

# Chapter 4

## Goal 5 Program Options and Draft Limited Protection Program (Preferred Scenario)

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## Introduction

This chapter summarizes the Goal 5 Rule (OAR Chapter 660, Division 23) ESEE decision-making process and describes how Corvallis and Benton County applied this process in the development of the Draft Preferred (Limited Protection) Scenario. Basically, the Goal 5 Rule requires that local governments consider the economic, social, environmental, and energy (ESEE) consequences of three decision options that apply to significant resource sites:

- Full protection (prohibit all uses that conflict with full protection of a resource site);
- No protection (allow all conflicting uses without any Goal 5 regulations); and
- Limited protection (allow some conflicting uses with restrictions).

As noted in Chapter 2, Corvallis has 16 Significant Natural Resource Analysis Areas (NRAs) that are composed of a mosaic of natural resource polygons (wetlands, riparian corridors, and significant vegetation). For purposes of this analysis, each NRA is considered to be a "resource site."

The "full protection" option is impractical in urban areas because it would prohibit all conflicting uses and activities for all significant polygons. Uses such as trails and activities such as hazardous tree removal would be prohibited. The "no protection option" would allow conflicting uses without restriction in each NRA, which would have unacceptable ESEE consequences and would be contrary to the Corvallis 2020 Vision Statement and the Comprehensive Plans of both Benton County and the City of Corvallis.

The "limited protection" option tentatively selected by Corvallis and Benton County decision-makers takes a more balanced approach. **Throughout this ESEE analysis, the limited protection option is referred to as both the "Draft Preferred Scenario" and the "Limited Protection Program."**

**The Draft Preferred Scenario or Limited Protection Program "limits" conflicting uses and activities in two ways:**

- **First, by limiting the area (quantity) of each NRA that will be protected under the City's proposed natural resource and natural hazard regulations; and**
- **Second, by allowing certain conflicting uses on a limited basis in protected portions of each NRA.**

## Goal 5 Rule Requirements

The Goal 5 Rule (OAR 660-023-0040) prescribes the process that must be followed when making decisions as to the level of protection that should be afforded significant NRAs (composed of wetlands, riparian corridors, and significant vegetation). Corvallis has chosen decision option (b), limited protection (highlighted in ***bold italic*** below).



## 660-023-0040 ESEE Decision Process

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

*(5) Develop a program to achieve Goal 5. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:*

*(a) A local government may decide that a significant resource site 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) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, that conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.***

*(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.*

As noted above, Corvallis and Benton County decision-makers have tentatively adopted The Draft Preferred Scenario (Limited Protection Program) that protects 16 Natural Resource Areas (NRAs) on a limited basis. Within each NRA, all significant riparian corridors, most locally-significant wetlands, and most areas of significant vegetation are protected. This ESEE analysis evaluates each of the three decision options described above but focuses on the economic, social, environmental, and energy consequences of the Limited Protection Option described in this chapter.

The Goal 5 Rule (OAR 660-023-0050) also requires that land use regulations limiting conflicting uses be "clear and objective." However, this section of the Goal 5 Rule allows the option of a discretionary review process – if preferred by the landowner or developer. Corvallis provides both options.



## 660-023-0050 Programs to Achieve Goal 5

(1) For each resource site, local governments shall adopt comprehensive plan provisions and land use regulations to implement the decisions made pursuant to OAR660-023-0040(5). The plan shall describe the degree of protection intended for each significant resource site. The plan and implementing ordinances shall clearly identify those conflicting uses that are allowed and the specific standards or limitations that apply to the allowed uses. A program to achieve Goal 5 may include zoning measures that partially or fully allow conflicting uses (see OAR660-023-0040(5)(b) and (c)).

(2) When a local government has decided to protect a resource site under OAR660-023-0040(5)(b), **implementing measures applied to conflicting uses on the resource site and within its impact area shall contain clear and objective standards.** For purposes of this division, a standard shall be considered clear and objective if it meets any one of the following criteria:

(a) It is a fixed numerical standard, such as a height limitation of 35 feet or a setback of 50 feet;

(b) It is a nondiscretionary requirement, such as a requirement that grading not occur beneath the dripline of a protected tree; or

(c) It is a performance standard that describes the outcome to be achieved by the design, siting, construction, or operation of the conflicting use, and specifies the objective criteria to be used in evaluating outcome or performance. Different performance standards may be needed for different resource sites. If performance standards are adopted, the local government shall at the same time adopt a process for their application (such as a conditional use, or design review ordinance provision).

(3) In addition to the clear and objective regulations required by section (2) of this rule, except for aggregate resources, **local governments may adopt an alternative approval process that includes land use regulations that are not clear and objective (such as a planned unit development ordinance with discretionary performance standards), provided such regulations:**

(a) **Specify that landowners have the choice of proceeding under either the clear and objective approval process or the alternative regulations;**

**and**

(b) **Require a level of protection for the resource that meets or exceeds the intended level determined under OAR 660-023-0040(5) and 660-023-0050(1).**



## Corvallis Draft Limited Protection Program

This section describes Corvallis' program to provide limited protection for significant Goal 5 resource sites (NRAs). Benton County's complementary limited protection program applies until land is annexed to the City and is described in the Benton County Goal 5 ESEE Analysis. The two programs work together to achieve a long-term balance between protection of most significant natural resources and from natural hazards *and* efficient urban development.

The joint City-County Limited Protection Program is described in the City's webpage as follows:

*City of Corvallis and Benton County are taking steps to implement policies of the Comprehensive Plan, provisions of the Natural Features Project, Endangered Species Act Project (ESA), and the Stormwater Master Plan (SWMP). This work is to provide a balanced, comprehensive planning program that guides the City and County to achieve local and Statewide planning goals. The City and County are striving to create clear and objective development standards that will provide for environmental protection of significant natural resources, while ensuring that sufficient lands are available for economic development and housing within the Corvallis Urban Growth Boundary (both within the City Limits and in the Urban Fringe).*

*The next stages have been integrated into a work program (titled the Land Development Code Update Project) to update the City and County Comprehensive Plan Policies, the City and County Comprehensive Plan Maps, and the City Land Development Code (LDC) and LDC Map. The next stages of the project are scheduled to take place from May 25, 2004, through December 21, 2004. Benton County may also amend the Benton County Land Development Code (LDC) and LDC Map, either in tandem with the City or at a later date.*

### Scenario D

During the winter and spring of 2003-04, City and County decision-makers applied the ESEE analysis process to reduce the resource area subject to local protection. Through this process, (January 22, 2004) significant natural resource areas associated with Scenario C were reduced to the Draft Preferred Scenario shown in Scenario D (May 2004).

The Scenario D draft maps (May 14, 2004) show the following:

- **Natural Hazards**
- **Significant Riparian Corridors and Wetlands**
- **Significant Vegetation**

These three maps are used to create a draft Corvallis Comprehensive Plan Map showing a "Natural Resource Overlay" and a "Natural Hazard Overlay." There is a corresponding Corvallis Land Development Code District Map that shows zoning districts



within the Corvallis City Limits. Both maps are dated September 9, 2004, and show where proposed natural hazard and natural resource overlay districts will apply.

### ***Draft Preferred Scenario (Limited Protection Option)***

The Draft Preferred Scenario includes six implementing zoning districts as follows:

#### **Base Zoning Districts**

- **Chapter 3.38 – Conservation Open Space (C-OS District)**
- **Chapter 3.9 – Extra Low Density Residential (RS-1 District)**

#### **Natural Resource Protection Overlay Districts (standards that apply to specific areas)**

- **Chapter 4.5 – Natural Hazard and Hillside Development Provisions**
- **Chapter 4.12 - Significant Vegetation Protection Provisions**
- **Chapter 4.13 - Riparian Corridor And Locally Protected Wetland Provisions**

#### **MADA Incentive Program**

- **Chapter 4.11 – Minimum Assured Development Area**

These draft regulations address the complex inter-relationships that exist among natural hazards and significant natural resources in an urban context. Their intent is to clearly and objectively:

- (a) Provide a high level of protection to severe natural hazard areas and significant riparian corridors and wetlands (Chapters 4.5 and 4.13), while
- (b) Provide high to partial protection to significant natural vegetation areas and somewhat hazardous areas (Chapters 4.5 and 4.12), while
- (c) Encourage efficient urban development through a clear and objective incentive program (Chapter 4.11 MADA), while
- (d) Allow for low density development to occur in areas that contain natural hazards or resources and that are not needed to meet long-term growth needs (Chapter 3.9), and
- (e) Allow for low impact recreational uses in publicly owned or privately protected open space areas with high value natural resources (Chapter 3.38).

### ***Chapter 3.38 – Conservation – Open Space (C-OS) District***

The draft Chapter 3.38, Conservation – Open Space (C-OS) District, resolves most conflicts between natural resource and intensive recreational uses in areas with protected natural resources and hazards. The purpose of the C-OS District (Section 3.38.10) reads as follows:



**Section 3.38.10 – Purpose** *This district is intended to recognize high value natural resource areas within the City that are owned by public agencies or have been set aside by private owners. The purpose of the district is to limit development of such areas and maintain them in a near-natural state while, in some cases, allowing access to and through them for public infrastructure and/or enjoyment. Typically the existence of this District results in preservation of large open space areas.*

By maintaining parks with protected natural resource and hazard areas in a “near-natural state,” the competing objectives of natural resource protection and public access are resolved. Permitted uses include trails and pre-approved park plans, minor utilities, and connecting roads; picnicking areas are conditional uses.

### **Chapter 3.9 – Extra Low Density Residential (RS-1 District)**

This district is intended to *reduce* conflicts between urban residential development and significant natural resources by reducing permitted residential densities. This district has potential application in Northwest Corvallis NRAs (N-NRA-1 and 5) that are characterized generally by steep slopes and adjacency to the UGB.

This district is “urban” in the sense that the City will provide urban services. Statewide Planning Goal 10 (Housing) defines buildable land as land that is “suitable, available and necessary” for residential use. The RS-1 district would be applied to land that is not suitable or necessary for urban housing because it is largely constrained by natural resources and/or natural hazards. As noted in Section 3.9.10 (quoted below), land zoned RS-1 cannot be “needed” for single-family residential housing as defined in the City’s Buildable Lands Inventory (BLI).

The purpose section of the RS-1 District reads as follows:

#### **Section 3.9.10 - Purpose**

*This district implements elements of the Low Density Comprehensive Plan designation. While the normal density range for the Low Density Residential Comprehensive Plan designation is 2-6 dwelling units per acre, this Extra-Low Density Residential designation is limited to a density range of 0.5 to 2 dwelling units per acre. It is intended to provide an extra-low density family residential district with a full range of urban services only for areas having the following specific characteristics:*

- a. The property contains significant natural resources or hazards required to be protected under provisions of this Code;*
- b. The property is located within an area identified on the Comprehensive Plan Map as appropriate for the application of this District;*
- c. Such designation of the property will not inhibit extension of public facilities or services to other properties within the Urban Growth Boundary; and*
- d. The property is not necessary to satisfy the City’s “buildable lands” needs.*



## **Chapter 4.5 – Natural Hazard and Hillside Development Provisions**

This overlay district resolves most conflicts between urban development (i.e., residential, commercial/industrial, parks and schools, and vegetation removal/grading conflicting uses) on the one hand, and resource preservation in areas with severe mapped natural hazards on the other, based on clear and objective development standards.

Chapter 4.5 is primarily a Goal 7 protection program because it prohibits or strictly limits *most* types of urban development in the following natural hazard areas:

- The 0.2-foot floodway for all local streams and rivers within the UGB;
- “High Protection” floodplain areas (i.e., the 100-year floodplain for all local streams within the UGB and for all rivers within the Urban Fringe);
- Slopes  $\geq$  35%;
- Wildfire hazard areas without City water (4<sup>th</sup> Water Level); and
- Mapped landslide hazard areas.

This land is considered “unbuildable” for purposes of meeting housing and employment needs, and is shown on the Natural Hazards Map (September 9, 2004).

Chapter 4.5 also protects riparian corridor resources by protecting the Willamette River and Mary’s River 100-year floodplains from vegetation removal, grading, and construction of impervious surfaces outside the more developed Corvallis City Limits (i.e., within the Urban Fringe). Incentives are provided for construction of buildings and impervious surfaces (e.g., parking lots) outside of river floodplains within the 2004 Corvallis City Limits.

## **Chapter 4.13 – Riparian Corridor and Locally Protected Wetland Provisions**

Chapter 4.13 is applied to *all* significant riparian corridors and to *most* locally significant wetlands (LSW). *Significant and protected* Riparian Corridors and wetlands are shown on the Riparian Corridors and Wetlands Map (September 9, 2004). According to Section 4.13.10, this chapter fulfills a number of purposes, including protection of riparian corridors and wetlands, improving water quality, storing and conveying stormwater and, protecting salmonid habitat.

The site-specific location of protected riparian corridors and wetlands may be taken directly from adopted city maps, or the applicant may conduct site specific mapping based on wetland delineations and site surveys showing the top-of-bank and protected floodway and floodplain areas. All wetlands (protected and not protected) are identified in the City’s Local wetlands Inventory, which was conducted in 2003. The City Council determined that a number of the identified Locally Significant Wetlands (LSW) should be locally protected. The Locally-Protected Wetlands identified on the City’s Riparian Corridors and Wetlands Map represent the wetlands that receive local protection. The Locally-Protected Wetlands consist of Locally Significant Wetlands of Special Concern



and Locally-Protected Locally-Significant Wetlands. The Locally Significant Wetlands of Special Concern are wetlands that are especially worthy of protection due to the presence of known habitat for rare, threatened, and endangered species.

Two levels of protection of wetlands and riparian corridors are provided:

- Highly-Protected Riparian Corridors are those that have been identified as warranting a high level of protection due to their environmental importance and resource quality. These include the protected riparian corridor itself (measured a set distance from top-of-bank) and locally significant wetlands (including a 25-foot buffer based on the margin of error typical of local wetland inventories).
- "Riparian-Related Areas" are defined as proximate wetlands (non-locally significant wetlands found within riparian analysis areas), mapped drainage easements under the City's jurisdiction, and open space tracts that have been created for riparian corridor protection purposes.

Sections 4.13.50 through 4.13.80 states that "removal of vegetation" and "the placement of structures or impervious surfaces, and grading, excavation, and the placement of fill" are prohibited within highly protected riparian corridors and locally significant wetlands.

These sections provide important exceptions for public facilities projects, connecting roads and bridges, water dependent uses, removal of channel vegetation for flood control, and stream restoration and enhancement. Mitigation and or alternatives analyses are required for many conflicting uses.

Table 4-1 lists conflicting and compatible uses allowed under Chapter 4.13 provisions.

**Table 4-1. Chapter 4.13 – Riparian Corridor and Locally Protected Wetland Provisions**

| <b>Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY-PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS</b> |                          |  |
|---|--------------------------|--|
| <b>Conflicting Use</b>  | <b>Code Action</b>       | <b>Comments</b>  |
| <b>a. Removal of vegetation from riparian corridors and riparian-related areas</b>  | <b>Prohibited</b>        | Except for 1-8 below.  |
| 1. Stream restoration and enhancement programs  | Allowed                  | <b>Not a conflicting use.</b>  |
| 2. Removal of non-native, invasive and/or noxious vegetation  | Allowed                  | <b>Not a conflicting use.</b> Non-rip-rap erosion control measures shall be utilized                           |
| 3. Substitution of local source native plant species for non-native plants;   | Allowed                  | <b>Not a conflicting use.</b> Originate from stock collected from wild plants within 75 miles of planting site |
| 4. Development of water-related or water-dependent uses, as defined in Chapter 1.6 of this Code                               | Allowed on Limited Basis | Provided such uses are designed and constructed to minimize impact on existing riparian vegetation             |



**Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY-PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS**

| Conflicting Use   | Code Action                    | Comments  |
|---|--------------------------------|---|
| 5. Removal of emergent in-channel vegetation that has the potential to cause flooding;  | Allowed<br>Conflicting<br>Use  |   |
| 6. Perimeter mowing/cutting of vegetation for fire hazard prevention/fuel reduction   | Allowed<br>Conflicting<br>Use  | No more than 20 feet around structures  |
| 7. Continuation of agricultural activities (such as grazing livestock, growing crops, etc.) occurring on a property prior to December 31, 2004.   | Allowed on<br>Limited<br>Basis | <b>Not considered a conflicting use per Goal 5 Rule.</b> Use of synthetic fertilizers, herbicides, or other pesticides is prohibited in these areas;  |
| 8. Maintenance and protection of the function of City utilities and transportation facilities located within riparian corridors   | Allowed<br>Conflicting<br>Use  |   |
| 9. Allowance of activities under an Oregon Department of Fish and Wildlife-approved restoration plan for improving riparian function.   | Allowed                        | <b>Not a conflicting use.</b> As a component of these plans, livestock may be permitted in areas with identified noxious weeds as a means of controlling the spread of the weeds throughout the watershed.  |
| <b>b. Building, Paving, and Grading Activities:</b> The placement of structures or impervious surfaces, and grading, excavation, and the placement of fill  | Prohibited                     | Exceptions to the drainageway restrictions may be made for the purposes identified in items 1-6 of this section, provided they are designed and constructed to minimize adverse impacts to riparian corridors and riparian-related areas.   |
| 1. Replacement of existing structures with structures located on the original building footprint,.  | Allowed on<br>Limited<br>Basis | Provided replacement does not disturb additional riparian surface area  |
| 2. Construction of streets, public utilities, and bicycle and pedestrian crossings;   | Allowed<br>Conflicting<br>Use  | That are included in the City of Corvallis Transportation Plan, or in other adopted City Plans  |
| 3. Construction of streets, roads, and pedestrian crossings;  | Allowed<br>Conflicting<br>Use  | Necessary in order to maintain an acceptable functional classification of roadways adjacent to the property   |
| 4. Development of water-related and water-dependent uses;   | Allowed<br>Conflicting<br>Use  | As defined in Chapter 1.6 of this Code, where no other viable locations exist   |
| 5. Erosion control or flood control measures that have been approved by the Oregon Division of State Lands (DSL), the U.S. Army Corps of Engineers, or other state or federal regulatory agency with jurisdiction in this area. | Allowed on<br>Limited<br>Basis | Erosion control or flood control measures shall either utilize bio-engineering methods other than rip-rap, or shall utilize rip-rap only to address an imminent hazard to a structure built prior to December 31, 2004. If utilized, the rip-rap installation shall be designed by a Professional Engineer Licensed by the State of Oregon and approved by the Oregon Department of Fish and Wildlife |



**Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY-PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS**

| Conflicting Use  | Code Action                | Comments  |
|--|----------------------------|---|
| 6. Development associated with the Minimum Assured Development Areas that would be allowed in accordance with Chapter 4.11 of this Code; and   | Allowed Conflicting Use    |   |
| 7. Water quality or detention facilities   | Allowed Conflicting Use    | Located outside of riparian easement areas, as determined in Section 4.13.70.   |
| c. Revegetation of streambanks   | Allowed / Required         | <b>Not a conflicting use.</b> Commensurate with the extent of new development of structures or of impervious surface areas on development sites containing stream or river frontage as shown on the City's Locally Protected Wetlands and Riparian Corridors Map, the revegetation of stream banks is required. For each 500 square feet of new structure area or impervious surface area, 100 feet of the development site's stream frontage shall be revegetated  |
| d. Subdivisions, Lot Line Adjustments, and Minor Land Partitions that would create parcels or lots that cannot be developed in conformance with the regulations contained in this chapter. | Prohibited                 | With the exception of lots created for public park purposes   |
| e. Maintenance of lawns, non-native riparian planted vegetation and landscaping  | Allowed on a Limited Basis | Shall be kept to a minimum and shall not include the spraying of herbicides or other pesticides, or the application of synthetic fertilizers. Where replanting is done, vegetation shall be replanted with native species or approved alternatives, with the exception of continuing agricultural uses, as specified in Section 4.5.70.07.a.7. Maintenance pruning of existing trees shall be kept to a minimum, and under no circumstances shall the maintenance trimming be so severe that it compromises the tree's health, longevity, and resource functions. Vegetation within utility easements shall be kept in a natural state and replanted when necessary with native plant species or approved alternatives. |
| f. Hazardous Tree Removal  | Allowed on Limited Basis   | Hazardous trees are those that pose an obvious and immediate health, safety, or welfare threat to persons or property. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed by the Urban Forester or other qualified arborists approved by the Community Development Director. Any trees removed are required to be replaced by like   |



| <b>Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY-PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS</b>   |  |   |
|---|--|---|
| <b>Conflicting Use</b>  | <b>Code Action</b>   | <b>Comments</b>   |
|   |  | native species or alternate approved native species.  |
| g. Exemptions<br>1) Response to public emergencies, including emergency repairs to public facilities;<br>2) Routine maintenance or replacement of existing public facilities. | Allowed on Limited Basis   | When performed under the direction of the City, and in compliance with the provisions of the Stormwater Master Plan   |
| <b>Section 4.13.60 - USE LIMITATIONS AND EXCEPTIONS WITHIN PARTIALLY PROTECTED RIPARIAN CORRIDORS</b>   |  |   |
| a. Removal of vegetation from riparian corridors  | Prohibited   | Except for the purposes outlined in Section 4.13.50.a.  |
| b. Building, Paving, and Grading Activities: The placement of structures or impervious surfaces, and grading, excavation, and the placement of fill                           | Prohibited   | Exceptions: 1. Replacement of existing structures with structures located within the original building footprint, provided replacement does not disturb additional surface area within the 25-foot stream buffer. Vertical additions may be added to these structures if they do not disturb additional surface area within the buffer. Alterations of structures along the Willamette River may be subject to the Willamette River Greenway Permit requirements in Chapter 3.30; 2. Exceptions as outlined in Sections 4.13.50.b. 2-7. |
| c. Residential Setback Reduction.   | Allowed for residentially-zoned properties containing partially protected riparian corridors | The setback reductions shall apply to redevelopment in which all structures are removed from the 25-foot buffer area and to new development on vacant properties in which no structures are placed within the 25-foot buffer area. Under these circumstances, front and side yard setbacks may be reduced to ten (10) feet for the front yard, five (5) feet for an interior side yard, and ten (10) feet for an exterior side yard. The setback for frontloading garages is to remain at 19 feet.                                      |
| d. Re-vegetation of streambanks   | Allowed  | Not a conflicting use. As outlined in Section 4.13.50.c, except that streambank vegetation is required within the first 25 feet from the top of bank, instead of the first 30 feet.   |

## **Chapter 4.12 Significant Vegetation**

These provisions apply to areas of Significant Vegetation identified on the Corvallis Significant Vegetation Map. Areas of Significant Vegetation within the community have been identified in two ways. First, all natural hazards and natural resources are depicted



with overlays on the City of Corvallis Land Development Code District Map. Second, the Corvallis Significant Vegetation Map depicts the specific levels to which different significant Vegetation areas are to be protected. Significant Vegetation is identified on the Significant Vegetation Map as either highly significant or somewhat significant and standards are established for their protection by designation as either Highly Protected Significant Vegetation (HPSV) or Partially Protected Significant Vegetation (PPSV). Areas designated as PPSV are further differentiated into four sub-categories (PPSV-1 through PPSV-4).

Chapter 4.12 lists important exceptions for routine maintenance of structures, lawns and landscaped areas, removal of hazardous trees, construction and maintenance of public facilities, trails, and connecting streets, and creation and maintenance of fire breaks. Section 4.12.70 also includes specific conflict resolution standards for designated PPSV areas.

Table 4-2 summarizes conflicting and compatible uses that are allowed on a limited basis by Chapter 4.12:

**Table 4-2. Chapter 4.12 – Significant Vegetation Protection Provisions**

| These provisions apply to areas of Significant Vegetation identified on the Corvallis Significant Vegetation Map. Significant Vegetation includes Highly Protected Significant Vegetation (HPSV) and Partially Protected Significant Vegetation (PPSV). |             |  |
|---|-------------|--|
| Conflicting Use   | Code Action | Comments / Mitigation  |
| <b>4.12.30 EXEMPTIONS</b>   |             |  |
| a. Routine maintenance and/or replacement of structures constructed or placed on the site prior to December 31, 2004.   | Allowed     | Building replacements shall be limited to the footprint of existing buildings, and replacement of other impervious surface shall be limited to the area of existing impervious surface.  |
| b. Routine maintenance of the site, including maintenance of lawns and planted landscaping areas existing on December 31, 2004.   | Allowed     | Such maintenance shall not include the spraying of herbicides or other pesticides. Where replanting is done, native species shall be used. Maintenance trimming of existing trees shall be kept to a minimum, and under no circumstances shall the maintenance trimming be so severe that it compromises the tree's health, longevity, and/or resource functions. Vegetation within utility easements shall be kept in a natural state and when replanted only native plant species shall be used. |
| c. Removal of hazardous trees.  | Allowed     | Requests for removal of hazardous trees, except in emergency circumstances, shall be reviewed by the City Urban Forester or another qualified arborist approved by the Community Development Department. Any trees removed shall be replaced by like native species or alternative approved native species.  |



These provisions apply to areas of Significant Vegetation identified on the Corvallis Significant Vegetation Map. Significant Vegetation includes Highly Protected Significant Vegetation (HPSV) and Partially Protected Significant Vegetation (PPSV).

| <b>Conflicting Use</b>   | <b>Code Action</b>          | <b>Comments / Mitigation</b>  |
|--|-----------------------------|---|
| d. Creation and maintenance of fire fuel breaks surrounding all structures designed for human occupancy,   | Allowed                     | A fire fuel break includes an area a minimum of 30 feet out from a structure (or to the property line, whichever is less) and a maximum of 40 feet out in all directions; 3. The fire fuel break may be increased by 50 feet downslope on 10-20 percent slopes, by 75 feet downslope on 20-25 percent slopes, and by 100 feet downslope on 25-40 percent slopes. Establishment of a fire fuel break shall not involve stripping the ground of all native vegetation. Fire fuel breaks may include the use of non-combustible structures such as walkways and driveways. |
| e. Reduction of fire fuel load outside of fire fuel break areas.   | Allowed<br>Conflicting Use  | By pruning trees so the lowest limbs are 6 to 10 feet above grade and tree crowns do not touch or interlace   |
| f. Creation and maintenance outside of fire fuel break areas of one fire escape route.   | Allowed<br>Conflicting Use  | Up to 14 feet in width, for each development site   |
| g. Creation and maintenance of one fire truck turn-around area.  | Allowed                     | If the distance of structures designed for human occupancy exceeds 150 feet from a developed public right-of-way  |
| h. City utility or road work in utility or road easements or rights-of-way.  | Allowed on<br>Limited Basis | Any trees removed in the course of utility work shall be replaced in accordance with the standards of this Chapter.   |
| i. Removal of non-native, invasive and/or noxious vegetation as identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System. | Allowed                     | If necessary in conjunction with vegetation removal, non-rip-rap erosion control measures shall be utilized   |
| j. Removal of vegetation in accordance with an approved Significant Vegetation Management Plan   | Allowed                     | As outlined in Section 4.12.100.  |
| <b>4.12.70 - STANDARDS FOR DEVELOPMENT ON SITES CONTAINING SIGNIFICANT VEGETATION</b>  |                             |   |
| Development in HPSV  | Prohibited                  | Except that development may be located within the Minimum Assured Development Area, as determined through the use of the procedures and criteria established in Chapter 4.11- Minimum Assured Development Area  |
| Development in PPSV-1 [Timberhill North, Timberhill East, Thompson, North of Chip Ross   | Prohibited                  | Except that development may be located within the Minimum Assured Development Area, as determined through the use of the procedures and criteria established in Chapter 4.11- Minimum Assured   |



| These provisions apply to areas of Significant Vegetation identified on the Corvallis Significant Vegetation Map. Significant Vegetation includes Highly Protected Significant Vegetation (HPSV) and Partially Protected Significant Vegetation (PPSV). |             |  |
|---|-------------|--|
| Conflicting Use   | Code Action | Comments / Mitigation  |
| Park]   |             | Development Area   |
| Development in PPSV-2<br>[COHO Housing, and Hospital Owens Farm Site]   | Prohibited  | Except that development may be located within the Minimum Assured Development Area, as determined through the use of the procedures and criteria established in Chapter 4.11- Minimum Assured Development Area, with an additional allowance of 20 percent of the entire site  |
| Development in PPSV-3<br>[Hospital Douglas Fir Area - Hospital Main Campus Area, Village at Oak Creek, & Hanson Inn Area]   | Prohibited  | a) A minimum of 50% of the area within the PPSV is preserved/enhanced; and<br>b) A minimum of 25% of the site consists of preserved/enhanced Significant Vegetation in common open space tracts (or common areas) that contain natural vegetative cover;<br>2. Development may be located within the Minimum Assured Development Area, as determined through the use of the procedures and criteria established in Chapter 4.11- Minimum Assured Development Area;<br>3. Preserved upland prairie areas shall be credited as 100% canopy coverage;<br>4. Developed portions of such sites (excluding Significant Vegetation tracts) shall be landscaped to achieve a minimum of a 25% mature tree canopy coverage. Street trees and other trees required by Chapter 4.2 of this Code may be included in the determination of canopy coverage.  |
| Development in PPSV-4<br>[Crescent Valley Area & Timberhill Southeast]  | Prohibited  | Existing Significant Vegetation may be removed provided that:<br>a) A minimum of 25% of the site is placed in common open space tracts (or common areas) that contain either the natural vegetative cover or new landscaping such that a 70 percent mature tree canopy coverage is achieved.<br>b) Developed portions of such sites (excluding Significant Vegetation tracts) shall be landscaped to achieve a minimum of a 35% mature tree canopy coverage. Preserved upland prairie areas shall be credited as 100% canopy coverage. Street trees and other trees required by Chapter 4.2 of this Code may be included in the determination of canopy coverage.<br>f. For areas containing Significant Vegetation to be considered preserved, they must be treated as follows:<br>1. Preservation areas shall be clearly marked.<br>2. Existing trees shall be considered preserved only if no cutting, filling, or compaction of the soil takes place between the trunk of the tree and the perimeter of the tree's "circle of protection." |



| These provisions apply to areas of Significant Vegetation identified on the Corvallis Significant Vegetation Map. Significant Vegetation includes Highly Protected Significant Vegetation (HPSV) and Partially Protected Significant Vegetation (PPSV). |             |  |
|---|-------------|--|
| Conflicting Use   | Code Action | Comments / Mitigation  |
| <b>4.12.80- STANDARDS FOR PUBLIC AND PRIVATE ROADWAYS AND UTILITIES ON SITES CONTAINING SIGNIFICANT VEGETATION</b>  |             |  |
| a. Public and common area trails shall be developed.  | Allowed     | Consistent with the City of Corvallis Park and Recreation Facilities Plan and City of Corvallis Engineering Standards              |
| b. Public roadway and utility extensions.   | Allowed     | Consistent with adopted public facility plans and shall be developed to the minimum standards necessary to provide public services |
| <b>4.12.90- ADDITIONAL PROVISIONS</b>   |             |  |
| a. Location of recreational facilities (e.g., developed camp sites, horse arenas, barns, clubhouses) on sites containing Significant Vegetation Areas   | Prohibited  | Limited to areas outside of Significant Vegetation or within the Minimum Assured Development Area as defined in Chapter 2.15.      |
| b. Subdivisions, Land Partitions, and Property Line Adjustments that would create lots or parcels that cannot be developed in conformance with the standards contained in this chapter.   | Prohibited  | With the exception of lots created for public park purposes  |

## **Chapter 4.11 Minimum Assured Development Area (MADA)**

MADA – Minimum Assured Development Area – provisions were developed in part as a result of focus group sessions held in the spring of 2004 to identify effective zoning incentives to encourage natural resource conservation, encourage efficient land use, and to treat property owners fairly. Section 4.11.10 describes the purpose of the MADA provisions as follows:

### **Section 4.11.10 – Purposes**

*Procedures and standards for determination of Minimum Assured Development Area (MADA) and Maximum Encroachment Area (MEA) are established in this chapter to accomplish the following purposes:*

- a. Provide protection for identified significant natural resources and reduce risks associated with natural hazards as identified in Chapters 4.5, 4.12, and 4.13;*
- b. Permit efficient use of land;*
- c. Provide flexibility and innovation in site planning to allow for an appropriate level of development on sites where natural resources are located;*



- d. Establish a balanced, clear, and objective mechanism to avoid an undue burden for property owners protecting natural resources on individual properties;
- e. Minimize procedural delays and ensure due process in the review of development proposals.

Minimum Assured Development Area (MADA) provisions are applied to both residential and non-residential areas.

### Non-Residential MADA Provisions

The base MADA of a non-residential (commercial retail, office, industrial, and public) district allows for the integration of natural resource areas into the design of industrial, commercial, and public developments. For example, by protecting a portion of a significant vegetation area, an office site is buildable and trees will remain on the site for the benefit of office workers and customers. This allows the positive economic and social benefits outlined under the "full protection" option to be realized – without the negative economic and social consequences associated with this option.

Draft Chapter 4.11, Minimum Assured Development Area, provides a graduated program to ensure that each non-residential building site in Corvallis has a reasonably-sized buildable area – even if a protected natural resource area exists on a site (i.e., even if Draft Chapter 4.12 Significant Vegetation and 4.13 Riparian Corridors and Wetlands provisions apply).

The MADA for lands with non-residential zoning is calculated by multiplying the acreage of the site by the MADA percentage for each District. If a site contains multiple Development Districts, the base MADA for each District is determined, then the total base MADA equals the sum of the base MADAs of all the Districts.

**Table 4-3. Determining Minimum Assured Development Area (MADA) for Non-Residential Zones**

| District Base MADA   | Percentage Area Credits |
|--|-------------------------|
| Open Space Conservation  | 5%                      |
| Open Space Agricultural  | 10%                     |
| Shopping Area  | 45%                     |
| Shopping Area (University); Linear Commercial; Special Shopping District   | 45%                     |
| Community Shopping; Central Business Fringe  | 55%                     |
| Mixed Use Commercial; Limited Industrial; Limited Industrial – Office; Mixed Use Employment; Research Technology | 60%                     |
| General Industrial; Intensive Industrial   | 65%                     |
| Central Business District  | 80%                     |



In addition to MADA provisions, Draft Chapter 4.11 (Section 4.11.30.03-04) includes automatic non-residential adjustment incentives:

*Non-residential developments may utilize up to a 15% reduction in the development standards for setback, floor area ratio, and the minimum number of parking spaces required for the Development District on which the development is located or proposed to be located.*

### Residential MADA Provisions

Draft Chapter 4.11 also provides a graduated program to ensure that each residential building site in Corvallis has a reasonably-sized buildable area – even if a protected natural resource area exists on a site (i.e., even if Draft Chapter 4.12 Significant Vegetation and 4.13 Riparian Corridors and Wetlands provisions apply). The MADA for lands with residential zoning is calculated by multiplying the acreage of the site by the Minimum Assured Development Area per acre shown in Table 4-4, below. If a site contains multiple Development Districts, the base MADA for each District is determined, then the total base MADA equals the sum of the base MADAs of all the Districts.

Many jurisdictions provide for density transfer to resolve conflicts between housing and natural resource conservation objectives. Corvallis is unusual in that its Draft MADA provisions also provide buildable land area to ensure that density transfer is effective.

**Table 4-4. Determining Minimum Assured Development Area (MADA) for Residential Zones**

| District Base MADA | Acre Area Credits in Square Feet |
|--------------------|----------------------------------|
| RS - 3.5           | 7,500 sq. ft.                    |
| RS - 5             | 15,250 sq. ft.                   |
| RS - 6             | 13,000 sq. ft.                   |
| RS - 7             | 21,800 sq. ft.                   |
| RS - 9U            | 21,800 sq. ft.                   |
| RS - 12            | 21,800 sq. ft.                   |
| RS - 12U           | 21,800 sq. ft.                   |
| RS-20              | 24,000 sq. ft.                   |

In addition to MADA provisions, Draft Chapter 4.11 (Section 4.11.30.03-04) includes automatic residential adjustment incentive:

*To avoid or minimize development on portions of sites containing Significant Natural Resources, the land uses and development standards of the next most dense residential Development District may be used.*



## Public Facilities Incentives

Chapter 4.11 also recognizes that public right-of-way dedications through natural resource areas often benefit the general public and that private property owners should not bear the full brunt of such dedication requirements:

*The Minimum Assured Development Area calculated in Section 4.11.30.03.a and Section 4.11.30.03.b may be increased above the base MADA by adding the areas determined by the provisions in "a" and "b," below:*

- a) *The area of public right-of-way dedications resulting from a required width in excess of the width needed for a local street, provided the required street is identified in the Corvallis Transportation Plan; and*
- b) *The area of wetland mitigation that is required by the Division of State Lands and/or the U.S. Army Corps of Engineers when infrastructure must be extended through a wetland. The area credited shall be based upon the written requirements of the associated permit approval of the Division of State Lands and/or the U.S. Army Corps of Engineers, whichever is greater.*

Taken together, MADA provisions are extremely effective in (a) ensuring an adequate supply of buildable land for employment and residential purposes, and (b) ensuring that protected natural areas receive some protection, while (c) allowing for integration of natural resource areas into the overall project design. The result of the MADA is to increase substantially positive economic, social, and energy consequences, while limiting adverse environmental consequences.

## Conclusion

Corvallis has 16 Natural Resource Areas that are composed of a mosaic of significant natural resource polygons. There are three types of significant natural resources: riparian corridors, locally-significant wetlands (LSW), and significant vegetation. Corvallis has also mapped five types of severe natural hazard areas (The 0.2-foot floodway for all local streams and rivers within the UGB; the 100-year floodplains for all local streams within the UGB and for all rivers within the Urban Fringe; Slopes  $\geq 35\%$ ; wildfire hazard areas without City water – 4<sup>th</sup> Water Level; and mapped landslide and earthquake hazard areas).

The ESEE analysis concluded that some polygons (or portions of polygons) within each NRA should not receive Goal 5 protection. Significant vegetation areas that overlap with natural hazard areas are more likely to receive Goal 5 protection through the ESEE analysis process than those that do not overlap.

Two base zones, three overlay zones, and MADA incentive zoning are proposed to limit conflicting uses and encourage resource conservation in the remaining significant natural resource areas. The primary Goal 5 natural resource protection measures are found in draft



Chapters 4.12 - Significant Vegetation Protection Provisions and 4.13 - Riparian Corridors And Wetlands Provisions.

The two remaining chapters of this ESEE analysis consider economic, social, environmental, and energy consequences of the Limited Protection Program, as well as the "full resource protection" and "no resource protection" decision options. Chapter 5 considers ESEE consequences within the Corvallis urban growth areas (City Limits plus Urban Fringe) within the context of the all the Statewide Planning Goals. Chapter 6 explains *why* Corvallis and Benton County decision-makers decided to apply limited protection to each of 16 natural resource sites or Natural Resource Areas (NRA). As discussed above, the decision not to apply either Chapter 4.12 or Chapter 4.13 provisions to some significant natural resource subpolygons within a significant NRA is a limited protection decision.

