-style-type: none"> • Similar to residential development but to a potentially greater degree. • Impacts from activities such as removing native vegetation and disturbing stable slopes and soil, are avoided. 	<ul style="list-style-type: none"> • Extraction of resources cannot be undertaken, thus increasing the need for transportation of energy and associated resources, potentially increasing air quality impacts. 	0

Table C-4 Energy Consequences of Prohibiting Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Additional energy is not required to build and maintain supporting public facilities. No increased energy consumption due to loss of vegetation and microclimate effects. May push residential uses into more cost-effective, urban locations to serve with public facilities. 	<ul style="list-style-type: none"> None. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> 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. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential, although benefits could be less depending on the amount of impervious area. 	<ul style="list-style-type: none"> Similar to civic and commercial. Allowing trails encourages non-motorized modes of transportation. 	-1
Transportation facilities	<ul style="list-style-type: none"> Additional energy is not required to build and maintain facilities. 	<ul style="list-style-type: none"> Good connectivity encourages the use of active transportation modes and lessens travel times and vehicle miles traveled. 	-1
Public and private utilities	<ul style="list-style-type: none"> Same as transportation. 	<ul style="list-style-type: none"> Lack of ability to telecommute or purchase goods and services online requires increased use of automobiles, increasing energy use. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> Additional energy is not required to build and maintain supporting public facilities. No increased energy consumption due to loss of vegetation and microclimate effects. 	<ul style="list-style-type: none"> Loss of opportunity to produce energy locally. Loss of potential energy sources for meeting other local needs. 	-1

Table 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 prohibiting 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 or neutral for all categories except residential. This is primarily due to negative economic, social, and energy consequences. The environmental consequences are either positive or neutral because natural resource values and ecosystem services would be maintained.

Table C-5 Summary of Consequences of Prohibiting Conflicting Uses

Use Category	Economic	Social	Environ- mental	Energy	Cumulative Effect
Residential Development	0	-1	+1	+1	+1
Limited Civic and Commercial Development	-1	-1	+1	+1	0
Parks, Open Space and Trails	0	-1	+1	-1	-1
Transportation Facilities	-1	-1	0	-1	-3
Public and Private Utilities	-1	-1	0	-1	-3
Energy Exploration, Production and Processing	-1	+1	0	-1	-1

2.6. PROGRAM RECOMMENDATIONS

This section includes draft recommendations as to whether to allow, limit, or prohibit identified conflicting uses within significant riparian corridors and associated impact areas identified in this report based on the ESEE analysis in section 2.5 above. A decision to prohibit or limit conflicting uses protects the natural resources. 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 shall be reached with regard to conflicting uses for a resource site:

- (a) The County may decide that a significant riparian corridor is of such importance compared to the conflicting uses and that the ESEE consequences of allowing the conflicting uses are so detrimental to the resource that the conflicting uses should be prohibited.
- (b) The County may decide that both the significant riparian corridor 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 to a desired extent or requires mitigation of lost riparian corridors and impact areas and associated values and functions.
- (c) The County may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the significant riparian corridors and impact areas. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource and must

indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

2.6.1. SUMMARY OF GENERAL RECOMMENDATION

Table 4, below, identifies the “net effect” from Tables A-5, B-5, and C-5 and provides a general recommendation for each use category. The possible numeric values range from -4 to +4. A value of -4 suggests that the scenario (allow, limit, prohibit) would likely result in negative economic, social, environmental, and energy consequences for that use category. Whereas, a value of +4 suggests that the scenario would likely result in positive consequences for that use category. The recommendation is generally based on encouraging the strongest positive outcome, along with balancing relevant regulatory and other factors.

The analysis and weighing of the ESEE factors from the three scenarios suggests that overall the limit scenario offers the greatest net benefit in all use categories; thus a general recommendation of “limit” is appropriate. However, the Private and Public Utilities and Transportation Facilities use categories also received a positive result under the Allow scenario; indicating that a greater degree of flexibility to accommodate these uses may be appropriate.

Table 4: Summary of Net Effect of Allowing, Limiting or Prohibiting Conflicting Uses within Significant Riparian and Impact Areas

Use Category	Allow (from Table A-5)	Limit (from Table B-5)	Prohibit (from Table C-5)
Residential Development	-4	+2	+1
Limited Civic and Commercial Development	-1	+2	0
Parks, Open Space and Trails	-1	+3	-1
Transportation Facilities	+1	+2	-3
Public And Private Utilities	+1	+1	-3
Energy Exploration, Production and Processing	-2	+1	-1

2.6.2. PROGRAM RECOMMENDATIONS TO IMPLEMENT LIMIT OR ALLOW SCENARIO

As noted in Table 4 above, the limit scenario 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 County 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.
- Support the location and/or clustering of residential development away from resources so that the economic and social benefits of providing housing or related development are accomplished in conjunction with environmental benefits of protecting resources.
- Recognize that certain types of Private and Public Utilities and Transportation Facilities uses may also warrant an “Allow” scenario, while more impactful uses warrant a “Limit” scenario but still

may require a greater degree of flexibility to allow for the crossing of resources and the temporary impacts associated with underground utilities.

- Recognize that energy extraction and transmission facilities may have higher levels of impacts than other types of development and may warrant higher levels of limitation or regulation.

There are a number of existing regulations and policies, which apply to significant riparian corridors, and which address these objectives. These regulations and policies are currently implemented by the County through its base zoning code standards and its SEC-Streams and SEC-Water Resources overlay zones, as well as state statutes and administrative rules and include:

- **SEC-Streams Overlay Requirements.** The County's Zoning Ordinance (Section 35.4500-4550 and 35.4575) prohibit non-exempt development proposed in SEC-s and SEC-wr resource and associated impact areas unless it can be demonstrated through submittal of an SEC permit application that development will enhance the fish and wildlife resources, shoreline anchoring, flood storage, water quality, and visual amenities characteristic of the stream in its pre-development state, as documented in a Mitigation Plan. The County's SEC requirements also include design standards for stream crossings, tree removal and replanting, erosion control, and other measures to protect water quality and riparian habitat. SEC-s and SEC-wr provisions are included in Attachment A of this report.

Some additional standards may be warranted in the ESR sub-area based on the recommendations in the ESR ESEE analysis specific to Policy 21 streams. These include a potential prohibition on residential development within impact areas with a clear definition of such development; further limitations of new roads or stream crossings within the impact area; limit allowed expansions of existing structures only to dwellings; apply stricter requirements for the timeline for grading and soil disturbing activities in comparison to existing SEC-s regulations. These requirements should be considered at the time that the County applies the SEC-s overlay to the impact areas evaluated in this report within the ESR subarea.

- **SEC-Streams Overlay Exemptions.** A number of uses and activities are exempt from SEC-s and SEC-wr requirements, including the following:
 - Farm use, as defined in ORS 215.203 (2).
 - Propagation of timber or cutting of timber for public safety or personal use or the cutting of timber in accordance with the State Forest Practices Act.
 - Customary dredging and channel maintenance and the removal or filling, or both, for the maintenance or reconstruction of structures such as dikes, levees, groins, riprap, drainage ditch, irrigation ditches, and tile drain systems as allowed by ORS 196.905 (6);
 - The placing, by a public agency, of signs, markers, aids, etc., to serve the public;
 - Activities to protect, conserve, enhance, and maintain public recreational, scenic, historical, and natural uses on public lands;

- The expansion of capacity, or the replacement, of existing communication or energy distribution and transmission systems, except substations;
- The maintenance and repair of existing flood control facilities;
- Limited alteration or expansion of existing structures;
- Type A Home Occupations;
- Single utility poles necessary to provide service to the local area;
- Right-of-way widening for existing rights-of-way when additional right-of-way is necessary to ensure continuous width;
- Stream enhancement or restoration projects limited to removal by hand of invasive vegetation and planting of any native vegetation on the Metro Native Plant List;
- Enhancement or restoration of the riparian corridor for water quality or quantity benefits, or for improvement of fish and wildlife habitat; and
- Routine repair and maintenance of structures, roadways, driveways, utility facilities, and landscaped areas that were in existence prior to the effective date of this ordinance.

These exemptions would be consistent with an “Allow” scenario for a number of farm and forest uses, as well as certain types of transportation and public and private utility uses. Other transportation and public and private utility uses would be subject to SEC-s and SEC-wr mitigation requirements and/or to conditional use requirements as noted below.

- **Review and Conditional Uses.** A limited set of land uses allowed in the zones within the study area are uses allowed outright, with many other uses allowed only under certain conditions and approval criteria. For example, most types of commercial uses, community service uses, forest products processing, and production and processing of most energy sources are allowed only as conditional uses in most of the zones within the study area. One of the County’s criteria for approval of a conditional use is that the use will not adversely impact natural resources. As a result, approval of the use requires a finding by the County that the use, as proposed, will meet this criterion.
- **Oregon Forest Practices Act (FPA).** A large portion of the FPA rules are aimed at the protection of water resources. For example, timber harvesting, road building, and chemical use are restricted near streams, rivers, lakes, and wetlands. Regulations also require landowners to leave forested buffers and other vegetation along streams, wetlands, and lakes to protect water quality and fish and wildlife habitat. If a road must cross a stream, it must not block fish passage. Typically, either a bridge or a properly sized culvert will be installed. In addition, spraying pesticides and herbicides near streams is prohibited where they might kill vegetation along the banks, get into the water, or harm insects and fish. These regulations essentially act as “Limit” scenario in commercial forest use zones or other zones where commercial timber harvest, propagation, and processing are allowed.

- **Other state and federal requirements related to riparian resources.** A variety of federal and state regulations also protect water qualities. For example, the federal Clean Water Act establishes limits on pollutants that can be discharged to or present in streams and rivers. This act is implemented in part through the National Pollutant Discharge Elimination System (NPDES) requirements which require permits for discharge of pollutants to waterways. These and other related requirements are typically administered by the Oregon Department of Environmental Quality (DEQ) in Oregon. In addition, a recent biological opinion prepared by the National Oceanographic and Atmospheric Agency Fisheries department (also known as the National Marine Fisheries Service or NMFS) released a biological opinion in 2015 that will impact how local communities regulate floodplains and other riparian areas in the future to protect fish and other aquatic species.

Application of these regulations, in concert with a variety of policies in the Comprehensive Plan cited previously, as applied to riparian corridors would provide an appropriate level of protection to achieve the recommendation for “limit”.

3. WILDLIFE HABITAT

3.1. INVENTORY AND DETERMINATION OF SIGNIFICANCE

The West of Sandy River (WSR) ESEE Report (2001) included an analysis of impacts on wildlife habitat areas within the WSR area and resulted in application of the County’s SEC-Habitat (SEC-h) overlay zone within that sub-area. The ESR Wildlife Habitat and Stream Corridor ESEE Report (1997) also included an evaluation of impacts on wildlife habitat areas in the ESR area. While that report did not result in application of an SEC-h overlay in the ESR area, it recommended continued application of the County’s Commercial Forest Use zones and a number of other protection strategies to protect wildlife habitat in that area. As part of the process of updating Multnomah County’s Comprehensive Plan, consistent with Statewide Planning Goal 5 requirements, the County reviewed currently available data related to wildlife habitat areas. Goal 5 provisions related to wildlife habitat include:

OAR 660-023-0100 Wildlife Habitat

(2) Local governments shall conduct the inventory process and determine significant wildlife habitat as set forth in OAR 660-023-0250(5) by following either the safe harbor methodology described in section (4) of this rule or the standard inventory process described in OAR 660-023-0030.

(3) When gathering information regarding wildlife habitat under the standard inventory process in OAR 660-023-0030(2), local governments shall obtain current habitat inventory information from the Oregon Department of Fish and Wildlife (ODFW), and other state and federal agencies. These inventories shall include at least the following:

- (a) Threatened, endangered, and sensitive wildlife species habitat information;*
- (b) Sensitive bird site inventories; and*
- (c) Wildlife species of concern and/or habitats of concern identified and mapped by ODFW (e.g., big game winter range and migration corridors, golden eagle and prairie falcon nest sites, and pigeon springs).*

(4) Local governments may determine wildlife habitat significance under OAR 660-023-0040 or apply the safe harbor criteria in this section. Under the safe harbor, local governments may determine that "wildlife" does not include fish, and that significant wildlife habitat is only those sites where one or more of the following conditions exist:

- (a) The habitat has been documented to perform a life support function for a wildlife species listed by the federal government as a threatened or endangered species or by the state of Oregon as a threatened, endangered, or sensitive species;*
- (b) The habitat has documented occurrences of more than incidental use by a species described in subsection (a) of this section;*
- (c) The habitat has been documented as a sensitive bird nesting, roosting, or watering resource site for osprey or great blue herons pursuant to ORS 527.710 (Oregon Forest Practices Act) and OAR 629-024-0700 (Forest Practices Rules);*
- (d) The habitat has been documented to be essential to achieving policies or population objectives specified in a wildlife species management plan adopted by the Oregon Fish and Wildlife Commission pursuant to ORS Chapter 496; or*
- (e) The area is identified and mapped by ODFW as habitat for a wildlife species of concern and/or as a habitat of concern (e.g., big game winter range and migration corridors, golden eagle and prairie falcon nest sites, or pigeon springs).*

The ODF&W and USFWS have mapped areas of critical habitat and winter range in the eastern portion of the County for big game (bear, elk, and black-tail deer). The habitat areas are focused near the Columbia River, within the CRGNSA and near the convergence of the Sandy and Columbia Rivers. For the purposes of this report we're assuming that these inventories can be relied upon and that all mapped critical habitat and winter range is significant, with the exception of land within the Rural Center of Springdale. That area was identified as "Impacted" and determined to be non-significant wildlife habitat by the East of Sandy River ESEE Analysis conducted by Winterowd Planning Services in 1997 due to its heavily impacted condition as essentially an urban area. As stated in the Winterowd report, "land within the Rural Centers is adversely affected by relatively dense human settlement, and it is not considered within the category of "affected impact areas," because Rural Centers offer little in the way of wildlife habitat value and do not contribute substantially to the diverse habitat structure of the East of Sandy River Rural Area study area."

No additional wildlife inventory work was conducted as a part of this analysis. Pursuant to the Goal 5 provisions, the County is adopting this inventory as significant wildlife habitat except as noted above.

The County also is including fish in its definition of wildlife. However, habitat for fish (fish-bearing streams) are covered by the inventories for riparian corridors and resources described in the previous sections of this report. Therefore, the remainder of this section will focus on upland wildlife habitat and specifically habitat for big game identified by ODF&W.

3.2. IMPACT AREA

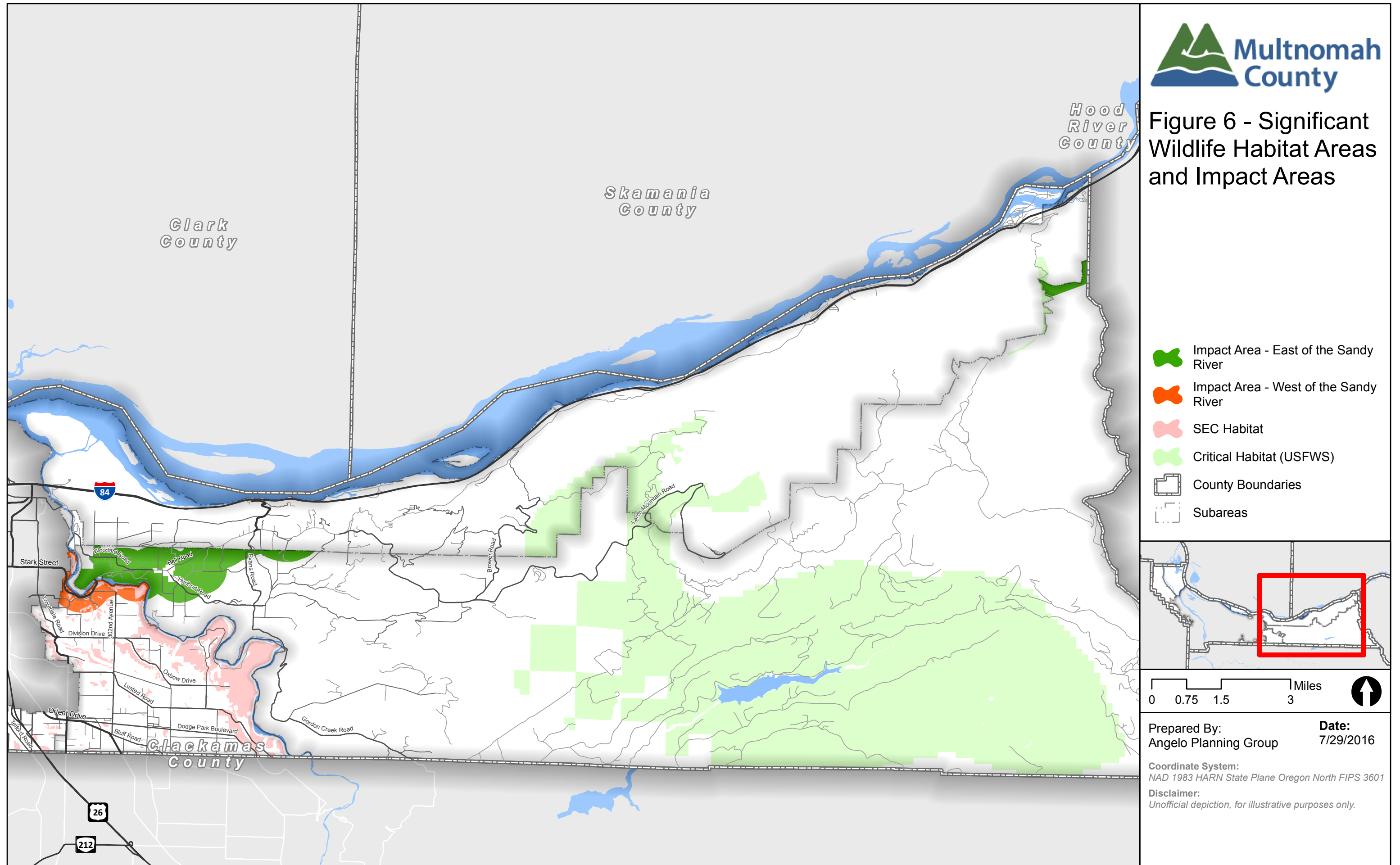
As noted in Section 2.2 above, the "Impact area" is a geographic area within which conflicting uses could adversely affect a significant Goal 5 resource.

Also as noted previously, we intend to rely on the data available from the ODF&W to define wildlife habitat areas for big game (elk, black bear, and black tail deer). The habitat area is coincident with the impact area in this case. Neither ODFW nor state regulations provide guidance on delineating an impact area that extends beyond the habitat area. In identifying resource and impact areas for upland wildlife habitat as part of the Title 13 process, Metro identified the resource and impact areas as coincident and several other jurisdictions in the Portland metropolitan area have taken the same approach.

Table 5: Summary of Impact Areas by Zone

	CFU	CFU3	CFU4	EFU	MUA20	RR	Total
East of Sandy River Subarea	-	143.1	365.5	905.4	546.7	124.1	2,084.8
West of Sandy River Subarea	106.6	-	-	276.6	4.5	31.5	419.1
Total	106.6	143.1	365.5	1,182.0	551.2	155.5	2,503.9

Figure 6 - Significant Wildlife Habitat Areas and Impact Areas



3.3. CONFLICTING USES

The areas where wildlife habitat resources not already within the County's SEC-h overlay zone are located are designated for a combination of multiple use agriculture (MUA-20) and exclusive farm uses (EFU) on the County's zoning map. Uses which are permitted outright or conditionally within in these zones fall into the following general categories:

- **Residential development.** Single family detached dwellings and accessory structures are allowed in all zones within the study area. In addition, grading, excavation, filling, hauling, and soil compaction; installing utility connections such as sewers and stormwater pipes; building stormwater control structures; and landscaping with non-native vegetation (e.g., establishment of lawns, addition of non-native landscape features – trees, shrubs, groundcover, etc.) also can lead to loss of wildlife habitat.
- **Limited civic and commercial development** (e.g., Type A, B or C home occupations, sales of agricultural products, health care, schools, churches, fire stations, and cemeteries). A number of civic and commercial uses are permitted outright or permitted as review or conditional uses within the zones within the study area. The potential impacts of these uses are similar to those described for residential uses; however, civic and commercial developments may have larger building footprints and more impervious area due to parking than residential development.
- **Parks, open space, and trails.** Parks require conditional use approval. Where parks include buildings or parking areas, the impacts of these activities are similar to those described for civic and commercial uses except that normally a smaller percentage of land area is covered by impervious surfaces. Depending on the nature and intensity of the uses, parks, and open spaces uses may have a higher or lower degree of impact on wildlife related to human intrusion. Impacts related to roads, grading, excavation, filling, hauling, soil compaction, and landscaping typically will be lower.
- **Transportation facilities.** Similar to other types of development, constructing streets and sidewalks results in the removal of vegetation, grading, excavation, filling, hauling, and new impervious surfaces. As noted previously, transportation facilities also can act as barriers to wildlife movement and migration and can increase wildlife deaths due to collisions with automobiles.
- **Public and private utilities.** This category includes water, sewer and storm drainage pipes, telecommunication facilities, electric power lines and substations, and gas pipelines. Other than transmission lines, which are permitted outright, these uses require conditional use approval. 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.

- **Energy exploration, production, and processing.** This category includes activities associated with solar and wind power generation, mineral/aggregate excavation and processing, geothermal exploration and production, and oil and gas exploration and operations. Impacts of these uses are similar to those from civic and commercial development but may have greater impacts on land form and topography due to excavation and other activities, including more significant direct loss of wildlife habitat.

3.4. TYPES OF IMPACTS

The uses described in the previous section can have a variety of different positive or negative consequences on economic, social, environmental, and energy resources and conditions. Following is a summary of the different types of impacts considered and which are referenced in the text and tables in the following section of the report. Many of these impacts are similar to those associated with riparian areas described in previous sections of this report. This is particularly true for economic, social and energy consequences.

3.4.1. ECONOMY

Economic values and potential impacts associated with wildlife habitat in the study area include the following.

Economic value derived from development. The ability to develop a property to the maximum level or density of development allowed under County zoning will increase the economic or market value of a property or allowed improvements. This type of impact is most important for residential, commercial, and energy uses. It is relatively less applicable to transportation, utility, or community facilities, or to parks, open spaces, or trails. Allowing conflicting uses provides the highest economic benefit in this regard, while prohibiting those uses provides the lowest benefits.

Tax revenues. A large percentage of tax revenues in Oregon come from a combination of property, income, and payroll taxes. Maximizing the development of a property will generally increase the property tax revenues associated with it. Income and payroll taxes also will increase for employment-related uses (primarily commercial, civic, and energy uses, with a smaller impact from transportation, utilities and parks, recreation, and open space). In general, the highest positive economic consequences in this regard will be for allowing employment-related uses, followed by residential uses, with parks, open space, and trails uses receiving the lowest net benefit in this regard. For larger properties, the relative positive consequences for allowing residential uses will be lessened if it is possible to located residential structures and other improvements on portions of the lot outside the impact area. Prohibiting uses will generally have a negative economic impact in relation to tax revenues.

Employment. For commercial or other uses that provide job opportunities, employment generates personal and business income, which has a positive economic consequence if development is allowed and a negative impact if it is prohibited.

Self-sufficiency and economic equity. The majority of County households earn enough money to cover their basic household needs – i.e., are economically self-sufficient. However, a certain percentage of households do not. In particular, workers in the food and drink service and retail sectors are less likely to earn wages that result in self-sufficiency while workers in construction, manufacturing, and distribution jobs are more likely to do so. Land uses that promote economic self-sufficiency have a higher economic net benefit associated. Development of transportation facilities allows transportation of goods produced or distributed in higher-wage sectors and provides higher-wage jobs associated with construction and maintenance of transportation and utility facilities.

Open space value. People value open space for its potential recreational amenities, as well as its scenic value and it is possible to quantify this intrinsic value. Developing open space for non-park or open space purposes has a negative economic consequence in this regard, with larger scale development having a greater impact. Prohibiting such development can have a positive economic consequence.

Ecosystem services. Wildlife habitat can provide ecosystem goods and services, which in turn provide economic and social value. Ecosystem services include water conveyance, purification, and flood control, air cooling and purification, carbon sequestration, soil fertilization and pollination. Ecosystem goods include commodities like food, fuel, fisheries, timber, minerals, etc. Ecosystem goods also include supporting recreation and tourism. In general, wetlands provide the highest level of ecosystem services, followed by shallow water riparian areas and then by upland habitat (e.g., forest/woodlands, shrubland, and grassland). Allowing conflicting uses will result in negative economic consequences in this regard while prohibiting them will have positive consequences. The degree of impact will depend on the amount of area affected, the type of resources and the proximity to it.

The economic benefits of ecosystem services come in large part from the savings associated with building infrastructure (stormwater conveyance systems, water filtration plants, etc.) to otherwise serve development or mitigate the impacts of it, as well as from amenity values associated with natural areas which increase property values. While the economic value of eco-system services associated with certain types of resources can be relatively high, they are typically lower than economic values associated with employment and tax revenues.

3.4.2. SOCIAL

Social values and potential impacts associated with wildlife habitat in the study area include the following.

Human health and welfare. Physical and mental health and welfare are related to a variety of factors that can be positively or negatively impacted by conflicting uses. They include:

- *Employment opportunities.* Household income is one of the most important factors in determining human health and welfare and is directly dependent on employment. Income can provide access to better quality food and housing, as well as health care services. Similar to economic self-sufficiency, jobs with higher wages will have a more positive impact on social

welfare. Allowing conflicting uses that will provide employment opportunities will have a positive impact on social resources in this regard while prohibiting them will have a negative impact.

- *Access to nature and recreation.* Access to natural areas and the recreational opportunities they provide, including access to viewing wildlife, have positive impacts on physical and mental health. Recreation has multiple health benefits, including improving overall physical health, strengthening immune systems, and preventing a variety of diseases and medical conditions. In addition, studies show that viewing vegetation and wildlife can reduce stress and aggression, improve cognitive development, and enhance medical recovery. Allowing conflicting uses will generally have a negative impact on social resources in this regard while limiting or prohibiting them will have a positive impact.
- *Air and water quality.* Air and water pollution adversely impact human health. Conflicting uses can impact air quality in two ways, either by introducing pollutants into the air or by eliminating vegetation that can help filter pollutants and improve air quality. Relatively few of the specific conflicting uses allowed in these zones produce point sources of air or water pollution. However, increased use of automobiles or equipment that produce carbon or other emissions associated with virtually all of the uses allowed can have some impact on air quality, as well as water quality via stormwater runoff from roads or other impervious surfaces or via erosion. In all cases, consequences would be negative for allowing or limiting uses and positive for prohibiting uses, except possibly for parks and open space uses where natural areas would be retained. Energy exploration uses likely would have the highest negative impacts due the size of areas impacted, while park and open space and residential uses typically would result in the lowest level of impacts.
- *Light, noise, and traffic.* Both noise and light can have negative consequences, including reducing enjoyment of leisure activities; contributing to health effects such as hypertension, heart disease, and sleep interruption; reduction of property values; and/or elimination of the ability to see the night sky (for light). Noise and light can come from human activity, equipment, and/or traffic associated with the majority of the conflicting uses described previously. Similar to air and water quality, consequences would be negative for allowing or limiting uses and positive for prohibiting uses, except possibly for parks and open space uses where natural areas would be retained. Energy exploration uses likely would have the highest negative impacts due the size of areas impacted, the type of equipment used, and truck traffic generated, while park and open space and residential uses typically would result in the lowest level of impacts.
- *Opportunities for social interaction.* Opportunities for social interaction have positive benefits on psychological health, formation of social networks, and the ability for community members to collectively discuss and achieve community goals. Allowing uses that promote or provide opportunities for social interaction will have positive effects in this regard. Prohibiting or limiting such uses will have negative impacts, with the highest negative impacts from prohibiting them.

Cultural values associated with Native American values and habitation. The first Europeans to explore the Columbia and Willamette Rivers arrived in the late 18th century. Prior to that, the area was populated by various aboriginal tribes who settled along sections of these rivers for 6,000 to 9,000 years. The creation stories of these tribes held that the people were created in these places. The rivers provided a travel route for trade of goods among tribes, and they also provided a rich diversity of food that was fairly obtainable for most of the year. Besides fish that could be caught over a period of several months a year, and game and fowl that could be hunted, Native peoples also gathered plants that were available much of the year in the temperate climate. Most types of land use and development have the potential to disturb Native American artifacts during the course of grading or other soil-disturbing activities. To the extent that land use or development degrades environmental resources, it also has potential negative impacts on the cultural value associated with those resources. Limiting development can significantly lessen these impacts by either shifting the location of development to minimize impacts or requiring investigation, documentation, and preservation of archeological resources if they are discovered during the course of development.

Other historic and heritage values. Multnomah County residents value historic structures and resources as evidenced by policies in the County's Comprehensive Plan (updated in 2016) which direct the County to inventory and establish protection programs for such resources. Allowing land uses or development of properties with historic resources could negatively impact them. Limiting development to avoid such impacts would lessen these impacts.

Other cultural values. Multnomah County and Oregon residents place a high value on the environment and quality of life. Numerous policies in the County's Comprehensive Plan aimed at protecting and conserving these resources confirm these values. Allowing development which can adversely impact wildlife habitat areas can have an effect on these values. At the same time, many rural residents live in the rural areas of the County out of a desire for privacy and the ability to manage their own land and resources. They also have a strong history of valuing individual property rights and opposing what they consider to be undue levels of regulation. As a result, allowing development has both potentially negative and positive impacts on these somewhat conflicting cultural values.

3.4.3. ENVIRONMENT

Environmental functions and potential impacts associated with wildlife habitat in the study area include the following.

Direct loss of habitat. Clearing of trees or vegetation associated with building structures, roads or other forms of development will directly reduce the amount of wildlife habitat in the area.

Edge effects. Loss of habitat can impact the viability and quality of remaining adjacent wildlife habitat. Impacts can include increased vulnerability of remaining trees to wind throw, increased predation of wildlife due to proximity and visibility to predators, and increased travel of wildlife outside the habitat area where they also are more prone to predation or other adverse impacts.

Roads and fences. Roads introduce increased impervious areas and present hazards and barriers to wildlife movement, including hazards from vehicles. This is particularly true for small mammals and amphibians and for reptiles which may seek warm road surfaces for heat and subsequently be killed by vehicles. Large mammals tend to either avoid roads, restricting their movement, or follow road corridors to forage which can increase their risk of death or injury from vehicles. Fences also create barriers to wildlife movement although wildlife-friendly design of fences can lessen these impacts.

Fragmentation. Large tracts of forested land are necessary to sustain forest-based wildlife species. If wildlife habitat areas are broken up into small fragments, the resulting area can become too small to support wildlife or will not support the same diversity of wildlife. This is particularly true for small animals, including amphibians and mammals with short dispersal distances, as well as those that depend on structures found within larger forested areas (downed trees, snags, etc.).

Native Vegetation Removal. Native vegetation typically provides important habitat for wildlife. Removal of native vegetation through rural residential, commercial, or other development increases the potential for erosion and flooding; reduces the availability of food and cover for wildlife; results in replacement by other plant species, leading to less biodiversity; and can result in an increase in nutrient loading and chemicals if native vegetation is replaced with lawns or gardens.

Application of pesticides, insecticides, and fertilizers. Use of these chemicals can reduce or destroy habitat diversity and plants that provide food and cover for wildlife. It also introduces toxins into the soil and water that are harmful to wildlife health, either by killing insects that serve as food to other species or by directly harming them. As noted above, fertilizers also can increase nutrient loading to streams and waterways, decreasing water quality, and allowing non-native vegetation to thrive.

Excavation and topsoil removal. Soil excavation and removal typically removes vegetation, increases erosion, and adds sedimentation to streams and wetlands. It also can make it more difficult for vegetation to become re-established. All of these effects are detrimental to wildlife habitat.

Human intrusion. Impacts of human intrusion associated with development or other activities range from frightening animals by human presence and vegetation damage by off-road driving to shooting animals.

Pet impacts. If allowed to roam free, cats, dogs, and other domestic animals will prey on a variety of small vertebrates including moles, shrews, and small birds, among others. If dogs form packs, they can chase and run off deer, elk, and other large animals.

Increased impervious surface areas. Virtually all types of development, including road and utility construction, residential and commercial development, and mining can increase impervious surfaces. This generally results in loss of vegetation and increased surface water runoff, impacting erosion and water quality, as well as related impacts described previously.

Water quality impacts. Many of the effects described above adversely impact water quality. Reduced water quality affects the viability of aquatic wildlife and other wildlife that depend on aquatic species for food.

Development within wildlife habitat areas can introduce these impacts. In general, allowing development would have the greatest potential impacts while limiting it to avoid or reduce impacts to the resource areas would have a lower impact. Prohibiting development would have the least impact.

3.4.4. ENERGY

The following types of energy related impacts are considered in this analysis.

Transportation. Different types of development will have varying impacts on energy associated with transportation. In general, allowing more residential development in rural communities increases the expenditure of energy associated with transportation between new homes and available retail and commercial services and employment centers in nearby urban areas. Conversely, allowing commercial and other services that support local residents can decrease energy associated with transportation. Allowing for schools, parks, and trails can have similar impacts. Allowing extractive uses can increase energy costs associated with transportation of extracted materials in general, but it can reduce those energy costs if the sources of materials are relatively closer to nearby urban areas than similar resources in other parts of the region or state. Allowing streets to cross riparian corridors can reduce out of direction travel. Similarly, utilities may need to cross corridors to ensure an efficient network.

Energy production. Allowing energy extraction and transmission uses will generally have positive energy impacts by allowing energy to be distributed to homes and businesses that need it and by reducing energy related transportation impacts to the extent that energy production in the study area is relatively closer to nearby market areas in comparison to other energy production sources.

3.5. ESEE CONSEQUENCES

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. Within the East County study area, wildlife habitat areas addressed in this analysis represent a total of approximately 2,504 acres of the area.

As described in section 3.3 above, potential conflicting uses can generally be grouped into one of six categories. In the tables that follow, each of the 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.

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

Scenario B - Limiting conflicting uses within the resource and 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 significant wildlife habitat. Areas containing

significant wildlife habitat areas could still be subject to development, but additional development restrictions would exist in addition to base zone regulations.

Scenario C - Prohibiting conflicting uses within the resource and 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 allowable development in significant wildlife habitat areas.

3.5.1. SCENARIO A - ALLOWING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario there would be no land use regulations restricting conflicting uses within the Goal 5 (riparian) wildlife habitat areas. Tables A-6 through A-9 identify the likely positive and negative consequences to both the resource and the conflicting use of *allowing* the conflicting use (i.e., both the economic goods and services provided by the conflicting uses and the related economic value provided by the significant wildlife habitat area). The expected net effect of allowing the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table A-6 Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Property owners realize full development potential of parcels; structures not required to avoid riparian areas. Residential improvements increase property tax base. No mitigation is required, which reduces the cost to develop. 	<ul style="list-style-type: none"> Loss of ecosystem services results in higher costs, either to replace services or repair impacts (e.g., repair flood or erosion damage). Amenity/development premium for parcels adjacent to resource areas is eliminated. Environmental impact costs passed on to County could lead to increased taxes. Higher cost to develop and maintain private utilities. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Development potential of parcels fully realized enhancing potential for local economic development. Commercial improvements increase property tax base. Depending on development type, potential increase in property values for adjacent landowners. Helps to satisfy governmental long-term capital facility needs. Potential benefits associated with economic self-sufficiency. 	<ul style="list-style-type: none"> Same as residential, but with lesser loss of amenity value and greater potential for increased costs resulting from lost ecosystem services due to larger development area size associated with civic and commercial development. 	+1

Table A-6 Economic Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Parks, open space and trails	<ul style="list-style-type: none"> • May create a development premium and amenity for adjacent undeveloped parcels or developed parcels, respectively. • Recreation facilities that are a community attraction may enhance potential for local economic development. • Some ecosystem services could still be provided. 	<ul style="list-style-type: none"> • May decrease property values for adjacent landowners if higher pedestrian traffic or active recreation create a nuisance. • Higher municipal service costs relating to maintenance, law enforcement, etc. • Some loss of ecosystem services possible with certain types of parks facilities (e.g., active recreation facilities). 	0
Transportation facilities	<ul style="list-style-type: none"> • Potential for improved connectivity and movement of people and goods. • No mitigation is required, which reduces the cost to develop streets and roads. • Potential positive benefits associated with economic self-sufficiency. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Environmental impact costs could be passed on to County, thus increasing taxes. 	+1
Public and private utilities	<ul style="list-style-type: none"> • Provides essential services for other land uses. • No mitigation is required, which reduces costs to develop facilities. • Potential positive benefits associated with economic self-sufficiency. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Environmental impact costs could be passed on to County, thus increasing taxes. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> • Energy use achieves full potential for economic use of property. • Improvements to jobs and tax base associated with increased economic activity. 	<ul style="list-style-type: none"> • Loss of ecosystem services (e.g., higher potential costs due to flood damage or erosion risk). • Amenity/development premium for parcels adjacent to resource areas is eliminated. • Potential adverse impacts are relatively more significant than for other uses. 	0

Table A-7 Social Consequences of Allowing Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Provides residents with access to nature and recreation. Positive impacts of allowing for rural residential lifestyle. 	<ul style="list-style-type: none"> Potential impact to historic, aesthetic, and cultural values or resources. Potential loss of passive recreational opportunities. Potential impacts to air and water quality result in potential negative health impacts. Residences located relatively far from most needed services. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Civic and commercial development provide community gathering places with positive social benefits. Employment opportunities represent positive social benefits. 	<ul style="list-style-type: none"> Same as residential, but with greater potential for impacts to riparian corridors due to development size and lesser health-related impacts. Potential light, noise, and traffic impacts on residents associated with additional commercial traffic. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> Parks and open space provide community gathering places. Opportunities for active recreation provide community health benefits. 	<ul style="list-style-type: none"> Consequences similar to, but less than, residential, depending on amount of active recreation area and non-native landscaping provided. 	0
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages the use of active transportation modes, which can improve public health. Provides enhanced ability to access social activities, benefits. 	<ul style="list-style-type: none"> Same as residential, but with a potentially lower degree of impact, depending on nature of improvements. Potential light, noise, and traffic impacts on residents associated with additional commercial traffic. 	0
Public and private utilities	<ul style="list-style-type: none"> Utilities and telecommunication facilities provide ability for residents to communicate, gather, and socialize. 	<ul style="list-style-type: none"> Same as residential, but with potentially lower degree of impact, depending on nature of improvements. 	0
Energy exploration, production or processing	<ul style="list-style-type: none"> Positive impacts associated with employment, income, and living standards. 	<ul style="list-style-type: none"> Consequences similar to residential, but with greater potential for impacts due to potential size and intensity of uses. Noise and related impacts have negative impact on rural character and quality of life. 	-1

Table A-8 Environmental Consequences of Allowing Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Opportunities for voluntary good stewardship practices by property owners. 	<ul style="list-style-type: none"> Direct loss of habitat. Barriers to wildlife movement due to roads and fences. Increased fragmentation reduces habitat quality and diversity. Application of chemicals impacts wildlife health. Human intrusion and pet impacts impact large mammals. Reduced water quality impacts health of large mammals. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> Similar to residential, but with potentially greater impacts from the size of the development and related impacts on vegetation removal, fragmentation, traffic impacts, and water quality. Lesser impacts related to fencing and pet intrusion. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> Public ownership may help ensure that resource units are maintained in the future. 	<ul style="list-style-type: none"> Developed parks and open space may displace native riparian and wildlife habitat. Maintenance practices may introduce pesticides and fertilizers. Human intrusion and pet impacts similar to residential development. 	-1
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions. 	<ul style="list-style-type: none"> Similar to residential, with potentially greater impact due to light and noise from automobile traffic, impervious area impacts, and barriers to wildlife movement, and injury or death associated with automobile conflicts. 	-1
Public and private utilities	<ul style="list-style-type: none"> Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing vehicle miles traveled and greenhouse gas emissions. 	<ul style="list-style-type: none"> Similar to residential, with varying impacts due to size and scope of facility. 	-1
Energy exploration, production or processing	<ul style="list-style-type: none"> Production of wind or solar energy can have positive impacts in relation to other forms of energy. 	<ul style="list-style-type: none"> Similar to transportation and residential uses, but with potential greater impacts due to increased areas of activity and potential greater impacts to land form, topography and drainage. 	-1

Table A-9 Energy Consequences of Allowing Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Opportunities to reduce out-of-direction travel are increased. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. May encourage residential uses away from more cost-effective, urban locations to serve with public facilities. Increased energy to travel from new homes in rural areas to urban area employment and services. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Providing needed services reduces energy needed for transportation by nearby residents. 	<ul style="list-style-type: none"> Similar to residential development. 	0
Parks, open space and trails	<ul style="list-style-type: none"> Similar to civic and commercial. In addition, allowing trails encourages non-motorized modes of transportation. 	<ul style="list-style-type: none"> Similar to residential, although impacts could be less depending on the amount of impervious area. 	0
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages use of active transportation modes and lessen travel times and vehicle miles traveled. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. 	+1
Public and private utilities	<ul style="list-style-type: none"> Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing energy usage. Improves efficiency of energy grid and potentially reduces transmission-related energy losses. 	<ul style="list-style-type: none"> Same as residential development but to a lesser degree. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> Similar to residential development but with potential greater impacts due to increased areas of activity. 	0

Table A-10 summarizes the net effect of allowing 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 County, whereas a negative score would suggest that the use should not be allowed without limitations or should be prohibited entirely. Results of this table are carried forward to the program recommendation section of this analysis.

Table A-10 Summary of Consequences of Allowing Conflicting Uses

Use Category	Economic	Social	Environ- mental	Energy	Cumulative Effect
Residential Development	-1	-1	-1	-1	-4
Limited Civic and Commercial Development	+1	-1	-1	0	-1
Parks, Open Space and Trails	0	0	-1	0	-1
Transportation Facilities	+1	0	-1	+1	+1
Public and Private Utilities	+1	0	-1	+1	+1
Energy Exploration, Production and Processing	0	-1	-1	0	-2

As shown in Table A-10, the net effect of allowing conflicting uses is positive for transportation and utility facilities and negative for all other uses. The economic and energy consequences are positive or neutral for all uses except residential. Environmental consequences are negative for all uses while social consequences are neutral or negative for all uses.

3.5.2. SCENARIO B - LIMITING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario conflicting uses would be limited (by regulations) within the Goal 5 resource or its impact area. Uses would be permitted in resource or impact areas if it could be demonstrated that they would have a positive effect on Goal 5 resources or if their negative effects can be mitigated or minimized and uses and activities would be located on portions of a land parcel which are outside the resource and impact areas where feasible. Tables B-6 through B-9 identify the likely positive and negative consequences of limiting the conflicting use. The expected net effect of limiting the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table B-6 Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Property owners realize most of the development potential of parcels through clustering of residential development. Economic development still facilitated by allowing development of residential land for relocating/new employees. Most ecosystem services are retained reducing costs to replace services or repair impacts (e.g., repair erosion or flood related damage). Most of the amenity/development premium for adjacent parcels is preserved and may be enhanced by mitigation. 	<ul style="list-style-type: none"> Loss of some ecosystem services still possible. Steps to enhance Goal 5 resources are required, which increases the cost to develop. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> Some of the development potential of parcels fully realized. Enhances potential for local economic development by providing some opportunities for commercial development and employment. Depending on development type, potential increase in property values for adjacent landowners. Helps to satisfy governmental district long-term capital facility needs. 	<ul style="list-style-type: none"> 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. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Limited amount of parks, open space, and trail development allowed within the resource or impact area may create a development premium and amenity for adjacent parcels and a community attraction, enhancing potential for local economic development. Most ecosystem services are provided. 	<ul style="list-style-type: none"> Similar to residential, but to these extent these facilities are allowed, they may decrease property values for adjacent landowners if higher level of use creates a nuisance. Higher municipal service costs relating to maintenance, law enforcement, etc. 	0
Transportation facilities	<ul style="list-style-type: none"> To the extent that some facilities are allowed within resources and impact areas, connectivity can be achieved. Potential for local economic development is enhanced by providing access for goods and people. 	<ul style="list-style-type: none"> Loss of some ecosystem services and economic value of open space still possible. Mitigation is required, which increases the cost to build facilities. Mitigation costs could be passed on to County, thus increasing taxes. 	+1

Table B-6 Economic Consequences of Limiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Public and private utilities	<ul style="list-style-type: none"> Similar to transportation, with economic development enhanced through provision of essential services to support it in some areas. 	<ul style="list-style-type: none"> Similar to transportation with costs to develop passed on to taxpayers or consumers. 	0
Energy exploration, production and processing	<ul style="list-style-type: none"> Energy use achieves most of its potential for economic use of property. Some improvements to jobs and tax base associated with increased economic activity. 	<ul style="list-style-type: none"> Similar to transportation facilities except that negative impacts are potentially greater and mitigation costs are passed on to consumers rather than to tax payers. 	+1

Table B-7 Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Community scenic, historic, and cultural values are preserved for the most part and may be enhanced by mitigation. Mitigation sites can become an amenity. Supports cultural values associated with desire for rural lifestyle. Access to nature and recreation provides social benefits for residents. 	<ul style="list-style-type: none"> Some potential loss of scenic, historic and cultural values could still occur which cannot be offset by mitigation. Light, noise, and traffic impacts associated with new development may negatively impact existing residents. Air and water quality impacts may negatively impact existing residents. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> To the extent that these uses are permitted within resources and impact areas, they provide community gathering places. Potential jobs and other economic impacts have beneficial social consequences. 	<ul style="list-style-type: none"> Similar to residential, but impacts may be more significant due to the larger size of the developments. 	0
Parks, open space and trails	<ul style="list-style-type: none"> Same as civic and commercial. Opportunities for active recreation provide community health benefits. Enhanced access to clean air and water provide positive health benefits. 	<ul style="list-style-type: none"> Similar to residential, but with potentially fewer or minimal impacts depending on amount of active recreation area and non-native landscaping provided. 	+1
Transportation facilities	<ul style="list-style-type: none"> If achieved, connectivity can help encourage use of active transportation modes, which can improve public health. 	<ul style="list-style-type: none"> Similar to residential, but with greater potential for impacts to wildlife habitat areas due to development size, potential for noise, light, and glare. 	0

Table B-7 Social Consequences of Limiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Public and private utilities	<ul style="list-style-type: none"> Telecommunications facilities can allow for telecommuting, reducing pollution and improving public health. 	<ul style="list-style-type: none"> Similar to residential. 	0
Energy exploration, production or processing	<ul style="list-style-type: none"> Positive impacts associated with employment, income, and living standards. 	<ul style="list-style-type: none"> Consequences similar to residential, but with greater potential for impacts due to potential size of use; consequences reduced by limitations or mitigation requirements. Noise and related impacts have negative impact on rural character and quality of life; can be mitigated by limitations, requirements. 	-1

Table B-8 Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Most ecosystem services are retained. Opportunities for mitigation and restoration of degraded resources. 	<ul style="list-style-type: none"> Direct loss of habitat. Barriers to wildlife movement due to roads and fences. Increased fragmentation reduces habitat quality and diversity. Application of chemicals impacts wildlife health. Human intrusion and pet impacts impact large mammals. Reduced water quality impacts health of large mammals. Most adverse impacts can be reduced or mitigated through regulatory requirements 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> Similar to residential, but with potentially greater impacts from the size of the development and related impacts on vegetation removal, fragmentation, traffic impacts, and water quality. Lesser impacts related to fencing and pet intrusion. 	-1

Table B-8 Environmental Consequences of Limiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Parks, open space and trails	<ul style="list-style-type: none"> • Same as residential development, with increased potential for resource enhancement. • Public ownership may help ensure that resource units are maintained in the future. 	<ul style="list-style-type: none"> • Developed parks and open space may displace native riparian and wildlife habitat. • Maintenance practices may introduce pesticides and fertilizers. • Human intrusion and pet impacts similar to residential development but can be mitigated. 	0
Transportation facilities	<ul style="list-style-type: none"> • Connectivity and access can encourage the use of active transportation modes and lessen travel times and vehicle miles traveled which can reduce greenhouse gas emissions. 	<ul style="list-style-type: none"> • Similar to residential, with potentially greater impact due to light and noise from automobile traffic, impervious area impacts, barriers to wildlife movement, and injury or death associated with automobile conflicts. • Impacts can be mitigated or reduced through limitations on location and design of facilities. 	-1
Public and private utilities	<ul style="list-style-type: none"> • Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing impacts on air pollution and carbon emissions. 	<ul style="list-style-type: none"> • Similar to residential and transportation, with varying impacts due to size and scope of facility. • Impacts generally less than for other uses and less than for allowing this use. 	0
Energy exploration, production or processing	<ul style="list-style-type: none"> • Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> • Similar to transportation and residential uses, but with potential greater impacts due to increased areas of activity and potential greater impacts to land form, topography and drainage. • Some impacts can be mitigated through limitations in size, location, design, and mitigation requirements. 	-1

Table B-9 Energy Consequences of Limiting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Most ecosystem services are retained reducing the energy needed to build and maintain public facilities. Opportunities to reduce out-of-direction travel are increased. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. Increased energy to travel from new homes in rural areas to urban area employment and services. 	0
Limited civic and commercial development	<ul style="list-style-type: none"> Providing needed services reduces energy needed for transportation by nearby residents. 	<ul style="list-style-type: none"> Possible increased energy consumption due to loss of vegetation and microclimate effects. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential. In addition, allowing trails encourages non-motorized modes of transportation. 	<ul style="list-style-type: none"> Similar to residential, although impacts could be less depending on the amount of impervious area. 	+1
Transportation facilities	<ul style="list-style-type: none"> Good connectivity encourages use of active transportation modes and lessen travel times and vehicle miles traveled. 	<ul style="list-style-type: none"> Similar to residential development but to a lesser degree. 	+1
Public and private utilities	<ul style="list-style-type: none"> Most ecosystem services are retained reducing the energy needed to build and maintain public facilities. Telecommunication facilities allow residents to telecommute or purchase goods and services online, reducing energy usage. 	<ul style="list-style-type: none"> Similar to transportation but to a lesser degree. 	+1
Energy exploration, production or processing	<ul style="list-style-type: none"> Creates local opportunities for energy production and utilizes potential available energy sources. 	<ul style="list-style-type: none"> Similar to residential development but with potential greater impacts due to increased areas of activity. 	+1

Table B-10 summarizes the net effect of limiting the conflicting uses. The cumulative net effect column shows the “strength” of the positive or negative consequences of limiting 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 limiting the conflicting use would provide a net benefit to the County, whereas a negative score would suggest that the use should not be limited, but should be either allowed or prohibited if one of those scenarios provides a greater net benefit. Results of this table are carried forward to the program recommendation section of this analysis.

Table B-10 Summary of Consequences of Limiting Conflicting Uses

Use Category	Economic	Social	Environmental	Energy	Cumulative Effect
Residential Development	+1	+1	-1	0	+1
Limited Civic and Commercial Development	+1	0	-1	+1	+1
Parks, Open Space and Trails	0	+1	0	+1	+2
Transportation Facilities	+1	0	-1	+1	+1
Public and Private Utilities	0	0	0	+1	+1
Energy Exploration, Production and Processing	+1	-1	-1	+1	0

As shown in Table B-10, the net effect of limiting conflicting uses is positive for all categories except energy exploration, production, and processing where it has a neutral net effect. This is primarily due to the positive economic and energy consequences for most use categories. The environmental consequences are more often neutral or negative in recognition that most uses will adversely impact the environmental value of wildlife habitat, even if limitations reduce or mitigate those impacts. Social consequences are typically positive or neutral except for energy exploration, production, and processing uses.

3.5.3. SCENARIO C - PROHIBITING CONFLICTING USES WITHIN THE RESOURCE AND IMPACT AREAS

Under this scenario conflicting uses would be completely prohibited within the Goal 5 resource or its impact area. Tables C-6 through C-9 identify the likely positive and negative consequences of prohibiting the conflicting use. The expected net effect of prohibiting the conflicting use, either positive (+1), neutral (0), or negative (-1), is identified in column 4.

Table C-6 Economic Consequences of Prohibiting Conflicting Uses

Use Category	Positive Economic Consequences	Negative Economic Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Existing ecosystem services are preserved, eliminating need to replace services or repair impacts. Amenity/development premium for adjacent parcels is preserved. Environmental impact costs are avoided. 	<ul style="list-style-type: none"> Property owners don't realize full development potential of parcels. Decrease in potential tax revenues to County. 	0
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> Development potential of parcels not realized. Reduces potential for local economic development. Decrease in potential tax revenues to County. Does not help to satisfy governmental long-term capital facility needs. Loss of potential economic self-sufficiency benefits. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential. Lower municipal service costs relating to maintenance, law enforcement, etc. 	<ul style="list-style-type: none"> Recreation facilities, which are a community attraction that may enhance potential for local economic development, are not provided. 	0
Transportation facilities	<ul style="list-style-type: none"> Existing ecosystem services (e.g., higher potential costs due to flood damage risk) are preserved. Environmental impact costs are avoided. 	<ul style="list-style-type: none"> Connectivity and movement of people and goods is restricted, impacting potential for local economic development and economic self-sufficiency. Cost of building transportation facility is increased. 	-1
Public and private utilities	<ul style="list-style-type: none"> Same as transportation. 	<ul style="list-style-type: none"> Ability to obtain essential services needed for economic activity is not available. Loss of potential economic self-sufficiency benefits. Cost of building facilities is increased. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> Same as residential uses. 	<ul style="list-style-type: none"> Property owners lose portion of economic value of their property. The cost of obtaining and processing energy resources increases. Reduced economic development and tax base revenue potential. Loss of potential economic self-sufficiency benefits. 	-1

Table C-7 Social Consequences of Prohibiting Conflicting Uses

Use Category	Positive Social Consequences	Negative Social Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Scenic, historic, and cultural values of existing resources are preserved. • Passive recreational and educational opportunities of existing resources are preserved. 	<ul style="list-style-type: none"> • " Negatively impacts cultural values associated with desire for rural lifestyle. • Diminishes direct access to nature and recreation and associated social benefits for additional residents. 	-1
Limited civic and commercial development	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Reduces social benefits associated with income and employment. • Civic and commercial developments could be impacted, thus reducing community gathering places. 	-1
Parks, open space and trails	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Parks and open space, which provide community gathering places, are impacted. • Opportunities for active recreation and outdoor education, which provide community benefits, could be precluded or reduced. 	-1
Transportation facilities	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Good connectivity, which encourages the use of active transportation modes and can improve public health, may not be possible. • Reduces social benefits associated with income and employment. 	-1
Public and private utilities	<ul style="list-style-type: none"> • Same as residential development. 	<ul style="list-style-type: none"> • Access to essential services for communication, social well-being, and health are more limited or costly. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> • Same as residential development • Potential noise, pollution impacts of energy-related activities are eliminated. 	<ul style="list-style-type: none"> • Cost of energy could increase. 	+1

Table C-8 Environmental Consequences of Prohibiting Conflicting Uses

Use Category	Positive Environmental Consequences	Negative Environmental Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> • Microclimate and shade benefits are maintained. • Ecosystem services values are maintained. • Wildlife habitat is maintained. • Water quality is maintained. • Wildlife connectivity is maintained. • Barriers to wildlife migration and movement are avoided. • Impacts of human intrusion and pets are avoided. 	<ul style="list-style-type: none"> • None. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> • Same as residential uses. 	<ul style="list-style-type: none"> • None. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> • Developed parks and open space doesn't displace wildlife habitat. • Maintenance practices don't occur which could introduce pesticides and fertilizers. 	<ul style="list-style-type: none"> • None. 	+1
Transportation facilities	<ul style="list-style-type: none"> • Similar to residential uses but to a lesser degree. • 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. • Collisions between automobiles and wildlife are avoided or reduced. 	<ul style="list-style-type: none"> • Out-of-direction travel is increased. • Good connectivity, which encourages the use of active transportation modes and lessen travel times and vehicle miles traveled, thus reducing greenhouse gas emissions, may be precluded. 	+1
Public and private utilities	<ul style="list-style-type: none"> • Similar to transportation uses but to a lesser degree. 	<ul style="list-style-type: none"> • Lack of ability to telecommute or purchase goods and services online requires increased use of automobiles, increasing air & water pollution and runoff. 	+1
Energy exploration, production and processing	<ul style="list-style-type: none"> • Similar to residential development but to a potentially greater degree. • Impacts from activities such as removing native vegetation and disturbing stable slopes and soil, are avoided. 	<ul style="list-style-type: none"> • Extraction of resources cannot be undertaken, thus increasing the need for transportation of energy and associated resources, potentially increasing air quality impacts. 	+1

Table C-9 Energy Consequences of Prohibiting Conflicting Uses

Use Category	Positive Energy Consequences	Negative Energy Consequences	Net Effect
Residential development	<ul style="list-style-type: none"> Additional energy is not required to build and maintain supporting public facilities. No increased energy consumption due to loss of vegetation and microclimate effects. May push residential uses into more cost-effective, urban locations to serve with public facilities. 	<ul style="list-style-type: none"> None. 	+1
Limited civic and commercial development	<ul style="list-style-type: none"> Same as residential development. 	<ul style="list-style-type: none"> 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. 	+1
Parks, open space and trails	<ul style="list-style-type: none"> Similar to residential, although benefits could be less depending on the amount of impervious area. 	<ul style="list-style-type: none"> Similar to civic and commercial. Allowing trails encourages non-motorized modes of transportation. 	-1
Transportation facilities	<ul style="list-style-type: none"> Additional energy is not required to build and maintain facilities. 	<ul style="list-style-type: none"> Good connectivity encourages the use of active transportation modes and lessens travel times and vehicle miles traveled. 	-1
Public and private utilities	<ul style="list-style-type: none"> Same as transportation. 	<ul style="list-style-type: none"> Lack of ability to telecommute or purchase goods and services online requires increased use of automobiles, increasing energy use. 	-1
Energy exploration, production and processing	<ul style="list-style-type: none"> Additional energy is not required to build and maintain supporting public facilities. No increased energy consumption due to loss of vegetation and microclimate effects. 	<ul style="list-style-type: none"> Loss of opportunity to produce energy locally. Loss of potential energy sources for meeting other local needs. 	-1

Table C-10 summarizes the net effect of prohibiting the conflicting uses. The cumulative net effect column shows the “strength” of the positive or negative consequences of prohibiting 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.

Table C-10 Summary of Consequences of Prohibiting Conflicting Uses

Use Category	Economic	Social	Environmental	Energy	Cumulative Effect
Residential Development	0	-1	+1	+1	+1
Limited Civic and Commercial Development	-1	-1	+1	+1	0
Parks, Open Space and Trails	0	-1	+1	-1	-1
Transportation Facilities	-1	-1	+1	-1	-2
Public and Private Utilities	-1	-1	+1	-1	-2
Energy Exploration, Production and Processing	-1	+1	+1	-1	0

As shown in Table C-10, the net effect of prohibiting conflicting uses is negative or neutral for all categories, with the exception of residential development. This is primarily due to negative economic, social and energy consequences. The environmental consequences are uniformly positive because natural resource values and ecosystem services would be maintained.

3.6. PROGRAM RECOMMENDATIONS

This section includes draft recommendations as to whether to allow, limit, or prohibit identified conflicting uses within significant wildlife habitat areas identified in this report based on the ESEE analysis in section 3.5 above. A decision to prohibit or limit conflicting uses protects the wildlife habitat. 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 shall be reached with regard to conflicting uses for a resource site:

- (a) The County may decide that a significant wildlife habitat 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.
- (b) The County may decide that both the significant wildlife habitat resource 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 to a desired extent or requires mitigation of lost wildlife habitat areas and associated values and functions.
- (c) The County may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the significant wildlife habitat areas. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource and must indicate why

measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

3.6.1. SUMMARY OF GENERAL RECOMMENDATION

Table 5, below, identifies the “net effect” from Tables A-10, B-10, and C-10 and provides a general recommendation for each use category. The possible numeric values range from -4 to +4. A value of -4 suggests that the scenario (allow, limit, prohibit) would likely result in negative economic, social, environmental, and energy consequences for that use category. Whereas, a value of +4 suggests that the scenario would likely result in positive consequences for that use category. The recommendation is generally based on encouraging the strongest positive outcome, along with balancing relevant regulatory and other factors.

The analysis and weighing of the ESEE factors from the three scenarios suggests that overall the limit scenario offers the greatest net benefit in all use categories; thus a general recommendation of “limit” is appropriate. However, the Private and Public Utilities and Transportation Facilities use categories also received a positive result under the Allow scenario; indicating that a greater degree of flexibility to accommodate these uses may be appropriate.

Table 5: Summary of Net Effect of Allowing, Limiting or Prohibiting Conflicting Uses within Significant Wildlife Habitat Areas

Use Category	Allow (from Table A-10)	Limit (from Table B-10)	Prohibit (from Table C-10)
Residential Development	-4	+1	+1
Limited Civic and Commercial Development	-1	+1	0
Parks, Open Space and Trails	-1	+2	-1
Transportation Facilities	+1	+1	-2
Public and Private Utilities	+1	+1	-2
Energy Exploration, Production and Processing	-2	0	0

3.6.2. PROGRAM RECOMMENDATIONS TO IMPLEMENT LIMIT OR ALLOW SCENARIO

As noted in Table 5 above, the limit or allow scenarios offer the greatest net benefit in almost all use categories; thus a program that limits or allows conflicting uses is appropriate for those categories of uses. For residential and energy related uses, a limit or prohibit scenario indicate approximately equal net benefits.

In general a limit scenario for residential uses results in more beneficial impacts related to economic and social consequences and less benefit related to environmental and energy consequences, in comparison to a prohibit scenario. The same pattern is true for energy exploration, production, and processing uses. In both cases, prohibiting these uses can lead to a number of problems from a land use regulatory and financial context, including:

- Prohibiting all beneficial economic use of a property can result in a “takings” of the property, requiring the County to essentially pay the property for the lost economic value. Given its limited resources, it is unlikely that the County will be able to purchase these areas or compensate owners for these economic losses.
- Prohibiting future residential or other uses where similar uses already exist on a property will make the use “nonconforming,” making improvements to the use difficult and potentially leading to deterioration of structures or other improvements, resulting in adverse safety, health, and aesthetic impacts.

For these reasons, a limit scenario and program is recommended for residential and energy-related uses in the area. More specifically, the limit program should accomplish the following objectives in order to achieve the net benefit to the County anticipated by this approach:

- Limit forest products processing, residential, commercial, and civic development, parks, open spaces and trails, and energy exploration, production, and processing in wildlife habitat and associated impact areas.
- Avoid impacts where possible. Where impacts cannot be avoided, require mitigation for resource impacts to help ensure that impacts on wildlife habitat are minimized to the extent possible.
- Support the location and/or 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.
- Allow certain categories of transportation uses which have lesser impacts on surrounding habitats (e.g., improvements to existing facilities), given that the limit and allow scenarios have approximately equivalent net benefit outcomes. Limit more intensive transportation uses to reduce or mitigate impacts on wildlife habitat areas and wildlife movement.
- Allow certain types of public and private utilities (such as placement of underground utility lines, single utility poles, repair of facilities, and other uses or activities which have relatively limited impact on wildlife habitat. Limit more intensive public and private utility uses).
- Recognize that while areas already heavily impacted by agricultural and rural residential development within the analysis area can still provide value for wildlife as part of a larger wildlife habitat mosaic, they are less valuable than larger, contiguous, forested tracts elsewhere in the County. As a result, fewer restriction on development in these areas may be warranted.

There are a number of existing regulations and policies, which apply to significant wildlife habitat areas, and which address the objectives described above. These regulations and policies are currently implemented by the County through its base zoning code standards and its SEC-Habitat overlay zone, as well as state statutes and administrative rules and include:

- **SEC-Habitat Overlay Requirements.** The County’s Zoning Ordinance SEC-h zone includes a variety of provisions to minimize impacts on wildlife, including the following:
 - Preparation of a wildlife conservation plan.
 - Standards for fencing that facilitate wildlife passage.

- Clustering and other locational requirements for roads and structures that reduce the combined impacts of multiple development activities.
- Standards for landscaping, including use of native plant species.

SEC-h provisions are included in Attachment A of this report.

- **SEC-Habitat Overlay Exemptions.** A number of uses and activities are exempt from SEC-h requirements, including the following:
 - Farm use, as defined in ORS 215.203 (2).
 - Propagation of timber or cutting of timber for public safety or personal use or the cutting of timber in accordance with the State Forest Practices Act.
 - Customary dredging and channel maintenance and the removal or filling, or both, for the maintenance or reconstruction of structures such as dikes, levees, groins, riprap, drainage ditch, irrigation ditches, and tile drain systems as allowed by ORS 196.905 (6);
 - The placing, by a public agency, of signs, markers, aids, etc., to serve the public;
 - Activities to protect, conserve, enhance, and maintain public recreational, scenic, historical, and natural uses on public lands;
 - The expansion of capacity, or the replacement, of existing communication or energy distribution and transmission systems, except substations;
 - The maintenance and repair of existing flood control facilities;
 - Limited alteration or expansion of existing structures;
 - Type A Home Occupations;
 - Single utility poles necessary to provide service to the local area;
 - Right-of-way widening for existing rights-of-way when additional right-of-way is necessary to ensure continuous width;
 - Stream enhancement or restoration projects limited to removal by hand of invasive vegetation and planting of any native vegetation on the Metro Native Plant List;
 - Enhancement or restoration of the riparian corridor for water quality or quantity benefits, or for improvement of fish and wildlife habitat; and
 - Routine repair and maintenance of structures, roadways, driveways, utility facilities, and landscaped areas that were in existence prior to the effective date of this ordinance.

These exemptions would be consistent with an “Allow” scenario for certain types of transportation and public and private utility uses. Other transportation and public and private utility uses would be subject to SEC-h mitigation requirements and/or to conditional use requirements as noted below.

- **Review and Conditional Uses.** A limited set of land uses allowed in the zones within the study areas are uses allowed outright, with many other uses allowed only under certain conditions and approval criteria. For example, commercial uses, planned developments, forest, and agricultural products processing, dog kennels, and production and processing of most energy sources are allowed only as conditional uses in the zones within the study area. One of the County's criteria for approval of a conditional use is that the use will not adversely impact natural resources. As a result, approval of the use requires a finding by the County that the use, as proposed, will meet this criterion. In addition, another criterion is that the use will be located outside a big game winter habitat area as defined by the Oregon Department of Fish and Wildlife or that agency has certified that the impacts will be acceptable. Both of these criteria act as a limiting feature for conditional uses in the study area.
- **Limited Opportunities for New Housing.** Given the density restrictions and other limitations on housing in residential, agricultural, and forest zones in the study area, only a small number of new dwellings can be constructed in the area. This will help limit potential further impacts to wildlife habitat areas.
- **Oregon Forest Practices Act (FPA).** The FPA applies to any commercial harvesting of timber, including within the study area. A number of provisions of the FPA rules are aimed at the protection of wildlife habitat. For example, forestry activities must be timed to avoid excessive disturbance to certain wildlife species. In addition, timber harvest operators must leave a certain number of live trees standing and fallen logs on site to provide habitat for specific types of wildlife.

Application of these regulations, in concert with a variety of policies in the Comprehensive Plan cited previously, as applied to wildlife habitat, would provide an appropriate level of protection for those types of uses that are recommended to be limited.

Attachment A

***SIGNIFICANT ENVIRONMENTAL CONCERN
- SEC***

§ 35.4500- PURPOSES

The purposes of the Significant Environmental Concern subdistrict are to protect, conserve, enhance, restore, and maintain significant natural and man-made features which are of public value, including among other things, river corridors, streams, lakes and islands, domestic water supply watersheds, flood water storage areas, natural shorelines and unique vegetation, wetlands, wildlife and fish habitats, significant geological features, tourist attractions, archaeological features and sites, and scenic views and vistas, and to establish criteria, standards, and procedures for the development, change of use, or alteration of such features or of the lands adjacent thereto.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4505 AREA AFFECTED

Except as otherwise provided in MCC 35.4510 or MCC 35.4515, this subsection shall apply to those lands designated SEC on the Multnomah County Zoning Map.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4510 USES - SEC PERMIT REQUIRED

(A) All uses permitted under the provisions of the underlying district are permitted on lands designated SEC; provided, however, that the location and design of any use, or change or alteration of a use, except as provided in MCC 35.4515, shall be subject to an SEC permit.

(B) Any excavation or any removal of materials of archaeological, historical, prehistorical or anthropological nature shall be conducted under the conditions of an SEC permit, regardless of the zoning designation of the site.

(C) Activities proposed for lands designated as scenic waterways under the Oregon Scenic Waterways System shall be subject to an SEC permit in addition to approval from the Oregon Parks and Recreation Department.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 992, Amended, 09/26/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4515 EXCEPTIONS

(A) Except as specified in (B) below, an SEC permit shall not be required for the following:

(1) Farm use, as defined in ORS 215.203 (2) (a), including buildings and structures accessory thereto on "converted wetlands" as defined by ORS 541.695 (9) or on upland areas;

(2) The propagation of timber or the cutting of timber for public safety or personal use or the cutting of timber in accordance with the State Forest Practices Act;

(3) Customary dredging and channel maintenance and the removal or filling, or both, for the maintenance or reconstruction of structures such as dikes, levees, groins, riprap, drainage ditch, irrigation ditches and tile drain systems as allowed by ORS 196.905 (6);

(4) The placing, by a public agency, of signs, markers, aids, etc., to serve the public;

(5) Activities to protect, conserve, enhance, and maintain public recreational, scenic, historical, and natural uses on public lands;

(6) The expansion of capacity, or the replacement, of existing communication or energy distribution and transmission systems, except substations;

(7) The maintenance and repair of existing flood control facilities;

(8) Uses legally existing on January 7, 2010; provided, however, that any change, expansion, or alteration of such use (except for changes to a structure that [1] for the SEC overlays, do not require any modification to the exterior of the structure, and [2] for the SEC-s overlays, require the addition of less than 400 square feet of ground coverage to the structure) shall require an SEC permit as provided herein.

(9) All type A Home Occupations;

(10) Type B Home Occupations that require the addition of less than 400 square feet of ground coverage to the structure;

(11) Alteration, repair, or replacement of septic system drainfields due to system failure;

(12) Single utility poles necessary to provide service to the local area;

(13) Right-of-way widening for existing rights-of-way when additional right-of-way is necessary to ensure continuous width; and

(14) Stream enhancement or restoration projects limited to removal by hand of invasive vegetation and planting of any native vegetation on the Metro Native Plant List.

(15) In addition to the exemptions listed in (A) above, within Metro's 2009 jurisdictional boundary an SEC permit shall not be required for the enhancement or restoration of the riparian corridor for water quality or quantity benefits, or for improvement of fish and wildlife habitat, pursuant to a plan that does not include placement of buildings or structures and does not entail grading in an amount greater than 10 cubic yards. This exemption is applicable to plans that are approved by Soil and Water Conservation District, the Natural Resources Conservation District, or the Oregon Department of Fish and Wildlife under the provisions for a

Wildlife and Habitat Conservation Plan, and submitted to the County.

(16) In the SEC district, a solar energy system, including solar thermal and photovoltaic, that is installed on an existing building is allowed in the general zone district when:

- (a) The installation of the solar energy system can be accomplished without increasing the footprint of the residential or commercial structure or the peak height of the portion of the roof on which the system is installed;
- (b) The solar energy system would be mounted so that the plane of the system is parallel to the slope of the roof; and
- (c) Uses materials that are designated as anti-reflective or has a reflectivity rating of eleven percent or less.

(B) Within Metro's 2009 jurisdictional boundary, an SEC-s permit is required for agricultural buildings, structures and development associated with farm practices and agricultural uses; except that agricultural fences shall not require an SEC-s permit.

(Ord. 1198, Amended, 03/14/2013; Ord. 1152, Amended, 01/07/2010; Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4520 APPLICATION FOR SEC PERMIT

An application for an SEC permit for a use or for the change or alteration of an existing use on land designated SEC, shall address the applicable criteria for approval, under MCC 35.4555 through 35.4575.

- (A) An application for an SEC permit shall include the following:
 - (1) A written description of the proposed development and how it complies with the applicable approval criteria of MCC 35.4555 through 35.4575.
 - (2) A map of the property showing:

- (a) Boundaries, dimensions, and size of the subject parcel;
- (b) Location and size of existing and proposed structures;
- (c) Contour lines and topographic features such as ravines or ridges;
- (d) Proposed fill, grading, site contouring or other landform changes;
- (e) Location and predominant species of existing vegetation on the parcel, areas where vegetation will be removed, and location and species of vegetation to be planted, including landscaped areas;
- (f) Location and width of existing and proposed roads, driveways, and service corridors.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4525 APPLICABLE APPROVAL CRITERIA

(A) The approval criteria that apply to uses in areas designated SEC and SEC-s on Multnomah County zoning maps shall be based on the type of protected resources on the property, as indicated by the subscript letter in the zoning designation, as follows:

Zoning Designation	Approval Criteria (MCC#)
SEC	35.4555
SEC-s (streams)	35.4575

(B) The zoning maps used to designate the Stream Conservation Areas (SEC-s zoning subdistricts) were created digitally by interpreting various data sources including the hand drawn maps contained in the Goal 5 ESEE report and Metro's riparian and wildlife habitat inventories. Care was taken in the creation of the maps, but in some instances mapping inaccuracies have occurred during the process. In the event of a mapping inconsistency, the SEC-s zoning subdistrict shall be interpreted to be the Stream Conservation Area.

(C) An application for a use on a property containing more than one protected resource shall address the approval criteria for all of the designated resources on the property. In the case of conflicting criteria, approval shall be based on the ability of the proposed development to comply as nearly as possible with the criteria for all designated resources that would be affected.

(D) For protected stream resources, the approval criteria shall be used to determine the most appropriate location, size and scope of the proposed development, in order to make the development compatible with the purposes of this section, but shall not be used to prohibit a use or be used to require removal or relocation of existing physical improvements to the property.

(Ord. 1152, Amended, 01/07/2010; Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 992, Amended, 09/26/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4530 SEC PERMIT - REQUIRED FINDINGS

A decision on an application for an SEC permit shall be based upon findings of consistency with the purposes of the SEC district and with the applicable criteria for approval specified in MCC 35.4555 through 35.4575.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4550 SCOPE OF CONDITIONS

(A) Conditions of approval of an SEC permit, if any, shall be designed to bring the application into conformance with the applicable criteria of MCC 35.4555 through 35.4575 and any other requirements specified in the Goal 5 protection program for the affected resource. Said conditions may relate to the locations, design, and maintenance of existing and proposed improvements, including but not limited to buildings, structures and use areas, parking, pedestrian and vehicular circulation and access, natural vegetation and landscaped areas, fencing, screening and buffering, excavations, cuts and fills, signs, graphics, and lighting, timing of construction and related activities.

(B) Approval of an SEC permit shall be deemed to authorize associated public utilities, including energy and communication facilities.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

§ 35.4555 CRITERIA FOR APPROVAL OF SEC PERMIT

The SEC designation shall apply to those significant natural resources, natural areas, wilderness areas, cultural areas, and wild and scenic waterways that are designated SEC on Multnomah County sectional zoning maps. Any proposed activity or use requiring an SEC permit shall be subject to the following:

(A) The maximum possible landscaped area, scenic and aesthetic enhancement, open space or vegetation shall be provided between any use and a river, stream, lake, or floodwater storage area.

(B) Agricultural land and forest land shall be preserved and maintained for farm and forest use.

(C) A building, structure, or use shall be located on a lot in a manner which will balance functional considerations and costs with the need to preserve and protect areas of environmental significance.

(D) Recreational needs shall be satisfied by public and private means in a manner consistent with the carrying capacity of the land and with minimum conflict with areas of environmental significance.

(E) The protection of the public safety and of public and private property, especially from vandalism and trespass, shall be provided to the maximum extent practicable.

(F) Significant fish and wildlife habitats shall be protected.

(G) The natural vegetation along rivers, lakes, wetlands and streams shall be protected and enhanced to the maximum extent practicable to assure scenic quality and protection from erosion, and continuous riparian corridors.

(H) Archaeological areas shall be preserved for their historic, scientific, and cultural value and protected from vandalism or unauthorized entry.

(I) Areas of annual flooding, floodplains, water areas, and wetlands shall be retained in their natural state to the maximum possible extent to preserve water quality and protect water retention, overflow, and natural functions.

(J) Areas of erosion or potential erosion shall be protected from loss by appropriate means. Appropriate means shall be based on current Best Management Practices and may include restriction on timing of soil disturbing activities.

(K) The quality of the air, water, and land resources and ambient noise levels in areas classified SEC shall be preserved in the development and use of such areas.

(L) The design, bulk, construction materials, color and lighting of buildings, structures and signs shall be compatible with the character and visual quality of areas of significant environmental concern.

(M) An area generally recognized as fragile or endangered plant habitat or which is valued for specific vegetative features, or which has an identified need for protection of the natural vegetation, shall be retained in a natural state to the maximum extent possible.

(N) The applicable policies of the Comprehensive Plan shall be satisfied.

(Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

**§ 35.4575 CRITERIA FOR APPROVAL OF
SEC-S PERMIT -STREAMS**

(A) Definitions:

(1) *Protected Streams* - Those streams which have been found through a Goal 5 ESEE analysis and protected by Ordinance 830 and those streams and wetlands mapped by Metro's Title 13 as Habitat Conservation Areas as modified through the planning process are designated SEC-s on the Multnomah County Zoning Maps.

(2) *Development* – Any act requiring a permit stipulated by Multnomah County Ordinances as a prerequisite to the use or improvement of any land, including a building, land use, occupancy, sewer connection or other similar permit, and any associated grading or vegetative modifications.

(3) *Stream Conservation Area* – For the protected streams originally designated by Ordinance 830 (West Hills Rural Area Plan), the Stream Conservation Area designed on the zoning maps as SEC-s is an area which extends 300 feet from the centerline on both sides of the protected stream. Within Metro's jurisdictional boundaries, the Stream Conservation Area protected by Ordinance 1152, adopted January 7, 2010, varies and shall be as depicted of the Multnomah County Zoning Maps and is from the centerline on both sides of the protected stream for the width of the mapped overlay.

(4) *Nuisance or Invasive Non-Native Plants*: Nuisance and invasive non-native plants include the those plants listed in the latest edition of the Metro Nuisance Plant List and the Prohibited Plant List, and include those plants listed in the latest edition of the State of Oregon Noxious Weed List.

(B) Except for the exempt uses listed in MCC 35.4515, no development shall be allowed within a Stream Conservation Area unless approved by the Approval Authority pursuant to the provisions of MCC 35.4575 (C) through (F).

(C) In addition to other SEC Permit submittal requirements, any application to develop in a Stream Conservation Area shall also include:

(1) A site plan drawn to scale showing the Stream Conservation Area boundary, the location of all existing and proposed structures, roads, watercourses, drainageways, stormwater facilities, utility installations, and topography of the site at a contour interval equivalent to the best available U.S.Geological Survey 7.5' or 15' topographic information;

(2) A detailed description and map of the Stream Conservation Area including that portion to be affected by the proposed activity. This documentation must also include a map of the entire Stream Conservation Area, an assessment of the Stream Conservation Area's functional characteristics and water sources, and a description of the vegetation types and fish and wildlife habitat;

(3) A description and map of soil types in the proposed development area and the locations and specifications for all proposed draining, filling, grading, dredging, and vegetation removal, including the amounts and methods;

(4) A study of any flood hazard, erosion hazard, and/or other natural hazards in the proposed development area and any proposed protective measures to reduce such hazards as required by (E) (5) below;

(5) A detailed Mitigation Plan as described in subsection (D), if required; and

(6) A description of how the proposal meets the approval criteria listed in subsection (D) below.

(D) For the protected stream resources, the applicant shall demonstrate that the proposal:

(1) Will enhance the fish and wildlife resources, shoreline anchoring, flood storage, water quality and visual amenities characteristic of the stream in its pre-development state, as documented in a Mitigation Plan. A Mitigation Plan and monitoring program may be approved upon submission of the following:

(a) A site plan and written documentation which contains the applicable information for the Stream Conservation Area as required by MCC 35.4575 (C);

(b) A description of the applicant's coordination efforts to date with the requirements of other local, State, and Federal agencies;

(c) A Mitigation Plan which demonstrates retention and enhancement of the resource values addressed in MCC 35.4575 (D) (1);

(d) An annual monitoring plan for a period of five years which ensures an 80 percent annual survival rate of any required plantings.

(E) Design Specifications

The following design specifications shall be incorporated, as appropriate, into any developments within a Stream Conservation Area:

(1) A bridge or arched culvert which does not disturb the bed or banks of the stream and are of the minimum width necessary to allow passage of peak winter flows shall be utilized for any crossing of a protected streams.

(2) All storm water generated by a development shall be collected and disposed of on-site into dry wells or by other best management practice methods which emphasize groundwater recharge and reduce peak stream flows.

(3) Any exterior lighting associated with a proposed development shall be placed, shaded or screened to avoid shining directly into a Stream Conservation Area.

(4) Any trees over 6" in caliper that are removed as a result of any development shall be replaced by any combination of native species whose combined caliper is equivalent to that of the trees removed.

(5) Satisfaction of the erosion control standards of MCC 35.5520.

(6) Soil disturbing activities within a Stream Conservation Area shall be limited to the period between June 15 and September 15. Revegetation/soil stabilization must be accomplished no later than October 15. Best Management Practices related to erosion control shall be required within a Stream Conservation Area.

(7) Demonstration of compliance with all applicable state and federal permit requirements.

(F) For those Stream Conservation Areas located within Metro's jurisdictional boundaries, the following requirements apply in addition to (C) through (E) above:

(1) The planting of any invasive non-native or noxious vegetation as listed in MCC 35.4575(A)(4) is prohibited. In addition, the following nuisance plant species shall not be planted:

Scientific Name	Common Name
Chelidonium majus	Lesser celandine
Cirsium arvense	Canada Thistle
Cirsium vulgare	Common Thistle
Clematis ligusticifolia	Western Clematis
Clematis vitalba	Traveler's Joy
Conium maculatum	Poison hemlock
Convolvulus arvensis	Field Morning-glory
Convolvulus nyctagineus	Night-blooming Morning-glory
Convolvulus sepium	Lady's nightcap
Cortaderia selloana	Pampas grass
Crataegus sp. except C. douglasii	hawthorn, except native species
Cytisus scoparius	Scotch broom
Daucus carota	Queen Ann's Lace
Elodea densa	South American Water-weed
Equisetum arvense	Common Horsetail
Equisetum telmateia	Giant Horsetail
Erodium cicutarium	Crane's Bill
Geranium robertianum	Robert Geranium
Hedera helix	English Ivy
Hypericum perforatum	St. John's Wort
Ilex aquifolium	English Holly
Laburnum watereri	Golden Chain Tree
Lemna minor	Duckweed, Water Lentil
Loentodon autumnalis	Fall Dandelion
Lythrum salicaria	Purple Loosestrife
Myriophyllum spicatum	Eurasian Watermilfoil
Phalaris arundinacea	Reed Canary grass
Poa annua	Annual Bluegrass

Scientific Name	Common Name
Polygonum coccineum	Swamp Smartweed
Polygonum convolvulus	Climbing Binaweed
Polygonum sachalinense	Giant Knotweed
Prunus laurocerasus	English, Portugese Laurel
Rhus diversiloba	Poison Oak
Rubus discolor	Himalayan Blackberry
Rubus laciniatus	Evergreen Blackberry
Senecio jacobaea	Tansy Ragwort
Solanum dulcamara	Blue Bindweed
Solanum nigrum	Garden Nightshade
Solanum sarrachoides	Hairy Nightshade
Taraxacum officinale	Common Dandelion
Urtica dioica	Stinging Nettle
Vinca major	Periwinkle (large leaf)
Vinca minor	Periwinkle (small leaf)
Xanthium spinosum	Spiny Cocklebur
various genera	Bamboo sp.

(2) The revegetation of disturbed areas shall primarily use native plants. A list of native plants can be found in the latest edition of the Metro Native Plant List.

(3) Outside storage of hazardous materials as determined by DEQ is prohibited, unless such storage began before the effective date of this ordinance; or, unless such storage is contained and approved during development review.

(G) For Protected Aggregate and Mineral (PAM) resources within a PAM subdistrict, the Mitigation Plan must comply only with measures identified in the Goal 5 protection program that has been designated for the site.

(Ord. 1152, Amended, 01/07/2010; Ord. 997, Repealed and Replaced, 10/31/2002; Ord. 953 §2, Reorg&Renum, 11/30/2000)

***SIGNIFICANT ENVIRONMENTAL CONCERN,
SEC***

§ 36.4500- PURPOSES.

The purposes of the Significant Environmental Concern Overlay Zone subdistrict are to protect, conserve, enhance, restore, and maintain significant natural features which are of public value, including among other things, river and stream corridors, streams, lakes and islands, flood water storage areas, natural shorelines and unique vegetation, wetlands, wildlife and fish habitats, significant geological features, archaeological features and sites, and scenic views and vistas, and to establish criteria, standards, and procedures for the development, change of use, or alteration of such features or of the lands adjacent thereto.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4505 AREA AFFECTED.

The SEC overlay zone shall apply to those lands designated SEC-sw, SEC-wr, and SEC-h on the Multnomah County Zoning Map.

(A) The approval criteria that apply to uses in areas designated SEC-sw, SEC-wr, and SEC-h shall be based on the type of protected resources on the property, as indicated by the subscript letter in the zoning designation, as follows:

zoning designation	approval criteria-MCC
SEC-sw (scenic waterway)	36.4545
SEC-wr (water resource)	36.4550 and 36.4555
SEC-h (wildlife habitat)	Type I Permit – 36.4557 Type II Permit - 36.4550 and 36.4560

(B) SEC - Scenic Waterway (SEC-sw) - Land areas that are contained within the Sandy River Scenic Waterway as shown on the zoning maps adopted in (Ord and date).

(C) SEC-Water Resource Area (SEC-wr) - Protected water features, riparian/vegetated corridors and the adjacent impact areas, that are

identified as significant resources in the Goal 5 Inventory, and as established by these definitions, are the areas included within the SEC-wr Overlay Zone Subdistrict.

(1) Protected Water Features shall include:

(a) Wetlands that provide a water quality benefit - Wetlands of metropolitan concern as shown on the Metro Water Quality and Flood Management Area Map and other wetlands which meet any one of the following criteria. Wetlands do not include artificially constructed and managed stormwater and water quality treatment facilities.

1. The wetland is fed by surface flows, sheet flows or precipitation, and has evidence of flooding during the growing season, and has 60 percent or greater vegetated cover, and is over one-half acre in size;

2. The wetland qualifies as having "intact water quality function" under the 1996 Oregon Fresh water Wetland Assessment Methodology;

3. The wetland is in the Flood Management Area, and has evidence of flooding during the growing season, and is five acres or more in size, and has a restricted outlet or no outlet;

4. The wetland qualifies as having "intact hydrologic control function" under the 1996 Oregon Freshwater Wetland Assessment Methodology; or

5. The wetland or a portion of the wetland is within a horizontal distance of less than one-fourth mile from a water body which meets the Department of Environmental Quality definition of "water quality limited water body" in OAR Chapter 340, Division 41 (1996).

(b) Rivers, streams, and drainages downstream from the point at which 50-acres or more are drained to the water feature (regardless of whether it carries year-round flow); and

(c) Streams carrying year-round flow; and

(d) Streams designated as significant in the Goal 5 inventory; and

(e) Springs which feed stream and wetlands and have year-round flow; and

(f) Natural lakes.

(2) Riparian/Vegetated Corridors and Impact Area - The standard width of the riparian/vegetated corridor for all Protected Water Features shall be two hundred (200) feet from the top of bank.

(3) The zoning maps used to designate the SEC-wr zoning subdistrict were created digitally by interpreting various data sources and maps contained in the West of Sandy River Goal 5 ESEE report. Care was taken in the creation of the maps, but in some instances mapping inaccuracies have occurred during the process. For those areas included in the West of Sandy River Plan, the SEC-wr zoning subdistrict shall be interpreted to be the text defined Water Resource Area.

(D) SEC-Habitat (SEC-h)- Includes nonriparian and nonwetland natural resource sites that contain habitat values such as wooded areas and areas with rare or endangered flora and fauna, as identified by the Goal 5 Inventory. Habitat areas include the significant Goal 5 habitat resource and a 25 foot buffer to protect the root zone of the vegetation. The boundaries of Significant Habitat Areas, which are designated as SEC-h, are established by the Goal 5 Natural Resource Inventory and include:

(1) Those areas identified on the map as "Riparian Corridor/Wildlife Habitat and Impact Area" that do not otherwise meet the

definition of Water Resource Area in (C) above; and

(2) Those areas identified on the map as "Isolated Upland Wildlife Habitat" that do not otherwise meet the definition of Water Resource Area, above.

(Ord. 1198, Amended, 03/14/2013; Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4510 DEFINITIONS.

(A) **Development:** Any manmade change defined as buildings or other structures, mining, dredging, paving, filling, or grading in amounts greater than ten (10) cubic yards on any lot or excavation. Any other activity that results in the removal of more than 10 percent of the existing vegetation in the Water Resource Area or Habitat Area on a lot or parcel.

(B) **Nuisance, invasive non-native and native plants:** Nuisance and invasive non-native plants include the those plants listed in the latest edition of the Metro Nuisance Plant List and the Prohibited Plant List, and include those plants listed in the latest edition of the State of Oregon Noxious Weed List. Native plants are those listed in the latest edition of the Metro Native Plant List.

(C) **Practicable, Practical:** As in No Practicable Alternative. Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(D) **Top of Bank:** The same as "bankfull stage" which means the stage or elevation at which water overflows the natural banks of streams or other waters of this state and begins to inundate the upland. In the absence of physical evidence, the two-year recurrence interval flood elevation may be used to approximate the bankfull stage.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4515 USES - SEC PERMIT REQUIRED.

(A) All uses permitted under the provisions of the underlying district are permitted on lands designated SEC; provided, however, that development, including but not limited to, the location and design of any use, or change, replacement or alteration of a use, except as provided in MCC 36.4520, shall be subject to an SEC permit.

(B) Any excavation or any removal of materials of archaeological, historical, prehistorical or anthropological nature shall be conducted under the conditions of an SEC permit, regardless of the zoning designation of the site.

(C) Activities proposed for lands designated as Scenic Waterways under the Oregon Scenic Waterways System shall be subject to an SEC-sw permit in addition to approval from the Oregon Parks and Recreation Department.

(D) Applications that are subject to an SEC permit shall be processed as Type II land use decisions as provided for in MCC Chapter 37, unless the proposed use is subject to another Type II, III, or IV decision, in which case the SEC application shall be considered in combination with the other action.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4520 EXCEPTIONS.

An SEC permit shall not be required for the following:

(A) Farming practices as defined in ORS 30.930 and agricultural use as defined in OAR 603-095-0010, except that buildings and other development associated with farm practices and agricultural uses are subject to the requirements of this district;

(B) The propagation of timber or the cutting of timber for public safety or the cutting of timber in accordance with the State Forest Practices Act;

(C) Customary dredging and channel maintenance and the removal or filling, or both, for the

maintenance or reconstruction of structures such as dikes, levees, groins, riprap, drainage ditch, irrigation ditches and tile drain systems as allowed by ORS 196.905 (6);

(D) The placing, by a public agency, of signs, markers, aids, etc., to serve the public;

(E) Routine repair and maintenance of structures, roadways, driveways, utility facilities, and lawns that were in existence prior to the effective date of this ordinance;

(F) Alteration, repair, or replacement of septic system drainfields;

(G) The expansion of capacity, or the replacement, of existing communication or energy distribution and transmission systems, except substations;

(H) The maintenance and repair of existing flood control facilities;

(I) All Type A Home Occupations;

(J) Stream enhancement or restoration projects limited to removal by hand of invasive vegetation and planting of any native vegetation on the Metro Native Plant List;

(K) Enhancement or restoration of the riparian corridor for water quality or quantity benefits, or for improvement of fish and wildlife habitat, pursuant to a plan that does not include placement of buildings or structures and does not entail grading in an amount greater than 10 cubic yards. This exemption is applicable to plans that are approved by Soil and Water Conservation District, the Natural Resources Conservation District, or the Oregon Department of Fish and Wildlife under the provisions for a Wildlife and Habitat Conservation Plan, and submitted to the County;

(L) Work necessary to protect, repair, maintain, or replace existing structures, utility facilities, service connections, roadways, driveways, accessory uses and exterior improvements in re

sponse to emergencies pursuant to the provisions of MCC 36.0535 Responses to and Emergency/Disaster Event, provided that after the emergency has passed, adverse impacts are mitigated.

(M) In the SEC-sw district, a solar energy system, including solar thermal and photovoltaic, that is installed on an existing building is allowed in the general zone district when:

- (1) The installation of the solar energy system can be accomplished without increasing the footprint of the residential or commercial structure or the peak height of the portion of the roof on which the system is installed;
- (2) The solar energy system would be mounted so that the plane of the system is parallel to the slope of the roof; and
- (3) Uses materials that are designated as anti-reflective or has a reflectivity rating of eleven percent or less.

(N) Single utility poles necessary to provide service to the local area.

(Ord. 1198, Amended, 03/14/2013; Ord. 1192, Amended, 05/17/2012; Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4525 EXISTING USES.

Uses that legally existed on January 1, 2003, that are not included as Exceptions in section 36.4520, may utilize the provisions of this section. This section is intended to define the circumstances under which existing development can be improved or replaced under limited requirements in recognition of the pre-existing status. The SEC provisions are also not intended to make existing uses non-conforming. However, approval of proposals for alteration of uses that were non-conforming prior to the SEC ordinance, must obtain an SEC permit in addition to demonstrating compliance with the non-conforming use provisions of this Chapter.

- (A) Change, expansion, or alteration of existing uses shall require an SEC permit as provided in 36.4500 through 36.4560, except for changes to

a structure as described in Sections (1) through (3) below:

- (1) In areas subject to the provisions of the SEC-sw, change, or alteration of existing uses which do not require any modification to the exterior of the structure;
- (2) Within the SEC-wr and SEC-h - addition of less than 400 square feet of ground coverage to the structure. This provision is intended to allow a maximum of 400 square feet of additional coverage to the structure that existed on the effective date of this ordinance; and
- (3) For the SEC-h overlay, alteration or expansion of 400 square feet or less of such driveway.

(B) Replacement or restoration of existing structures, that were unintentionally destroyed by fire or other casualty, or natural disaster within the same foundation lines shall not require an SEC permit. The redevelopment must be commenced within one year from the date of the loss, and may include addition of a maximum 400 square feet of ground coverage. Structures which are expanded up to 400 square feet under this provision, may not subsequently expand under the provision in (A)(2) above.

(C) Within the SEC-wr, lawfully established structures that do not meet the casualty loss provisions of (B) above may be replaced within the same foundation lines or area of ground coverage when the entire remaining vegetated corridor on the project site, or the first 50 feet closest to the stream, or an area equal to the ground coverage of the building and attached structures and paved areas, whichever is less, is enhanced to "good" condition pursuant to Table 2. Replacement shall be processed as a Type II review.

(D) If development under this section is proposed to be located closer to a protected water feature, approval of a permit under the provisions of 36.4540 through 36.4555 shall be obtained.

(Ord. 1198, Amended, 03/14/2013; Ord. 1079, Amended,

07/27/2006; Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4530 BUILDABLE LOT ENCROACHMENT.

Where a parcel is partially or wholly inside the SEC-wr Overlay Zone, the property owner may apply for encroachment in lieu of meeting the requirements in MCC 36.4555(A), (B), or (C) for development in the SEC- wr. The applicant shall demonstrate that:

(A) Without the proposed encroachment, the owner would be denied economically viable use of the subject property. To meet this criterion, the applicant must show that no other application could result in approval of an economically viable use of the subject property. Evidence to meet this criterion shall include a list of uses allowed on the subject property.

(B) The proposed encroachment is the minimum necessary to allow for the requested use, however not more than 1 acre of the site, including access roads and driveways, and areas necessary for utilities and facilities, is disturbed;

(C) The proposed encroachment will comply with MCC 36.4555 (E) Mitigation; and

(D) The proposed use complies with the standards of the base zone.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4535 SCOPE OF CONDITIONS.

(A) Conditions of approval of an SEC permit, if any, shall be designed to bring the application into conformance with the applicable criteria of MCC 36.4545 through 36.4560 and any other requirements specified in the Goal 5 protection program for the affected resource. Conditions may relate to the locations, design, and maintenance of existing and proposed improvements, including but not limited to buildings, structures and use areas, parking, pedestrian and vehicular circulation and access, natural vegetation and landscaped areas, fencing, screening and buffering, excavations, cuts and fills, signs, graphics, and lighting, timing of construction and related activities, and mitigation.

(B) Approval of an SEC permit shall be deemed to authorize associated public utilities, including energy and communication facilities.

(C) The approval criteria for an SEC permit shall be used to determine the most appropriate location, size and scope of the proposed development in order to ensure that it meets the purposes of this subdistrict, but shall not be used to deny economically viable use or be used to require removal or relocation of existing physical improvements to the property.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4540 APPLICATION FOR SEC PERMIT.

A decision on an application for an SEC permit shall be based upon findings of consistency with the purposes of the SEC district and with the applicable criteria for approval specified in MCC 36.4545 through 36.4560. An application for a use on a property containing more than one protected resource shall address the approval criteria for all of the designated resources on the property. In the case of conflicting criteria, approval shall be based on the ability of the proposed development to comply as nearly as possible with the criteria for all designated resources that would be affected.

(A) General SEC: All applications for SEC permits shall include the information listed in this section in sufficient detail for County staff to evaluate the impacts of the proposal. The applicant is responsible for providing all of the required information. In addition to the information listed in this section, the application shall contain the supplemental information that is listed for the resource area in which the development is proposed.

(1) A written description of the proposed development and how it complies with the requirements applicable to the resource area in which development is proposed as listed in SECsw, SECwr, SECh.

(2) A map of the property drawn to scale showing;

(a) Boundaries, dimensions, and size of the subject parcel;

(b) Location and size of existing and proposed structures;

(c) Contour lines and topographic features such as ravines or ridges;

(d) Location of natural drainageways, springs, seeps, and wetlands on the site. The Planning Director may require the applicant to provide the location of the SEC-wr boundary, topography, or the location of development as determined by a registered professional surveyor or engineer;

(e) Proposed fill, grading, site contouring or other landform changes;

(f) Location and predominant species of existing vegetation on the parcel, areas where vegetation will be removed, and location and species of vegetation to be planted, including landscaped areas;

(g) Location and width of existing and proposed roads, driveways, parking and maneuvering areas, and service corridors and utilities.

(3) A scaled drawing of the building design and elevations that show the relationship between the building and existing and finished grades and existing or proposed vegetation.

(4) Application for a flood hazard permit, erosion control permit, and/or other required natural hazards permit for the proposed development;

(B) SEC-Scenic Waterway: In addition to the information in 36.4540(A), an application in the SEC-sw overlay area shall include a letter from the Oregon Parks and Recreation Department which indicates that the proposed development as shown on the site map and scaled drawing required in (A)(2) and (3) above has been re

viewed and is, or can be, consistent with the provisions of the Oregon Scenic Waterways Management Plan.

(1) For areas within the SEC-sw overlay, the building design shall also include a description of the exterior materials and proposed exterior colors including roofing.

(C) SEC-Water Resource: In addition to the information requirements listed in MCC 36.4540(A) above, the following information shall be submitted for applications within the SEC-wr overlay.

(1) A topographic map of the development area and adjacent areas of the site at contour intervals of five feet or less showing a delineation of the Water Area or Habitat Area as determined by a documented field survey, the location of all existing and proposed watercourses, drainageways, storm-water facilities, and utility installations;

(2) The location of wetlands;

(3) Information for the site from the adopted West of Sandy River Wildlife Habitat and Stream Corridor ESEE Report, the County Goal 5 Inventory;

(4) Preparation of plans and surveys - Inventories, assessment of existing conditions, and mitigation or restoration plans shall be prepared by a qualified professional such as a fish or wildlife biologist at the discretion of the Planning Director. Wetlands shall be identified and delineated by a qualified wetland specialist as set forth in the 1987 Corps of Engineers Wetland Delineation Manual;

(5) The applicant shall provide evidence that when federal or state requirements apply, that the agency has been contacted, and shall provide an assessment of whether the project can meet the requirements based on the agency response;

(6) An assessment of the existing condition of the Water Resource Area in accordance with Table 2 Riparian/Vegetated Corridor Standards;

(7) An inventory of vegetation, including percentage ground and canopy coverage, and location of nuisance plants listed in Table 1;

(8) A detailed Mitigation Plan as described in 36.4555(E), if required;

(9) The location of all existing trees of a caliper greater than six (6) inches in diameter at breast height (DBH);

(10) A description and map of soil types in the proposed development area and the locations and specifications for all proposed draining, filling, grading, dredging, and vegetation removal, including the amounts and methods.

(D) SEC Wildlife Habitat: In addition to the information required in MCC 36.4540(A) above, an application to develop in SEC-h areas shall also include:

(1) An area map showing all properties which are adjacent to or entirely or partially within 200 feet of the proposed development, with the following information, when such information can be gathered without trespass:

(2) Location of all existing forested areas (including areas cleared pursuant to an approved forest management plan) and non-forested "cleared" areas. For the purposes of this section, a forested area is defined as an area that has at least 75 percent crown closure, or 80 square feet of basal area per acre, of trees 11 inches DBH and larger, or an area which is being reforested pursuant to Forest Practice Rules of the Department of Forestry. A non-forested "cleared" area is defined as an area which does not meet the description of a forested area and which is not being reforested pursuant to a forest management plan.

(3) Location and width of existing drive-ways within 200 feet of the subject parcel's boundaries on all adjacent parcels;

(4) Existing and proposed type and location of all fencing on the subject property and on adjacent properties and on properties entirely or partially within 200 feet of the subject property.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4545 CRITERIA FOR APPROVAL OF SEC-SW PERMIT - SCENIC WATERWAY.

The SEC-sw designation shall apply to those wild and scenic waterways that are designated SEC on Multnomah County sectional zoning maps. An application shall not be approved unless it contains the information in 36.4540(A) and (B). Any proposed activity or use requiring an SEC-sw permit shall be subject to the following:

(A) Submittal of a letter from the Oregon Parks and Recreation Department which indicates that the proposed development has been reviewed and is, or can be, consistent with the provisions of the Oregon Scenic Waterways Management Plan.

(B) The maximum possible landscaped area, scenic and aesthetic enhancement, open space or vegetation shall be provided between any use and a river, stream, lake, or floodwater storage area.

(C) Agricultural land and forest land shall be preserved and maintained for farm and forest use.

(D) A building, structure, or use shall be located on a lot in a manner which will balance functional considerations and costs with the need to preserve and protect areas of environmental significance.

(E) The natural vegetation along rivers, lakes, wetlands and streams shall be protected and enhanced to the maximum extent practicable to assure scenic quality and protection from erosion

(F) Archaeological areas shall be preserved for their historic, scientific, and cultural value and protected from vandalism or unauthorized entry.

(G) Areas of erosion or potential erosion shall be protected from loss by appropriate means. Appropriate means shall be based on current Best Management Practices and may include restriction on timing of soil disturbing activities.

(H) The design, bulk, construction materials, color and lighting of buildings, structures and signs shall be compatible with the character and visual quality of areas of significant environmental concern.

(I) An area generally recognized as fragile or endangered plant habitat or which is valued for specific vegetative features, or which has an identified need for protection of the natural vegetation, shall be retained in a natural state to the maximum extent possible.

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4550 GENERAL REQUIREMENTS FOR APPROVAL IN AREAS DESIGNATED AS SEC-WR OR SEC-H.

The requirements in this section shall be satisfied for development in the SEC-wr and SEC-h areas in addition to the provisions of 36.4555 or 36.4560 as applicable.

(A) Areas of erosion or potential erosion shall be protected from loss by appropriate means. Appropriate means shall be based on current Best Management Practices and may include restriction on timing of soil disturbing activities.

(B) Outdoor lighting shall be of a fixture type and shall be placed in a location so that it does not shine directly into undeveloped water resource or habitat areas. Where illumination of a water resource or habitat area is unavoidable, it shall be minimized through use of a hooded fixture type and location. The location and illumination area of lighting needed for security of

utility facilities shall not be limited by this provision.

(C) The following nuisance plants, in addition to the nuisance plants defined in 36.4510, shall not be used as landscape plantings within the SEC-wr and SEC-h Overlay Zone:

Table 1
Nuisance Plant List

Common Name	Scientific
Lesser celandine	<i>Chelidonium majus</i>
Canada Thistle	<i>Cirsium arvense</i>
Common Thistle	<i>Cirsium vulgare</i>
Western Clematis	<i>Clematis ligusticifolia</i>
Traveler' s Joy	<i>Clematis vitalba</i>
Poison hemlock	<i>Conium maculatum</i>
Field Morning-glory	<i>Convolvulus arvensis</i>
Night-blooming Morn- ing-glory	<i>Convolvulus nyctagineus</i>
Lady' s nightcap	<i>Convolvulus seppium</i>
Pampas grass	<i>Cortaderia selloana</i>
Hawthorn, except na- tive species	<i>Crataegus sp. except C. douglasii</i>
Scotch broom	<i>Cytisus scoparius</i>
Queen Ann' s Lace	<i>Daucus carota</i>
South American Wa- terweed	<i>Elodea densa</i>
Common Horsetail	<i>Equisetum arvense</i>
Giant Horsetail	<i>Equisetum telemateia</i>
Crane' s Bill	<i>Erodium cicutarium</i>
Robert Geranium	<i>Geranium roberianum</i>
English Ivy	<i>Hedera helix</i>
St. John' s Wort	<i>Hypericum perforatum</i>
English Holly	<i>Ilex aquafolium</i>
Golden Chain Tree	<i>Laburnum watereri</i>
Duckweed, Water Lentil	<i>Lemna minor</i>
Fall Dandelion	<i>Loentodon autumnalis</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>
Reed Canary grass	<i>Phalaris arundinacea</i>
Annual Bluegrass	<i>Poa annua</i>
Swamp Smartweed	<i>Polygonum coccineum</i>
Climbing Binaweed	<i>Polygonum convolvulus</i>
Giant Knotweed	<i>Polygonum sachalinense</i>

Common Name	Scientific
English, Portugese Laurel	<i>Prunus laurocerasus</i>
Poison Oak	<i>Rhus diversiloba</i>
Himalayan Blackberry	<i>Rubus discolor</i>
Evergreen Blackberry	<i>Rubus laciniatus</i>
Tansy Ragwort	<i>Senecio jacobaea</i>
Blue Bindweed	<i>Solanum dulcamara</i>
Garden Nightshade	<i>Solanum nigrum</i>
Hairy Nightshade	<i>Solanum sarrachoides</i>
Common Dandelion	<i>Taraxacum officinale</i>
Common Bladderwort	<i>Utricularia vulgaris</i>
Stinging Nettle	<i>Urtica dioica</i>
Periwinkle (large leaf)	<i>Vinca major</i>
Periwinkle (small leaf)	<i>Vinca minor</i>
Spiny Cocklebur	<i>Xanthium spinosum</i>
Bamboo sp.	<i>various genera</i>

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4555 CRITERIA FOR APPROVAL OF SEC-WR PERMIT -WATER RESOURCE

Except for the exempt uses listed in MCC 36.4520 and the existing uses pursuant to 36.4525, no development shall be allowed within a Water Resource Area unless the provisions of section (A) or (B) or (C) below are satisfied. An application shall not be approved unless it contains the site analysis information required in 36.4540(A) and (C), and meets the general requirements in 36.4550.

(A) Development on Low Impact Sites - Development on parcels in locations that would have low impacts on Water Resource Areas may be exempt from the Alternatives Analysis in (B) below. Development on sites that meet the following criterion may be allowed pursuant to the other applicable requirements of this district including the Development Standards of (D) and the provisions for Mitigation in (E):

- (1) The development site is at least one hundred (100) feet from top of bank or top of ravine, which ever results in a greater distance from the Protected Water Feature. Top of ravine is the break in the > 25% slope. Slope should be measured in 25-foot increments away from the water feature until the slope is less than 25% (top of ravine),

up to a maximum distance of 200' from the water feature. Where multiple resources are present (e.g., stream with wetlands along banks), the starting point for measurement should be whichever offers greatest resource protection.

(B) Alternatives Analysis - Development proposed within a Water Resource Area may be allowed if there is no alternative, when the other requirements of this district including the Development Standards of (D) and the provisions for Mitigation in (E) are met. The applicant shall prepare an alternatives analysis which demonstrates that:

- (1) No practicable alternatives to the requested development exist that will not disturb the Water Resource Area; and
- (2) Development in the Water Resource Area has been limited to the area necessary to allow for the proposed use;
- (3) Development shall occur as far as practically possible from the stream; and
- (4) The Water Resource Area can be restored to an equal or better condition; or
- (5) Any net loss on the property of resource area, function and/or value can be mitigated.

(C) Buffer Averaging - Development may be allowed to encroach into the 200' SEC-wr overlay zone or "buffer" when the provisions of (1) through (6) below are satisfied. These provisions are intended to allow development to extend a specific amount into the edges of the overlay zone without an alternatives analysis in exchange for increasing the area of vegetated corridor on the property that is in good condition.

- (1) Site assessment information pursuant to 36.4540(A) and (C) has been submitted.
- (2) The riparian/vegetated corridor is certified to be in a marginal or degraded condition pursuant to Table 2. Buffer averaging is

not allowed to encroach in areas certified to be in good condition.

(3) The maximum encroachment does not exceed 20% of the frontage length of the vegetated corridor by 20% of the required width.

(4) The entire remaining vegetated corridor on the project site or the first 50 feet closest to the stream (whichever is less) will be enhanced to "good" condition pursuant to Table 2.

(5) The area of encroachment will be replaced with added buffer area at a 1:1 ratio.

(6) The replacement area will be incorporated into the remaining vegetated corridor on the project site and meet the "good" condition pursuant to Table 2, regardless of its distance from the resource area.

(D) Development Standards- Development within the Water Resource Area shall comply with the following standards:

(1) Development of trails, rest points, viewpoints, and other facilities for the enjoyment of the resource must be done in such a manner so as to minimize impacts on the natural resource while allowing for the enjoyment of the natural resource.

(2) Development in areas of dense standing trees shall be designed to minimize the numbers of trees to be cut. No more than 50 percent of mature standing trees (of 6-inch DBH greater) shall be removed without a one-for-one replacement with comparable species. The site plan for the proposed activity shall identify all mature standing trees by type, size, and location, which are proposed for removal, and the location and type of replacement trees.

(3) Areas of standing trees, shrubs, and natural vegetation will remain connected or contiguous, particularly along natural drain

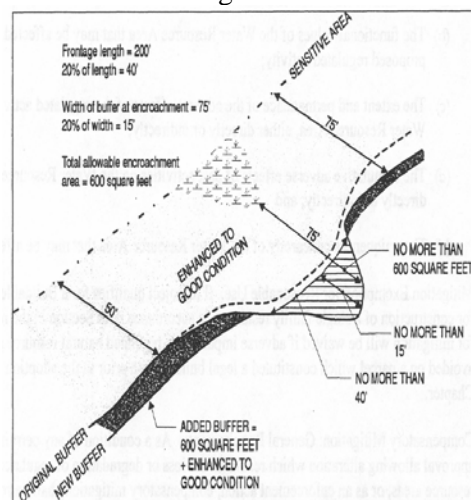
age courses, so as to provide a transition between the proposed development and the natural resource, to provide food, water, and cover for wildlife, and to protect the visual amenity values of the natural resource.

(4) The Water Resource Area shall be restored to "good condition" and maintained in accordance with the mitigation plan pursuant to (E) below and the specifications in Table 2.

(5) To the extent practicable, existing vegetation shall be protected and left in place. Work areas shall be carefully located and marked to reduce potential damage to the Water Resource Area. Trees in the Water Resource Area shall not be used as anchors for stabilizing construction equipment.

(6) Where existing vegetation has been removed, or the original land contours disturbed, the site shall be revegetated, and the vegetation shall be established as soon as practicable. Nuisance plants, as identified in Table 1, may be removed at any time. Interim erosion control measures such as mulching shall be used to avoid erosion on bare areas. Nuisance plants shall be replaced with non-nuisance plants by the next growing season.

Figure 1



(7) Prior to construction, the Water Resource Area shall be flagged, fenced or otherwise marked and shall remain undisturbed except as otherwise allowed by this district. Such markings shall be maintained until construction is complete.

(8) Stormwater quantity control and quality control facilities:

(a) Stormwater management shall be conducted in a manner that does not increase the flow of stormwater to the stream above pre-development levels.

(b) The stormwater quantity control and quality control facility may only encroach a maximum of 25 feet into the outside boundary of the Water Resource Area of a primary water feature; and

(c) The area of encroachment must be replaced by adding an area equal in size and with similar functions and values to the Water Resource Area on the subject property.

(E) Mitigation - Mitigation shall be required to offset the impacts of development within the SEC-wr. This section establishes how mitigation can occur.

(1) Mitigation Sequence. Mitigation includes avoiding, minimizing or compensating for adverse impacts to regulated natural resource areas.

(a) When a proposed use or development activity could cause adverse impacts to a natural resource area, the preferred sequence of mitigation as defined in 1. through 5. below shall be followed unless the applicant demonstrates that an overriding public benefit would warrant an exception to this preferred sequence.

1. Avoiding the impact altogether by not taking a certain action or parts of actions on that portion of

the site which contains the regulated natural resource area;

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;

3. Compensating for the impact by repairing, rehabilitating, or restoring the affected environment;

4. Compensating for the impact by replacing, enhancing or providing substitute resources or environments on-site.

5. Compensating for the impact by replacing, enhancing or providing substitute resources or environments off-site.

(b) When evaluating potential impacts to the natural resource, the County may consider whether there is an overriding public benefit, given:

1. The extent of the public need for the proposed development ;

2. The functional values of the Water Resource Area that may be affected by the proposed development;

3. The extent and permanence of the adverse effects of the development on the Water Resource Area, either directly or indirectly;

4. The cumulative adverse effects of past activities on the Water Resource Area, either directly or indirectly; and

5. The uniqueness or scarcity of the Water Resource Area that may be affected.

(2) Compensatory Mitigation: General Requirements. As a condition of any permit or other approval allowing development which results in the loss or degradation of regulated natural resource areas, or as an enforcement action, compensatory mitigation shall be required to offset impacts resulting from the actions of the applicant or violator.

(a) Any person who alters or proposes to alter regulated natural resource areas shall restore or create natural resource areas equivalent to or larger than those altered in order to compensate for resource losses.

(b) The following ratios apply to the creation or restoration of natural resource areas. The first number specifies the amount of natural resource area to be created and the second specifies the amount of natural resource area to be altered or lost.

Creation (off-site) 2:1

Restoration (off-site) 1.5:1

Creation (on-site) 1.5:1

(Restoration (on-site) 1:1

(c) Only marginal or degraded water resource areas as described in Table 2 may be the subject of a restoration project proposed as part of a Mitigation Plan.

(d) Highest priority sites for mitigation are marginal or degraded corridors that are closest to a natural drainage, and areas which will increase contiguous areas of standing trees, shrubs, and natural vegetation along drainages.

(e) The off-site mitigation shall be as close to the development as is practicable above the confluence of the next downstream tributary, or if this is not practicable, within the watershed where the development will take place or as otherwise specified by the County.

(f) Compensation shall be completed prior to initiation of development where possible.

(g) In order to ensure that on-site mitigation areas are established and maintained, the property owner shall record the mitigation plan approval in the deed records of Multnomah County. In order to ensure that off-site mitigation areas will be protected in perpetuity, the owner shall cause a deed restriction to be placed on the property where the mitigation is required. The deed restriction shall be irrevocable unless a statement of release is signed by an authorized representative of Multnomah County.

(3) Mitigation Plan Standards - Natural resource mitigation plans shall contain the following information:

(a) A description of adverse impacts that could be caused as a result of development.

(b) An explanation of how adverse impacts to resource areas will be avoided, minimized, and/or mitigated.

(c) A list of all responsible parties including, but not limited to, the owner, applicant, contractor or other persons responsible for work on the development site.

(d) A map drawn to scale, showing where the specific mitigation activities will occur.

(e) An implementation schedule, including timeline for construction, mitigation, mitigation maintenance, monitoring, reporting and a contingency plan. All in-stream work in fish-bearing streams must be done in accordance

with the Oregon Department of Fish and Wildlife in-stream timing schedule.

Table 2
Riparian/Vegetated Corridor Standards

Existing Riparian/Vegetated Corridor Condition	Requirements of Riparian/Vegetated Corridor Protection, Enhancement, and/or Mitigation
<p>Good Corridor Combination of native trees, shrubs, and groundcover covering greater than 80% of the area and Greater than 50% tree canopy exists (aerial measure)</p>	<p>Provide certification, pursuant to the procedures provided by the Planning Director, by a professional ecologist/biologist that the riparian/ vegetated corridor meets condition criteria. Remove any invasive non-native or nuisance species and debris and noxious materials within the corridor by hand. Provide the County with a native plant revegetation plan appropriate to the site conditions developed by an ecologist/biologist or landscape architect to restore condition and mitigate any habitat or water quality impacts related to development. See Planning Director procedures. Revegetate impacted area per approved plan to re-establish “good” corridor conditions</p>
<p>Marginal Corridor Combination of native trees, shrubs, and groundcovers covering 50%-80% of the area and/or 26-50% tree canopy exists (aerial measure) (Restoration up to “good” corridor required)</p>	<p>Provide certification, pursuant to the procedures provided by the Planning Director, by a professional ecologist/biologist that the riparian/vegetated corridor meets condition criteria. Remove any invasive non-native or nuisance species and debris and noxious materials within the corridor by hand or mechanically with small equipment, as appropriate to minimize damage to existing native vegetation. Provide County with a native plant revegetation plan appropriate to the site conditions developed by an ecologist/biologist or landscape architect to restore to a good corridor condition. See Planning Director procedures. Vegetate corridor to establish “good” corridor conditions</p>

Existing Riparian/Vegetated Corridor Condition	Requirements of Riparian/Vegetated Corridor Protection, Enhancement, and/or Mitigation
<p>Degraded Corridor</p> <p>Combination of native trees, shrubs, and ground-covers covering is less than 50% of the area and/or</p> <p>Less than 25% tree canopy exists (aerial measure) and/or</p> <p>Greater than 10% of the area is covered by invasive, non-native species</p> <p>(Restoration up to “good” corridor required)</p>	<p>Provide certification, pursuant to the procedures provided by the Planning Director, by a professional ecologist/biologist that the riparian/vegetated corridor meets condition criteria.</p> <p>Remove any invasive non-native or nuisance species and debris and noxious materials within the corridor by hand or mechanically as appropriate.</p> <p>Provide County with a native plant revegetation plan appropriate to the site conditions developed by an ecologist/biologist or landscape architect to restore to a good corridor condition. See Planning Director procedures.</p> <p>Vegetate corridor to establish “good” corridor conditions</p>

(Ord. 1001, Reorg&Renum, 12/12/2002)

§ 36.4560 CRITERIA FOR APPROVAL OF SEC-H PERMIT -WILDLIFE HABITAT.

Development within areas designated SEC-h shall comply with the provisions of this section. An application shall not be approved unless it contains the information in 36.4540(A) and (D).

(A) Development standards:

- (1) Where a parcel contains any non-forested "cleared" areas, development shall only occur in these areas, except as necessary to provide access and to meet minimum clearance standards for fire safety.
- (2) Development shall occur within 200 feet of a public road capable of providing reasonable practical access to the developable portion of the site.
- (3) The access road/driveway and service corridor serving the development shall not exceed 500 feet in length.

(4) Fencing within a required setback from a public road shall meet the following criteria:

- (a) Fences shall have a maximum height of 42 inches and a minimum 17 inch gap between the ground and the bottom of the fence.
- (b) Wood and wire fences are permitted. The bottom strand of a wire fence shall be barbless. Fences may be electrified, except as prohibited by County Code.
- (c) Cyclone, woven wire, and chain link fences are prohibited.
- (d) Fences with a ratio of solids to voids greater than 2:1 are prohibited.
- (e) Fencing standards do not apply in an area on the property bounded by a line along the public road serving the development, two lines each drawn perpendicular to the principal structure from a point 100 feet from the end of the structure on a line perpendicular to and meeting with the public road serving the

development, and the front yard setback line parallel to the public road serving the development.

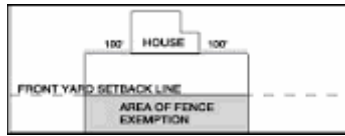


FIGURE 36.4570A FENCE EXEMPTION AREA

(f) Fencing standards do not apply where needed for security of utility facilities.

(5) The nuisance plants listed in Table 1 shall not be planted as landscaping and shall be controlled within cleared areas of the subject property.

(B) Wildlife Conservation Plan. An applicant shall propose a wildlife conservation plan if one of two situations exist.

(1) The applicant cannot meet the development standards of Section (A) because of physical characteristics unique to the property. The applicant must show that the wildlife conservation plan results in the minimum departure from the standards required in order to allow the use; or

(2) The applicant can meet the development standards of Section (A), but demonstrates that the alternative conservation measures exceed the standards of Section (A) and will result in the proposed development having a less detrimental impact on forested wildlife habitat than the standards in Section (A).

(3) Unless the wildlife conservation plan demonstrates satisfaction of the criteria in subsection (B)(5) of this section, the wildlife conservation plan must demonstrate the following:

(a) That measures are included in order to reduce impacts to forested areas to the minimum necessary to serve the proposed development by restricting the

amount of clearance and length/width of cleared areas and disturbing the least amount of forest canopy cover.

(b) That any newly cleared area associated with the development is not greater than one acre, excluding from this total the area of the minimum necessary accessway required for fire safety purposes.

(c) That no fencing will be built outside of areas cleared for the site development except for existing cleared areas used for agricultural purposes.

(d) That revegetation of existing cleared areas on the property at a 2:1 ratio with newly cleared areas occurs if such cleared areas exist on the property.

(e) That revegetation and enhancement of disturbed stream riparian areas occurs along drainages and streams located on the property.

(4) For a property meeting (B)(1) above, the applicant may utilize the following mitigation measures for additions instead of providing a separate wildlife conservation plan:

(a) Each tree removed to construct the proposed development shall be replaced on a one to one ratio with a six foot tall native tree.

(b) For each 100 square feet of new building area, the property owner shall plant, one, 3-4 foot tall native tree or three native tree seedlings. The trees shall be planted to improve wildlife habitat first within non-forested cleared areas contiguous to forested areas, second within any degraded stream riparian areas before being placed in forested areas or adjacent to landscaped yards.

- (c) Existing fencing located in the front yard adjacent to a public road shall be consistent with MCC 36.4560(A)(4).
 - (d) For non-forested “cleared” areas that require nuisance plant removal pursuant to MCC 36.4560(A)(5), the property owner shall set a specific date for the work to be completed and the area replanted with native vegetation. The time frame must be within two years from the date of the permit.
- (5) Unless the wildlife conservation plan demonstrates satisfaction of the criteria in subsection (C)(3) of this section, the wildlife conservation plan must demonstrate the following:
- (a) That measures are included in order to reduce impacts to forested areas to the minimum necessary to serve the proposed development by restricting the amount of clearance and length/width of cleared areas and disturbing the least amount of forest canopy cover.
 - (b) That any newly cleared area associated with the development is not greater than one acre, excluding from this total the area of the minimum necessary accessway required for fire safety purposes.
 - (c) That no fencing will be built and existing fencing will be removed outside of areas cleared for the site development except for existing cleared areas used for agricultural purposes. Existing fencing located in the front yard adjacent to a public road shall be consistent with MCC 34.4570(B)(6).
 - (d) For mitigation areas, all trees, shrubs and ground cover shall be native plants selected from the Metro Native Plant List. An applicant

shall meet Mitigation Option 1 or 2, whichever results in more tree plantings; except that where the total developed area (including, buildings, pavement, roads, and land designated as a Development Impact Area) on a Lot of Record will be one acre or more, the applicant shall comply with Mitigation Option 2:

1. *Mitigation Option 1.* In this option, the mitigation requirement is calculated based on the number and size of trees that are removed from the development site. Trees that are removed from the development site shall be replaced as shown in the table below. Conifers shall be replaced with conifers. Bare ground shall be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

Tree Replacement Table

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

2. *Mitigation Option 2.* In this option, the mitigation requirement is calculated based on the size of the distance area associated with the development. Native trees and shrubs are required to be planted at a rate of five (5) trees and twenty-

five (25) shrubs per every 500 square feet of disturbance area (calculated by dividing the number of square feet of disturbance area by 500, and then multiplying that result times five trees and 25 shrubs, and rounding all fractions to the nearest whole number of trees and shrubs; for example, if there will be 330 square feet of disturbance area, then 330 divided by 500 equals .66, and .66 times five equals 3.3, so three trees must be planted, and .66 times 25 equals 16.5, so 17 shrubs must be planted). Bare ground shall be planted and seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

- (e) **Location of mitigation area.** All vegetation shall be planted within the mitigation area located on the same Lot of Record as the development and shall be located within the SEC-h overlay or in an area contiguous to the SEC-h overlay; provided, however, that if the vegetation is planted outside of the SEC-h overlay then the applicant shall preserve the contiguous area by executing a deed restriction, such as a restrictive covenant. (Note: an off-site mitigation option is provided in a streamlined discretionary review process). The mitigation area shall first be located within any existing non-forested cleared areas contiguous to forested areas, second within any degraded stream riparian areas and last in forested areas or adjacent to landscaped yards.
- (f) Prior to development, all work areas shall be flagged, fenced, or otherwise marked to reduce potential damage to habitat outside of the work area. The work area shall remain marked through all phases of development.
- (g) Trees shall not be used as anchors for stabilizing construction equipment.
- (h) Native soils disturbed during development shall be conserved on the property.
- (i) An erosion and sediment control plan shall be prepared in compliance with the Grading and Erosion Control standards set forth in MCC 29.330 through MCC 29.348.
- (j) **Plant size.** Replacement trees shall be at least one-half inch in caliper, measured at 6 inches above the ground level for field grown trees or above the soil line for container grown trees (the one-half inch minimum size may be an average caliper measure, recognizing that trees are not uniformly round), unless they are oak or madrone which may be one gallon size. Shrubs shall be in at least a 1-gallon container or the equivalent in ball and burlap and shall be at least 12 inches in height.
- (k) **Plant spacing.** Trees shall be planted 8 and 12 feet on-center and shrubs shall be planted between 4 and 5 feet on-center, or clustered in single species groups of no more than four (4) plants, with each cluster planted between 8 and 10 feet on-center. When planting near existing trees, the drip line of the existing tree shall be the starting point for plant spacing measurements.
- (l) **Plant diversity.** Shrubs shall consist of at least two (2) different species. If 10 trees or more are planted, then no more than 50% of the trees may be of the same genus.
- (m) **Nuisance plants.** Any nuisance plants listed in (B)(7) above shall be removed within the mitigation area prior to planting.
- (n) **Planting schedule.** The planting date shall occur within one year following the approval of the application.

- (o) ***Monitoring and reporting.*** Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die shall be replaced in kind so that a minimum of 80% of the trees and shrubs planted shall remain alive on the fifth anniversary of the date that the mitigation planting is completed.

(6) For Protected Aggregate and Mineral (PAM) resources within a PAM subdistrict, the applicant shall submit a Wildlife Conservation Plan which must comply only with measures identified in the Goal 5 protection program that has been adopted by Multnomah County for the site as part of the program to achieve the goal.

(D) Optional Development Impact Area (DIA). For the purpose of clustering home sites together with related development within the SEC-h overlay, an applicant may choose to designate an area around the home site for future related development and site clearing. For the purposes of establishing the appropriate mitigation for development within the DIA, existing vegetation within the DIA is presumed to be ultimately removed or cleared in the course of any future development within the DIA. Establishment of a DIA is subject to all of the applicable provisions in MCC 33.4570 and the following:

- (1) The maximum size for a DIA shall be no greater than one acre, excluding from this total the area of the minimum necessary accessway required for fire safety purposes.
- (2) Any required mitigation for the DIA site under an approved wildlife conservation plan shall be completed within one year of the final approval of the application.
- (3) The DIA shall contain an existing habitable dwelling or approved dwelling site.
- (4) No more than one DIA is permitted per Lot of Record.

(5) The DIA can be any shape, but shall be contiguous and shall fit within a circle with a maximum diameter of 400 feet.

(6) For new dwellings that will be located on a Lot of Record that does not currently contain a dwelling, the DIA should be located within 200 feet of a public road or in the case of properties without road frontage, as close as practicable (accounting for required setbacks and fire safety zones) to the entry point of the vehicular access serving the property.

(7) No part of a DIA may be located in an SEC-s sub-district, mapped wetland, or flood hazard zone.

(8) All development within the DIA is subject to all development criteria in effect for the underlying zone and overlay zones at the time of development. Approval of a DIA does not preclude the applicant's responsibility to obtain all other required approvals.

(9) Once a DIA is approved and all pre-development conditions of approval are met, development within the DIA may commence at anytime thereafter provided the applicable approval criteria of MCC 34.4570 are the same as the criteria under which the DIA was originally approved. This provision does not waive the approval timeframe and/or expiration of any other permit approvals.

(Ord. 1222, Amended, 08/20/2015; Ord. 1198, Amended, 03/14/2013; Ord. 1079, Amended, 07/27/2006; Ord. 1001, Re-org&Renum, 12/12/2002)

**§ 36.4567 SEC-H CLEAR AND
OBJECTIVE STANDARDS.**

At the time of submittal, the applicant shall provide the application materials listed in MCC 36.4540(A) and (D). The application shall be reviewed through the Type I procedure and may not be authorized unless the following are met:

- (A) The proposed development meets the standards listed in 36.4560(A)(1) through (5);
- (B) The proposed development shall meet the applicable storm water and grading and erosion control requirements of MCC Chapter 29. Ground disturbance within 100 feet of a watercourse as defined by MCC 29.351 shall be limited to the period between May 1st and September 15th. Revegetation and soil stabilization must be accomplished no later than October 15th.
- (C) New and replacement exterior lighting fixtures shall be of the “cut off” or fully shielded type so that no light is emitted above the horizontal plane. The location and illumination area of lighting needed for security of utility facilities shall not be limited by this provision.
- (D) The nuisance plants in 36.4550, Table 1, in addition to the nuisance plants defined in 36.4510, shall not be used as landscape plantings within the SEC-h Overlay Zone.

For development that fails to meet all of the standards listed above, a separate land use application pursuant to MCC 36.4560 may be submitted.

(Ord. 1198, Added, 03/14/2013)