



Community Development
Planning Division
501 SW Madison Avenue
Corvallis, OR 97333

**CORVALLIS CITY COUNCIL
NOTICE OF DISPOSITION**

ORDER #2004-162

CASE: **Portion of Natural Features Project Implementation**
Portion of Case #CPAO4-00003 - Economic, Social, Environmental, and Energy Consequences Analysis (ESEE Analysis) of the Natural Features Project Implementation (Comprehensive Plan and Land Development Code Map and Text Amendments associated with this case are addressed by Orders 2004-161 through 2004-174.)

REQUEST: Adoption of the complete Corvallis ESEE Analysis, which is incorporated into the Comprehensive Plan Text as Article 39 and as described in attached Ordinance 2004-30, consistent with the Corvallis Comprehensive Plan and the City's Periodic Review Work Order from the Oregon Land Conservation and Development Commission (Order #001-223) Work Tasks 9, 10, and 13.

APPLICANT: City of Corvallis
PO Box 1083
Corvallis, OR 97339

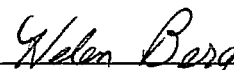
DECISION:

City Council conducted, after proper legal notice, a public hearing on November 4, 2004, November 8, 2004, and November 9, 2004, and deliberations on November 9, 2004, November 15, 2004, and November 22, 2004, concerning the proposed changes to the Corvallis Comprehensive Plan, and interested persons and the general public were given an opportunity to be heard; on December 13, 2004, the Council adopted Ordinance 2004-30 to implement its decision.

The proposal, staff report, and hearing minutes may be reviewed at the Community Development Department, Planning Division, City Hall, 501 SW Madison Avenue.

If you wish to appeal this decision, an appeal must be filed with the State Land Use Board of Appeals within 21 days from the date of the decision.

December 16, 2004
Date Signed



Mayor Helen Berg
City of Corvallis

ORDINANCE 2004 – 30

AN ORDINANCE RELATING TO A COMPREHENSIVE PLAN AMENDMENT, CREATING ARTICLE 39 (ESEE ANALYSIS), ESTABLISHING FINDINGS, AMENDING ORDINANCE 98-53, AS AMENDED, AND STATING AN EFFECTIVE DATE (PORTION OF CPA04-00003)

WHEREAS, in 1996, the City of Corvallis received notice from the Oregon Department of Land Conservation and Development to begin the “Periodic Review” of its Comprehensive Plan;

WHEREAS, the Oregon Department of Land Conservation and Development approved the City of Corvallis’ Periodic Review Work Order that included an update of the Land Development Code to implement the Comprehensive Plan;

WHEREAS, completing the entire Periodic Review Order includes updates of the Comprehensive Plan Text, the Comprehensive Plan Map, the Land Development Code, and the Land Development Code Map in a complex and integrated program that is iterative in nature and requires multiple stages to integrate initial amendments into later-stage amendments in order to fully implement all of the Comprehensive Plan Policies and the revised Comprehensive Plan Map;

WHEREAS, on June 26, 2000 the Oregon Department of Land Conservation and Development acknowledged the Corvallis Comprehensive Plan as being consistent with Work Tasks 1 through 8, while also requiring the City of Corvallis to complete Work Tasks 9 through 13;

WHEREAS, Work Task 2 (and an Addendum to Periodic Review Work Task 2) required evaluation and possibly updating of the Goal 5 inventories, text, and policies;

WHEREAS, Work Task 8 required incorporation of policy and map changes that result from updated facility master plans including the Stormwater Master Plan and steps to provide planning consistency and coordination with on-going projects such as the Natural Features Project and a project to implement provisions that move the City in the direction of complying with NOAA Fisheries Rules relating to the Endangered Species Act listing of salmonids in the Upper Willamette River Basin;

WHEREAS, Work Task 10 required revisions to the Comprehensive Plan Text and the Comprehensive Plan Map to incorporate updated inventories and policies;

WHEREAS, Work Task 13 required completion of the requirements associated with the implementation of Statewide Planning 2004, 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources;

WHEREAS, Work Task 13 required the City of Corvallis to adopt a Comprehensive Plan policy that includes a schedule for completion of Work Task 13 within four years;

WHEREAS, Comprehensive Plan Policy 3.2.1 states the desired land use pattern within the Corvallis Urban Growth Boundary will emphasize: A. Preservation of significant open space and natural features; B. Efficient use of land; C. Efficient use of energy and other resources; D. Compact Urban Form; E. Efficient provision of transportation and other public services; and F. Neighborhoods with a mix of uses, diversity of housing types, pedestrian scale, a defined center, and shared public areas;

WHEREAS, Comprehensive Plan Policy 4.2.1 directs the City of Corvallis to complete inventories of significant natural features within the Urban Growth Boundary;

WHEREAS, Comprehensive Plan Policy 8.2.1 directs the City of Corvallis to support a diversity in type, scale, and location of professional, industrial, and commercial activities to maintain a low unemployment rate and to promote diversification of the local economy;

WHEREAS, Comprehensive Plan Policy 8.9.1 directs the City of Corvallis to designate appropriate and sufficient land in a variety of parcel sizes and locations to fulfill the community's industrial needs;

WHEREAS, Comprehensive Plan Policy 9.3.1 directs the City of Corvallis to work together with Benton County to assure that adequate urbanizable land is available to meet housing needs during the planning period and to prevent development patterns that preclude future urbanization;

WHEREAS, Comprehensive Plan Policy 4.2.5, and interim regulations intended to satisfy Oregon Administrative Rule 660-023-100(4) were adopted with Phase II of the Land Development Code Update project; and

WHEREAS, as indicated in Comprehensive Plan Policy 4.2.5, inventories of natural features and hazards, a process for identifying significant natural features, a process to balance the impacts of protecting such features against the requirements of other Statewide Planning Goals and Rules, and amendments to the Land Development Code to implement those items are to be completed by December, 2004;

WHEREAS, Oregon Statewide Goal 5 requires local governments to inventory and protect natural resources such as wetlands, riparian corridors, and wildlife habitat;

WHEREAS, the City of Corvallis has completed the Natural Features Inventory, the List of Locally Significant Wetlands (included in the Natural Features Inventory), and the Local Wetlands Inventory Map as directed by Comprehensive Plan Policies 4.2.1, 4.2.5, 4.2.3, 4.2.5, 4.6.1, 4.10.2, 4.11.4, and 4.13.1, and the supporting documents for the Natural Features Inventory, the Local Wetland Inventory Map, and the List of Locally Significant Wetlands have been integrated with the Comprehensive Plan;

WHEREAS, the City of Corvallis Natural Features Project ESEE Analysis (Economic, Social, Environmental, and Energy Analysis) and the updated Buildable Lands Inventory information demonstrate the Legislative Amendment (portion of CPA04-00003) to the Comprehensive

Plan Text and the Comprehensive Plan Map provide an appropriate balance of environmental protections with providing sufficient buildable lands and efficient use of lands within the Urban Growth Boundary and further implement Comprehensive Plan policies 8.2.1, 8.9.1, 8.9.7, and 9.3.1;

WHEREAS, the Oregon Administrative Rules require either the use of "Safe Harbor" provisions or the completion of a Economic, Social, Environmental, and Energy analysis and balancing of conflicting land use needs in order to protect, partially protect, or not protect Statewide Goal 5 resources;

WHEREAS, the Periodic Review Work Order and the Comprehensive Plan Policies establish a demonstrated public need to change the Comprehensive Plan in compliance with the Oregon Administrative Rules for Goal 5;

WHEREAS, the City Council finds that using the standard Goal 5 process (requiring an ESEE Analysis) to develop a natural resource protection program specifically designed for lands within the Corvallis Urban Growth Boundary, along with a Statewide Goal analysis, is the most appropriate process to addressing the requirements of the Periodic Review Work Order and the Corvallis Comprehensive Plan Policies;

WHEREAS, the City of Corvallis Natural Features Project ESEE Analysis Report (Economic, Social, Environmental, and Energy) was completed in compliance with the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources procedures;

WHEREAS, the City of Corvallis has completed the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources and in doing so has evaluated and balanced the protection of natural features with conflicting use needs;

WHEREAS, the enactment of this Ordinance (2004-30) is subject to prior or simultaneous enactment of Ordinance 2004-29 pertaining to the adoption of the Natural Features Inventory and Ordinance;

WHEREAS, with the approval of the proposed Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text, that adopts the ESEE analysis as part of the Comprehensive Plan, the City Council will have further completed Work Tasks 2, 8, 10, and 13;

WHEREAS, the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text will not take effect until it is acknowledged by the State Department of Land Conservation and Development and implemented via a final order by the City Council;

WHEREAS, the process of getting the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text acknowledged by the State Department of Land Conservation

and Development and then implemented via a final order by the City Council will be at least a number of months beyond December 1, 2004;

WHEREAS, the Corvallis Urban Fringe Management Agreement requires joint public hearings between the City of Corvallis and Benton County officials regarding Comprehensive Plan Text Amendments for lands within the Urban Fringe;

WHEREAS, the Benton County Planning Commission participated in a joint public hearing with the Corvallis Planning Commission which was conducted, after proper legal notice, on September 9, 2004; the Benton County Planning Commission conducted deliberations on September 14, and 16, 2004; the Corvallis Planning Commission conducted deliberations on September 14, 16, 23, and 30, 2004; and the among the matters considered as part of the public hearing were the Legislative Amendment (portion of CPA04-00003) to the Corvallis Comprehensive Plan Text and the Comprehensive Plan Map and interested persons and the general public were given an opportunity to be heard. The Benton County Planning Commission has reviewed all matters presented and has provided its recommendations to the Benton County Board of Commissioners. The Corvallis Planning Commission has reviewed all matters presented and has provided its recommendations to the Corvallis City Council;

WHEREAS, the Benton County Board of Commissioners participated in a Joint Public Hearing with the Corvallis City Council on November 4, 2004, November 8, 2004, and November 9, 2004, and on November 9 and 30, 2004, voted to approve the Legislative Amendment of the Comprehensive Plan Text (portion of CPA04-00003) that adopts the ESEE Analysis into the Comprehensive Plan;

WHEREAS, the City Council conducted, after proper legal notice, a public hearing on November 4, 2004, November 8, 2004, and November 9, 2004, and deliberations on November 9, 2004, November 15, 2004, and November 22, 2004, concerning the proposed changes to the Comprehensive Plan, and interested persons and the general public were given an opportunity to be heard; and

WHEREAS, the complete staff report to the Corvallis City Council, dated October 21, 2004, including exhibits; and the portion of the minutes of the November 4, 2004, November 8, 2004, and November 9, 2004, public hearing and the November 9, 2004, November 15, 2004, and November 22, 2004, deliberations, containing the staff presentations and deliberations by the Council that demonstrate support for the proposed Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text are by reference incorporated herein and are hereby adopted by the Corvallis City Council;

NOW THEREFORE, THE CITY OF CORVALLIS ORDAINS AS FOLLOWS:

Section 1. Exhibit A, a detailed set of findings regarding the Comprehensive Plan Text Amendment (portion of CPA04-00003) to incorporate the ESEE Analysis as Article 39 of the Comprehensive Plan is incorporated in and made part of this Ordinance.

Section 2. Exhibit B is hereby incorporated in and made part of this Ordinance, and is hereby adopted into the Comprehensive Plan Text as new Article 39;

Section 3. Exhibit C, the complete ESEE Analysis, is hereby incorporated in and made part of this Ordinance, and is hereby adopted into the Comprehensive Plan Text as outlined in Section 2 above;

Section 4. Ordinance 98-53 as amended is hereby amended.

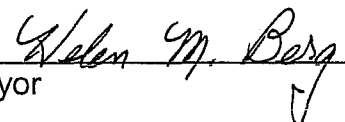
Section 5. The enactment of this Ordinance (2004-30) is subject to prior or simultaneous enactment of Ordinance 2004-29 pertaining to the adoption of the Natural Features Inventory;

Section 6. The general welfare of the public will be promoted if this Ordinance takes effect following the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period or appeals of the Council's final implementation order decision. The general welfare of the public will also be promoted if the adoption of this final implementation order by the City Council takes place following receipt by the City of acknowledgment of the revised Comprehensive Plan Map and Text by the State of Oregon Department of Land Conservation and Development, and the expiration of any lawful appeal period or appeals of the Department's decision. Therefore, implementation of the revised Comprehensive Plan Text as outlined in this Ordinance shall take effect following: the receipt by the City Community Development Department of written acknowledgment of the Comprehensive Plan Text Amendment (portion of CPA04-00003) by the State Department of Land Conservation and Development and the expiration of any lawful appeal period, or the resolution of lawful appeals pursuant to ORS 197; and the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period or lawful appeals of the Council's final implementation order decision.

PASSED by the Corvallis City Council this 13th day of December, 2004.


APPROVED by the Mayor this 16th day of December, 2004.

EFFECTIVE upon the receipt by the City Community Development Department of written acknowledgment of the Comprehensive Plan Text revisions outlined in this Ordinance by the State Department of Land Conservation and Development and the expiration of any lawful appeal period, and the resolution of lawful appeals pursuant to ORS 197; and upon the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period of lawful appeals of the Council's final implementation order decision.



Mayor

ATTEST: City Recorder



ORDINANCE EXHIBIT A

BEFORE the CITY COUNCIL

OF the CITY OF CORVALLIS

In the Matters of City Council decisions to approve a)
Comprehensive Plan Amendment (CPA) to amend)
Ordinance 98-53, as amended, by adopting Ordinance)
2004-29 pertaining to the adoption of the Natural Features) CPA04-00003
Inventory, Ordinance 2004-30 pertaining to the ESEE)
Analysis being adopted as Article 39 of the Comprehensive) FINDINGS AND
Plan text, and Ordinance 2004-31 pertaining to the main) CONCLUSIONS
portion of the Comprehensive Plan Text and Map)
Amendments.)

INTRODUCTION

These matters before the City Council are:

- I. A decision regarding an Amendment to the text of the Comprehensive Plan, to:
 - Amend the definition that applies to the Low Density Residential Comprehensive Plan Map designation to allow for a new Land Development Code District designation of Extra-Low Density Residential (RS-1; 0.5-2 units/acre) in specific locations within the Corvallis Urban Growth Boundary;
 - Define the two new Comprehensive Plan Map overlays for Natural Resources and Natural Hazards.
 - Define other Comprehensive Plan Map designations that were inadvertently left out of Article 40 when the Comprehensive Plan Map was adopted in 1998;
 - Modify Section 4.14 *Supporting Documents* in Article 4 to include the new mapping and data generated through the Natural Features Project, including the adoption of the Local Wetlands Inventory (LWI) Map; this map from the Local Wetlands Inventory would replace the National Wetlands Inventory Map for use in identifying jurisdictional wetlands for federal, state, and local permit reviews; and
 - Adopt as a new Article 39 the analysis of the economic, social, environment, and energy consequences (ESEE Analysis) required by Statewide Planning Goal 5.

Remainder of Findings
may be viewed as
Ordinance Exhibit A
from Ordinance 2004-29

EXHIBIT B

Article 39. Economic, Social, Environmental, and Energy (ESEE) Analysis

39.1 - Findings

- 39.1.a In 1996, the City of Corvallis received notice from the Oregon Department of Land Conservation and Development to begin the "Periodic Review" of its Comprehensive Plan.
- 39.1.b The Oregon Department of Land Conservation and Development approved the City of Corvallis' Periodic Review Work Order that included an update of the Land Development Code to implement the Comprehensive Plan.
- 39.1.c Completing the entire Periodic Review Order includes updates of the Comprehensive Plan Text, the Comprehensive Plan Map, the Land Development Code, and the Land Development Code Map in a complex and integrated program that is iterative in nature and requires multiple stages to integrate initial amendments into later-stage amendments in order to fully implement all of the Comprehensive Plan Policies and the revised Comprehensive Plan Map.
- 39.1.d On June 26, 2000 the Oregon Department of Land Conservation and Development acknowledged the Corvallis Comprehensive Plan as being consistent with Work Tasks 1 through 8, while also requiring the City of Corvallis to complete Work Tasks 9 through 13.
- 39.1.e Work Task 2 (and an Addendum to Periodic Review Work Task 2) required evaluation and possibly updating of the Goal 5 inventories, text, and policies.
- 39.1.f Work Task 8 required incorporation of policy and map changes that result from updated facility master plans including the Stormwater Master Plan and steps to provide planning consistency and coordination with on-going projects such as the Natural Features Project and a project to implement provisions that move the City in the direction of complying with NOAA Fisheries Rules relating to the Endangered Species Act listing of salmonids in the Upper Willamette River Basin.
- 39.1.g Work Task 10 required revisions to the Comprehensive Plan Text and the Comprehensive Plan Map to incorporate updated inventories and policies.
- 39.1.h Work Task 13 required completion of the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources.
- 39.1.i Work Task 13 required the City of Corvallis to adopt a Comprehensive Plan policy that includes a schedule for completion of Work Task 13 within four years.

- 39.1.j Comprehensive Plan Policy 3.2.1 states the desired land use pattern within the Corvallis Urban Growth Boundary will emphasize: A. Preservation of significant open space and natural features; B. Efficient use of land; C. Efficient use of energy and other resources; D. Compact Urban Form; E. Efficient provision of transportation and other public services; and F. Neighborhoods with a mix of uses, diversity of housing types, pedestrian scale, a defined center, and shared public areas.
- 39.1.k Comprehensive Plan Policy 4.2.1 directs the City of Corvallis to complete inventories of significant natural features within the Urban Growth Boundary.
- 39.1.l Comprehensive Plan Policy 8.2.1 directs the City of Corvallis to support a diversity in type, scale, and location of professional, industrial, and commercial activities to maintain a low unemployment rate and to promote diversification of the local economy.
- 39.1.m Comprehensive Plan Policy 8.9.1 directs the City of Corvallis to designate appropriate and sufficient land in a variety of parcel sizes and locations to fulfill the community's industrial needs.
- 39.1.n Comprehensive Plan Policy 9.3.1 directs the City of Corvallis to work together with Benton County to assure that adequate urbanizable land is available to meet housing needs during the planning period and to prevent development patterns that preclude future urbanization.
- 39.1.o Comprehensive Plan Policy 4.2.5, and interim regulations intended to satisfy Oregon Administrative Rule 660-023-100(4) were adopted with Phase II of the Land Development Code Update project.
- 39.1.p As indicated in Comprehensive Plan Policy 4.2.5, inventories of natural features and hazards, a process for identifying significant natural features, a process to balance the impacts of protecting such features against the requirements of other Statewide Planning Goals and Rules, and amendments to the Land Development Code to implement those items are to be completed by December, 2004.
- 39.1.q Oregon Statewide Goal 5 requires local governments to inventory and protect natural resources such as wetlands, riparian corridors, and wildlife habitat.
- 39.1.r The City of Corvallis has completed the Natural Features Inventory, the List of Locally Significant Wetlands (included in the Natural Features Inventory), and the Local Wetlands Inventory Map as directed by Comprehensive Plan Policies 4.2.1, 4.2.5, 4.2.3, 4.2.5, 4.6.1, 4.10.2, 4.11.4, and 4.13.1, and the supporting documents for the Natural Features Inventory, the Local Wetland Inventory Map, and the List of Locally Significant Wetlands have been integrated with the Comprehensive Plan.
- 39.1.s The City of Corvallis Natural Features Project ESEE Analysis (Economic, Social, Environmental, and Energy Analysis) and the updated Buildable Lands Inventory information demonstrate that the Comprehensive Plan Text and the Comprehensive Plan Map provide an appropriate balance of environmental

protections with providing sufficient buildable lands and efficient use of lands within the Urban Growth Boundary and further implement Comprehensive Plan policies 8.2.1, 8.9.1, 8.9.7, and 9.3.1.

- 39.1.t The Oregon Administrative Rules require either the use of “Safe Harbor” provisions or the completion of a Economic, Social, Environmental, and Energy analysis and balancing of conflicting land use needs in order to protect, partially protect, or not protect Statewide Goal 5 resources.
- 39.1.u The Periodic Review Work Order and the Comprehensive Plan Policies established a demonstrated public need to change the Comprehensive Plan in compliance with the Oregon Administrative Rules for Goal 5.
- 39.1.v Using the standard Goal 5 process (requiring an ESEE Analysis) to develop a natural resource protection program specifically designed for lands within the Corvallis Urban Growth Boundary, along with a Statewide Goal analysis, is the most appropriate process to addressing the requirements of the Periodic Review Work Order and the Corvallis Comprehensive Plan Policies.
- 39.1.w The City of Corvallis Natural Features Project ESEE Analysis Report (Economic, Social, Environmental, and Energy) was completed in compliance with the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources procedures.
- 39.1.x The City of Corvallis has completed the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources and in doing so has evaluated and balanced the protection of natural features with conflicting use needs.
- 39.1.y The enactment of the ordinance pertaining to the ESEE Analysis was subject to prior or simultaneous enactment of the ordinance pertaining to the adoption of the Natural Features Inventory and Ordinance; acknowledgment by the State Department of Land Conservation and Development; and implementation via a final order by the City Council.
- 39.1.z The adoption of the ESEE analysis into the Comprehensive Plan demonstrates further completion of Work Tasks 2, 8, 10, and 13.
- 39.1.aa The Corvallis Urban Fringe Management Agreement requires joint public hearings between the City of Corvallis and Benton County officials regarding Comprehensive Plan Text Amendments for lands within the Urban Fringe.
- 39.1.bb The Benton County Planning Commission participated in a joint public hearing with the Corvallis Planning Commission which was conducted, after proper legal notice, on September 9, 2004; the Benton County Planning Commission conducted deliberations on September 14, and 16, 2004; the Corvallis Planning Commission conducted deliberations on September 14, 16, 23, and 30, 2004; and the among the matters considered as part of the public hearing were the Legislative Amendment (portion of CPA04-00003) to the Corvallis

Comprehensive Plan Text adopting the ESEE Analysis and interested persons and the general public were given an opportunity to be heard. The Benton County Planning Commission reviewed all matters presented and provided its recommendations to the Benton County Board of Commissioners. The Corvallis Planning Commission reviewed all matters presented and provided its recommendations to the Corvallis City Council.

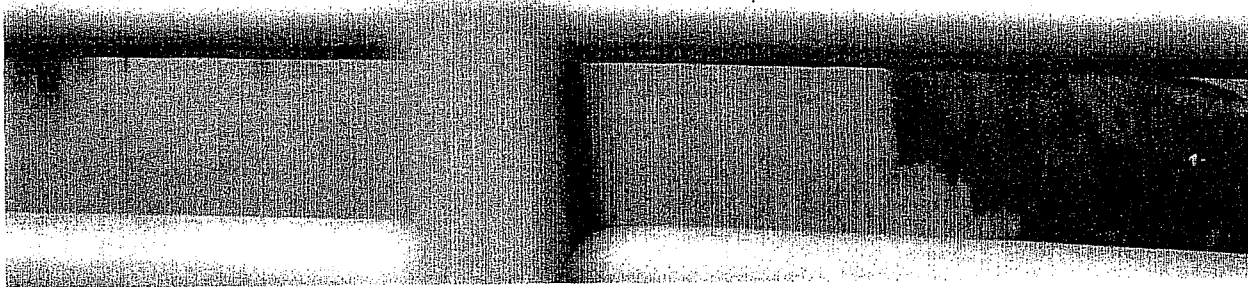
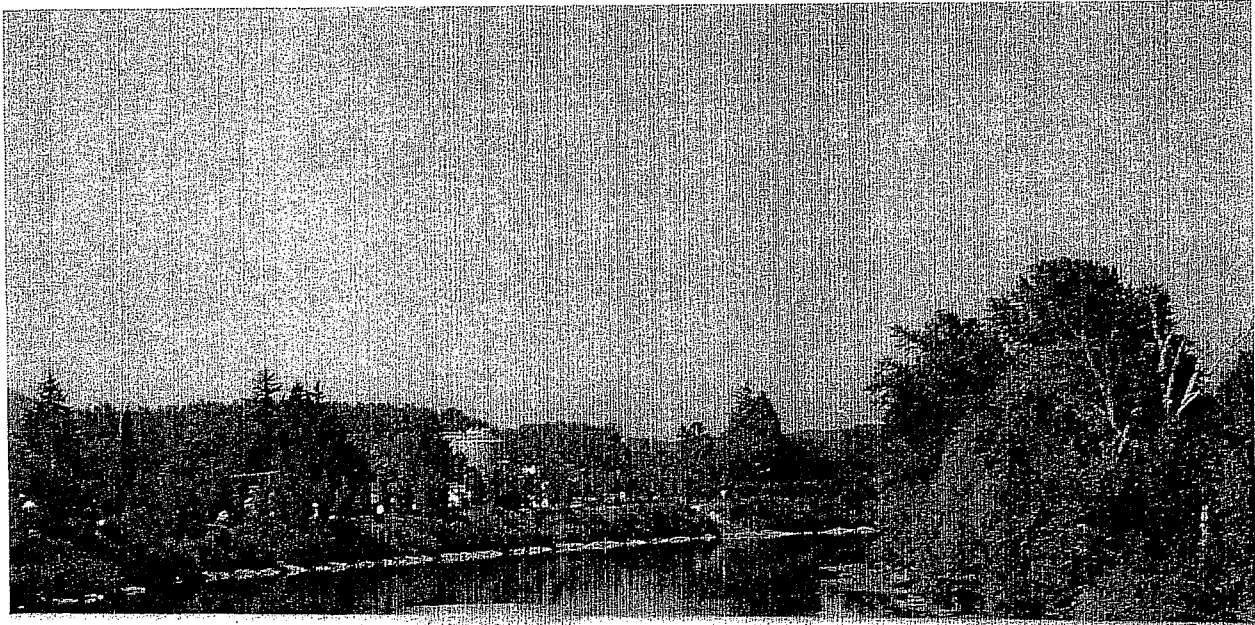
- 39.1.cc The Benton County Board of Commissioners participated in a Joint Public Hearing with the Corvallis City Council on November 4, 2004, November 8, 2004, and November 9, 2004, and on November 9 and 30, 2004 voted to approve the Legislative Amendment of the Comprehensive Plan Text (portion of CPA04-00003) that adopted the ESEE Analysis into the Comprehensive Plan.
- 39.1.dd The City Council conducted, after proper legal notice, a public hearing on November 4, 2004, November 8, 2004 and November 9, 2004, and deliberations on November 9, 2004, November 15, 2004, and November 22, 2004, concerning the proposed changes to the Comprehensive Plan, and interested persons and the general public were given an opportunity to be heard.
- 39.1.ee The complete staff report to the Corvallis City Council, dated October 21, 2004, including exhibits; and the portion of the minutes of the November 4, 2004, November 8, 2004, and November 9, 2004 public hearing and the November 9, 2004, November 15, 2004, and November 22, 2004 deliberations, containing the staff presentations and deliberations by the Council that demonstrate support for the proposed Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text were adopted by the Corvallis City Council.

39.1 - Policy

- 39.1.1** The Corvallis Economic, Social, Environmental, and Energy (ESEE) Analysis, dated December 6, 2004, is hereby incorporated into and made part of this Comprehensive Plan. The full ESEE Analysis, including text and maps, may be viewed at the City of Corvallis Planning Division Office.

Exhibit C
ESEE ANALYSIS

Goal 5 ESEE Analyses Corvallis Natural Features Project



Prepared by



COMMUNITY
RESOURCE
PLANNING

Winterbrook Planning
December 6, 2004

Chapter 1 Introduction

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- Map A: Significant Goal 5 Natural Resource Areas (NRAs) (Scenario C)**
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- Map C: Significant Goal 5 Natural Resource Areas (NRAs) With Proposed Natural Features Protection Designations**



Introduction

The Corvallis Natural Features Project considers two basic types of natural features located within the Corvallis Urban Growth Boundary (UGB):

- (1) Statewide Planning Goal 7, Natural Hazards (Goal 7) – including flooding, slope instability, earthquakes and wildfire hazards; and
- (2) Statewide Planning Goal 5, Natural Resources (Goal 5) – including wetlands, riparian corridors and Significant Vegetation. These three types of Goal 5 resources are mapped in 16 Natural Resource Analysis Areas (NRAs).

Although there is a strong relationship between Goal 7 and Goal 5 areas, these Goals have distinct procedural requirements. Goal 7 requirements are straightforward because the primary purpose of Goal 7 is to protect human life and property from natural hazards. Goal 5 is more complex and has exacting procedural requirements.

Goal 5 and its implementing rule set forth a conflict resolution process, where the sometimes-competing objectives of efficient urban (or interim rural) development are balanced against conservation of significant natural resources. Goal 5, like the Corvallis Comprehensive Plan, requires that the economic, social, environmental, and energy conservation consequences of alternative courses of action be considered *before* a decision is made regarding the level of protection appropriate for significant natural resource sites.

This is a joint Benton County and City of Corvallis project. This is because it affects properties in the City and properties in the remainder of the Urban Growth Boundary (the Urban Fringe) that are under Benton County jurisdiction. Intensive coordination among City and County staff, planning commissions, and elected officials has resulted in a Draft Preferred Land Use Alternative that recognizes the varied perspectives of Corvallis property owners, developers, business owners, residents, and conservation groups.

Purpose and Organization of this Report

This report addresses Goal 5 requirements for protection of natural resources in the following chapters:

- **Chapter 1** describes the background of the Natural Features Program and Statewide Planning Goal 5 requirements. Chapter 1 also explains how the City of Corvallis and Benton County have coordinated their efforts to resolve conflicts between significant natural resources and the urban and rural uses permitted by zoning.
- **Chapter 2** describes how Corvallis and Benton County determined the local significance of each Goal 5 resource sub-site or “polygon.” Significant polygons



include wetlands, riparian corridor reaches, and vegetation cover types (polygons within wildlife habitat assessment areas and tree groves). Recognizing that development impacts may extend beyond a resource site itself, Chapter 2 also defines "impact areas" for each resource category.

- **Chapter 3** identifies urban and uses and activities that conflict with the full protection of significant natural resource sites. Site development activities (vegetation removal and excavation) are the primary conflicting activities that typically precede conflicting urban development. Public facilities such as parks, schools, utilities, trails and roads also conflict with full protection of significant natural resource sites. This report does not address interim rural uses and activities – such as farm and forest practices – that may also conflict with natural resource conservation. Benton County will prepare a complementary ESEE Analysis to address such rural conflicts.
- **Chapter 4** describes the Corvallis – Benton County Limited Protection Program (i.e., the Draft Preferred Scenario). This program is designed to achieve *balance* between natural resource conservation and efficient urban development. The Draft Preferred Scenario assigns different levels of protection appropriate to the level of significance of a given resource category. This approach avoids the extremes of full resource protection and unrestricted urban development, and recognizes that natural resources within Corvallis UGB are part of a much larger system of rural natural farm and forest resources that extend into Benton County. Benton County and Corvallis decision-makers modified the Limited Protection Program in response to public comments, as documented in Appendix A and as considered in Chapters 4, 5 and 6 of this ESEE Analysis.
- **Chapter 5** analyzes the economic, social, environmental, and energy (ESEE) consequences of three decision options for the UGB as a whole. The ESEE analyses address the consequences of full resource protection, limited resource protection, or no resource protection. The limited resource protection alternative is based on the program outlined in Chapter 4. If changes to this program are made, these changes should be reflected in the final ESEE Analysis.
- **Chapter 6** is organized by NRA and explains why Corvallis and Benton County decision-makers chose *not* to protect all or part of certain natural resource polygons, and is organized by NRA. Chapter 6 describes how the ESEE Analysis process was applied to making the decision to allow conflicting urban or rural uses in specific areas. Chapter 6 also explains why a high level of protection was afforded certain resource polygons, while a lower level of protection was applied to others.



The Natural Features Project

The Natural Features Project provides comprehensive information about the location and condition of natural resources and hazards within the Corvallis urban growth boundary (UGB). This information is needed by the City of Corvallis, Benton County, property owners, and the general public to make decisions about land use planning. The Natural Features Project and the associated inventories respond to the requirements of the Oregon statewide planning goals, primarily Goals 5, 6, and 7, and associated administrative rules. The Natural Features Project information will be used, in conjunction with other information and with substantial public input, to implement the Corvallis 2020 Vision Statement and the Corvallis Comprehensive Plan (1998). Both the Statewide Planning Goals and the Corvallis Comprehensive Plan direct the City to achieve a balance that provides a sufficient supply of buildable lands to meet the City's needs for housing and economic development, protects significant natural features, and reduces risks from natural hazards. The Oregon Department of Land Conservation and Development (DLCD) has directed the City of Corvallis to complete this work within the next several years.

Natural Features Planning Process

The Natural Features Project is a multi-year community project to inventory (systematically map and describe) and prioritize (determine the relative "significance" of) the natural features within the Corvallis UGB. The inventories are used to balance the community's need for buildable land for housing and economic development with natural resource protection and reducing risks from natural hazards. The steps necessary to achieve this work are discussed in more detail in the Introduction of the Inventory report. Briefly, the Natural Features Project has four major phases, consistent with State requirements:

Phase 1 - Scoping (completed)

The *Natural Features Scoping Project* was completed in January 2002. It determined what natural features to inventory, provided a methodological framework for conducting natural feature inventories, and established preliminary criteria for ranking each of the natural features.

Phase 2 - Inventory (February 2002 – June 2003 (completed))

The resources identified by the *Scoping Project* were inventoried. The Natural Resources Inventory Report is the inventory for the wetlands, riparian areas, wildlife habitats and tree groves. Inventories for natural hazards, including floodplains, steep slopes/hillsides, earthquake associated hazards, landslides, and alluvial fans were also compiled.

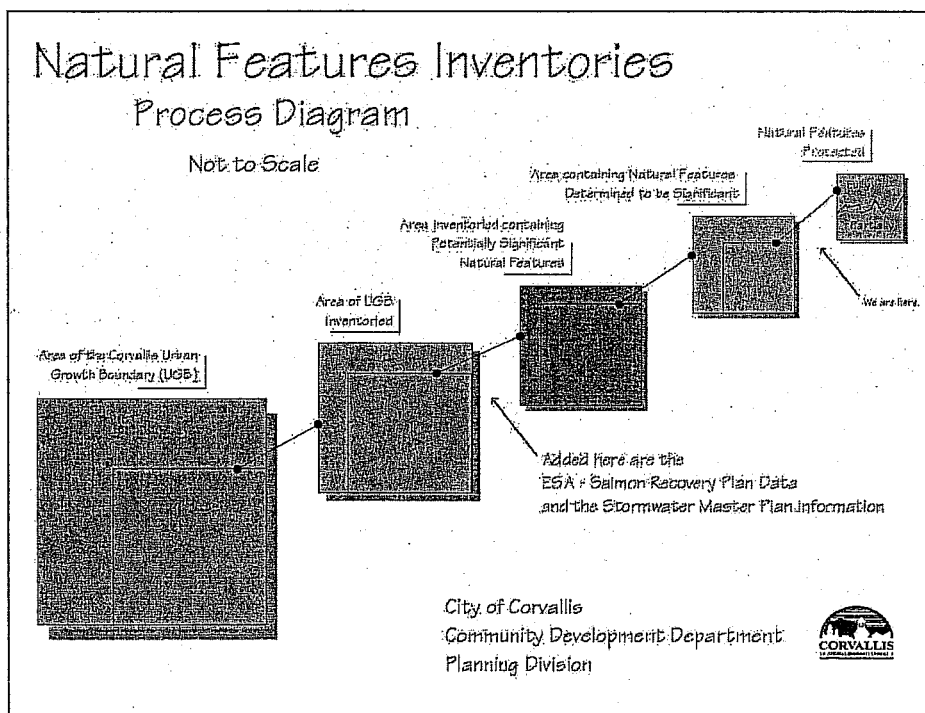


Phase 3 - Establish Priorities and Balance Needs (June 2003 – August 2004)

Not all natural features identified in the inventories were deemed significant and worthy of protection. During this stage, the community reviewed the inventory information and made decisions regarding the significance of each resource site. The community also considered the consequences of various protection programs to ensure that a balance was achieved between resource and hazard protection and providing sufficient buildable land to meet the community's needs. This report describes the analytical process used to determine the "significance" of, and "impact areas" for, inventoried Goal 5 resources. This report also includes an analysis of the economic, social, environmental and energy consequences of alternative levels of protection for significant Goal 5 resources and their respective impact areas.

Phase 4 - Developing Implementation Program (January – November 2004)

The final stage of the project is to develop a combination of incentives, education materials, and regulations to protect the significant natural features and reduce the risks associated with natural hazards. Resource protection programs include clear and objective standards in the Land Development Code and provide more certainty to property owners and the broader community regarding where development can occur, and where it will be limited.



Summary of Conclusions and Recommendations

Results of the Preliminary 2002-03 Natural Features Inventory

The Corvallis UGB includes approximately 17,965 acres. The 2002-03 Natural Features Inventory analyzed and mapped 7,921 acres as *potential* Goal 5 resource areas. The 2002-03 Natural Features Inventory considered four resource categories: wetlands, riparian corridors, wildlife habitat analysis areas (WHAs) and tree groves. Although land area within the Corvallis UGB is distributed evenly between unincorporated Benton County (9,031 acres) and Corvallis (8,934 acres), almost three-quarters (73%) of the inventoried resource area are located outside the Corvallis City Limits – within the Benton County Urban Fringe. This is expected since most of the land within the Corvallis City Limits is developed at urban densities, and most of the land within the Urban Fringe is used for agriculture or forestry, or is developed at rural residential densities.

Significance Review

From September 2003 through June 2004, Benton County and Corvallis staff, planning commissions, and elected officials reviewed the *preliminary* Natural Features Inventory to determine which of the inventoried resource polygons qualified as "significant" Goal 5 resources. Significant natural resources are divided into three over-lapping categories:

- **Locally Significant Wetlands (LSWs)** (some of which are located within riparian corridors)
- **Significant Riparian Corridors** (including LSWs and non-Locally Significant Wetlands that are found within riparian corridors)
- **Significant Vegetation** (certain vegetative cover types and subpolygons within WHA and Tree Groves that may include LSWs, but are located outside of riparian corridors)

The significance criteria for WHA were revised to focus on vegetative cover types indicated for each "subpolygon" in the WHA. (See Scenario C Map dated January 22, 2004). Certain vegetative cover types (e.g., oak savannahs and mixed forest with more than 70% canopy cover) met the significance criteria, while others did not (e.g., tall grass with scattered oak).

To facilitate analysis of significant resource polygons, the Corvallis UGB is divided into 16 Natural Resource Analysis Areas (NRA). **Map A: Significant Goal 5 Natural Resource Areas (NRAs)**, shows the *location* and *quantity* of significant Goal 5 resource areas. **Map A shows a total of 6,058 significant Goal 5 resource acres.** However, because the resource categories overlap (e.g., wetlands located within riparian corridors), the sum of the acreages within each



resource category is greater than the combined (net total) significant resource acreage. Keeping in mind this overlap, the Corvallis UGB has:

- **Locally Significant Wetland – 1,309 acres**
- **Significant Riparian Corridors – 3,779 Acres**
- **Significant Vegetation – 2,225 Acres**

Significant Riparian Corridors (which include both significant and non-significant wetlands adjacent to streams and rivers) account for 62% of the combined significant Goal 5 resource area within the Corvallis UGB. The remaining 38% is comprised of Significant Vegetation and Locally Significant Wetlands (LSWs) located outside of riparian corridors.

As a result of local significance review, Corvallis and Benton County decision-makers determined that approximately 1,863 acres of land that was mapped as part of the Natural Features Inventory did not meet significance criteria. Thus almost one-quarter (24%) of the area mapped as *potential* Goal 5 resource land (7,921 acres) was not considered for protection through the ESEE Analysis process. Significant Goal 5 land and water resource areas account for approximately one-third (34%) of the 17,965 acres encompassed by the Corvallis UGB.

The 2004 ESEE Analysis

This ESEE Analysis recommends avoidance of the two extremes represented by the "full protection" and "no protection" options and supports Corvallis' and Benton County's joint decision to protect most significant Goal 5 resources on a limited basis. The "limited protection decision" is embodied largely in the Scenario D: Draft Preferred Land Use Alternative (Preferred Scenario).

As shown on **Map C: Significant Goal 5 Natural Resource Areas (NRAs) With Proposed Natural Features Protection Designations**, the proposed limited protection program would provide *limited* protection for approximately 87% (5,249 acres) of significant natural resource areas within the Corvallis UGB. This program would provide limited protection for all mapped Significant Riparian Corridors, and for most LSW and Significant Vegetation areas. Thus, approximately 29% of the land area within the Corvallis UGB would have some level of protection.

The Preferred Scenario provides a higher level of protection for most Locally Significant Wetlands (except impacted wetlands near the Airport and several others) and most Significant Riparian Corridors within the Corvallis UGB. The ESEE Analysis demonstrates that protection of LSWs and Significant Riparian Corridors can occur with positive environmental consequences while:



- Providing adequate land for planned park and recreational needs with positive social consequences (Statewide Planning Goal 8, Recreational Needs).
- Providing suitable industrial and commercial land consistent with economic needs projections without substantial negative economic consequences (Statewide Planning Goal 9, Economy).
- Providing sufficient buildable land for each type of needed housing, consistent with the Housing Needs Analysis without negative economic or social consequences (Goal 10, Housing). The Minimum Assured Development Area (MADA) ensures that there will be no net loss of housing units as a result of the proposed protection program.
- Efficiently providing supporting sanitary sewer, water, and stormwater services without substantial negative economic, social, or energy consequences (Goal 11, Public Facilities and Services).
- Providing for an inter-connected and multi-modal transportation system that minimizes out-of-direction travel without substantial negative economic, social or energy consequences (Goals 12, Transportation, and 13, Energy Conservation).
- Maintaining a compact urban form and maximum efficiency of land use without substantial negative economic, social, or energy consequences (Goals 13, Energy Conservation, and 14, Urbanization).

The ESEE Analysis also notes the substantial contribution that protected LSWs and Significant Riparian Corridors make toward maintaining water quality (Goal 6, Air, Land and Water Resources Quality) and reducing potential impacts from natural hazards (Goal 7, Natural Hazards). However, the ESEE Analysis concludes that LSWs near the Corvallis Airport receive no local protection, because of potential adverse economic impacts on the availability of suitable industrial sites (Statewide Planning Goal 9, Economy).

The Draft Preferred Scenario as amended through the public review process also recommends "no protection" for many Significant Vegetation polygons, and recommends only a moderate level of protection for others. The ESEE Analysis recognizes that a high level of protection for *all* Significant Vegetation polygons would have the following consequences:

- Based on public comments, reduction in the economic use of private property to protect Significant Vegetation – where substantial natural hazards are not present – would have adverse social and economic consequences (Goal 1, Citizen Involvement).
- Farm and forest uses in the Urban Fringe would be unduly restricted, with adverse economic and social consequences for landowners and the resource economy (Goals 3, Agricultural Lands, and 4, Forest Lands).
- Active recreational park needs would be more difficult to meet if all Significant Vegetation were off-limits to active park development, with



adverse social consequences for area residents and adverse economic consequences for local governments.

- Park and recreational needs could be more difficult to meet in cases where developed parks are planned in forested areas. Not providing adequate land for planned park and recreational needs would have negative social and economic consequences (Statewide Planning Goal 8, Recreational Needs).
- Although the City has a surplus of buildable land for needed housing types, housing costs could increase as a result of increased infrastructure costs, with adverse social and economic consequences (Goal 10, Housing).
- The costs of efficiently providing supporting sanitary sewer, water, and stormwater services would increase substantially, with adverse economic, social, and energy consequences. (Goal 11, Public Facilities and Services and Goal 13, Energy Conservation).
- Providing for an inter-connected and multi-modal transportation system that minimizes out-of-direction travel would be more difficult, with adverse social, economic, and energy consequences (Goals 12, Transportation, and 13, Energy Conservation).
- The form of urban development would be less compact, land would be used less efficiently, and the UGB would need to be expanded sooner than planned, with adverse economic, social and energy consequences (Goals 3, Agricultural Lands, Goal 4, Forest Lands, Goal 13, Energy Conservation and Goal 14, Urbanization).

A major consideration in the ESEE Analysis was the availability of continuous tracts of forest land at higher elevations within the UGB and immediately outside the UGB (especially in the MacDonald Forest) which provide similar wildlife habitat, water quality, and scenic value to tree groves within the UGB.

Therefore, on balance, the ESEE Analysis concludes that a lower level of protection should be afforded to significant upland vegetation than to water-related resources.

Proposed Protection Program

After considering ESEE consequences, the amended Draft Preferred Scenario proposes limited protection for wetlands, riparian corridors, and Significant Vegetation outside of riparian corridors and wetlands. **This program is explained in Chapter 4.**



The Goal 5 Conflict Resolution and Decision Process

The Goal 5 inventory and conflict resolution process follows a logical analytical sequence that results in final policy decisions regarding the extent to which significant natural resource polygons within the Corvallis UGB should be protected from conflicting activities and development.

OAR 660-023-0040 summarizes the **Goal 5 conflict resolution process** as follows:

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. This rule describes four steps to be followed in conducting an ESEE Analysis, as set out in detail in sections (2) through (5) of this rule. Local governments are not required to follow these steps sequentially, and some steps anticipate a return to a previous step. However, **findings shall demonstrate that requirements under each of the steps have been met, regardless of the sequence followed by the local government. The ESEE Analysis need not be lengthy or complex, but should enable reviewers gain a clear understanding of the conflicts and the consequences to be expected.** The steps in the standard ESEE process are as follows:*

- (a) Identify conflicting uses;*
- (b) Determine the impact area;*
- (c) Analyze the ESEE consequences; and*
- (d) Develop a program to achieve Goal 5.*

Identify Conflicting Uses

The Goal 5 rule defines "conflicting uses" as follows:

(1) "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 * * *. Local governments are not required to regard agricultural practices as conflicting uses.

Most types of urban development conflict with full preservation of significant Goal 5 resources in Corvallis. There are other activities that may or may not be associated with a development project that potentially conflicts with Goal 5 resource values. Such uses include public facilities, parks, schools, and streets, all of which typically are preceded by vegetation removal and grading.



Corvallis and Benton County have developed a coordinated approach to natural resource management within the Corvallis UGB. In the case of some Crescent Valley areas (NRAs 1, 2 and 3), it may be many years before urban development can occur with City sanitary sewer, water, and storm drainage facilities. Therefore, Benton County has prepared a complementary ESEE Analysis that addresses *interim rural uses and activities*, including but not limited to:

1. Farming;
2. Forest management;
3. Rural residential development;
4. Rural public facilities and roads; and
5. Cluster development (Chapter 100).

Determine Natural Resource Impact Areas

As discussed in Chapter 2, impact areas are proposed for LSWs only. Potential impacts outside of mapped Significant Riparian Corridor and vegetation resource polygons are addressed either by (a) acknowledged Goal 6 water quality standards, or (b) by expansion of the significant resource area itself to accommodate potential adverse impacts.

ESEE Consequences To Be Considered

a. Full Resource Protection

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. Limited Resource Protection

(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, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.

As discussed in Chapter 4, the proposed "limited protection option" is the same as the amended Draft Preferred Scenario that was originally approved by the County Board of Commissioners and the Corvallis City Council in March of 2004, and revised during public review and hearing process during the summer and fall of 2004.

c. No Resource Protection

(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.

Develop (Conflict Resolution) Program to Achieve Purposes of Goal 5

The Goal 5 Rule requires that local governments follow the four steps outlined in OAR 660-023-030 (i.e., significance determination, conflicting use identification, ESEE Analysis and Goal 5 Program Decision). However, this section of the Goal 5 Rule also specifies that local governments need not necessarily follow these steps in sequence. This flexibility was built into the Goal 5 Rule in recognition of the iterative nature of the Goal 5 process. For example, the ESEE Analysis may result in more detailed information regarding the significance of a resource polygon.

One of the problems commonly faced by local governments in the ESEE process is determining *what limited protection program* to analyze. The "full protection" and "no protection" options are clear on their face. However, there is a wide range of potential "limited protection" programs. To make the ESEE Analysis process more useful, Corvallis and Benton County decision-makers have tentatively selected a fairly specific limited protection program, with the explicit understanding that this program may change as a result of the ESEE Analysis itself. An outline for this program is found in Chapter 4 of this report.



Chapter 2

Goal 5 Significance and Impact Area Determinations

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Introduction

Under the Goal 5 Rule (OAR Chapter 660, Division 23), local governments must inventory *potential* Goal 5 resources and then apply criteria to determine which resource sites are *significant* and which are not. Resource sites that do not qualify as "significant" are not subject to the ESEE decision-making process, and are not subject to local Goal 5 regulatory programs.

The Natural Features Inventory mapped and analyzed 7,921 acres of potentially significant Goal 5 resources. As a result of local significance review, Corvallis and Benton County decision-makers determined that approximately 1,863 acres of land and water resources that were mapped as part of the Natural Features Inventory did not meet significance criteria. Thus almost one-quarter (24%) of the area mapped as *potential* Goal 5 resource land (7,921 acres) was removed from the preliminary Goal 5 inventory, and will not be considered for protection through the ESEE Analysis process. Significant Goal 5 resource areas account for approximately one-third (34%) of the 17,965 acres encompassed by the Corvallis UGB.

Uses that conflict with Goal 5 resource preservation often have *impacts* that extend beyond the resource site itself. For example, significant streams may be adversely affected by development within the riparian area adjacent to but outside the banks of the stream. The Goal 5 Rule requires that *impact areas* be defined and that the ESEE Analysis consider the consequences of allowing conflicting development within the impact area as well as the resource site itself.

This chapter describes how Corvallis and Benton County decision-makers applied the Goal 5 Rule (OAR) to determine both significant resource sites and their respective impact areas. As discussed below, there are three types of significant natural resources:

1. Locally Significant Wetlands (including impact areas)
2. Riparian Corridors (including associated wetlands, riparian areas and floodplains)
3. Significant Vegetation (including tree groves and wildlife habitat vegetative subpolygons)

Natural resource polygons form the mosaics that comprise each of the 16 significant Natural Resource Analysis Areas (NRAs or resource sites). Corvallis and Benton County decision-makers decided *not* to protect portions each NRA as a result of the ESEE Analysis. (See Chapter 6 for a discussion of *why* certain significant Goal 5 polygons or resource sub-sites were removed from the Goal 5 Inventory.) Significant Natural Resource polygons that remained after the ESEE Analysis are shown on the *Protected Goal 5 Natural Resources Map*. Protected portions of each NRA appear on Corvallis Comprehensive Plan Map and Land Development Code District Map.



Significance and Impact Area Determinations

The Goal 5 Rule allows local governments to determine and apply local significance criteria for riparian corridors and Significant Vegetation, but prescribes significance criteria for wetlands. This section begins with a discussion of wetlands, and moves on to riparian corridors and Significant Vegetation.

The Goal 5 Rule and common sense require the determination of "impact areas" – or the area outside of significant resource sites where additional zoning regulation may be appropriate, in order to reduce impacts from development. The rule offers the following direction (OAR 660-023-040):

(3) Determine the impact area. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE Analysis for the identified significant resource site.

The location and extent of the impact areas for the Natural Resource Analysis Areas (NRAs) are informed by the *Natural Features Scoping Report*, but were determined ultimately by Corvallis and Benton County decision-makers. The impact area for the boundaries of each NRA depends upon the specific type of polygon located at the NRA boundary, as described below.

1. Locally Significant Wetlands (LSWs)

Wetland "significance" is determined using applicable Division of State Lands administrative rules. As noted in the Goal 5 Rule (OAR 660-023-100), both a Local Wetlands Inventory (LWI) and a Locally Significant Wetlands (LSWs) inventory must be prepared by local governments and approved by the Division of State Lands:

*(3) For areas inside urban growth boundaries (UGBs) * * *, local governments shall:*

(a) Conduct a local wetlands inventory (LWI) using the standards and procedures of OAR141-086-0110 through 141-086-0240 and adopt the LWI as part of the comprehensive plan or as a land use regulation; and
(b) Determine which wetlands on the LWI are "significant wetlands" using the criteria adopted by the Division of State Lands (DSL) pursuant to ORS 197.279(3)(b) and adopt the list of significant wetlands as part of the comprehensive plan or as a land use regulation.

Winterbrook followed these processes in preparing the Locally Significant Wetland Inventory and in identifying locally significant wetlands (LSWs). All LSWs are, by definition, are significant. LSWs comprise 1,309 acres.



The impact area for an LSW includes the 25-foot transition area that surrounds each locally significant wetland. This transition area is consistent with the margin of error built into the Locally Significant Wetland Inventory process prescribed by the Division of State Lands (DSL).¹ Since the LSW Inventory is deemed accurate to within 25 feet of the mapped boundary of the locally significant wetland, the impact area is large enough to include the wetland itself plus the 25-foot margin of error.

Wetlands that appear on the Local Wetlands Inventory (LWI) and do not meet LSW criteria, but which are located within a Riparian Analysis Area (RAA), are considered significant. Because of the relatively low quality of non-LSW wetlands, and the fact that such wetlands are only deemed significant when they are located within a Riparian Assessment Area (RAA), no impact area has been assigned (See discussion below).

2. Riparian Corridor Polygons

The methodological foundation for the riparian inventory is found in *The Natural Features Scoping Project Report*. As discussed above, the inventory was conducted within Riparian Assessment Areas (RAA), which are defined as follows:

- **The Willamette and Marys River and Streams with Braided Channels:** 200' measured horizontally from the top-of-bank of the outermost braided channel. If a locally significant wetland is located within 50 feet of the top-of-bank, the Riparian Assessment Area is measured horizontally outwards from the wetland edge.
- **Non-Braided Perennial Streams and Intermittent Streams Draining 160 Acres or more:** 200 feet measured horizontally from the top-of-bank. If a locally significant wetland is located within 50 feet of the top-of-bank, the Riparian Assessment Area is measured horizontally outwards from the wetland edge.
- **Intermittent Streams Draining from 80-160 Acres:** 150 feet from the top-of-bank.
- **Intermittent Streams Draining from 20-80 Acres:** 100 feet from the top-of-bank.
- **Intermittent Streams Draining Less than 20 Acres:** 50 feet from the top-of-bank if a discernable channel exists based on field observations.

¹ The *Oregon Freshwater Wetland Assessment Methodology* (OFWAM) was developed for the Division of State Lands (DSL) and is used to assess whether or not a wetland meets the criteria for a Locally Significant Wetland (LSW). The maps and documents produced for the LWI are intended for planning purposes and are considered by DSL to be accurate to within 25 feet. However, wetland boundaries may be adjusted based on a DSL-approved delineation at any time.



Corvallis and Benton County have determined that all streams mapped on the Natural Features Inventory (2003) are significant. As shown on Map A, Significant Riparian Corridors comprise 3,779 acres. Each stream (whether intermittent or perennial) has a numerically defined riparian area that is wide enough to address potential impacts from conflicting uses on significant streams. However, Corvallis and Benton County also determined that the riparian area beyond the stream's banks were themselves significant Goal 5 resources, and defines this integrated resource site as a *riparian corridor*.

Riparian Assessment Areas are usually much larger than the Significant Riparian Corridor. Table 2-1 shows the widths of Significant Riparian Corridors based on the drainage area of the stream. In most cases, potential impacts to the base riparian corridor are adequately addressed by Goal 6 (Water Quality) and 7 (Natural Hazard) regulations. However, where floodplain areas, wetlands, or connecting riparian vegetation are present, the riparian corridor extends beyond the base corridor distance to allow protection of these features. Thus, the riparian corridor functions as its own impact area. Because the base riparian corridor is extended to incorporate impacted areas (i.e., the base riparian corridor expands to include connecting riparian vegetation and associated floodplain and wetland areas), no purpose is served by defining a riparian corridor impact area beyond the Significant Riparian Corridor resource area as defined in Table 2-1.

Table 2-1 summarizes criteria used by Corvallis and Benton County decision-makers to define riparian corridors. As noted above, the Significant Riparian Corridor boundary is drawn widely to include the required impact areas.

Table 2-1. Significant Riparian Corridors

Riparian Corridor Category	Base Riparian Area Width from Top-of-Bank	Plus Abutting Floodplain	Plus Riparian Vegetation within RAA that Abuts Significant Upland Vegetation Polygon	Plus Non-LSW and Non-LSW Wetlands within RAA ²
Streams Draining				
Less than 20 acres	50 feet	Yes	Yes	Yes
20-160 acres	75 feet	Yes	Yes	Yes
More than 160 acres	100 feet	Yes	Yes	Yes
Rivers				
Willamette and Marys River (Mostly Undeveloped Urban Fringe)	120 feet	Yes	Yes	Yes
Willamette and Marys River (Mostly Developed City Limits)	120 feet	Yes	Yes	Yes



- ¹ The Riparian Analysis Area (RAA) is 50-200 feet from the top-of-bank. Continuous riparian vegetation that is connected to a Significant Vegetation polygon is also considered significant.
- ² Wetlands that appear on the Local Wetlands Inventory that are not Locally Significant Wetlands (LSWs), but which are located within the RAA, are considered significant elements of the riparian corridor.

For most streams, the base riparian corridor shown in Table 2-1 includes the local stream floodplain, abutting riparian vegetation and associated wetlands. Where continuous riparian vegetation extends outside the base riparian corridor and abuts a significant vegetation polygon, it is considered part of the Significant Riparian Corridor. Similarly, any wetland that appears on the LWI and is within the RAA is considered part of the Significant Riparian Corridor. Finally, in cases where the floodplain extends beyond the base riparian corridor, the floodplain boundary becomes the boundary of the Significant Riparian Corridor.

For the Willamette and Marys Rivers, the floodplain extends beyond the base riparian corridor in several areas – most notably at the confluence of the two rivers. However, riparian vegetation is less likely to extend to abutting Significant Vegetation along these rivers, and wetlands are more likely to be included within the base riparian corridor or river floodplain.

3. Significant Vegetation Polygons

Significant Vegetation, by definition, occurs outside of Significant Riparian Corridors and LSWs. As shown on Map A, Significant Vegetation covers 2,225 acres.

The Natural Features Inventory analyzes and maps two types of vegetation outside of Riparian Corridors:

1. vegetative cover within larger Wildlife Habitat Analysis Areas (WHAs); and
2. vegetative cover within Tree Groves. Tree Groves may be located within a WHA or may be isolated from a WHA.

Wildlife Habitat Areas are composed of mosaic of vegetative cover types, called "sub-polygons". Although Tree Groves are the dominant cover type in most cases, other cover types (shrub or meadow) are also found in WHAs. The WHA assessment focuses on the vegetative cover types that contribute to the overall value of the whole wildlife habitat mosaic. Each Tree Grove (vegetative cover sub-polygon) within a WHA is also assessed for its scenic and social value. *In contrast*, the Tree Grove inventory focuses primarily on the scenic and social value of each tree grove, both within and outside WHAs. Wildlife habitat value was not specifically inventoried for isolated Tree Groves (i.e., Tree Groves of one-half acre or greater located outside of WHAs.)

In most cases, the impact area for Significant Vegetation Polygons extends to the outer boundaries of the polygon, which includes the driplines of trees within Tree Groves.



Impacts to wildlife habitat functions and values are considered by creating two levels of significance: the "somewhat Significant Vegetation" category includes two types of Significant Vegetation Polygons that are valuable only in relation to Highly Significant Vegetation Polygons:

1. WHA Polygons contiguous to highly significant WHA Polygons; and
2. WHA Polygons connecting highly significant WHA Polygons.

Potential impacts to abutting Significant Riparian Corridors are considered by expanding the corridor to include riparian vegetation that abuts a highly Significant Vegetation Polygon.

Table 2-2 summarizes criteria used by Corvallis and Benton County decision-makers to define highly and somewhat Significant Vegetation polygons.

Table 2-2. Criteria for Determining Significant Vegetation Polygons

Vegetation Polygon Category	WHA Reference
Somewhat Significant Isolated Tree Groves Outside WHA	
Isolated Groves– All Cover Types	Not Applicable
Highly Significant Vegetative Polygons Within WHA	
Mixed Forest >70% Canopy Cover	
Hardwood Forest >70% Canopy Cover	
Mixed Hardwood Woodland 30-70% Canopy Cover	
Oak Savannas <30% Canopy Cover	
"Top Upland Prairies" (Salix)	
"Top Oak Savannas" (Salix)	
Old Growth Douglas Fir	
Somewhat Significant Vegetation Polygons Within WHA	
Top 25% "Current Condition" Score	
Tree Groves within WHA Scoring in Top 33%	
WHA Polygons contiguous to highly significant WHA Polygons	
WHA Polygons connecting highly significant WHA Polygons	
Grass lands - natural dry prairie	
Grass lands – tall grasses and meadow	
Emergent/herb wetland or pond	

Natural Resource Analysis Areas (NRAs)

The *Natural Features Scoping Report* (2001) recognized the *inter-relationships* that exist among different types of Goal 5 and 6 resources. For example, riparian areas and wetlands often overlap with floodplain areas, and Wildlife Habitat Areas are often associated with Corvallis' steeply-sloped and landslide-prone forested hillsides.



The NFTAC *Scoping Report* also recognized the importance of integrated management of the City's three types of Goal 5 resources: Locally Significant Wetlands, Significant Riparian Corridors, and Significant Vegetation. This integration is reflected in the City's inventory methods. For example, the importance of water to wildlife habitat is recognized by assigning higher scores to WHAs with wetlands and streams. Tree Groves within WHAs are ranked for both aesthetic and wildlife habitat value, whereas Tree Groves outside WHAs (isolated groves) are ranked primarily for their scenic value.

Because these and many other functional inter-relationships exist and are documented in the *Natural Features Inventory*, individual resource subpolygons are grouped into 16 integrated Goal 5 Natural Resource Analysis Areas (NRAs). Only those subpolygons that have been determined to be *significant* are included in an NRA. For example, a vegetative cover type that does meet significance criteria will not be incorporated into an NRA and will not be further reviewed through the Goal 5 ESEE process.

Each NRA includes a complex of natural features that will be considered as a "contiguous resource site" or "isolated resource site" in the Goal 5 ESEE Analysis. To determine the NRA boundaries, we generally applied the following criteria:

1. The Urban Growth Area has been divided into three geographic subareas: North, Central and South. The North Subarea includes NRAs 1-3 and is generally north of Chip Ross Park. The Central Subarea includes 11 NRAs. The South Subarea, which includes two NRAs, is separated by Marys River from the Central Subarea. The prefaces N, C or S denote the subarea where the NRA is located.
2. Wildlife Habitat Assessment Areas (WHAs) are most common in higher elevation, forested hillsides at the outer edges of the Urban Fringe. The 1983 Corvallis Comprehensive Plan refers to this ring of hills and uplands as the "Emerald Necklace." The size of several significant WHAs has been reduced through the initial ESEE Analysis process leading to acceptance of the Draft Preferred Scenario. Therefore, WHAs helped to determine NRA boundaries in North and West Central Corvallis.
3. Primary Roads were used to define and separate NRAs in several instances at the mid- to lower elevations. Roads are often located at the base of hills and/or create a recognized landmark to aid citizens in locating NRAs.
4. Rivers were used at lower elevation to separate several NRAs. The Willamette River actually forms most of the eastern UGB, and Marys River separates the two southern NRAs from Central Corvallis NRAs.
5. Drainage basins were used to determine NRAs at mid- and lower elevations; streams and wetlands that drain to them are the most significant natural features. WHAs are less numerous and smaller at mid- to low-elevations and are less useful in determining NRA boundaries.



The NRAs are divided into three categories based on their proximity to the City Limits.

- Five NRAs are located entirely or mostly outside the City Limits (Chip Ross - Vineyard Mountain, Jackson Frazier, Lewisburg, Bald Hill, and Airport).
- Seven NRAs are split more or less evenly by the City Limits (Walnut Park, Sequoia Creek, Oak Creek, West Hills, Dunawi Creek, County Club, and Confluence). However, most of the natural features in these NRAs are located within the Urban Fringe.
- Only four NRAs are within or mostly within the Corvallis City Limits (Timberhill, Dixon Creek, Village Green, and Riverfront Central).

These figures support what is evident from reviewing the Natural Features Inventory Maps: most of the natural features are located outside the City Limits, where urban development has not yet occurred.



Chapter 3

Goal 5 Conflicting Use Identification

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Goal 5 Rule Requirements

Once the inventory has been completed and the significance of each "resource site" determined, the next step in the Goal 5 process is to identify conflicting uses and activities that typically are regulated by City or County zoning. The Goal 5 Rule (OAR 660-23-010) defines conflicting uses as follows:

(1) "Conflicting use" is a land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal5 resource (except as provided in OAR 660-023-0180(1)(b)). Local governments are not required to regard agricultural practices as conflicting uses.

In an urban area, there are many examples of conflicting uses that typically are not regulated by zoning, but could adversely affect a Goal 5 resource. For example, air pollution can adversely affect aquatic vegetation, but is typically not regulated by local zoning. City zoning regulations typically regulate where and how urban development may (or may not) occur on a specific site.

Urban development is broadly defined, and includes a wide range of land uses (residential, commercial, industrial, parks and schools, streets and public facilities) and activities (vegetation removal, grading, construction) that may or may not be directly associated with a specific land use. For example, vegetation removal often occurs at the time of building construction, but may occur independently.

The Goal 5 Administrative Rule describes how conflicting uses are identified:

*(2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, **local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area.** Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses: (a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. [Emphases added.]*

This chapter identifies land uses and activities that conflict with the preservation of Goal 5 resource values. The conflicts are based primarily on the applicable zoning within the City Limits, and on the applicable comprehensive plan designation within the Urban Fringe. Within the Corvallis City Limits, urban land uses are allowed outright and conditionally, subject to City land use review procedures. Within the City Limits, conflicting uses are determined after



considering underlying urban zoning districts and the applicable natural hazard protection overlay zone. Within the Urban Fringe (outside the City Limits), there is no urban zoning. Therefore, this ESEE Analysis relies on Comprehensive Plan designations to determine conflicting uses within the Urban Fringe.

Interim Uses in the Urban Fringe

Urban Fringe areas (i.e., those unincorporated areas within the Corvallis UGB but outside the Corvallis City Limits) are subject to County zoning – in most cases Benton County Rural Residential zoning (UR-5, UR-10, and UR-50 referring to minimum lot sizes in acres). In most cases, Urban Fringe areas within the Corvallis UGB are zoned UR-5, or one house per five acres. The Urban Residential zone is intended as a holding zone, until such time as land is annexed to the City, and allows farm and forest management uses outright. In this sense, the urban fringe zoning allows *interim* development.

Benton County is conducting a separate but complementary ESEE Analysis that considers the consequences of *interim* land uses and activities allowed by County zoning districts.

Balancing of Conflicting Uses and Resource Conservation

The Corvallis Comprehensive Plan calls for the balancing of resource preservation and land development objectives by assigning a combination of urban development zones and resource protection overlay zones to annexed properties. The Natural Features Project is intended to *objectify* this process by determining precisely which Urban Fringe areas will be subject to resource protection overlay zones in the future. This process will provide greater *certainty* in the development process, because each property owner will know in advance the development capacity of his or her property, based on clear and objective land use review standards. As discussed further below, resource protection overlay zones may be based on Goal 5 (Natural Resource Protection) or Goal 7 (Natural Hazard Protection).

As part of the Natural Features process, Corvallis will first be applying a Goal 7 (Natural Hazards Protection) overlay zone. Generally, this overlay zone will combine to assure that conflicting development and land use activities are prohibited or stringently limited within steeply-sloped areas, landslide and earthquake hazard areas, and floodplain areas. In many cases, these mapped natural hazard areas overlap with Goal 5 resource sites. The Benton County ESEE Analysis will address conflicting uses allowed by *interim* County zoning that will not be allowed once land is annexed to the City of Corvallis.

Conclusion

The primary means of identifying conflicting uses is by consulting the local zoning and land division ordinance. Corvallis combines these two types of regulatory documents into the *Corvallis Land Development Code* (CLDC). The Goal 5 Rule recognizes that “acknowledged policies and regulations may be considered sufficient to protect the resource site.” As discussed below, the CLDC *already* prohibits or limits a wide range of land uses and activities that could otherwise conflict with significant Goal 5 resources.



Existing and Proposed Goal 7 Regulations That Limit Conflicting Uses

The *Corvallis Land Development Code* (CLDC) includes Natural Hazard regulations (revised 2004) that prohibit most types of conflicting development and land use activities within significant portions of significant natural resource polygons. These regulations will be included in the revised Chapter 4.5 – Natural Hazard and Hillside Development Provisions. The relationship of Chapter 4.5 to the ESEE analysis is discussed in Chapter 5, ESEE Analysis for Urban Growth Area.

Methods for Identifying Conflicting Uses

1. Primary Corvallis Development Districts (Zoning) - Uses

The primary means of identifying conflicting uses is to first determine what zone or zones (including overlay districts) apply to a particular resource site, and then to identify uses and activities that are allowed by the zoning and that conflict with full protection of inventoried resource values.

Corvallis's base zones are organized into six basic categories:

- **Low Density Residential (LDR)**, including the RS-3.5, RS-5, and RS-6 zones. In each case, the suffix refers to the average number of units likely to be developed in each residential acre in the zone. Residential development in these zones is typically allowed through the land division and planned development processes, or through building permit review for individual lots. These zones also allow public and semi-public uses, such as parks and schools, through the conditional use process. These zones also allow streets and public facilities necessary to serve development. Vegetation removal and excavation necessary for construction are also allowed.

ESEE consequences for residential development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 10 (Housing).

Medium, Medium-High, and High Density Residential (M-HDR), including RS-9, RS9U, RS-12, RS-12U, and RS 20. The suffix in these cases refers to the average or minimum number of units to be developed in each district. Residential development in these zones is typically allowed through the land division and planned development processes, or through building permit review for individual lots. Like the Low Density Residential zones, Medium Density Residential zones allow public and semi-public uses through the conditional use process. These zones also allow streets and public

facilities necessary to serve development, and vegetation removal and excavation necessary for construction.

ESEE consequences for residential development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 10 (Housing).

Mixed Use Zones (MU), including the MUE, and MUC zones. The mixed use zones allow varying intensities of industrial, commercial, and residential uses. Large-scale commercial and industrial development and public facilities are allowed through the conditional use process. Mixed use zones include open space requirements and preservation of healthy, mature trees to the extent practicable. Vegetation removal and grading are allowed as part of the construction process.

ESEE consequences for residential development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goals 9 and 10, (Economy and Housing).

- **Industrial, Commercial and Office (IND-CO)**, including the LI, GI, II, LC, RTC (Overlay), P-AO, SA, SA(U), SSD, RSC, CS, LC, CB, and the CBF zones allow industrial uses and varying intensities of office and commercial uses primarily through the building permit review process, although land divisions and conditional development or planned developments may also be used. Like the residential and commercial zones, streets, public facilities, vegetation removal and grading are allowed as part of the construction process.

ESEE consequences for industrial, commercial and office development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 9 (Economy).

- **Oregon State University (OSU)**, the OSU zones supports and protects lands occupied and used by Oregon State University. This zone allows a wide range of institutional uses, ranging from agriculture to campus buildings.

ESEE consequences for institutional uses are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 11 (Public Facilities).



- **Open Space (OS)**, including the AG-OS zone. The AG-OS zone is applied to agricultural lands (including OSU agricultural research lands), private recreational open spaces (such as golf courses), and developed public parks (including ball fields, parking areas, buildings).

ESEE consequences for park and open space development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 8 (Recreational Needs).

3. Public Facilities

a. Comprehensive Plan

The Corvallis Comprehensive Plan identifies the general land use pattern and resulting needs for public services and utilities. Public facilities that are located within a resource site or its respective impact area are considered conflicting uses. Vegetation removal and grading often accompany public facilities construction, and are also considered conflicting uses.

b. Facility Master Plans

Facilities plans identify the location, timing, and costs of public street, sanitary sewer, storm water, and water facilities necessary to serve existing and anticipated development within the Corvallis planning areas. These master plans provide additional sources of information for potential public facilities-related conflicting uses and activities.

The Stormwater Master Plan was revised in 2002. Many provisions of the updated master plan have the effect of reducing temperature, erosion, and sedimentation impacts on water (wetland and riparian corridor) resources and offer a variety of "green" solutions to urban storm water management problems. Thus, the storm water master plan provides a source of both conflicting uses and activities on the one hand, and measures that limit the impacts from other conflicting uses and activities (residential, commercial, industrial, parks and schools, and public facilities) on the other.

c. Transportation Systems Plans

Street construction and expansion often conflict with resource conservation in urban areas. The Corvallis TSP identifies existing and proposed street locations, making it possible to identify specific street projects that conflict with full protection of significant Natural Resource Analysis Areas.

d. Capital Improvements Program

The City's 5-year capital improvements program sets priorities and refines funding sources for planned public facilities. It is the short-term element of each of the public facilities plans.



ESEE consequences for public facilities, including transportation development, are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goals 11-14 (Public Facilities, Transportation, Energy Conservation and Urbanization).

4. Park and School Conflicts

a. Parks and Recreation Master Plan

The Corvallis Parks and Recreation Facilities Plan (2000) identifies planned park and recreational improvements to be placed on publicly owned land. Where Natural Resource Analysis Areas are identified on land acquired for park purposes, these sites often have been preserved through the park master planning process. Minor conflicting uses include trails and passive recreational use. Major conflicting uses include park buildings, parking lots, and athletic fields.

ESEE consequences for park and open space development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 8 (Recreational Needs).

b. School Master Plan

The Corvallis School Facilities Master Plan (Corvallis School District Long Range Facilities Master Plan, Corvallis School District 509J, June, 24, 2002) also identifies school facilities and potential expansion areas that could conflict with significant Natural Resource Analysis Area preservation within the Corvallis planning area.

ESEE consequences for school development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 9 (Public Facilities).

5. Vegetation Removal, Grading and Construction of Impervious Surfaces

Although Corvallis Comprehensive Plan designations and primary zoning districts prescribe land uses that conflict with preservation of significant natural resources, the primary conflicts occur at the time of site preparation and construction. Vegetation removal, grading and construction activities can have severe adverse impacts on natural resource values. These conflicts endure when vegetated areas are paved or built upon, making re-vegetation and soil permeability unlikely. Maintaining multiple layers of native vegetation is an important factor in determining wildlife habitat significance, water quality and groundwater recharge, and scenic value. Excavation results in loss of vegetation, exposed soils and



increased erosion, and altered drainage patterns and water courses. Impervious surface areas decrease water recharge, create urban "heat islands," and eliminate wildlife habitat.

Vegetation removal and grading may occur independent of residential, commercial, industrial, park or school construction and may not be regulated outside of the development review processes (e.g., design review, land divisions, planned developments, building permits). Because they typically are associated with all conflicting land uses, vegetation removal, grading activities, and creation of impervious surface areas are considered as separate conflicting activities.

ESEE consequences for vegetation removal, grading and construction of impervious surface area are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards).

6. Other Known Projects

As noted in Chapter 1 of this report, Corvallis has gone through an extensive public and agency involvement process. This process provided another fruitful source for identifying site-specific conflicting uses, both public and private. Projects that create Goal 5 conflicts are identified in the Goal 1 section of Chapter 5, ESEE Analysis for Urban Growth Area.

ESEE consequences for park and open space development are addressed in Chapter 5, ESEE Analysis for Urban Growth Area. See discussion under Goals 5-7 (Natural Resources, Water Quality, Natural Hazards) and Goal 1 (Citizen Involvement).

Conflicting Use Matrix – by Natural Resource Analysis Area (NRA)

As noted in Chapter 2, all natural resource sub-sites within the Corvallis Planning Area are clustered within 16 Natural Resource Analysis Areas (NRA) consisting of clusters of wetland, riparian corridor, wildlife habitat and/or tree grove subpolygons.

Table 3-1 summarizes identified conflicting uses and activities for each NRA. The matrix shows broad categories of conflicting uses and activities.



Table 3-1. Conflicting Use Matrix for Significant Natural Resource Analysis Areas (NRA)

NRA Natural Resource Analysis Area	Applicable Primary Zone Conflicting Use(s)	Applicable Overlay Zone(s)	Public Facilities Conflicts	Parks or Schools Conflicts	Vegetation Removal Grading Impervious Surfaces
North Corvallis Subarea					
N-NRA-1 Vineyard Mountain – Chip Ross Park	LDR M-HDR OS	Hillside No water Floodplain	All	Park	All
N-NRA-2 Jackson-Frazier	LDR M-HDR MU OS	Floodplain	All	School	All
N-NRA-3 Lewisburg	LDR MU	Floodplain	All	No	All
Central Corvallis Subarea					
C-NRA-4 Walnut Park	LDR UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-5 Timberhill	LDR M-HDR UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-6 Sequoia Creek	LDR M-HDR UNI OS	Hillside Floodplain	All	Park	All
C-NRA-7 Village Green	LDR M-HDR IND-CO OS	Floodplain	All	Park	All
C-NRA-8 Dixon Creek	LDR M-HDR UNI OS	Floodplain	All	Park School	All
C-NRA-9 Bald Hill	LDR IND-CO UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-10 Witham Hill – Oak Creek	LDR M-HDR MU IND-CO UNI OS	Floodplain	All	No	All
C-NRA-11 Riverfront Central	LDR UNI OS	Floodplain	All	Park	All



NRA Natural Resource Analysis Area	Applicable Primary Zone Conflicting Use(s)	Applicable Overlay Zone(s)	Public Facilities Conflicts	Parks or Schools Conflicts	Vegetation Removal Grading Impervious Surfaces
C-NRA-12 West Hills	LDR M-HDR MU IND-CO OS	Floodplain	All	No	All
C-NRA-13 Dunawi Creek	LDR M-HDR MU UNI OS	Floodplain	All	Park School	All
C-NRA-14 Country Club	LDR OS	Floodplain	All	No	All
South Corvallis Subarea					
S-NRA-15 Confluence	LDR M-HDR MU OS	Floodplain	All	Park	All
S-NRA-16 Airport	LDR M-HDR IND-CO OS	Floodplain	All	No	All

Table 3-2 shows conflicting use information in another format. It is organized by conflicting use category, identifies NRAs that fit within each category, and further describes conflicting uses allowed by zoning. This table also explains where conflicting uses are addressed in Chapter 5.

Table 3-2. Summary of NRA Conflicting Uses and Limitations Imposed by Natural Hazard Overlay Districts

Conflicting Use Categories	Natural Resource Analysis Area	Conflicting Use Description
Low Density Residential (Development Impacts Addressed Under Goal 10, Housing)	All	The Single Family Residential zones permit lower density urban residential uses (2 to 6 dwelling units per acre), including detached and attached single-family dwellings, community recreation, day care, residential care homes and facilities, minor utilities. PDs allow on-site density transfers. These activities result in moderate land clearing and grading, vegetation removal, site maintenance, and moderate impervious surfaces.
Medium and High Density Residential	1, 2, 5-8, 10, 12, 15, 16	The Medium and High Density Residential zones permit urban residential uses (between 6 to 12 units per acre for Medium, 12 to 20 units per acre for Medium-High, and up to 20 or more units per



Conflicting Use Categories	Natural Resource Analysis Area	Conflicting Use Description
(Development Impacts Addressed Under Goal 10, Housing)		acre for High Density), including detached and attached single-family dwellings, community recreation, day care, residential home and facility, minor utilities. PDs allow on-site density transfers. These activities result in more intensive land clearing and grading, vegetation removal, site maintenance, and moderate-to-high impervious surfaces.
Mixed Use (Development Impacts Addressed Under Goal 10, Housing and Goal 9, Economy)	2, 3, 5, 10, 12, 13, 15	The Mixed Use zones permit medium to high density urban residential uses, including attached single-family dwellings, duplexes, and multi-family dwellings and group homes, as well as compact commercial and industrial uses. Larger scale commercial and industrial uses are allowed through the conditional use process. Mixed Use zones contain open space requirements and minimum floor-area ratios. PDs allow on-site density transfers. These activities result in high levels of land clearing and grading, vegetation removal, site maintenance, and high impervious surfaces.
Industrial, Commercial and Office (Development Impacts Addressed Under Goal 9, Economy)	7, 9, 10, 12, 16	The Industrial, Office, and Commercial zones permit a wide range of industrial, heavy commercial, commercial uses and related uses. Most industrial and some commercial uses require single-story buildings with large areas devoted to on-site parking, resulting in substantial impervious surface areas, and high vegetation removal and site grading requirements. Other commercial and office uses may be developed in multi-story buildings to reduce the impacts upon surface areas.
University (Development Impacts Addressed Under Goal 11, Public Facilities)	5, 6, 8, 9, 10, 11, 13, 16	The University zone allows low to high density residential and civic uses and requires new development to conform with a Conceptual Development Plan.
Public Facilities (Development Impacts Addressed Under Goal 11, Public Facilities)	All	Transportation, sanitary sewer, water and storm sewer facilities Public facilities are necessary to serve primary conflicting uses. Transportation facilities increase impervious surface area and sometimes must be routed through natural resources to achieve connectivity objectives. Other facilities, such as gravity flow sewer and storm detention facilities, benefit from location near natural drainageways and wetlands.
Schools and Parks (Development Impacts Addressed Under Goal 8, Recreational Needs and	1, 4	Although schools and parks usually have large open space areas, school and recreational buildings and parking areas have impacts similar to industrial and commercial buildings. Active recreational activities (e.g., ball fields) may require grading, drainage, and removal of native plants. Even passive recreational activities may involve limited grading



Conflicting Use Categories	Natural Resource Analysis Area	Conflicting Use Description
Goal 11, Public Facilities)		and vegetation removal for trails or observation areas.



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. As a result of the public involvement process, Corvallis and Benton County decision-makers modified the Draft Preferred Scenario. (Appendix A includes the minutes of public hearings which document a series of amendments made by decision-makers in the 2003 public review and adoption process.) Within each NRA, almost 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 (4th 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.

As a result of the public hearings process, Chapter 4.5 was amended to create different standards for partial protection floodway fringe areas for the local streams. These standards do not allow the use of fill within the partial protection local stream floodway fringe areas and contain flow-through design standards.

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. As a result of the public hearings process, Section 4.13.50-70 standards for public facilities projects were clarified and strengthened.

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

Section 4.13.50: USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS		
Conflicting Use	Code Action	Comments
a. Removal of vegetation from riparian corridors and riparian-related areas	Prohibited	Except for 1-8 below.
1. Stream restoration and enhancement programs	Allowed	Not a conflicting use.



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

Conflicting Use	Code Action	Comments
2. Removal of non-native, invasive and/or noxious vegetation	Allowed	Not a conflicting use. Non-rip-rap erosion control measures shall be utilized
3. Substitution of local source native plant species for non-native plants;	Allowed	Not a conflicting use. 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
5. Removal of emergent in-channel vegetation that has the potential to cause flooding;	Allowed Conflicting Use	
6. Perimeter mowing/cutting of vegetation for fire hazard prevention/fuel reduction	Allowed Conflicting 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 Limited Basis	Not considered a conflicting use per Goal 5 Rule. 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 Conflicting Use	<u>As a result of the public hearing process, decision-makers modified public facilities standards to reduce impacts within riparian corridors.</u>
9. Allowance of activities under an Oregon Department of Fish and Wildlife-approved restoration plan for improving riparian function.	Allowed	Not a conflicting use. 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. Building, Paving, and Grading Activities: 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 Limited Basis	Provided replacement does not disturb additional riparian surface area. <u>As a result of the public hearing process, decision-makers modified home replacement standards to allow replacement dwellings within the 15-foot setback from the top-of-bank within riparian corridors.</u>
2. Construction of streets, public utilities, and bicycle and pedestrian crossings;	Allowed Conflicting Use	That are included in the City of Corvallis Transportation Plan, or in other adopted City Plans. <u>As a result of the public hearing process, decision-makers increased the threshold for placement of transportation facilities within protected riparian areas. Facilities within Highly Protected Riparian Corridors and riparian related areas must be deemed necessary to maintain a</u>



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

Conflicting Use	Code Action	Comments
		<u>functional system by the City Engineer. This Code, and City Transportation, and Utility Master Plans, and other City Plans shall guide this determination. The design standards of Chapter 4.0 shall be applied to minimize the impact to the subject area.</u>
3. Construction of streets, roads, and pedestrian crossings;	Allowed Conflicting Use	Necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. <u>As a result of the public hearing process, decision-makers modified street placement and mitigation standards to reduce impacts within riparian corridors.</u>
4. Development of water-related and water-dependent uses;	Allowed Conflicting 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 Limited 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
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	Not a conflicting use. 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	Prohibited	With the exception of lots created for public park purposes



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

Conflicting Use	Code Action	Comments
contained in this chapter.		
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. <u>As a result of the public hearing process, the tree removal criteria were clarified to ensure that tree removal requests would be approved, conditionally approved, or denied by the Community Development Director.</u> Any trees removed are required to be replaced by like native species or alternate approved native species. <u>As a result of the public hearing process, yard maintenance requirements were clarified to stop expansion of yards into riparian areas.</u>
g. Exemptions 1) Response to public emergencies, including emergency repairs to public facilities; 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

Section 4.13.60 - USE LIMITATIONS AND EXCEPTIONS WITHIN PARTIALLY PROTECTED RIPARIAN CORRIDORS

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,	Prohibited	Exceptions: 1. Replacement of existing structures with structures located within the original building footprint, provided replacement does not disturb



Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY-PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS		
Conflicting Use	Code Action	Comments
and grading, excavation, and the placement of fill		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. Many of these provisions were modified or clarified as a result of the public review and adoption process documented in Appendix A. In most cases, these changes were relatively minor. Table 4-2 notes where substantial changes were made between May and December of 2004.

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
4.12.30 EXEMPTIONS		
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. <u>As a result of the public hearing process, this standard was clarified to specify physical characteristics of protected native vegetation.</u>
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.
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 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 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 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.
4.12.70 - STANDARDS FOR DEVELOPMENT ON SITES CONTAINING SIGNIFICANT VEGETATION		
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 Park]	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-2 [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 [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 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; 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;



		<p>3. Preserved upland prairie areas shall be credited as 100% canopy coverage;</p> <p>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.</p>
<p>Development in PPSV-4 [Crescent Valley Area & Timberhill Southeast]</p>	Prohibited	<p>Existing Significant Vegetation may be removed provided that:</p> <p>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.</p> <p>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.</p> <p>f. For areas containing Significant Vegetation to be considered preserved, they must be treated as follows:</p> <ol style="list-style-type: none"> 1. Preservation areas shall be clearly marked. 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."
4.12.80 - STANDARDS FOR PUBLIC AND PRIVATE ROADWAYS AND UTILITIES ON SITES CONTAINING SIGNIFICANT VEGETATION		
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
4.12.90 - ADDITIONAL PROVISIONS		
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 – 4th 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.



Goal 5 ESEE Analysis for Corvallis Urban Growth Area

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Introduction

Goal 5 requires that the economic, social, environmental, and energy (ESEE) consequences of three decision options be considered prior to adoption of a formal natural resource protection program. This ESEE Analysis has a broad scope: it looks at the consequences of three types of Goal 5 programs *for the entire area within the Corvallis Urban Growth Boundary (UGB)*. The unincorporated area outside the Corvallis City Limits, but within the UGB, is called the "Urban Fringe."

The ESEE Analysis is necessarily complex: it requires that four (4) types of consequences (economic, social, environmental and energy) be analyzed for three (3) decision options (full protection, no protection, and limited protection) for three (3) categories of significant resources (Locally Significant Wetlands, Significant Riparian Corridors, and Significant Vegetation), in 16 natural resource analysis areas (NRAs) for uses allowed in the myriad of zoning districts applied to natural resource sites within the Corvallis UGB. The ESEE Analysis must be consistent with applicable Statewide Planning Goals, must consider public comments, and must explain why Corvallis and Benton County officials selected the preferred program option for a resource site.

To simplify this process, this chapter is organized around the applicable Statewide Planning Goals for the UGB as a whole and discusses the ESEE consequences of the three decision options in the context of these Goals. Chapter 6 considers the "full protection" and "no protection" options under each Statewide Planning Goal and then focuses on the ESEE consequences of the Preferred (Limited Protection) Scenario for each of the 16 Natural Resource Analysis Areas (NRAs).

A. Summary of Where We Are in the Goal 5 Process

Corvallis and Benton County are now in the fifth major step of the Goal 5 review process. To get here Winterbrook Planning has worked with City and County staff, the Natural Features Technical Advisory Committee (NFTAC), Corvallis area citizens and property owners, and Corvallis and Benton County decision-makers to:

1. Conduct a preliminary inventory of the location, quantity, and quality of *potentially* significant wetlands, riparian corridors, wildlife habitat areas, and tree groves within the Corvallis UGB. A total of 7,921 acres were mapped and analyzed as part of the Natural Features Inventory process.
2. Determine significant resource sub-sites (subpolygons) in each of these resource categories, and then cluster sub-sites into 16 significant Natural Resource Analysis Areas (NRA). **Map A: Significant Goal 5 Natural Resource Areas (NRAs)** shows a total of 6,058 significant Goal 5 resource acres divided into three resource categories. By applying significance criteria, Corvallis and Benton



County decision-makers reduced by 24% the acreage of natural resources subject to the Goal 5 ESEE Analysis and protection process.

3. Determine "impact areas" for each NRA resource category based on the recommendations of the NFTAC *Scoping Report* with minor refinements.
4. Determine land use activities and development that conflict with the preservation of resource values on significant NRAs, based on existing zoning, and considering limitations on development required by proposed Natural Hazard overlay districts.

The next step in the Goal 5 process is the ESEE (Economic, Social, Environmental and Energy) Consequences Analysis.

B. Goal 5 Rule Requirements

OAR 660-023-040(4) requires that cities and counties conduct an ESEE Analysis to determine the consequences of three regulatory options: full resource protection (i.e., allow no conflicting development or land use activities), limited resource protection (based on the City's proposed limited resource protection program), and no resource protection (i.e., allow development without restriction).

(4) Analyze the ESEE consequences. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE Analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.

Consistent with this section of the Goal 5 Rule, Corvallis has clustered resource subpolygons into 16 Natural Resource Analysis Areas (NRAs). In addition to contiguous clusters, NRAs may also include isolated resource subpolygons, including locally significant wetlands, riparian corridors, vegetation subpolygons and tree groves. Chapter 6 includes separate ESEE analyses for each NRA. This analysis considers the ESEE consequences of full resource site protection, no resource site protection, and



limited resource site protection (based on the program outline found in Chapter 6) within the Corvallis Urban Growth Boundary.

C. Corvallis ESEE Approach

The Corvallis ESEE Analysis is based on a three-step approach that is consistent with the Goal 5 Rule.

1. **Step 1** is to determine the overlap that exists between significant NRAs and proposed Goal 7 Natural Hazard Protection overlay requirements. This analysis occurs under the Goal 7 (Natural Hazards) discussion.
2. **Step 2** is to analyze ESEE consequences of full protection, no protection, and limited protection for the Corvallis urban growth area (the city limits plus the urban fringe) as a whole. This UGB-wide approach correlates economic, social, environmental and energy requirements with Statewide Planning Goal requirements, as explained in Subsection D, below.
3. **Step 3** is to analyze ESEE consequences of full protection, no protection and limited protection for each NRA. In this analysis, we explain why specified portions of NRAs received no or a reduced level of protection. In short, we explain how the ESEE process was used to maintain an adequate supply of buildable land within the UGB, while ensuring that property owners retain reasonable economic use of their property. Step 3 will justify the ultimate balancing choices made by Corvallis and Benton County decision-makers.
4. **Step 4** is to consider specific comments related to the ESEE consequences of the draft Goal 5 program provided by state agencies, property owners and interested parties during the public review process. Appendix A compiles and organizes public comments chronologically, and includes an explanation of how decision-makers responded to these comments during the public review and hearing process.¹

D. Correlation Among Goal 5 ESEE Factors and Goals 1-15

Table 5 shows the relationship between the four ESEE factors of Goal 5 and the 13 applicable Statewide Planning Goals. The discussion following Table 5-1 elaborates on these relationships.

¹ In some cases, we have relied directly on information found in the minutes of decision-maker hearings or in tables provided by staff in Appendix A. In other cases where the draft ESEE Analysis did not address specifically ESEE consequences raised in public comments, we have amended this chapter to include an analysis of such consequences.



Table 5. ESEE Consequences and the Statewide Planning Goals 1-15

Applicable Statewide Planning Goal ESEE Consequence	Economic	Social	Environmental	Energy
Goal 1 (Citizen Involvement) Document and Consider Citizen Comments	X	X	X	X
Goal 2 (Land Use Planning) Adequate Factual Base Agency Coordination Consider Alternatives Ultimate Policy Choices Implementation Adequate to Carry Out Policies	X	X	X	X
Goals 3 and 4 (Agricultural and Forest Lands)	NA	NA	NA	NA
Goal 5 (Natural Resource Protection) Adequate Goal 5 Inventory Significance Determination ESEE Analysis 3 Decision Options Clear and Objective Standards		X X	X X	
Goal 6 (Water Quality)	X	X	X	
Goal 7 (Natural Hazards) Flooding Hazard Steep Slopes / Slide and Erosion Hazards Earthquake Hazards	X X X	X X X	X X X	
Goal 8 (Recreational Opportunities) Suitable Park Sites Park Development Impacts	X	X	X X	
Goal 9 (Economic Development) Adequate Land Supply Provide Jobs Provide Commercial and Office Uses Development Impacts	X X X	X X X	X	
Goal 10 (Housing) Adequate Buildable Land Supply Affordable Housing Opportunities Clear and Objective Standards Development Impacts	X X X	X X X	X	
Goal 11 (Public Facilities / Services) Efficient Provision of Urban Services Public Facilities Project Impacts	X X	X X	X	
Goal 12 (Transportation) Safe and Efficient Connectivity Multi-Modal Transportation Transportation Project Impacts	X X X	X X X	X	
Goal 13 (Energy Conservation) Housing Near Employment				X



Applicable Statewide Planning Goal ESEE Consequence	Economic	Social	Environmental	Energy
Micro-Climate				X
Public Facilities				X
Transportation Connectivity				X
Compact Urban Form				X
Maximum Efficiency of Land Use				X
Goal 14 (Urbanization)				
Compact Urban Growth Form	X	X	X	
Maximum Efficiency of Land Use	X	X	X	
Livability	X	X	X	
Goal 15 (Willamette Greenway)				
Maintain Vegetated Fringe	X	X	X	
Allow for Water Dependent Uses	X	X		
Meet Recreational Needs	X	X	X	

E. Statewide Planning Goal and ESEE Analysis

As indicated in Table 5, Statewide Planning Goals 1-2 and 5-15 are applicable and addressed in this analysis. Goals 3 (Agricultural Lands) and 4 (Forest Lands) are not applicable because the ESEE Analysis does not address rural land outside the Corvallis UGB. However, issues related to protection of farm and forest lands are addressed under Goal 14, Urbanization.

Goal 1: Citizen Involvement

Corvallis has a long history of active citizen involvement. The broad policy direction for the Natural Features Program is derived from policies in the adopted Comprehensive Plan and direction provided in the Corvallis Community Vision Statement. Both of these documents speak to the importance of achieving a *balance* between resource conservation and urban development objectives. Because the "full protection" and "no protection" options cannot achieve such a balance, the focus of City and County citizen involvement efforts has been on some form of "limited protection".

Goal 1 requires that the City and County actively solicit citizen input during all phases of the planning process, including all phases of the Goal 5 process – from the Goal 5 inventory to adoption of regulations and incentives. As documented below, Corvallis property owners, special interests and citizens have been actively involved in each stage of the Corvallis Natural Features project.

The Natural Features Scoping Project was completed in January 2002. It determined what natural features to inventory, provided a methodological framework for conducting natural feature inventories, and established preliminary criteria for ranking each of the natural features. Citizens, property owners, and a local environmental peer review



group were actively involved in this process. The Scoping Process involved a number of public meetings and draft reports.

Citizens and property owners also were notified of and asked to participate in the Natural Features inventory process. A Public Review Draft of the inventory reports, maps, and data sheets was released in January 2003. Notices were mailed to property owners and other interested parties to inform them about the draft inventory report and opportunities to provide comments and corrections. Copies of the January Public Review Draft were available at the Corvallis – Benton County Library, at City Hall, and on the project website. A series of open houses was held to give property owners and others an opportunity to review the inventory maps and data sheets and discuss the findings with the field survey scientists. A committee of local peer reviewers with expertise in each inventory specialty provided review comments and corrections. The Natural Features Inventory was accepted by the Corvallis City Council in September 2003.

In June 2003, Mayor Berg appointed a citizen task force to (a) identify highly and moderately significant Goal 5 resource areas, and (b) recommend a draft program outline (i.e., a limited protection program) to resolve conflicts between resource protection and urban development needs. In addition to Planning Commissioners and elected officials from Benton County and the City of Corvallis, the "Phase III Update Project Task Force" included property owners and representatives from both business organizations and environmental groups. The Task Force met seven times during the summer and early fall of 2003. During this time, they reviewed the draft results of the Natural Features Inventory, heard comments from the public, examined existing Comprehensive Plan policies, met with inventory consultants, discussed the policies in the Stormwater Master Plan and findings from the Endangered Species Act project, and reviewed potential impacts of various protection scenarios on the buildable land supply. The Task Force developed a draft "Scenario A" that identified highly and moderately significant resource areas and made recommendations for broad elements of a "limited protection" Goal 5 program. Task Force recommendations were presented to Corvallis and Benton County decision-makers² at a joint meeting held on October 14, 2003.

During the next several months, the Corvallis and Benton County decision-makers met to review and refine "Scenario A." Work sessions were open to the public and public testimony was accepted and considered regarding the relative significance of natural resource polygons within the Corvallis UGB. The result was a new "Scenario C" (January 22, 2004) that identified significant Goal 5 resource polygons based on specific resource-based criteria.

Following this joint effort, substantial modifications were made to Scenario C by each Planning Commission. Due in large part to public testimony, the City and County Planning Commissions forwarded somewhat different recommendations (City and

² As used in this document, the term "decision-makers" refers to City of Corvallis and Benton County planning commissioners and elected officials.



County "Scenarios C") to their respective elected bodies. While both Planning Commissions recommended a balanced approach that focused on protection of riparian areas, the Corvallis Planning Commission tended to support more expansive wildlife habitat protection, and the Benton County Planning Commission leaned towards allowing a higher level of development in upland wildlife habitat areas. The Benton County Planning Commission was particularly cognizant of the importance of the McDonald Forest in providing regional wildlife habitat benefits, and therefore found upland portions of WHAs within the UGB to be relatively less significant.

In February 2004, the Benton County Board of Commissioners and the Corvallis City Council met to discuss the two "Scenario C" Planning Commission recommendations. These joint sessions included staff recommendations and comments from the public. This process resulted in a "Draft Preferred Land Use Scenario" that was tentatively approved by City and County elected officials in March of 2004. The Draft Preferred Land Use Scenario was intended to serve as the basis for analyzing the ESEE consequences of the Limited Protection Program. City and County elected officials emphasized that any effective Goal 5 program must include both regulatory and incentive elements.³

During April and May 2004, the Corvallis Natural Features Focus Group was formed and consisted entirely of Corvallis area property owners and developers. The mission of this focus group was to review potential incentive measures prepared by Winterbrook Planning, identify additional measures, and make recommendations on which measures are most likely to be effective. This effort resulted in a "white paper" that identified effective regulatory and market incentives to encourage natural resource protection while mitigating adverse economic impacts to property owners and developers.

During the late summer of 2004, the Benton County and Corvallis Planning Commissions held public hearings on the Draft Preferred Land Use Scenario, as modified after March of 2004. As shown in Attachment A, which includes the minutes for the September 9 and 22 public hearings, the Planning Commissions recommended a series of changes to draft City and County regulations in response to public comments and Commission deliberations. In addition to letters submitted into the public hearing record, Attachment A includes a series of tables prepared by Corvallis staff that summarize and respond to oral and written comments received by the Planning Commissions.⁴ Attachment A also includes minutes from Benton County and City of Corvallis public hearings related to the Planning Commissions' recommendations to their respective elected bodies.

³ A "Summary of Oral Comments Submitted from 8-19-03 to 6-29-04 is included in the record to these Goal 5 proceedings. This "Summary" also includes responses to comments received during this period.

⁴ See "Summary of Written Comments for PC Public Hearing (9-3-04 to 9-16-04)" and "Summary of Planning Commission Written Comments for PC Public Hearing (9-22-04 – Commissioner Tony Howell)".



During the fall of 2004, the Benton County Board of Commissioners (BOC) and the Corvallis City Council held joint public hearings to consider the Planning Commissions' recommended Goal 5 implementation program. Elected officials held public hearings on the Revised Draft Preferred Land Use Scenario and considered extensive public comments. As shown in the minutes for the November 4 and November 8-9 joint public hearings, the elected officials recommended additional changes to draft City and County regulations in response to public comments and elected official deliberations. In addition to letters submitted into the public hearing record, Attachment A includes a series of tables prepared by Corvallis staff that summarize and respond to oral and written comments received by elected officials.⁵ Attachment A also includes minutes from Benton County and City of Corvallis public hearings that further explain the balancing process resulting from their consideration of public comments and their public deliberations.

The Draft Preferred Land Use Scenario served as the basis for most public comments discussed below. However, as noted above, this "Scenario" or recommended Goal 5 program continued to evolve in response to comments from property owners and the general public, as envisioned by Statewide Planning Goal 1, Citizen Involvement. The Goal 5 program ultimately adopted by the City of Corvallis in December of 2004 was carefully crafted to balance the wide range and often disparate comments received through the extensive City and County public and agency participation process.

ESEE Relationship to Goal 1

Citizen and property owner participation is critical to the utility of the Corvallis Natural Features ESEE Analysis. Citizens and property owners were invited to provide information related to the economic, social, environmental and energy consequences of the three decision options (full, limited and no protection) outlined in the Goal 5 Rule. However, as noted above, public comments focused on the draft Preferred Land Use Scenario (Limited Protection Program) as amended as a result of the citizen involvement process.

The City and County have maintained an ongoing record of property owner and citizen comments as they apply to the three decision options described in this ESEE Analysis. To encourage meaningful citizen involvement, citizen comments related to the Limited Protection Program (Draft Preferred Land Use Scenario and the Phase III update of the Land Development Code) have been ~~are to be~~ continually documented throughout the decision-making process in Attachment A to this document.

⁵ See "Summary of Oral Comments Submitted during the Joint CC & BoC Public Hearing (11-04-04)" and "Summary of Written Comments for CC Public Hearing (10-21-04 to 11-09-04)", Planning Commission Written Comments for PC Public Hearing (9-22-04 – Commissioner Tony Howell)".



Goal 1 Conclusion

Because Corvallis and Benton County citizens have been notified and provided the opportunity to be involved in all phases of the Natural Features Project, the Goal 5 amendments resulting from this project comply with Statewide Planning Goal 1, Citizen Involvement. Citizen comments related to the Limited Protection Program (Draft Preferred Land Use Scenario) were explicitly will be considered prior to adoption of the Goal 5 program supported by this ESEE the final ESEE Analysis.

Goal 2: Land Use Planning

Goal 2, like Goal 5, is essentially a procedural goal. Goal 2 requires that:

- There be an adequate factual base for making land use decisions;
- Local, state, and federal agencies be notified and their concerns be considered and accommodated to the extent possible;
- Alternatives be considered before making ultimate policy choices;
- Policy choices be clearly articulated in the comprehensive plan; and that
- Implementation measures be consistent with and adequate to carry out such policy direction.

ESEE Relationship to Goal 2

The factual basis for the Natural Features Project includes the Natural Features Inventory, background documentation related to the selection of Draft Preferred Land Use Scenario (including the significance determination), and this ESEE Analysis. These documents provide City and County decision-makers with the information necessary to make informed policy decisions related to balancing sometimes-conflicting development and natural resource conservation objectives.

The Natural Features Project provides a positive model for City-County coordination. City and County staff and a consultant team have worked collaboratively in each phase of this multi-year Natural Features Project. The Natural Features Scoping Committee included both City and County representatives, as did the Phase III Update Project Task Force and the Natural Features Incentives Focus Group. Contemporaneous public work-sessions were held before both the City and County Planning Commissions. Joint public work sessions also were held before the City Council and the County Board of Commissioners to ensure a coordinated response to natural resource management within the Corvallis UGB.

State and federal agencies have also been involved in this process, and their concerns have been considered and accommodated wherever possible. Key state agencies include the Department of Land Conservation and Development (DLCD), the Department of State Lands (DSL), the Department of Fish and Wildlife (ODFW), and the Department of Environmental Quality (DEQ). Federal agencies



with comparable areas of jurisdiction have also been invited to review and comment on the Natural Features program. In particular, the National Marine Fisheries Service has monitored the process for ensuring consistency with endangered salmonid habitat protection rules.

In a September 15, 2004 letter, the Oregon Department of Forestry (ODF) recommended changes to clarify the relationship between the Oregon Forest Practices Act (FPA) and local tree-cutting regulations within the City Limits and within the Urban Fringe.⁶ In response, Benton County amended its draft regulations to make it clear that the FPA would continue to apply outside of protected riparian and significant vegetation areas within the Urban Fringe, and that County tree-cutting regulations would be applied within protected Goal 5 resource areas. Both harvesting and replanting of small woodland tracts are therefore encouraged in non-development areas. However, City decision-makers determined that City tree-cutting and vegetation management regulations – and not the FPA – would be applied within the Corvallis City Limits where urban development is imminent and expected as a result of annexation.

Goal 5 requires that the ESEE consequences of three “alternative” decision options be considered as part of the Goal 5 process. This ESEE Analysis considers the economic, social, environmental and energy conservation consequences of:

- Fully protecting all significant natural resource analysis areas (NRAs);
- Providing no local protection for significant NRAs; and/or
- Providing limited protection for significant NRAs, as specified in the Corvallis Vision Statement, the Corvallis Comprehensive Plan, and the Draft Preferred Land Use Scenario.

The Natural Features Scoping Committee, the Phase III Update Project Task Force, the Corvallis and Benton County Planning Commissions, and Corvallis and Benton County elected officials considered a variety of methods for inventorying and determining the significance of natural features within the Corvallis UGB. These groups also considered a wide range of regulatory and incentive measures for potential inclusion within the Goal 5 protection program.

The Goal 5 implementation program has been designed to provide clear and objective regulatory measures to implement the policy direction provided by City and County elected officials. Each significant natural feature has corresponding

⁶ In a related letter dated October 25, 2004, Mr. Herb Crew commended the County for amending its draft code to encourage tree farming within the Urban Fringe. However, he noted that the proposed code changes did not provide an incentive for replanting of trees following the first commercial timber harvest. After noting the environmental advantages of community woodlands (e.g., improved air and water quality, wildlife habitat and attractive open space), he requested that Benton County provide for commercial planting and harvesting of trees after the first rotation.



Comprehensive Plan policies and land use regulations to resolve conflicts between urban development and resource conservation objectives.

Goal 2 Conclusion

For the reasons stated above, the Comprehensive Plan and Land Development Code amendments resulting from the Corvallis Natural Features project comply with Statewide Planning Goal 2, Land Use Planning.

Goal 5: Natural Resources

Goal 5 reads (in relevant part) as follows:

To protect natural resources and conserve scenic and historic areas and open spaces.

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

Following procedures, standards, and definitions contained in commission rules, local governments shall determine significant sites for inventoried resources and develop programs to achieve the goal.

Goal 5 is largely procedural in nature: it requires that certain steps be followed before making a decision regarding the level of protection – if any – that should be afforded to a significant Goal 5 resource site. It sets forth a *process* for resolving conflicts between natural resource preservation on the one hand, and urban development on the other. Goal 5 does not mandate “protection” of significant natural resource sites as that term is commonly used. Rather, as explained in the Goal 5 Rule (OAR Chapter 660, Division 23), “protect” means to develop a program consistent with this division.”

The City’s Goal 5 Periodic Review Task requires that riparian areas and wetlands be inventoried and “protected” consistent with the provisions of this rule. As part of the Natural Features Project, the City has conducted Goal 5 inventories for:

- **Riparian corridors** (including fish and wildlife habitat);
- **Locally significant wetlands;**
- **Significant Vegetation** (including wildlife habitat); one kind of Significant Vegetation is Tree Groves, which provide both wildlife habitat and a scenic value.

As required by the Goal 5 Rule, the Natural Features Project includes valid Goal 5 inventories showing the location, quantity, and quality of significant Goal 5 resource sites within the Corvallis UGB. The Goal 5 Inventory is shown on the map entitled



Natural Features Inventory: Potential City Scenario C (January 22, 2004). The quantity and location of significant Goal 5 resource sites are summarized in Chapter 2 of this report. The qualitative and quantitative characteristics of significant Goal 5 resource sites are found in the Natural Features Inventory Final Report (August 2004).

The Goal 5 Rule also requires that uses (i.e., land uses and related activities) that conflict with the full protection of significant Goal 5 resource sites be identified. Chapter 4, Conflicting Use Identification, describes conflicting uses (i.e., permitted and conditional uses allowed by applicable zoning districts) that are allowed by the Corvallis Comprehensive Plan and Development Code. The primary conflicting activities resulting from permitted and conditional uses are vegetation removal and excavation, which typically occur during the site preparation phase of an approved development, but potentially could occur at any time. Corvallis and Benton County land use regulations limit these activities as prescribed in the Preferred Land Use Scenario.

Finally, the Goal 5 Rule requires that local governments make a "decision" regarding the level of protection that should be afforded significant Goal 5 resource sites – but only after conducting an ESEE (Economic, Social, Environmental and Energy) Consequences Analysis. Chapter 4, Program Options and Preferred Scenario, describes the three program options available to Corvallis and Benton County (full resource protection, no resource protection and limited resource protection), and describes in outline the Preferred (limited protection) Scenario selected by Corvallis. This chapter discussed the ESEE consequences and Statewide Planning Goal implications of the three decision options for the UGB as a whole. Chapter 6, Natural Resource Analysis Area (NRA) ESEE Analysis, explains *why* Corvallis and Benton County decision-makers decided to:

1. Allow certain conflicting uses within each of 16 NRAs on a limited basis; and
2. Remove certain resource subpolygons from the Limited Protection Program altogether.

ESEE Relationship to Goal 5 Significant Resource Sites

This section focuses on the *environmental and social consequences* of the three Goal 5 decision options.

Economic consequences are considered under the discussion of other goals – especially Goals 9 (Economy), 10 (Housing), 11 (Public Facilities) and 12 (Transportation). That discussion addresses the economic consequences of full and no protection options on three general conflicting use categories: commercial/industrial, housing, and public facilities. The economic value of Significant Vegetation includes enhanced property values, reduced stormwater management costs, and reduced energy costs. Economic costs include tree replacement and maintenance costs.

The discussion of *energy consequences* is consolidated under Goal 13, Energy Conservation.



Environmental and Social Consequences of Full and No Protection Options for Land without Severe Natural Hazards

As noted under the Goal 6 discussion, natural resources (LSWs, Significant Riparian Corridors and Significant Vegetation) offer substantial environmental and social benefits for maintaining air, water, and land resource quality. These positive environmental and social consequences are *not* repeated in the discussion below.

Environmental Consequences

Each of these resources provides a variety of independent ecological functions. These ecological functions have particular importance in an urban area such as Corvallis. They are part of the City's green infrastructure that still supports salmon-bearing rivers and streams and remnant oak savanna habitats. These functions are summarized below. They include:

- Air quality improvement (addressed under Goal 6)
- Water quality improvement (addressed under Goal 6)
- Soil conservation / slope stabilization (addressed under Goal 6)
- Microclimate amelioration (addressed under Goal 13)
- Fish and Wildlife Habitat (addressed below)

The full protection option would prohibit all land uses and activities that conflict with (i.e., reduce the integrity of) significant wetlands (LSW), riparian corridors and vegetation. **With one exception, the full protection option would have entirely positive environmental consequences.**

The exception is significant oak savanna vegetation. Invasion by Douglas fir (another type of significant vegetative cover type) increasingly threatens the integrity of this increasingly rare Willamette Valley ecosystem. Therefore, in the context of a relatively intact oak savannah, Douglas fir growth is itself a conflicting use. Yet under the "full protection" option, Douglas fir removal would be prohibited, and such a prohibition would have adverse environmental consequences for the oak savannah ecosystem.

Except for a few isolated wetlands and tree groves, significant Goal 5 resources are connected and mutually reinforcing. The environmental and wildlife habitat values of these significant resource types are described in detail in the *Corvallis Natural Features Inventory*, which is incorporated into this ESEE Analysis by reference.

Wildlife Habitat Areas

The *Corvallis Natural Features Inventory* explicitly recognizes the integrated nature of these three resource types by inventorying and ranking 22 Wildlife Habitat Assessment Areas (WHAs) located primarily in hillside and riverine areas that have not been subject to urban level development. Wildlife habitat is described in the Inventory (p. VI-3) as:



"... the integration of the landscape and essential resources of food, water, and cover found within it. While most species associated with Corvallis' upland habitats use riparian areas, they are dependent on upland areas for key aspects of their life history, such as breeding, food, or shelter. Habitat types found in Corvallis include grasslands, meadows, shrublands, oak savannas, and coniferous, deciduous and mixed forests. These land types provide crucial functions and values for many wildlife species."

Riparian Corridors

Riparian corridors and associated wetlands provide essential fish and wildlife habitat as part of WHAs, and as they weave through developed urban areas (Inventory, p. V-5):

"Riparian areas provide valuable habitat for wildlife and influence fish habitat. The highest quality wildlife habitat in urban area has a variety of plant species and layers, a perennial water source, and some degree of protection or buffering from disturbance. Riparian areas are particularly important migration corridors between upland and aquatic systems for a variety of species... the majority of Oregon's major wildlife species, including amphibians and reptiles, use wetlands or riparian areas during some portion of their life cycle."

Thus, Significant Vegetation, LSWs and Significant Riparian Corridors provide habitat for wildlife, supplying food, water, and cover for a variety of urban fauna, such as deer, squirrels, and birds. This vegetation may vary significantly in its potential habitat value depending on the size, structure, and connectedness of the resource site. Healthy forests of large size, high connectivity and/or high structural complexity (mixed herb, shrub and tree layers) generally provide greater habitat values than other resource sites. However, some of Corvallis' most important habitats are its remnant oak savannas, which typically have limited structural diversity. Resource sites located along riparian corridors or linked to larger upland habitats provide important opportunities for wildlife migration in Corvallis.

Significant Vegetation, LSWs, and Significant Riparian Corridors also are connected to similar resource areas outside the Corvallis UGB, and provide travel corridors to upland forest resource area (e.g., MacDonald Forest) and riverine systems (i.e., the Willamette and Marys Rivers) located in Benton County's rural forest and agricultural areas. Full protection of significant Goal 5 resources within the UGB would reinforce these connections.

Conversely, the "no protection" option would have entirely negative environmental consequences, by allowing conflicting urban uses



and activities identified in Chapter 3 without limitation. The environmental values outlined above, and discussed in much greater detail in the *Corvallis Natural Features Inventory*, would be lost.

Social Consequences

The social consequences of the full protection option are generally positive, although there are some substantial adverse social consequences that would result from the full protection option.

For the last 30 years, the Corvallis Comprehensive Plan has recognized the importance of its riparian corridors, wetlands, and hillside vegetation to the quality of life of area residents. Corvallis' trees and other Significant Vegetation have matured over the course of many years as the Corvallis community itself has grown. The City's riparian corridors, wetlands, and urban forests are critically important to the quality of its urban fabric. They define residential neighborhoods and form the backdrop for commercial and industrial developments.

Social benefits resulting from full protection of Significant Vegetation, LSWs and Significant Riparian Corridors include:

- Aesthetic and scenic values
- Health benefits
- Recreational and educational values
- Public safety and welfare
- Screening and buffering
- Noise attenuation

Aesthetic and Scenic Values

Corvallis' urban forest and riparian corridors are an important part of the community's identity and help to shape and define individual neighborhoods within the City, creating a sense of place. The City's riparian corridors and Significant Vegetation convey a distinctive character and aesthetic value to residential neighborhoods and to the quality of life of their residents. They enhance the appearance of the built environment and in some cases serve as local landmarks, uniquely distinguishing a neighborhood or place.

Research has shown that the public appreciates the connection between trees and the aesthetic quality of their communities. In one study, the majority of residents reported damage to trees as the single greatest loss sustained by their communities in the aftermath of a major storm that caused widespread damage to homes and property (Hull 1992).



Stress Reduction and Health Benefits

Significant Vegetation (especially trees) is known to have immediate and lasting physical and psychological health benefits. As discussed above, trees improve air quality and remove pollutants such as nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, and airborne particulates. Every year trees in Corvallis purify the air and remove enough pollutants to save nearly \$500,000 in health care and associated costs (American Forests 2001).

While improving air quality and reducing related respiratory illnesses, riparian and upland vegetation can also significantly reduce stress for people who live in close proximity to them. Researchers have shown that brief encounters with trees and natural environments can reduce stress and aid cognitive fatigue recovery, improving a person's capacity to concentrate (Kaplan and Kaplan 1989). Similarly, other researchers have found that people who view trees and natural environments after stressful situations show reduced physiological stress response, as well as better interest and attention and decreased feelings of fear and anger or aggression (Ulrich et al. 1994). Related studies by Ulrich have shown that driving along scenic roads reduced driver stress and had an "inoculation" effect in which drivers responded more calmly to stressful situations (Aronson 2003).

Vegetated areas have been credited with reducing aggression and violence in cities and encouraging positive social behavior. Crime reduction can be a major benefit of trees planted in urban neighborhoods (Sullivan and Kuo 1996). Researchers also found that children who could see trees and nature from their windows were better able to concentrate and to control impulsive behavior. In general, trees afforded a place for neighbors to meet and get to know each other – a place where friendships developed into a network of support for the residential community.

In a study of recuperation rates after surgery, Ulrich (1984) found that patients recovering from surgery recovered more quickly and needed fewer painkillers if they had a view of trees from their hospital bed. Therapists are now using trees and other plants to help people with physical and mental problems.

As discussed under Economic Consequences, visual contact with nature can also improve office worker productivity and job satisfaction, which has important health implications. Office workers with a view of trees and greenery reported better overall health, and had a significantly lower incidence of illness (Kaplan and Kaplan 1989).

Recreational and Educational Values

Corvallis' extensive system of public parks and open space areas supports large acres of Significant Vegetation. The parks range from large forested areas such as Bald Hill and Willamette Park to smaller neighborhood parks such as Woodland Meadow Park. Trees greatly contribute to the recreational experience by bringing aesthetic, scenic, and natural qualities to the settings people select for outdoor leisure. They make these places more comfortable by providing shade and moderating local climate conditions.

Significant riparian and upland vegetation offer an immediate connection to nature within an urban area, both in parks and in back yards. This can be especially important to children or people with limited mobility who otherwise have little contact with nature. People appreciate the value that vegetated areas add to the recreational experience: a survey of park users found a strong preference for a mostly wooded recreational site versus a grassy but sparsely treed site (Dwyer et al. 1989).

Significant Vegetation attracts birds and urban wildlife. Wildlife viewing is a popular activity among Corvallis area residents and visitors (CCVB 2004). Wildlife viewing has increased steadily since 1980, when a nationwide survey of wildlife-related recreation found that 55 percent of respondents interact with wildlife near their homes by watching, feeding, photographing, or painting them (Shaw et al. 1985). In Seattle, a survey found that 90 percent of park-users reported that the presence of wildlife enhanced their recreational experience of the park (Dick and Hendee 1986).

Screening and Buffering

Riparian and upland vegetation can act as an edge between different land uses, creating visual buffers, for example, between business and residential areas. This vegetation can also help to establish community character as noted previously and can help unify developments or neighborhoods, just as they can be used to separate and create buffers.

At a smaller scale, trees and other vegetation can screen unattractive areas and objects, and can serve to soften and buffer structures and parking lots. Trees also can be used to create privacy for individual homeowners, such as provided by riparian vegetation along a property line.

Noise Attenuation

Noise in urban areas can reach unhealthy levels: some construction processes, for example, can produce noise exceeding 100 decibels, which is considered high intensity noise that can be very damaging, even in



very short durations. Vegetation can form a barrier that partially deadens the sound from traffic, manufacturing processes, construction activities, and other loud noises. Trees and other Significant Vegetation reduce sound directly by reflecting and absorbing its energy. For example, a 100-foot-wide tree buffer has been shown to be capable of reducing noise levels by 6 to 8 dBa (Leonard and Parr 1970). Trees also can mask some noise with the sound of their rustling leaves and wind through the branches (Harris 1992). Significant Vegetation can absorb more high frequency than low frequency noise, an added benefit since higher frequencies are most distressing to people (Miller 1997).

Social Costs (Adverse Social Consequences)

Full protection of natural resource areas *in an urban context* has counterbalancing social costs. Adverse social consequences associated with the full protection option include:

- **Social Equity** – the view that property owners should not bear the full burden of maintaining Significant Vegetation areas especially within Urban Fringe or where major developments were predicated on previous studies or agreements.⁷ (See Goal 1 ESEE discussion.)
- **Urban Wildfires** – Full protection can endanger homes and businesses at the edge of areas with significant and combustible vegetation. There are severe and adverse social impacts associated with unprotected homes at the edge of fully protected areas. (See Goal 7 ESEE discussion.)
- **Public Parks** – full protection of all significant resource areas would prohibit even passive recreational uses and activities, such as trail construction or picnic areas. Such uses and activities have enormous social value for area residents, as proclaimed in the *Corvallis 2020 Vision Statement*. (See Goal 8 ESEE discussion.)
- **Employment Opportunities** – In limited circumstances, such as the Airport Industrial Area – full protection of locally significant wetlands would substantially decrease the supply of development-ready industrial land necessary for basic employment opportunities. Loss of such jobs would have severe and adverse

⁷ Social equity issues repeatedly were raised in public workshops and hearings before Corvallis and Benton County decision-makers. The issue of fairness to property owners within the Urban Fringe who had maintained forested areas for years in anticipation of eventual urban development was a major consideration for Benton County decision-makers. Corvallis decision-makers recognized that there were cases where phased developments had been premised on previous studies and / or agreements (e.g., Timberhill Planned Development and Owens Farm – Good Samaritan Hospital). Evidence of social equity concerns is found in the minutes of public workshops and hearings held from October 2003 through July 2004.

social consequences for the community. (See Goal 9 ESEE discussion.)

- **Affordable Housing** – The provision of affordable housing is critically important to maintaining social diversity called for in the *Corvallis 2020 Vision Statement*. Protection of all Significant Vegetation areas would substantially reduce the City's residential buildable land area and therefore would further increase housing costs for existing and future residents. (See Goal 10 ESEE discussion.)
- **Efficient Use of Scarce Public Resources** – Corvallis and Benton County decision-makers have a fiduciary responsibility to their constituents to use public monies wisely. The full protection option would substantially increase the costs of providing public infrastructure and therefore would have adverse long-term social consequences for existing and future community residents. Maintaining continued confidence in the ability of City and County elected officials is also a governance issue: the community's long-term ability to work together to solve environmental, social, economic and energy problems depends in significant part on the confidence that the citizenry places in local elected officials. (See Goal 11 and 12 ESEE discussion.)
- **Premature Loss of Rural Open Space** – Inefficient use of land within the Corvallis Urban Growth Boundary (UGB) will result in premature conversion of farm and forest land to urban uses to meet urban growth needs. There are enormous social benefits for Corvallis area residents associated with maintaining such rural lands. (See Goal 14 ESEE discussion.)

Full protection of Significant Vegetation can have other minor social costs. Pollen from vegetation causes allergies for some people. Citizens may incur costs associated with allergy relief and medication. Another social issue relates to safety and defensible space. Forested areas with understory vegetation can be a safety concern for local communities. In Corvallis, however, forested areas with dense understory vegetation are uncommon, and are generally located at a distance from populated areas. In Corvallis' forested parks, trail systems and park facilities are typically designed with careful attention to public safety issues.

In contrast, the "no protection" option would result in the loss of the social benefits from full protection listed above. The no protection option would be inconsistent with the social values expressed in the *Corvallis 2020 Vision Statement* and in City and County comprehensive plans. The no protection option would result in substantial degradation to air, land, and water resources quality – with corresponding adverse social consequences. Allowing conflicting uses



fully without protection safeguards for Significant Vegetation will result in the loss or degradation of one of the defining characteristics of Corvallis neighborhoods, eroding the City's visual quality and livability. Health benefits (with the exception of allergies), recreational and educational values, screening and buffering, and noise attenuation values also would be lost or degraded. Benton County and Corvallis residents place a high premium on environmental values. If such values are not conserved in a balanced manner, public trust in elected officials and in local government would be compromised.

Environmental and Social Consequences of Limited Protection Program

The Draft Preferred Scenario represents a creative balance that avoids many of the adverse environmental and social problems associated with the two extremes discussed above. The Limited Protection Program provides a high level of protection for Significant Riparian Corridors, locally significant wetlands (except those with limited functional value in the South Corvallis area) and Significant Vegetation that overlaps substantially with natural hazard areas or is in public parks. However, to address the substantial adverse social consequences associated with the full protection option, the Limited Protection Program does not protect portions of Urban Fringe WHAs that are needed for housing, interim forest use and long-term efficient land use. The Limited Protection Program allows for public infrastructure, fire breaks, and similar relatively low-impact uses that provide substantial public benefits without a corresponding loss of environmental value.

Environmental Consequences

The Limited Protection Program maintains the basic integrity of Corvallis' system of riparian corridors and locally significant wetlands, and protects most of the community's Significant Vegetation. Most types of urban development (residential, commercial / industrial) are prohibited within highly protected vegetation areas, riparian corridors and wetlands. However, in order to achieve the balance called for in the Corvallis Comprehensive Plan, and to avoid adverse social, economic, and energy consequences resulting from the full protection option, there are some notable adverse environmental consequences.

Adverse Impacts To Integrity Of Wildlife Habitat Areas (WHAs)

Corvallis and Benton County decision-makers carefully reviewed the economic, social, and energy costs of fully protecting the complex mosaic of significant streams, wetlands, and vegetation cover that comprise Urban Fringe WHAs. They concluded that WHAs located outside of natural hazard areas, or that were not part of the public park system, or that did not contain specific types of Significant Vegetation could not be



protected while at the same time addressing social equity, housing, and efficient urbanization issues. For this reason, protection of WHAs as integrated units was abandoned in favor of protection of Significant Vegetation. This decision was based in part on the recognition that large areas of forested wildlife habitat are located in the MacDonald Forest immediately outside and to the Northwest of the Corvallis UGB. The effect of this decision was to diminish both the quantity and quality of certain wildlife habitat areas, while maintaining riparian corridors and wetlands. This was a difficult balancing decision.

Adverse Impacts At The Edge Of Significant Resource Areas

Corvallis and Benton County decision-makers also reviewed potential economic impacts on property owners and developers, and on the community's ability to meet long-term housing and employment needs without prematurely expanding the UGB. This resulted in the decision to adopt Chapter 4.11, Minimum Assured Density Area (MADA), which ensures that the density that would have been allowed on a subject parcel will be allowed, even if this affects the edge of a significant resource area. The MADA standards are clear and objective but are applied on a site-by-site basis if desired by the applicant. Over time, application of MADA standards will have the effect of reducing the quantity of significant natural areas. This will have adverse environmental consequences at the margins of protected resource areas.

Adverse Impacts Resulting From Allowing Conflicting Uses On A Limited Basis

Draft Chapters 4.12 (Significant Vegetation) and 4.13 (Riparian Corridors and Wetlands) allow several conflicting uses that will have some adverse environmental impacts. Examples include water dependent uses, replacement of existing structures, street and utility construction, erosion and flood control structures, lawn and garden maintenance, hazardous tree removal, emergency repairs to public facilities, removal or pruning of trees as fire breaks, and the like. The cumulative environmental impact of these uses is small to moderate; in several cases, consideration of alternatives and mitigation for environmental impacts is required. As noted in the discussion above, the social benefits from allowing these conflicting uses on a limited basis more than offset any adverse environmental impacts.

Adverse Impacts From Allowing Conflicting Uses In Specific Areas

Draft Chapter 4.12, Table 4.12, includes special provisions for limited development in certain areas (PPSV-1 through PPSV-4) with Significant Vegetation that resulted from site-specific considerations by Corvallis and Benton County decision-makers. The cumulative adverse environmental impact of these decisions is small in comparison with the overall



protected Significant Vegetation area. Special provisions recognize previous decisions or commitments that had been made in areas such as Timberhill, Owens Farm, and for COHO housing. (See ESEE discussion in Chapter 6.)

During the public hearing process, several spoke of adverse environmental consequences resulting from limited (*versus full*) protection of the Seavy Meadows Wetland area. The Goal 5 section of this chapter recognizes that substantial adverse environmental impacts will result from approval of an RS-12 housing project within Seavy Meadows. On balance, however, Corvallis and Benton County decision-makers have placed greater weight on the positive social consequences resulting from construction of affordable housing within locally significant wetland area. Adverse environmental consequences will, however, be limited by restricting the size of the building envelope and requiring mitigation for lost wetland values.

Adverse Impacts From Not Protecting South Corvallis Wetlands

Corvallis and Benton County decision-makers chose not to protect locally significant wetlands in NRA-16 (Airport). This decision has minor adverse environmental consequences, because these LSWs met only one of the significance criteria set forth in Division of State Lands administrative rules.

Social Consequences

The Limited Protection Program (Draft Preferred Scenario) resolves social issues raised by the full protection option as follows:

- **Social Equity** – The decision not to protect several Significant Vegetation areas within the Urban Fringe, coupled with special provisions for major developments consistent with previous studies or agreements (e.g., COHO Housing, Owens Farm and Timberhill), resulted in much greater social equity.
- **Urban Wildfires** – Fire breaks are now permitted, reducing the danger to homes and businesses at the edge of areas with significant and combustible vegetation.
- **Public Parks** – Provisions to allow for trails and passive recreational facilities maintain the social value of parks in natural areas, consistent with the *Corvallis 2020 Vision Statement*.
- **Employment Opportunities** – The decision not to protect significant wetlands in NRA 16 (Airport) facilitates the provision of “shovel ready” industrial sites that will improve basic employment opportunities.
- **Affordable Housing** – The decision not to protect specific South Corvallis wetlands otherwise buildable vegetation polygons in the



Urban Fringe will increase the supply of buildable land for housing, thus making housing more affordable and helping to maintain social diversity called for in the *Corvallis 2020 Vision Statement*.

- **Efficient Use of Scarce Public Resources** – The Limited Protection Program reduces the costs of providing public infrastructure and therefore would have positive long-term social consequences for existing and future community residents. By achieving the balance between efficient provisions of public facilities and services on the one hand, and protection of most Significant Vegetation areas on the other, City and County elected officials are more likely to maintain public confidence so as to facilitate the community's long-term ability to work together to solve environmental, social, economic and energy problems.
- **Premature Loss of Rural Open Space** – By using land more efficiently within the Corvallis UGB, premature conversion of farm and forest land to urban uses will be avoided, thus preserving social benefits for Corvallis area residents associated with maintaining such rural lands.

Goal 5 Conclusion

The Corvallis – Benton County Draft Preferred Scenario (Limited Protection Program) maintains most of the environmental values described in the *Corvallis Natural Features Inventory* without sacrificing important social values associated with social equity, wildfire protection, park development, industrial employment opportunities, affordable housing, the efficient provision of public facilities and services, and compact urban growth form. As a result of this ESEE Analysis, and as shown on **Map C: Significant Goal 5 Natural Resource Areas (NRAs) With Proposed Natural Features Protection Designations**, the proposed Goal 5 protection program would provide *limited* protection for approximately 87% (5,249 acres) of significant natural resource areas within the Corvallis UGB.

Goal 6: Air, Land and Water Resource Quality

Statewide Planning Goal 6 requires that cities adopt policies and implementation measures to ensure that air, land, and water quality are not "degraded" and that state and federal environmental quality standards are met.

ESEE Relationship to Goal 6

Corvallis has adopted several programs to achieve the purposes of Goal 6, including:

- Stormwater Master Plan
- Erosion Control regulations



- Pollution Control regulations

Ultimately, these programs apply throughout the UGB, and unlike Goal 5, do not impose natural resource site-specific land use restrictions on individual properties.

Protection of significant NRAs – riparian corridors, wetlands, and Significant Vegetation – help to maintain air, land, and water resource quality within the Corvallis UGB by reducing the impacts of urban development. Conversely, if significant Goal 5 resource areas are not protected, there are adverse consequences for air, land and water resource quality.

The Goal 5 administrative rule (OAR 66-023-0240) states that Goal 5 procedural requirements do not apply to measures that implement Goal 6, provided that such measures do not “exceed” the requirements of these goals.

(1) The requirements of Goal 5 do not apply to the adoption of measures required by Goals 6 and 7. However, to the extent that such measures exceed the requirements of Goals 6 or 7 and affect a Goal 5 resource site, the local government shall follow all applicable steps of the Goal 5 process.

Corvallis and Benton County are following all applicable steps of the Goal 5 process for all significant Goal 5 resource sites, as documented in this report. The ESEE Analyses found in this chapter and in Chapter 6 consider the consequences of three decision options prior to reaching the decision to protect most, but not all, significant resource areas on a limited basis.

ESEE Consequences of Full and No Protection Options for Air, Land, and Water Resource Quality

This section considers environmental, economic and social consequences of fully protecting all significant resource areas identified in Scenario C, or not protecting them at all (i.e., allowing conflicting uses fully). Energy consequences are addressed under Goal 13, Energy Conservation.

During this discussion, it is important to remember that Corvallis and Benton County must comply with state and federal environmental quality regulations, and that both jurisdictions have local erosion control and stormwater management requirements that ensure compliance with Goal 6. Therefore, the “no protection” option for Goal 5 resources does not mean that air, land, and water resources will be unprotected. Rather, the “no protection” option means the loss of additional benefits provided by riparian corridors, wetlands and Significant Vegetation for air, land, and water resources quality.



Environmental Consequences

Wetlands provide important water quality functions. They reduce the impacts of excess nutrients in storm water runoff on downstream waters. Essentially equivalent to pollution removal, a wetland contributes to water quality by trapping sediment during periods of heavy rainfall, keeping it from entering adjacent downstream resources. Wetlands also trap nutrients such as nitrogen and phosphorus, helping to prevent or minimize algal blooms and subsequent oxygen deficiencies downstream. Wetlands reduce downstream flood peaks and store floodwaters by acting as flood regulators, trapping water during periods of high precipitation or flooding, and slowly releasing the flow downstream. By reducing the velocity and volume of stormwater flows, wetlands also reduce erosion and thereby help to preserve water and land quality.

The Local Wetland Inventory (LWI) evaluated the effectiveness of wetlands within the Corvallis UGB to provide both of these functions. The LWI assessed each wetland's water quality and hydrologic control function as "intact," "impacted," or "not present." All of the 122 wetlands described in the LWI were found to have some water quality and hydrological control value. Most (54%) of the 59 Locally Significant Wetlands (LSWs) identified in the Natural Features Inventory had "intact" water quality function, and many (41%) had "intact" hydrologic control function.

Full local protection of LSWs ensures that water quality and hydrologic control functions remain intact, with corresponding benefits for water and land quality within the Corvallis UGB.

If Corvallis and Benton County were to allow fill and removal of LSWs without local restriction, then these water quality and hydrologic control functions could be lost, to the detriment of land and water quality. Although the Oregon Department of State Lands (DSL) and US Army Corps of Engineers would still have regulatory authority, maintaining the benefits of full protection would be less certain. This is true for two reasons: first, these agencies may grant a permit to fill and remove all or part of an LSW; and second, their monitoring and enforcement capabilities are limited by budget and staffing considerations. **Therefore, there would likely be adverse environmental consequences for water quality if there were no local protection program (i.e., if conflicting uses were allowed fully).**

Riparian Corridors also provide benefits for air, land, and water resources quality. Like wetlands, riparian corridors can enhance water quality in many ways. Undisturbed densely-vegetated riparian corridors trap sediments, inhibit erosion, and filter runoff originating from impervious surfaces, lawns, golf courses, and the like. Sedimentation and erosion, although natural



processes, are accelerated in urban areas by increased impervious surfaces. Impervious surfaces also inhibit infiltration. Sediment within a riparian corridor can be from erosion of poorly vegetated uplands, runoff from impervious surfaces, or floods from an adjacent water resource. Sediments often carry nutrients (e.g. phosphates and nitrates) and pollutants (e.g. heavy metals, hydrocarbons) to water resources, altering water chemistry, burying spawning gravels and impacting fish and wildlife habitat. Excessive concentration of nutrients in the water can trigger algal blooms, depleting the water of oxygen required by fish and other aquatic organisms. The ability of a riparian corridor to resist erosion is related to slope, soil type, type of vegetation, vegetation cover, landscape position, and degree of human disturbance.

Riparian corridors and associated wetlands and floodplains provide a valuable flood management function by reducing the force and volume of floodwaters. Floodwaters flowing into a vegetated, flood-prone riparian corridor can be slowed or temporarily stored, reducing peak flows and downstream flooding. Woody vegetation, in particular, resists floodwaters and reduces its velocity. Topographic features such as swales and depressions can enhance a riparian corridor's ability to manage flood flows. Reducing the velocity of floodwaters in the riparian corridor allows infiltration of water into the soil. Water entering the soil is slowly released into the main channel, delaying its movement downstream.

Water temperature affects the ability of a stream to support viable populations of certain aquatic organisms. Riparian shade, especially forest canopy, moderates temperature within and adjacent to a water resource. Although stream temperatures are important throughout the year, summer temperature is generally more critical for fish species such as salmonids. High water temperatures and sunlight are factors that can promote algal blooms, reducing dissolved oxygen required by anadromous fish and other cold-water dependent organisms. The aspect or orientation of the water resource and the height of the adjacent riparian vegetation play important roles in how effective riparian vegetation is in providing shade.

For reasons stated above, full protection of Significant Riparian Corridors would have substantial water quality benefits within the Corvallis UGB.

If Corvallis and Benton County were to allow unrestricted development of riparian corridors, then these water quality and hydrologic control functions could be lost, to the detriment of land and water quality. **Therefore, there would be adverse environmental consequences for water and land quality if there were no local protection program for riparian corridors (i.e., if conflicting uses were allowed fully).**



Significant Vegetation (Tree Groves and Wildlife Habitat) can protect soil and improve water and air quality. Trees and other plants hold soils in place during rain and wind. Land with steep slopes is especially susceptible to erosion. Significant Vegetation also helps keep sediment and contaminants from entering water bodies. Trees slow stormwater runoff, thereby minimizing erosion and allowing the ground to filter out sediments and nutrients as the water soaks down into groundwater reserves or passes into streams. Since much of Corvallis Significant Vegetation is located on hillsides, retention of Significant Vegetation in hillside areas has positive consequences for land and water quality. Significant Vegetation also improves air quality by removing carbon dioxide from the air and replenishing it with oxygen. These effects are more noticeable in developed areas, where environmental quality is more degraded.

Poor air quality is both a human and an environmental concern: air that is polluted and high in temperatures can degrade ecological functions and damage the health of local plant and animal communities. Trees and other Significant Vegetation in Corvallis remove pollutants such as nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, and airborne particulates. Trees also help reduce wind speed so that heavy particles settle out. Trees and other Significant Vegetation naturally absorb carbon dioxide, storing carbon as they grow, helping to reduce the effects of global warming which can cause widespread damage to ecological communities. The average urban tree, for example, removes nearly a ton of greenhouse gas during its first 40 years of life (Boykin 2003).

Trees and other Significant Vegetation help conserve soils and stabilize slopes, thus maintaining land quality. Fibrous root systems hold soil in place, reducing erosion caused by wind, rain, and surface runoff. Tree branches and leaves reduce the impact of rain on the soil. Leaves fall to the ground, decompose, and provide nutrients to the soil. By binding soils, dissipating erosive forces, and providing nutrients, trees protect and enhance the diversity and abundance of soil organisms. In the same manner, trees and their root systems help to hold and protect steep slopes from erosion and failure. Tree roots reinforce the soil, increasing soil shear strength, and bind soil particles, reducing their susceptibility to erosion.

Full local protection of significant tree groves and Significant Vegetation within wildlife habitat areas would have substantial benefits for air, land, and water quality within the Corvallis UGB. Conversely, if conflicting uses were allowed to develop without local zoning restrictions, there would be significant and adverse impacts on air, land, and water quality within the Corvallis UGB.



Economic Consequences

Compliance with state and federal environmental standards can be costly for local governments. By fully protecting locally significant wetlands, Significant Riparian Corridors and Significant Vegetation, the costs of meeting water and air quality standards can be substantially reduced. For example, the Cities of Portland and Corvallis recently adopted stormwater master plans that recognize the benefits natural areas provide for on-site stormwater management. When stormwater is treated at the source by saving trees or reducing pavement, then stormwater infrastructure requirements are correspondingly reduced. Costs for compliance with National Marine Fisheries Service (NMFS) requirements related to water quality and temperature can also be reduced.

The 2020 Corvallis Vision Statement (Vision Statement) notes the value that the community places on businesses with a high environmental ethic:

Businesses share the city's commitment to environmentally sound practices, and collaborate with community members to maintain and improve the city's air and water quality. This is done not only with attention to the businesses' own impact on the environment, but by encouraging employee use of alternative modes of transportation to and from work. Businesses are sensitive to their use of natural resources to produce quality goods, and are responsible stewards of those resources. Ongoing and open dialogue exists between business leaders and other community members concerning environmental issues and questions.

In Corvallis, protection of significant wetlands, stream corridors, and vegetation can expedite development review, reduce infrastructure construction costs, and improve long-term community relations – all of which make good economic sense. The message is clear: there are economic benefits associated with full protection of significant natural resources in Corvallis.

On the other hand, full protection of significant natural resources may not be the most cost-effective way to achieve environmental standards. For reasons stated in the Goal 8-12 discussion, full protection of *all* significant natural resource sites would likely result in decreased efficiency of land use, and resultant increases in land acquisition and development costs for parks, businesses, housing, public facilities and transportation projects.

In conclusion, there are substantial positive economic consequences – in terms of reduced costs for meeting local, state and federal environmental standards – associated with the full



resource protection option. However, these costs need to be weighed against urban land acquisition and development costs that are addressed in other sections of this chapter.

If Corvallis were to allow conflicting uses fully, the costs for meeting state and federal environmental standards would likely increase substantially, along with increased infrastructure construction and maintenance costs. Reliance on "after the fact" hard engineering methods of pollution control can have substantial dollar costs that need to be considered when determining the economic consequences of allowing unrestricted development (i.e., allowing conflicting uses fully).

Social Consequences

The Corvallis Comprehensive Plan and the Vision Statement recognize the importance of clean air and water to the citizens of the area. Both documents closely link air, land, and water resource quality to quality of life – thus underscoring their social value. For example, the Vision Statement "envisions" Corvallis as "a highly livable city which employs local benchmarks to measure its progress in areas such as * * * environmental quality, and overall quality of life."

The Vision Statement goes on to recognize the social value that Corvallis places on air, land, and water quality with the following statements:

*Corvallis is a community where all pollution types (including noise, visual, air, water, odor and chemical pollution) are carefully monitored and standards are maintained that meet or exceed the highest standards in the valley. * * * Trees have been planted throughout the community to take advantage of their aesthetic qualities, to provide cooling during the summer, and for their ability to help cleanse the air we breathe. * * * The community's water supply, along with its streams and creeks, are clean and clear. * * * Run off from road, construction and other pollution sources is collected and treated, if necessary, before being discharged. We guard our precious aquifer closely, by exercising extreme care in disposing of hazardous wastes, and we closely follow state and federal environmental regulations.*

Full protection of significant wetlands, riparian corridors and vegetation help to maintain the livability that is so highly valued by Corvallis residents. On the other hand, unrestricted development of significant natural resources in Corvallis degrade air, land and water resource quality, and therefore would have serious and adverse social consequences for the community.



ESEE Consequences of Limited Protection Program for Air, Land and Water Resource Quality

The Draft Preferred Scenario provides a high level of protection of significant wetlands and riparian corridors. A high level of protection is also afforded Significant Vegetation areas on steep slopes that are subject to erosion and landslides.

Environmental Consequences

When compared with the full protection scenario, the Limited Protection Program has marginal adverse environmental consequences for air, land, and water resource quality. Air quality will be marginally reduced as urbanization occurs in some Significant Vegetation areas. Land quality will not be substantially affected, because of the strong natural hazard provision found in Chapter 4.5 (Natural Hazards). As noted above, Corvallis and Benton County decision-makers have afforded a high level of protection to riparian corridors and wetlands, ensuring that water quality will not be degraded as a result of urban development.

Corvallis' Goal 5 program should be viewed in the context of other local and state programs to maintain environmental quality. Local programs include *The Corvallis Stormwater Management Plan (2003)*, erosion control standards, and draft Chapter 4.5, Natural Hazard standards. The Comprehensive Plans of Benton County and Corvallis commit these jurisdictions to continued coordination with the Department of Environmental Quality (DEQ) to ensure that Oregon Environmental Quality Commission standards related to air, land and water quality are met.

Economic Consequences

The economic consequences of the Draft Preferred Scenario are positive, because they will have the effect of reducing public and private stormwater collection and treatment costs. (See discussion under full protection scenario.)

Social Consequences

The social consequences of the Draft Preferred Scenario are positive, because they will have the effect of reducing public and private stormwater collection and treatment costs. (See discussion under full protection scenario.)

Goal 6 Conclusion

Both the full protection scenario and the proposed Limited Protection Program complement existing City, County, and State air, land, and water resource quality



programs. When compared with the no protection scenario, both the full and limited protection programs have substantial positive ESEE consequences.

Goal 7: Natural Hazards

Goal 7 reads (in relevant part) as follows:

To protect people and property from natural hazards.

A. Natural Hazard Planning

- 1. Local governments shall adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards.*
- 2. Natural hazards for purposes of this goal are: floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires. Local governments may identify and plan for other natural hazards.*

Natural Hazard Protection and Effect on ESEE Analysis

Corvallis and Benton County are adopting Goal 7 hazard protection programs that resolve most conflicts between development and resource preservation in areas with mapped natural hazards, based on clear and objective development standards. The Goal 7 protection program (draft Chapter 4.5, Natural Hazard and Hillside Development Provisions) 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 (4th Water Level); and
- Mapped landslide hazard areas.

This land is considered "unbuildable" for purposes of meeting housing and employment needs. Table 3-1 lists NRAs with natural hazards that are highly protected by the Natural Hazards and Hillside Development Overlay District. Chapter 4.5 applies within the 100-year floodplain. Most types of urban development are prohibited within local stream floodplains and within the Marys and Willamette River floodplains within the Urban Fringe. Chapter 4.5 prohibits most types of urban development on slopes of 35% and greater within earthquake fault zones, within mapped landslide hazard areas, and within the 4th Water Service Level (wildfire hazard). (See Goal 7 discussion in Chapter 5, ESEE Analysis for the Urban Growth Area.)



Because these severe hazard areas are unbuildable for most urban areas, the ESEE consequences of allowing, prohibiting or limiting conflicting uses are different for severe hazard areas than for otherwise buildable areas.

Table 5-7-1. Natural Resource Analysis Areas that are Highly Protected by Goal 7 Hazard Protection Overlay Zone

Natural Resource Analysis Area	Stream Flood Plain	River Flood Plain	Hillside Slide Hazard Area	Hillside Slopes \geq 35%	4 th Water Level ²
N-NRA-1 Vineyard Mountain – Chip Ross Park	X	-	X	X	X
N-NRA-2 Jackson Frazier	X	-	X	-	X
N-NRA-3 Lewisburg	X	-	X	-	-
C-NRA-4 Walnut Park	X ³	-	X	X	X
C-NRA-5 Timberhill	X	-	X	X	X
C-NRA-6 Sequoia Creek	X	-	X	X	-
C-NRA-7 Village Green	X	-	X	-	-
C-NRA-8 Dixon Creek	X	-	X	X	-
C-NRA-9 Bald Hill	X	-	X	X	X
C-NRA-10 Witham Hill – Oak Creek	X	-	X	X	-
C-NRA-11 Riverfront Central	X	-	-	X ³	-
C-NRA-12 West Hills	X	-	X	X ³	-
C-NRA-13 Dunawi Creek	X	-	-	-	-
C-NRA-14 Country Club	-	-	X	X	-
S-NRA-15 Confluence	-	X	X	X	-
S-NRA-16 Airport	-	X	-	X	-

¹ Floodplain in largely undeveloped Urban Fringe.

² Wildfire hazard due to lack of water flow and pressure.

³ Very small cumulative hazard area (less than 5 acres).



ESEE Relationship to Goal 7

Many of Corvallis' natural resources are located in areas with severe natural hazards: this is true of riparian areas, wetlands (flooding), and wildlife habitat areas (steep slopes, landslide hazards, wildfire hazards). Corvallis and Benton County decision-makers carefully considered the overlap between Goal 7 natural hazard and Goal 5 natural resource areas when determining whether, and to what degree, Significant Vegetation resource areas (wildlife habitat and tree groves) and riparian areas (stream and urban fringe river floodplain) should be protected.

In considering this relationship, Corvallis and Benton County officials observed that allowing development in natural hazard areas generally could have severe and adverse economic, social, and environmental consequences. Therefore, they determined that areas without water service, areas subject to landslide or severe slope hazards, earthquake fault zones, and undeveloped areas subject to flooding were considered unbuildable for most types of urban development. **It follows that protecting natural resource areas with natural hazards has fewer adverse economic and social consequences for property owners – as least insofar as urban development is concerned.** At the same time, Decision-makers clearly recognized that prohibition of interim farm and forest uses could have adverse economic consequences for farm and forest landowners.

ESEE Consequences of Full and No Protection Options for Land with Natural Hazards

As noted above, the ESEE consequences for full protection of land with natural hazards are considerably different from those for land with no or easily remediable hazard potential. The adverse ESEE consequences of allowing urban development in hazardous areas with significant natural resources are compounded but the possibility of damage to life and property.

Environmental Consequences

The environmental consequences of fully protecting significant wetlands, riparian corridors, and vegetation are highly positive and are discussed in the Goal 5 and 6 sections of this chapter. These positive environmental consequences are reinforced in natural hazard areas, because prohibiting all conflicting uses decreases the likelihood of flooding and slope failure. Moreover, flooding and slope failure would adversely affect water quality in streams and would harm Significant Vegetation, as well as fish and wildlife habitat.

Conversely, the environmental consequences of the no protection option are severe and adverse. Unrestricted urban development, grading and vegetation removal would increase substantially and the likelihood of flooding and slope failure, which would degrade land and water quality, fish and wildlife habitat, and scenic values.



These environmental considerations led Corvallis and Benton County decision-makers to conclude that Significant Vegetation areas with severe natural hazards generally should receive a higher level of protection than those without natural hazards.

Economic and Social Consequences

The economic and social consequences of full resource protection, in areas with over-lapping natural resources and natural hazards, are mixed. Under the full protection option, the likelihood of damage to persons and property would be reduced when compared with the no protection option. In cases where development cannot safely occur, adverse economic and social consequences are less pronounced, because housing and businesses construction could not occur in any case.

However, the full protection option would *prohibit all conflicting uses and activities in all mapped hazard areas*, with adverse economic and social consequences to property owners, the general public and urban service providers. Such a complete prohibition would severely restrict the use of property for non-construction purposes (e.g., yards and gardens), increase the costs of providing public infrastructure, restrict public recreational opportunities, prohibit most farm and forest management practices, and increase transportation costs resulting from out-of-direction travel. The full protection option would also limit the ability to passive recreational facilities in public parks, and the public would be unable to access natural areas with attendant adverse social consequences.

Wildfire hazards can increase under the full protection option, especially at higher elevations. Over 20 years ago, the City determined that it could not economically provide water service to the 4th Water Level. The lack of water service precludes urban land development and would result in extreme wildfire hazard if residential development were to occur at urban densities. Because land in the 4th Water Level cannot be provided with urban water service, it is considered unbuildable at urban densities. Therefore, Corvallis decision-makers determined that areas with Significant Vegetation in the 4th Water Level should have greater resource protection than otherwise buildable areas below the 4th Water Level. Benton County decision-makers, on the other hand, did not view location above the 4th Water Level as an impediment to rural residential development, provided that adequate on-site water is available and fire breaks are permitted.

For these reasons, Corvallis and Benton County decision-makers rejected both the full protection and no protection options, even in



situations where natural hazards cover the same ground as significant natural resource areas.

ESEE Consequences of Limited Protection Program for Land with Natural Hazards

Draft Chapter 4.5, Natural Hazard and Hillside Development Provisions, imposes limitations on development within floodplains that reinforce the effectiveness of draft Chapter 4.13, Riparian Corridor and Locally Protected Wetland Provisions, and draft Chapter 4.12, Significant Vegetation Provisions.

Environmental Consequences

The environmental consequences of the Draft Preferred Scenario are positive, because draft hazard regulations reinforce proposed riparian corridor, wetland, and Significant Vegetation protection standards.

Section 4.5.70.07 applies to development in the "high protection" 100-year floodplains of all local streams and of the largely undeveloped Urban Fringe portions of the Willamette and Marys Rivers. This section prohibits grading, construction of impervious surface areas, and vegetation removal within these floodplains, which provides an additional layer of protection for Significant Riparian Corridor resources. This section also prohibits land divisions and property line adjustments that cannot be developed in conformance with the regulations contained in this chapter – thus reducing potential conflicting uses in the future.

Section 4.5.80 related to hillside development has a similar hazard and resource protection purpose:

*"It is the purpose of these regulations to provide supplementary development regulations to underlying zones to ensure that development occurs in such a manner as to **protect the natural and topographic character and identity of these areas, environmental resources, the aesthetic qualities and restorative value of lands, and the public health, safety, and general welfare by ensuring that development does not create soil erosion, sedimentation of lower slopes, slide damage, flooding problems, and severe cutting or scarring.**" (Emphasis added.)*

Accordingly, this and subsequent sections prohibit new residential, commercial, industrial and public building construction on slopes of 35% or greater, high landslide risk areas, existing landslide areas, and landslide debris run-out areas shown on the Corvallis Natural Hazards Map.



Economic and Social Consequences

Unlike the full resource protection option, the Limited Protection Program allows for certain private and public land uses and activities that reduce adverse social and economic consequences for landowners and the public.

Strict building limitations are balanced by provisions that allow reasonable use of property in flood and slope hazard areas. For example, replacement of existing structures, construction of water dependent and related uses in high protection floodplains, removal of hazardous trees, construction of transportations and utility facilities, and construction of flood management facilities are permitted subject to locational and construction standards. In this manner, public facilities necessary for development outside of highly protected floodplain and slope hazard areas can occur. Within the more developed City Limits, construction allowed by underlying zoning is permitted subject to flood management standards.

Moreover, proposed Chapter 4.11, Minimum Assured Development Area (MADA), provisions provide additional flexibility to ensure that land efficiency and property owner fairness objectives are met. These provisions are discussed in more detail under Goals 9 (Economy), 10 (Housing), and 11 (Public Facilities and Services).

Because the draft natural hazards Limited Protection Program allows for certain private and public uses and activities within hazard areas, subject to engineering and locational standards, adverse social and economic consequences are reduced without compromising public safety.

Goal 7 Conclusion

The Draft Preferred Scenario (Limited Protection Program) is implemented by draft Chapter 4.5, Natural Hazard and Hillside Development Provisions. These provisions have positive environmental consequences because they reinforce other proposed provisions to protect riparian corridors, wetlands and Significant Vegetation. At the same time, draft Chapter 4.5 provides the flexibility necessary to reduce adverse economic and social consequences of the full protection option.

The proposed legislative amendments that make up the Draft Preferred Scenario comply with Goal 7, Natural Hazards, because they provide clear and objective standards that to protect life and property from potential flood, slope, and earthquake hazards.

Goal 8: Recreational Needs

Goal 8 requires local governments to plan for the park and recreational needs of their community. This Goal is related to the Goal 14 requirement to provide land to meet the



"livability" needs of a community. The Corvallis 2020 Vision Statement summarizes the importance that Corvallis places on its park and open space system:

Outdoor Recreation

Our parks are among our most attractive assets. Scattered throughout the community, the parks vary in size, design and function to meet the need of neighboring areas. Parks accommodate a wide range of recreation activities for all ages. This range includes provision of more passive activities such as bird watching all the way to active sports. The park system includes a mix of developed and natural areas. Parks are equipped with barrier-free play equipment, picnic areas, walking and cycling paths, and benches. Parks also serve as outdoor performance spaces.

Our river and hilltop parks are the "crown jewels" of our park system. Acting as community focal points to the south are our riverside parks, providing river access, boating, play areas and natural habitats. A footbridge and bike path over the Marys River connect Pioneer and Avery parks. Framing the city to the north and west is a series of hilltop parks which provide panoramic views of Corvallis, the Willamette Valley and the Cascade Range.

A citywide network of safe and accessible trails and bicycle paths connect our neighborhoods, parks and open space system. Trails or parks can be reached within a 10-15 minute walk from homes. These neighborhood trails also provide links to more distant recreation trails in McDonald Research Forest, Marys Peak, and with the Corvallis-to-the-Sea Trail.

ESEE Relationship to Goal 8

Planning for, developing, and maintaining Corvallis' system of parks, open space, and trails are closely related to the level of protection afforded to significant wetlands, stream corridors, and vegetation. On the one hand, protecting natural resources provides open space and recreational opportunities for the community, which translates into positive social and economic consequences. On the other hand, park development and human access to natural resource areas can have adverse environmental consequences.

Fortunately, the Corvallis City Council and several parks advisory boards recognize the importance of the parks system in meeting the City's environmental goals. As noted on the Parks and Recreation Department web page, the park system has the following environmental benefits:

- Maintains Green Space to Help Filter and Reduce Run Off From Developed Areas;
- Helps to Protect Natural/Historical Features of the Natural Landscape;
- Provides Habitat For Wildlife and Flora Species;
- Helps to Reduce Travel Time and Offset the Effects of Pollution.



Table 5-8 shows the overlap that exists between parks and significant natural resource areas. As noted in Chapter 3, park development, including active and passive recreational uses and activities, can conflict with full resource protection.

Table 5-8. Corvallis Parks with Potential Goal 5 Resources Conflicts

Natural Resource Analysis Area	Park Name
N-NRA-1 Vineyard Mountain – Chip Ross Park	Chip Ross Park
C-NRA-4 Walnut Park	Walnut Park
C-NRA-5 Timberhill	Timberhill Park
C-NRA-6 Sequoia Creek	Brandis Park
C-NRA-7 Village Green	Village Green Park
C-NRA-8 Dixon Creek	Woodland Meadows and Porter Parks
C-NRA-9 Bald Hill	Bald Hill Park
C-NRA-11 Riverfront Central	Central Park
C-NRA-13 Dunawi Creek	Sunset Park
S-NRA-15 Confluence	Avery, Pioneer, Tunison and Willamette Parks

ESEE Consequences of Full and No Protection Options for Meeting Long-Term Park and Recreational Needs

With respect to park and recreational uses, the full protection option means that natural resource areas would be largely off limits to the public. Relatively minor conflicting uses such as pedestrian and bicycle trails, picnicking, and passive recreational uses – which can conflict with the preservation of wetlands, riparian areas and wildlife habitat – would not be permitted under the full protection option. In contrast, the no protection option would allow unlimited development of significant natural areas for park and recreational uses, such as recreational buildings, swimming pools, ball fields and skateboard parks.

Environmental Consequences

The environmental consequences of the full protection option are positive because conflicting active and passive recreational uses would be prohibited. Conversely, the environmental consequences of allowing conflicting park development without restriction would be extremely negative, because environmental values described in the Goal 5 and 6 sections of this chapter would be lost. However, if this property were not owned and maintained by public agencies, conflicting uses potentially would be much greater.⁸

⁸ Fortunately, Corvallis park and recreational plans do not call for active park development in protected natural resource areas.



Economic and Social Consequences

The economic consequences of the full protection option would be adverse. Much of Corvallis' appeal to local residents and visitors comes from its extensive park system, which is accessible to and usable by the public. If the full protection option were selected, Corvallis public parks would become exclusive nature preserves, which would limit their economic and social value to the public.

In contrast, the no protection option would allow active park and recreational uses in sensitive natural resource and natural hazards areas, which compromise the social and economic value that Corvallis and Benton County citizens place on parks that provide public access to natural open space.

ESEE Consequences of Limited Protection Program for Meeting Long-Term Park and Recreational Needs

The Limited Protection Program outlined below provides for the protection of natural resources in Corvallis' public park system, while allowing for public access and passive recreational opportunities.

The draft Chapter 3.38, Conservation – Open Space (C-OS) District, resolves conflicts between natural resource and recreational values 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.

Environmental Consequences

The environmental consequences of the Draft Preferred Scenario are only slightly negative. Passive recreational use by Corvallis and area citizens will have some adverse environmental impacts on natural resource values. However, these potential adverse impacts are minimized by the provisions of



draft Chapters 4.5, 4.12 and 4.13 related to natural hazards, riparian corridors and wetlands, and Significant Vegetation, respectively.

To further limit potential conflicting uses, the Draft C-OS District limits "civic uses" to trails and picnic tables, minor utilities, transportation facilities shown on adopted plans, and construction of street improvements adjacent to the property. Existing non-conforming uses and uses in approved conceptual or detailed development plans also are permitted.

Potential adverse environmental consequences are further mitigated by pollution resulting from automobile travel that would occur if Corvallis lacked an urban yet natural park system.

Economic and Social Consequences

These relatively minor adverse environmental consequences are more than offset by the economic and social benefits that local residents and visitors derive from having access to Corvallis' urban natural park system. (See discussion of open space benefits in the Goal 5 section of this chapter.)

Goal 8 Conclusion

The Draft Preferred Scenario, as implemented by draft Chapter 3.38, Conservation – Open Space (C-OS) District, and provisions to protect natural resource and hazard areas, effectively resolves conflicts between natural resource protection on the one hand, and passive recreational use on the other. The Limited Protection Program avoids the extremes of full protection (i.e., nature parks that no one can use) on the one hand, and no protection (i.e., unrestricted active park use) on the other.

The proposed amendments also support local park and recreation objectives of providing accessible nature parks for existing and future residents. Therefore, the proposed legislative changes comply with Goal 8, Recreational Needs.

Goal 9: Economy of the State

Goal 9 requires Corvallis to provide sufficient and suitable land within its UGB to meet long-term needs for industrial, commercial, office and mixed use development.

ESEE Relationship to Goal 9

The Goal 9 ESEE Analysis applies to land that is designated for employment (industrial, commercial, and office) uses on the Corvallis Comprehensive Plan Map. The primary concern is that Corvallis must maintain an adequate supply of land to meet economic development objectives. If land is removed from the industrial, commercial, or office buildable lands inventory to protect Goal 5 resources, and the



supply falls below the needs projected in the Corvallis Comprehensive Plan, then Goal 9 compliance is jeopardized.

Conflicts between Goal 9 and Goal 5 resources often are difficult to resolve because commercial and industrial buildings typically consist of a single story and require large parking lots and maneuvering areas. Unlike residential areas, density transfer often is not a viable option. Corvallis' industrial land base is concentrated in South Corvallis, near the airport. These areas are covered with hydric soils and both locally-significant and non-significant wetlands. Full and partial protection of wetlands directly conflicts with full utilization of the South Corvallis Industrial Area for employment purposes.

ESEE Consequences of Full and No Protection Options for Economic Development Objectives

Environmental and Energy Consequences

Since industrial and commercial land is usually located in relatively flat areas, most Goal 9 conflicts are with locally-significant wetlands and riparian corridors.

The full protection option would have positive environmental consequences for LSW and riparian corridors. In contrast, the no protection option would have substantial adverse environmental consequences. The environmental consequences of the full protection and no protection options are addressed generally in the Goal 5 and 6 sections of this chapter. Energy consequences of these options generally are addressed in the Goal 13 section of this chapter.

As noted in the discussion of the Limited Protection Program, the severity of these adverse environmental consequences is mitigated by the relatively low quality of LSWs in the South Corvallis Industrial Area.

As noted in the Goal 13 section, the full protection option would have serious adverse energy consequences because industrial jobs would be forced into other communities, thus increasing commuting distances and energy consumption.

Economic and Social Consequences of Full and No Protection Options

In commercial and industrial areas of Corvallis, wetlands, riparian corridors, and Significant Vegetation can have some economic benefits, including reduced stormwater management and energy costs. Other economic benefits include improved consumer perceptions of businesses and greater



worker productivity and job satisfaction. However, where large wetlands are concerned, especially in industrial areas, these benefits are less pronounced and are offset by the loss of buildable commercial and industrial land and corresponding loss of job opportunities.

Consumer Perceptions and Behavior

A recent study by researchers at the University of Washington found that consumers respond positively to commercial shopping environments with attractive trees and landscaping. Well-maintained landscapes with trees send positive messages about the appeal of a business district, the quality of products they offer, and the quality of customer service. Surveys were sent to selected districts in cities of the Pacific Northwest, Austin, Los Angeles, Chicago, Pittsburgh, and Washington, DC (Wolf 1999).

Researchers identified four categories of perceptions from participants' ratings of business districts: Amenity and Comfort, Interaction with Merchants, Quality of Products, and Maintenance and Upkeep. Consumers rated districts that had street trees and other landscaping significantly higher than those that did not. For example, *Amenity and Comfort* ratings were 80 percent higher, *Quality of Products* ratings were 30 percent higher, and *Interaction with Merchants* ratings were 15% higher (Wolf 1999).

The study also found that consumers are willing to pay as much as 12 percent more for products purchased in well-maintained and landscaped business districts with trees. This was true of low-price, convenience goods as well as bigger ticket items. "Given the low profit margins of most retail businesses," the researchers concluded, "trees appear to provide a significant amenity margin" (Wolf 1999).

These studies support the full protection option for riparian corridors and Significant Vegetation located at the edge of commercial retail and office areas. However, with regard to LSWs in industrial areas, the full protection option would offer relatively few of these economic and social benefits because the wetlands are too large to be integrated into an industrial development. Moreover, industrial land is not intended to attract consumers.

The no protection option would reduce local development constraints on industrial land, thus increasing land use efficiency and reducing the need to expand the UGB into agricultural areas to meet industrial and commercial needs.



Worker Productivity and Job Satisfaction

Visual contact with trees can also improve office worker productivity and job satisfaction (Kaplan and Kaplan 1989). Office workers with a view of trees and greenery:

- 1) Found their job more challenging,
- 2) Were less frustrated about tasks and generally more patient,
- 3) Felt greater enthusiasm for the job,
- 4) Reported feelings of higher life satisfaction, and
- 5) Reported better overall health.

Office workers without a view noted 23 percent greater incidence of illness in the prior six months (Kaplan and Kaplan 1989). Again, these studies apply more directly to office or industrial park workers and less to manufacturing and assembly workers. These benefits are off-set in industrial and commercial areas by the high costs of industrial and commercial land, and the need to use such land efficiently within the Corvallis UGB.

In conclusion, the full protection option would mean that no development could occur within protected Significant Vegetation sites or their respective impact areas. This option would severely restrict expansion of businesses and would severely limit areas where new commercial and industrial development could occur. Corvallis could become noncompliant with Statewide Planning Goal 9 (Economic Development). Job growth in Corvallis would be greatly impaired. For these reasons, full resource protection in Corvallis is not a realistic public policy option.

On the other hand, in commercial retail, office, and industrial park areas, unrestricted development could remove all vegetation and offer no protection for highly Significant Riparian Corridors and wetlands. The no protection option, when applied on a UGB-wide basis, would have substantial, adverse economic consequences for businesses, as noted in the Goal 5 section of this chapter. Well-maintained trees and landscaped areas send positive messages about the appeal of business districts, the quality of products they offer, and the quality of customer service, as noted above. The loss of natural resource areas in business districts could cost businesses as much as 12% in sales.

Significant trees and vegetation resources provide important amenity values for employees as well as business customers. Their presence increases worker productivity and job satisfaction significantly. These benefits are lost when conflicting uses are fully allowed and vegetation is cleared. Thus, the economic consequences of no protection are negative.



ESEE Consequences of Limited Protection Program for Economic Development Objectives

To address the negative ESEE consequences of both the full and no protection options, Corvallis and Benton County decision-makers have developed a Limited Protection Program. This program consists of two parts: first, riparian corridors and Significant Vegetation generally are protected in commercial and industrial areas, whereas large LSWs that would remove large buildable areas from the buildable lands inventory receive no protection. Also, the community's ability to meet long-term economic development objectives is retained through MADA standards.

In an October 1, 2004 letter, The Organizations of the Economic Vitality Partnership⁹ commended the City and County for striking an appropriate "balance in terms of community livability, development needs, and the need to protect natural features..." This organization encouraged the City to take further steps to create greater certainty in the development process by implementing clear and objective development review standards and by creating additional incentives for protection of natural resources.

LSWs Removed to Maintain Industrial and Commercial Land Supply

Four Locally Significant Wetlands (LSWs) will not be protected as a result of the ESEE Analysis process: they are located in South and West Corvallis. Two large LSWs are located in S-NRA-16 (Airport Natural Resource Area): S-MAR W-3 and S-MAR W-16. The other two are located in the West Hills NRA (C-NRA-12; Wetland WC-SQU W-13) and the Confluence NRA (S-NRA-15; Wetland S-GOO W-2).

Table 5-9-1 summarizes the location, quality, quantity, and conflicting uses affecting these four LSWs:

Table 5-9-1. Locally-Significant Wetlands (LSWs) Receiving No Protection

Wetland Code	Wetland Quantity (Acres)	Wetland Location (NRA)	Conflicting Use Category	Wetland Quality
S-MAR W-3	100	S-NRA 16 Airport	Industrial	Marginally significant LSW: <i>only</i> significant due to location within ¼

⁹ The Organizations for the Economic Vitality Partnerships include the Business Enterprise Center, the Business Advocacy Committee, the Corporate Round Table, the Corvallis Chamber of Commerce, the Corvallis Independent Business Association, Linn Benton Community College, Oregon State University, Corvallis Neighborhood Housing Services, Corvallis Natural Step, Downtown Corvallis Association, Economic Development Partnership, and Corvallis Tourism.



S-MAR W-16	154	S-NRA 16 Airport	Industrial	mile of Marys River; otherwise degraded or impacted water quality / hydrological control functions; not connected to Marys River; non-diverse wildlife habitat.
S-GOO W-2	52	S-NRA 15 Confluence	Commercial and Residential (Urban Fringe)	This LSW had has enhancement potential; other functions were impacted or degraded.
S-WIL W-16	37	S-NRA 15 Confluence	Commercial and Residential (Urban Fringe)	Functions for this LSW are impacted or degraded.
WC-SQU W-13	69	C-NRA 12 West Hills	Industrial (Urban Fringe)	This LSW is adjacent to Dunawi Creek and has diverse wildlife habitat and intact water quality function; other functions were impacted or degraded. Wetland appears to have been entirely man-made

Corvallis and Benton County decision-makers have determined that the economic and social consequences of the limited resource protection program are substantial and adverse relative to the four LSWs described in Table 5-9-1.

LSW S-MAR W-3 and W-16

The South Corvallis Industrial Area represents the community's largest source of industrial land. This land is necessary to provide basic employment consistent with the City's economic development objectives. Loss of this land from the industrial land inventory would eliminate at least 254 acres from the industrial land supply, with consequent loss of potential employment. Loss of employment opportunities would have substantial adverse social impacts on existing and future Corvallis residents, since the ability to earn a "family wage" is related to quality of life. Corvallis is seeking to have this land placed on the state's list of "shovel ready" sites. Full protection of these marginally-significant wetlands would make this impossible.

For these reasons, Benton County and Corvallis decision-makers have determined that LSW S-MAR W-3 and W-16 (i.e., portions of S-NRA-16) should receive no protection.



LSW WC-SQU W-13

The 53rd Street and Reservoir Road Intensive Industrial Area is a large industrial site located in C-NRA-15 (West Hills) within the Corvallis City Limits and Urban Fringe. Information presented to decision-makers has indicated that this wetland may be entirely man-made. This land is also needed to provide basic employment consistent with City and County economic development objectives. Loss of this land from the industrial land inventory would eliminate another 69 acres from the industrial land supply, with consequent loss of potential employment. Loss of employment opportunities would have substantial adverse social impacts on existing and future Corvallis residents, since the ability to earn a "family wage" is related to quality of life. For these reasons, Benton County and Corvallis decision-makers have determined that LSW WC-SQU W-13 (i.e., a portion of S-NRA-15) should receive no protection.

LSW S-GOO W-2 and S-WIL W-16

These wetlands cover commercial and residential areas east of Highway 99W near Kiger Island Drive in S-NRA-1 (Confluence) within the Corvallis Urban Fringe. This land is also needed for neighborhood commercial and medium and low-density residential development. This area is needed to provide neighborhood shopping and other services, as well as affordable housing near employment. Loss of this land from the residential and commercial inventory would make it more difficult for industrial employees to live near their places of employment and to shop in the immediate neighborhood – with accompanying adverse social and economic consequences. For these reasons, Benton County and Corvallis decision-makers have determined that no protection should be provided for LSW S-GOO W-2 and S-WIL W-16.

MADA Regulations and Effect on Industrial and Commercial Land Supply

MADA provisions are applied to both residential and non-residential areas. 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 still 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 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 Locally Significant Wetlands, 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 5-9-2: 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 the base MADA provisions, draft Chapter 4.11 (Section 4.11.30.03-04) includes automatic adjustment incentives:

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.*

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.



Taken together, MADA provisions are extremely effective in ensuring an adequate supply of buildable land for employment purposes and ensuring that protected natural areas receive some protection while 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.

Table 5-9-3 assesses the impact of the Limited Protection Program on commercial retail, office, and industrial land need and supply. For the purposes of these calculations, highly-protected and partially-protected lands have both been treated as highly-protected, resulting in a conservative estimate of buildable lands. Proposed regulations allow for development on many of these lands through partial protection provisions and the potential use of Minimum Assured Development Areas. Finally, existing (pre-ESEE Analysis) regulations *already* constrain development to a large degree as a result of open space, setback, and natural features protection provisions.

The determination of land need was included as part of the Buildable Land Inventory (BLI) in 1998, using 1996 land use data. Since that time, 31% of the assumed 20-year growth has occurred and 31% of the need has been accommodated. Consequently, the remaining needed acreages are 69% of the original BLI figures. These figures (rounded to whole numbers) are shown in Column 1 in Table 5-9-2.

Table 5-9-2 shows a surplus of 29 acres in the Commercial CB/MUC category, a deficit of 132 acres in the Office category, a surplus of 963 acres in the Heavy Industrial GI/GIO/II/MUT category, and a surplus of 106 acres in the Light Industrial LI/LIO/RTC/MUE category.

The buildable land supply of employment land is not affected by natural feature constraints except for the "Office" category. The supply of buildable land zoned for Office already shows a deficit of 131 acres according to the 2004 Buildable Lands Inventory. Natural feature constraints that occur due to the Limited Protection Program account for an additional 1-acre deficit in this category.

Since the Corvallis UGB contains nearly 1,100 acres of surplus land in other employment categories, the total 132-acre deficit of Office land can be made up through re-allocation of other employment lands to the Office category, or by allowing/accounting for Office development on other employment lands. The additional 1-acre deficit in Office that is a result of natural feature constraints can be accounted for when dealing with the overall Office deficit.



Therefore, there is still sufficient and suitable employment land available in the Corvallis UGB under the Limited Protection Program to remain compliant with Goal 9.

Table 5-9-3. Impact of Limited Protection on Employment Land Supply

Land Use (BLI Acres)	Total Land Need 2004 - BLI	Total Undeveloped Land	Surplus/ (Deficit)	Total Net Constrained	Total Resultant Developable Lands	Deficit Due to Factors other than NF Constraints	Deficits Due to NF Constraints	Total Net Surplus/ (Deficit)
Commercial - CB/MUC (76 Acres)	52	92	40	11	81	0	0	29
Office (220 Acres)	152	21	-131	1	20	-131	-1	-132
Heavy Industrial - GI/GIO/II/MUT (44 Acres)	30	1102	1072	109	993	0	0	963
Light Industrial - I/LIO/RTC/MUE (108 Acres)	75	206	131	25	181	0	0	106

* Excludes lands constrained by natural hazards.

Environmental Consequences

The environmental consequences of not providing Goal 5 protection for portions of the Airport Natural Resource Area (S-MAR W-3 and W-16) are not substantial, despite the large size of the wetlands. Together, they comprise 254 acres of industrial land north of the airport. As noted in Table 5-9-1, these LSWs are ranked as "locally-significant" *only* because they are located within ¼ mile of the Marys River. The wetlands have been farmed for many years.

The environmental consequences are moderate for the decision not to protect portions of the Confluence Natural Resource Area (S-GOO W-2 and S-WIL W-5). These large LSWs have 89 acres and are located on residential and commercial land west of the Willamette River and east of Highway 99W. These LSWs have degraded water quality and hydrological functions, but one has high enhancement potential.

The environmental consequences are substantial for removal of WC-SQU W-13. This large LSW has 69 acres, is associated with Dunawi Creek, and is characterized by diverse wildlife habitat and intact water quality function. However, from information presented by the property owner, it appears to have been entirely man-made.



Goal 9 Conclusion

The Draft Preferred Scenario preserves the industrial land supply within the Corvallis UGB through a decision not to protect some 400 acres of relatively low quality LSWs located in industrial and commercial areas. The adverse environmental consequences of this limited protection decision are offset by the positive economic, social, and energy consequences of preserving industrial job opportunities within the Corvallis UGB.

The Limited Protection Program includes MADA provisions that allow each industrial, commercial, and office site to develop for uses allowed in the applicable base zone(s) while integrating remaining natural resource areas into the project design.

The Limited Protection Program avoids the extremely adverse ESEE consequences associated with the full and no protection options.

Goal 10: Housing

Goal 10 requires Corvallis to provide sufficient buildable land within its UGB to meet long-term housing needs, as defined in the Corvallis Comprehensive Plan and ORS 197.303.¹⁰

Providing affordable housing opportunities in well-designed and livable neighborhoods is a primary consideration in the *Corvallis 2020 Vision Statement*. This document provides insight into the economic and social value that Corvallis and area citizens place on quality neighborhoods that provide for a wide range of housing types and densities. Residential neighborhoods are integrated with – rather than distinct from – significant urban natural resources.

¹⁰ **197.303 "Needed housing" defined.** (1) As used in ORS 197.307, until the beginning of the first periodic review of a local government's acknowledged comprehensive plan, "needed housing" means housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels. On and after the beginning of the first periodic review of a local government's acknowledged comprehensive plan, "needed housing" also means:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

Corvallis in 2020 offers balanced and diverse neighborhoods, incorporating mixed-use, that is accessible to residents without driving, which form the building blocks that support a healthy social, economic, and civic life. Neighborhoods can be defined by the characteristics of neighborhood identity, pedestrian scale, diversity, and the public realm. These characteristics are protected and enhanced in existing neighborhoods and are included in the design of new neighborhoods.

*All development in Corvallis contributes to the creation of complete neighborhoods. Development standards have been created based on the characteristics of traditional Corvallis neighborhoods. These standards insure that development and redevelopment create, protect, and enhance neighborhood form while facilitating the community-wide needs to improve transportation choices, **provide housing for a diverse population within safe attractive neighborhoods, and maintain resource lands, natural areas, and recreational open spaces.***

*Most neighborhoods have a clear center or focus and a well-defined edge. The focus may contain shopping, services, and small businesses or a civic facility such as a park, school or satellite post office. Community and civic buildings add identity to the neighborhood. **The boundary or edge of the neighborhood is defined by topography, open space, or major streets.***

*Livability is of primary concern for maintaining healthy neighborhoods. Corvallis residents determine livability by the quality of the schools, the safety and security of citizens and their property, an accessible and reasonably priced health care system, diverse and attractive neighborhoods, environmental cleanliness, sustainability, opportunities for continuing education, a healthy economy that provides choices of goods and services, quality employment opportunities, and **visual and physical access to open space.** Livability is specifically measured by benchmarks that are regularly updated by the citizens.*

***Corvallis encourages a diverse population and approves growth to the extent that the essential features of compact livability are maintained. Neighborhoods offer a wide variety of available housing choices and costs.** Corvallis strives to maintain housing opportunities and prices similar to other Oregon cities of comparable livability. Because of diverse housing opportunities all within safe, attractive neighborhood settings; convenient shops and services; excellent transportation choices; a clean, quiet environment; **easy access to open space and recreation;** and a strong sense of community, Corvallis is considered a highly desirable place to live." (Emphasis added.)*



ESEE Relationship to Goal 10

The Goal 10 ESEE Analysis applies to land that is designated for Low, Medium, and High Density residential uses, and for mixed use, in the Corvallis Comprehensive Plan. The primary concern is that Corvallis must maintain an adequate supply of land to meet projected housing needs for each needed housing type. If land is removed from the residential buildable lands inventory to protect Goal 5 resources, and the supply falls below the needs for any "needed housing type" as projected in the Corvallis Comprehensive Plan or as required by state statute, then Goal 10 compliance is jeopardized.

Corvallis' stated vision of achieving livable and affordable residential neighborhoods – neighborhoods that are framed by open space and integrated with the natural environment – is of equal importance. The balancing that has occurred throughout the Natural Features Project and in this ESEE Analysis is specifically designed to resolve potential conflicts between affordable housing, good urban design, and conservation of significant natural resources in an urban context.

ESEE Consequences of Full and No Protection Options for Meeting Housing Needs

Environmental Consequences of Full and No Protection

The environmental consequences of the full protection option would be highly positive for reasons stated in the Goal 5 section of this chapter. Most of the land in the Corvallis Natural Features Inventory – consisting of a mosaic of wetlands, riparian corridors, and Significant Vegetation – is located on land planned and zoned for residential use. By prohibiting all types of residential development, including site preparation (vegetation removal and grading) and construction of supporting public facilities and services, this inter-connected mosaic of resources would remain largely intact. Thus, the system of natural resource polygons within the Corvallis UGB would function much like the McDonald Forest: it would continue to provide an abundance of forest resources that would not be threatened by urban encroachment.

The environmental consequences of allowing all residential uses without restriction would be extremely negative for the same reason: the vast majority of Corvallis significant natural resource polygons are located on land planned and zoned for residential use. Unrestricted residential development would result in loss of the wetland, riparian, and Significant Vegetation functions and values described in the Natural Features Inventory and in the Goal 5 section of this report. This option would also violate the strong environmental conservation policies found in both the Benton County and Corvallis Comprehensive Plans.



Neither of the above policy options offers the balance sought by Benton County and Corvallis decision-makers, for reasons discussed below.

Economic and Social Consequences of Full and No Protection

Neither the "full protection" nor the "no protection" options achieve the neighborhood balance envisioned in the *Corvallis 2020 Vision Statement*. Full protection of all significant natural resources would increase housing costs substantially and would retain large tracts of resource land that would be distinct from, rather than integrated with, urban neighborhoods.

Because most significant natural resource polygons considered in the Corvallis Natural Features Inventory are located on land planned for residential use, the economic consequences of full resource protection for property owners, developers, and existing and future residents would be highly adverse. Since raw residential values in Corvallis are in the \$200,000 per acre range, the full protection option would have extremely adverse effects on property owners and on developers' ability to provide affordable housing opportunities. Although the City has a large supply of buildable land available to meet housing needs over the next 20 years, the full protection option would limit the City's ability to provide for most types of needed housing as required by Goal 10. Large areas of otherwise buildable land would be off-limits to development, which would decrease the supply of land available for housing and would drive up housing costs for existing and potential residents of the area. Moreover, the full protection option would make it impossible to extend public facilities and services necessary to support needed housing, in violation of both Goals 10 and 11.

The full protection option also would have negative economic consequences for many property owners. While the benefits of Significant Vegetation would be preserved, prohibiting housing in all resource areas would deprive some property owners of reasonable economic use of their land. On developed properties, replacement of – or additions to – existing homes within resource sites would not be permitted under the full protection option. For vacant residential lands, full protection of Significant Vegetation resources in Corvallis could severely impact the dwelling unit potential of these lands, or eliminate development potential entirely.

However, the full protection option would have a number of positive economic impacts. Economists, ecologists, and urban forestry researchers have documented a wide range of economic benefits that natural open space provides to local communities. As noted in the discussion of the Limited Protection Program, these benefits are better achieved when urban natural resources are integrated into the design of neighborhoods. Trees in



particular add considerable value to existing and developing residential neighborhoods, both for neighbors and for individual property owners.

Property Values

Significant Vegetation, Significant Riparian Corridors, and LSWs contribute to the economic vitality and stability of a community by increasing property values. The values of houses in wooded neighborhoods have been shown to be higher than those of comparable houses in neighborhoods without trees (Morales 1980; Morales et al. 1983). Research shows that people will pay 3 to 7 percent more for properties with significant tree cover versus those with few or no trees. Other studies have suggested that healthy, mature trees may add up to 10 percent or more to a property's value (Neely 1988).

In a major study of the influence of trees on property values, Anderson and Cordell (1988) surveyed actual sales prices of 844 single-family residences and found that each large front yard tree was associated with a 0.88 percent increase in average home sales price. They found that developers were able to capture the increase in value by protecting trees in buffer zones. Applying Anderson and Cordell's findings to Corvallis, where the average home price is \$182,580, each large tree would add \$1,607 to the sales price of such a home.

Studies in the Portland metropolitan area have shown that nearby forested areas, riparian corridors, wetlands, and other types of open space increase homes sales prices. For example, a study compared the relationship between a home's sales price and its proximity to different open space types (Lutzenhiser and Netusil 2001). Five open space types were evaluated: urban parks, natural area parks, specialty parks/facilities, golf courses, and cemeteries. Urban parks were defined as at least 50% manicured or landscaped and developed primarily for active recreational use (e.g., ball fields, swimming pools). Natural area parks contained more than 50% native and/or natural vegetation with a focus on habitat preservation and passive recreation (e.g., hiking, wildlife viewing). Specialty park/facilities are areas with a single-use focus such as a boat ramp. The study found that property values are positively and significantly related to proximity to open spaces (for all open space types except cemeteries). **Natural area parks within 1,500 feet of a home were shown to have the largest effect on home sales price (\$14,992 in 2003 dollars).** Other open spaces also had statistically significant effects: golf courses (\$12,459), specialty park / facilities (\$7,965), and urban parks (\$1,709).



Stormwater Management

As noted in the Goal 6 and Goal 11 discussions, natural resources can substantially reduce housing costs by reducing the costs of stormwater infrastructure. For example, Significant Vegetation intercepts rainfall on leaves, branches, and trunks, and from there, the water evaporates (through evapotranspiration) or slowly soaks into the ground. Tree groves can provide significant rainfall interception. In Western Washington and Oregon, for example, a single mature oak tree can intercept more than 1,100 gallons of rainwater per year (McPherson et al. 2002). For this reason, trees (whether considered here as Significant Vegetation or riparian corridor vegetation) help to reduce stormwater runoff and lower the costs of stormwater management.

A recent study showed that trees in Corvallis provide enormous benefits in terms of reducing the costs of managing stormwater runoff. The study showed that trees in the city reduced runoff by more than 18 million cubic feet, translating into a stormwater management value of nearly \$110 million, or about \$400,000 expressed on an annual basis (American Forests 2001).

Under the no protection option, the economic benefits described above would be lost. If significant natural resource areas were to receive no protection and are fully developed, there would be direct and profound adverse impacts on the community livability, a reduction in property values for those living near natural resource areas, and a substantial increase in stormwater management and energy costs that would be transferred to homebuyers and owners. Although some property owners would likely benefit financially if there were no limitations on housing development, there would also be serious adverse economic consequences associated with the no protection option.

ESEE Consequences of Limited Protection Program for Meeting Housing Needs

To address the negative ESEE consequences of both the full and no protection options, Corvallis and Benton County decision-makers have developed a Limited Protection Program. This program consists of two parts.

- First, Significant Riparian Corridors, LSWs, Significant Vegetation and mapped hazard areas generally are protected in residential areas. However, some Significant Vegetation (especially Douglas fir groves in the Urban Fringe outside of mapped hazard areas) receives no protection in



order to provide suitable and available land necessary for "needed housing" for existing and future UGB residents.¹¹

- Second, the community's ability to meet long-term housing needs is retained through MADA standards. These standards guarantee that each development site within the Corvallis UGB retains substantial buildable area.

Economic and Social Consequences of Limited Protection Program

The Limited Protection Program achieves the social and economic balance described in the Corvallis 2020 Vision Statement. By protecting highly Significant Riparian Corridors, LSWs, and vegetation in residentially zoned areas, the urban design benefits of natural resources are achieved.

To demonstrate continued compliance with Statewide Planning Goal 10, Table 5-10-1 assesses the impact of the Limited Protection Program on residential land need and supply. This analysis looks at the "worst case" scenario. For the purposes of these calculations, highly-protected and partially-protected lands have both been treated as highly-protected to allow a conservative estimate of buildable lands to be determined. Proposed regulations allow for development on many of these lands through the use of provisions associated with partial protection and the MADAs. Finally, current regulations also constrain development to a large degree as a result of open space, setback, and natural features protection provisions.

The BLI Land Need was developed in 1998 using 1996 land use data; however, since that time, 31% of the assumed 20-year growth has occurred. Thus 31% of the need has been accommodated. Consequently, the actual acreages needed are 69% of the original BLI figures, which are reflected in Column 1. Figures have been rounded to whole numbers.

The Corvallis UGB contains substantial surpluses of residential land in every category except "High Density Residential" (HDR). There is a net surplus of 1,560 acres of Low Density Residential (LDR), 382 acres of Medium Density Residential (MDR), and 303 acres of Medium-High Density Residential and Mixed Use Residential (M-HDR+MUR). There is a one-acre overall deficit of HDR land. The buildable land supply for residential land is not affected by natural feature constraints in any category. Thus the one-acre deficit of HDR land is not related to the Limited Protection Program. In any case, this one-

¹¹ For a list of significant vegetation polygons that received no Goal 5 protection as a result of the ESEE process, please see Chapter 6.



acre deficit can be accommodated by re-allocating an acre from another residential category.

Therefore, there is still a sufficient supply of buildable land within the Corvallis UGB to meet long-term housing needs under the Limited Protection Program and remain compliant with Goal 10.

Table 5-10-1. Impact of Limited Protection on Housing Land Supply

Land Use (BLI/Acres)	Land Need 2004 - BLI	Total Undeveloped Land	Surplus / (Deficit)	Total Net Constrained	Total Resultant Developable Lands	Deficit	Deficits Due to NR Regulations	Total Net Surplus / (Deficit)
LDR (558)	406	3511	3105	1545	1966	0	0	1560
MDR (199)	137	668	531	149	519	0	0	382
M-HDR+MUR (161)	111	534	423	120	414	0	0	303
H-DR (26)	18	17	-1	0	17	-1	0	-1

¹ Excludes lands constrained by natural hazards.

Effects of MADA Program

Draft Chapter 4.11, Minimum Development Density Area, is designed to treat property owners fairly, protect the most significant natural features, and increase housing affordability by maximizing efficiency of land use.

MADA provisions are applied to both residential and non-residential areas. The base MADA of a residential district allows for the integration of natural resource areas into the design of residential developments. For example, by protecting a portion of a Significant Vegetation area, an apartment site is mostly buildable and trees will remain on the site for the benefit of future residents. 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 provides a graduated program to ensure that each residential building site in Corvallis has a buildable area capable of providing at least that district's minimum density— even if a protected natural resource area exists on a site (i.e., even if draft Chapters 4.12, Significant Vegetation, and 4.13, Riparian Corridors and LSWs, 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 5.10-2, below. If a site contains multiple development districts, the base MADA for each district is determined. 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 provide buildable land area and ensure that density transfer is effective.

Table 5-10-2. 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.

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

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.*

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.

Taken together, MADA provisions are extremely effective in ensuring an adequate supply of buildable land for residential purposes and ensuring that protected natural areas receive some protection while 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.



Environmental Consequences of Limited Protection Program

The environmental consequences of the Limited Protection Program (Draft Preferred Scenario) are mixed. On the one hand, limited protection protects riparian corridors and most significant LSWs. This program also protects highly Significant Vegetation such as oak savannahs, as well as moderately Significant Vegetation that overlaps with areas subject to severe natural hazards. Thus, limited protection does an excellent job of protecting most natural resources in an urban context, with largely positive environmental consequences.

However, as noted in the Goal 5 section of this chapter, many of the benefits of an integrated mosaic of vegetation subpolygons represented by the Wildlife Habitat Area concept would be compromised by limited protection. Although *most* Significant Vegetation polygons are protected to some degree under the Limited Protection Program, their composite wildlife habitat value would be diminished.

Goal 10 Conclusion

The Draft Preferred Scenario will help to achieve the economic, social, and environmental values of the *2020 Corvallis Vision Statement* as applied to urban residential neighborhoods. This program avoids the extremes of the full and no protection options, as well as their adverse ESEE consequences.

Goal 11: Public Facilities and Services

Goal 11 reads in relevant part as follows:

To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. *Urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable, and rural areas to be served. A provision for key facilities shall be included in each plan. Cities or counties shall develop and adopt a public facility plan for areas within an urban growth boundary ...* ***A Timely, Orderly, and Efficient Arrangement*** – *refers to a system or plan that coordinates the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses.*

Public facilities and services include sanitary sewer, domestic water, stormwater management, municipal government, schools, police, fire, electrical, and communication facilities. Park and recreational facilities and transportation facilities are addressed respectively in the Goal 8 and Goal 12 sections of this chapter.



ESEE Relationship to Goal 11

Public facilities and services provide the supportive framework necessary for urban development, and the provision of such facilities through the annexation process is the primary growth management tool.

Public facilities and services often conflict with the full protection of significant Goal 5 resource areas. Construction of public facilities and services usually requires vegetation removal and grading and often results in construction of impervious surface area. As urban development occurs, an urban level of public facilities and services is required. Such services often must pass through significant resource areas to serve buildable land outside of such areas. Although facilities like sanitary sewer, water, electrical, and communication lines often are found in public street rights-of-way, sanitary sewer and stormwater management facilities function most efficiently under gravity-flow conditions and benefit from location in or adjacent to natural drainageways. Buildings, parking areas, and recreational / training structures associated with schools and fire stations conflict with Goal 5 resources in a manner similar to residential or commercial uses.

Corvallis has an acknowledged Public Facilities Plan (PFP) as required by Goal 11. Corvallis also has detailed master plans for sanitary sewer, domestic water, and stormwater management. These facilities are most likely to conflict directly with full natural resource protection because often there is no reasonable alternative to routing these facilities through natural areas to serve nearby buildable land. The specific locations of these conflicts are found throughout the urban growth area.

Table 5-11-1 shows that six schools in the Corvallis public school system have *potential* conflicts with significant Goal 5 resources, in three Natural Resource Areas (NRAs).

Table 5-11-1. Corvallis Schools, Potential Conflict with Goal 5 Resources

Natural Resource Analysis Area	School Name
N-NRA-2 Jackson-Frazier	Crescent Valley High School
C-NRA-8 Dixon Creek	Hoover Elementary School, Jefferson Elementary School, Corvallis High School
C-NRA-13 Dunawi Creek	Adams Elementary School, Westland Middle School



ESEE Consequences of Full and No Protection Options on the Efficient Provisions of Public Facilities and Services

Environmental Consequences

The full protection option would have mostly positive environmental consequences because vegetation removal, grading, and construction of hard surfaces associated with public facilities would not be permitted. The positive environmental consequences of fully protecting all significant Goal 5 resource areas is discussed in section 5 of this chapter. The possible exceptions are stormwater management and sanitary sewer facilities. Depending on topographical and soil conditions, complete avoidance of natural resource areas in the construction of stormwater and sanitary sewer lines could impair the functionality of these urban facilities, with corresponding environmental problems. Pump stations and extensive excavation outside of natural areas might also be required, which could impair water quality and increase energy consumption and attendant pollution.

The no protection option would mean that public facilities and services would be allowed without restriction or mitigation on, through or under natural resource sites throughout the urban growth area. Such unregulated construction could adversely affect site hydrology, Significant Vegetation, wildlife habitat, scenic values, and water quality. This option would mean that no protections would be provided for significant tree resource sites or their respective impact areas. Years of community work toward building sustainable urban natural areas and developing a balanced approach to conserving such resources would be severely compromised.

Economic and Social Consequences

Corvallis' growth management program depends primarily on ensuring that the full range of public facilities and services is available to support urban development. This program has substantial social and economic benefits to Corvallis citizens and businesses. The growth management program helps to ensure an adequate supply of serviced industrial, commercial, residential, and public lands (with associated job opportunities). The growth management program also ensures that local shopping and services are available to residential areas, as are quality housing in well-designed neighborhoods, good and accessible schools, potable water, and adequate sanitation. By managing the direction and timing of growth, the public costs of providing public facilities and services are reduced.

The full protection option would make Corvallis' growth management program difficult to achieve. This option would mean that no public facilities construction or maintenance could occur within protected significant natural resource areas. Since significant natural resource areas comprise a



substantial portion of the land within the UGB, avoiding such areas would preclude the efficient provision of public facilities and services that are necessary to support planned urban development. The economic and social costs to the public resulting from a different form of "leap-frog" development would be extremely high.

For example, schools would be unable to expand into natural areas under any circumstances. Sanitary sewer and water services would be required to be routed around natural resource areas, regardless of public or private expense. This option would severely restrict future development patterns, both public and private, as roads and utilities could not be extended through resource areas. Corvallis' quality-of-life and its appeal as a place to locate business would suffer substantially.

In conclusion, Corvallis' public facilities – particularly its parks, schools, and tree-lined streets – are an important part of the community's identity. Fully protecting all significant natural resource areas would severely restrict urban growth and urban design options. Housing costs would increase dramatically, and job opportunities would be lost, with attendant social and economic impacts. Conversely, allowing unrestricted development of the sites would mean the loss or degradation of many of the economic benefits described previously.

The full protection option would have at least one significant but frequently overlooked economic benefit. Significant Vegetation, Significant Riparian Corridors, and LSWs provide substantial stormwater management benefits because they intercept or detain rainfall and reduce stormwater runoff. Trees in Corvallis have been shown to reduce runoff by more than 18 million cubic feet, translating into a stormwater management value of nearly \$110 million, or about \$400,000 expressed on an annual basis (American Forests 2001). Unrestricted removal of trees to develop public facilities and schools will reduce the City's "green" stormwater infrastructure, necessitating the construction of extensive new facilities to address the increased storm flows. However, as noted above, these benefits can derive from the Limited Protection Program as well.

ESEE Consequences of Limited Protection Program for the Efficient Provision of Public Facilities and Services

Unlike the full protection option, the Limited Protection Program allows the construction of public facilities and services that are necessary to support planned urban development, consistent with Statewide Planning Goal 11. Draft Chapters 4.5 (Natural Hazards), 4.12 (Significant Vegetation), and 4.13 (Riparian Corridors and LSWs) have provisions to allow public facilities and services necessary to support permitted developments on buildable lands.



Each of these draft chapters allows for maintenance of existing public facilities and for emergency repairs. For example:

Maintenance allowed

Public roadway and utility extensions shall be consistent with adopted public facility plans and shall be developed to the minimum standards necessary to provide public services.

Maintenance and protection of the function of City utilities and transportation facilities located within riparian corridors.

Response to public emergencies, including emergency repairs to public facilities;

Public facilities and services are also permitted where consistent with adopted master plans. Finally, public facilities and services necessary to support permitted development may be approved, subject to an alternatives analysis that shows why the facility cannot be built outside of protected areas, and that provides mitigation for lost vegetation. In Hillside and Floodplain areas, supporting public facilities are permitted where consistent with adopted plans, or subject to an alternatives analysis, engineering safety standards, and grading or vegetation mitigation.

Finally, draft Chapter 4.11, Minimum Assured Development Area (MADA), has provisions recognizing that the cost of providing public facilities that will benefit the public should not be borne exclusively by private property owners. Section 4.11.30 provides a development areas credit in such situations as follows:

The Minimum Assured Development Area ...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.*

Environmental Consequences

The Corvallis Comprehensive Plan includes numerous policies to protect riparian corridors, wetlands, and forested hillside areas. Over the years, as public facilities master plans have been developed, Corvallis and Benton County decision-makers have applied these policies to the location of needed



public infrastructure. In this manner, many conflicts have been avoided or minimized in past planning decisions.

For reasons stated in the introduction to the Goal 11 section of this chapter, there are many instances where public facilities and services must be routed through protected natural resource areas to serve buildable lands. Draft Chapters 4.5, 4.11, 4.12 and 4.13 allow public facilities and services to be constructed in protected natural resource areas. Such construction will have limited adverse environmental consequences, as indicated in section 5 of this chapter.

In an October 7, 2004 letter, Mr. Dan Ziegler and Ms. Rana Foster recommended that all streets and public utilities be required to avoid riparian corridors, such as the one near his property. For reasons stated above, avoidance is not always possible and may have substantial adverse social, economic and energy consequences.

However, partially in response to Mr. Ziegler's comments, Corvallis and Benton County decision-makers agreed to additional limitations on the location of public facilities, and strengthened proposed mitigation measures when avoidance is not practicable. This ESEE Analysis recognizes that potential adverse environmental consequences are reduced by mitigation requirements related to grading and vegetation removal that are also found in draft Chapters 4.5, 4.12 and 4.13. Therefore, the cumulative impact from public facilities construction and maintenance within protected natural resource areas will not be substantial.

Economic and Social Consequences

Any negative environmental consequences from the Limited Protection Program are more than offset by the positive economic and social consequences associated with the efficient provision of public facilities and services required by Corvallis Comprehensive Plan policies and Statewide Planning Goal 11.

The public facilities provisions found in draft Chapters 4.5, 4.11, 4.12, and 4.13 reinforce the role of public facilities in Corvallis' growth management program, and achieve the balance between the urban development and resource conservation objectives found in the Corvallis Comprehensive Plan and in the *Corvallis 2020 Vision Statement*. By allowing public facilities and services to be constructed and maintained within significant natural resource areas, subject to mitigation standards, the negative social and economic consequences described earlier in this section can be avoided.



Goal 11 Conclusion

The Draft Preferred Scenario ensures that Corvallis can continue to provide key public facilities and services necessary to support planned urban growth in a timely and efficient manner. This Goal 11 requirement is underscored by the policies of the Corvallis Comprehensive Plan, and serves as the cornerstone for managing urban growth within the Corvallis UGB. The ESEE consequences of allowing public facilities to be constructed without restriction, or of prohibiting public facilities construction and maintenance in all protected natural resource areas, would be extremely negative.

Goal 12: Transportation

Goal 12 reads in relevant part as follows:

To provide and encourage a safe, convenient and economic transportation system. A transportation plan shall (1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian; (2) be based upon an inventory of local, regional and state transportation needs; (3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; (4) avoid principal reliance upon any one mode of transportation; (5) minimize adverse social, economic and environmental impacts and costs; (6) conserve energy; (7) meet the needs of the transportation disadvantaged by improving transportation services; (8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and (9) conform with local and regional comprehensive land use plans. Each plan shall include a provision for transportation as a key facility.

The *Corvallis 2020 Vision Statement* supports Statewide Planning Goal 12 by recognizing Corvallis' role in the regional transportation system and the importance of an interconnecting system of local streets:

Regional Transportation System

Public and private sector collaboration has resulted in a regional transportation system, which makes it easy for employees to walk, cycle or ride mass transit to work. The regional system also links with the north-south high-speed rail system for those traveling to Eugene, Salem, or Portland. Public and private incentives exist which encourage employees to use mass transit. This, in turn, has reduced the reliance on the automobile as well as eased traffic congestion and air pollution. Congestion, particularly through the downtown, was also eased with the extension of the north-south bypass.

In addition, the Corvallis Regional Airport offers service with daily flights to points in Oregon, Washington, California and beyond. A base for air freight services,



particularly in conjunction with the airport's industrial park, serves as a relief airport for Portland and Eugene and provides hangar space and support services for locally-based corporate planes.

Pedestrian Scale

One can easily and safely walk through a neighborhood within 5-10 minutes. The streets are an interconnecting network with short blocks to disperse traffic and create convenient and direct routes for cyclists and pedestrians. Buildings and trees are close to the street, providing an intimate outdoor room which is comfortable to pedestrians.

ESEE Relationship to Goal 12

Goal 12 requires that local governments plan for a multi-modal, interconnected transportation system. Goal 12 reinforces the Goal 5 requirement to consider the ESEE consequences of providing transportation facilities to meet this goal. Corvallis has an acknowledged Transportation System Plan (TSP) that identifies pedestrian, bicycle, and vehicle projects, as well as their estimated timing, location, and cost.

All transportation facilities conflict to some degree with full protection of significant natural resource areas. Like other public facilities and services, transportation facilities and their impacts vary widely – from multi-lane state highways to pervious-surfaced pedestrian trails. Local streets necessary to serve development are not necessarily shown on TSP maps, but may also have adverse impacts on significant natural resources.

Economic, social and environmental consequences related to transportation facilities are considered in this section. The substantial adverse energy consequences of the full protection option are considered in the Goal 13 section that follows.

ESEE Consequences of Full and No Protection Options for Meeting Long-Term Transportation Needs

Most of the Goal 11 ESEE Analysis applies equally to planned transportation facilities. The full protection option would preclude a multi-modal, interconnected transportation system, would decrease pedestrian and bicycle use, and would result in substantial out-of-direction travel. With diminished bicycle and pedestrian accessibility, transportation costs would increase and neighborhoods would become more auto-dependent. Full protection of resources in right-of-way areas could stop planned widening of Corvallis streets and planned development of new roads. This would make the City and County noncompliant with Goal 12, as their joint Transportation Systems Plan could no longer be implemented.



As noted in the Corvallis Public Works Department website, there are a number of ESEE benefits related to a multi-modal transportation system:

The City of Corvallis encourages its citizens and visitors to reduce the number of trips made by single-occupancy vehicles ("SOVs"). Alternative modes of transportation, such as bicycling, buses, walking, skating, and carpooling or vanpooling, as well as telecommuting, can reduce traffic congestion and provide benefits to individuals and to the community:

- *Reduced traffic congestion and air pollution improve community livability.*
- *Less traffic reduces the need for additional, expensive roadway construction projects.*
- *Fewer vehicles on the road means less land is needed for parking facilities, allowing it to be used for open space or commercial and residential development.*
- *Walking, bicycling and skating can improve health and well-being.*

The same website identifies positive social consequences associated with bicycle travel and notes that 95% of major streets have bicycle lanes:

The bicycle is a healthy, non-polluting alternative to the automobile that helps to maintain the quality of life in Corvallis. Approximately 95% of the collector and arterial roadways in Corvallis have bike lanes (45 miles) and there are 16 miles of multi-use paths. In addition, a large percentage of the city is laid out on a grid system allowing many alternative routes for cyclists to use in getting from one place to another. A 1998 survey of area residents showed that 64% of the respondents had used the bikeway system during the year, and 89% of those responding rated the system as good to excellent. A 1997 survey indicated that 13.5% of area residents regularly commuted by bicycle, one of the highest percentages in the nation.

The full protection option would preclude the City and County from constructing new bicycle lanes through significant natural resource areas as growth occurs. This would have substantial adverse social consequences for existing and future area residents and businesses.

The no protection option would allow for transportation facilities to be constructed through natural resource areas without considering alternatives and without mitigation. This could have substantial adverse impacts on the functions and values of Goal 5 natural resource areas, as described in the Goal 5, 6 and 7 sections of this chapter. The no protection option would also adversely affect the quality of residential neighborhoods, with adverse social consequences.



ESEE Consequences of Limited Protection Program for Meeting Long-Term Transportation Needs

As with other public facilities, Corvallis carefully considered the ESEE consequences of proposed transportation projects when it developed its Transportation Systems Plan. The TSP was developed consistent with Corvallis Comprehensive Plan policies to protect riparian corridors, wetlands, and forested hillsides while providing for a multi-modal system of inter-connected streets. In this manner, many of the adverse environmental, social, and economic consequences of the full and no protection scenarios (described throughout this chapter) were avoided or minimized.

The Limited Protection Program avoids the two extremes represented by the full and no protection options by allowing for planned transportation improvements consistent with the TSP. By allowing planned streets through protected resource areas where shown on adopted plans, adverse ESEE consequences from out-of-direction travel, congestion, and inability to access buildable land are avoided. Draft Chapters 4.5 (Natural Hazards), 4.11 (MADA), 4.12 (Significant Vegetation) and 4.13 (Riparian Corridors and LSWs) allow for trails, maintenance of public transportation facilities, and construction of local transportation facilities where necessary to support and connect permitted development on buildable land. Draft Chapters 4.5, 4.12 and 4.13 include engineering and mitigation requirements to ensure that adverse environmental impacts are minimized.

In response to public comments, decision-makers revised draft LDC Section 4.13.50.b.2 to avoid highly protected riparian corridors unless they are necessary to maintain a functional system based on adopted plans and the recommendation of the city engineer. A revised draft section 4.13.50.b.3 requires revegetation with native plants as mitigation.

By allowing needed transportation facilities on a limited basis with mitigation, the Draft Preferred Scenario allows for the full implementation of the Transportation Systems Plan with minimal adverse environmental impacts.

Goal 12 Conclusion

Goals 5 and 7 of the Natural Features Project continued the balancing effort that occurred when Corvallis developed and adopted its Transportation Systems Plan (TSP). By allowing for the maintenance and expansion of existing transportation facilities, and the improvement of planned facilities with mitigation, adverse ESEE consequences are minimized.



Goal 13: Energy Conservation

Goal 13 is short and to the point. It reads as follows:

To conserve energy. Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

ESEE Relationship to Goal 13: Energy Conservation

One of the four key consequences that must be considered in the Goal 5 ESEE Analysis process is "energy consequences." Energy conservation is a theme that runs through several of the Statewide Planning Goals. Energy consequences must be explicitly considered under Goal 5 (Natural Resources), Goal 9 (Economy), Goal 12 (Transportation), Goal 13 (Energy Conservation) and Goal 14 (Urbanization). Evaluation of energy consequences is also implied in the notion of "efficient" public facilities planning. This ESEE Analysis consolidates the consideration of energy consequences related to all applicable statewide planning goals in this section.

Energy Conservation Consequences of Full and No Protection Options

As observed repeatedly in other sections of this chapter, the full resource protection option *in an urban context* conflicts with key planning principles in both the Corvallis and Benton County Comprehensive Plans, and in several Statewide Planning Goals. This conflict is especially evident with respect to Goal 13, Energy Conservation. The following bulleted list summarizes adverse energy consequences (i.e., increased energy consumption) that would result from implementation of the full resource protection option within the Corvallis UGB:

- **Goal 5 (Natural Resources).** The full protection option means that all significant natural resource areas are preserved, including (a) several hundred acres of vegetated subpolygons located outside of riparian corridors, and (2) several hundred acres of marginally significant wetlands. Full protection of these lands has the effect of creating a type of "leap-frog" development, because urban services must pass over or around undeveloped natural resource areas to reach buildable areas in the Urban Fringe. As noted below, this effect – coupled with the inability to construct urban facilities through natural resource areas – would have the unintended consequence of substantially increasing energy consumption.
- **Goal 8 (Parks and Recreation).** The full protection option would make it impossible to develop or access park and recreational facilities inside the Corvallis UGB. Even in natural areas, trails, access roads, and parking areas would be prohibited. Without such local facilities, area residents



would be forced to drive long distances to reach park and recreational facilities, with attendant increases in energy consumption.

- **Goal 9 (Economy).** The full protection option would substantially reduce the supply of industrial and commercial land available for development, with attendant reductions in (a) local shopping and service opportunities, and (b) jobs. These reductions would force people to drive further to reach local shopping and service destinations and employment, and people would be less likely to bike or walk to work, with attendant increases in energy consumption.
- **Goal 10 (Housing).** The full protection option would increase *total* housing costs. Total housing costs include transportation and energy costs, and the costs of services like sewer, water, and storm drainage. Under the full protection option, the buildable land supply within the UGB would be substantially reduced, the costs of providing public facilities to serve new housing areas would increase, and travel distances to housing would increase as well – resulting in overall increased housing costs. This can create a vicious cycle that has been observed in most urban areas throughout the country. To reduce direct housing costs, people are willing to drive further, with attendant increases in energy consumption. Thus, an important consideration in maintaining an affordable housing supply is to maintain a buildable land supply near the urban center, which has the effect of reducing the need to drive an SOV with attendant energy savings.
- **Goal 11 (Public Facilities).** The full protection option would require public facilities to be routed around natural resource areas, which would increase energy needed to construct and maintain more dispersed public facilities. This option would likely require the use of pump stations because gravity flow sewer would be impossible if all sewer lines needed to be located outside of natural drainage areas. This option could also preclude construction of higher elevation water storage reservoirs in natural resource areas, leading to increased consumption from booster pumps. Emergency services would be more expensive to provide, and fire, police, and ambulances would be required to serve a more dispersed area, thus consuming more energy. The effect of this form of “leap-frog” development” would be to substantially increase energy costs associated with the provision of key public facilities and services.
- **Goal 12 (Transportation).** As noted in the Goal 12 discussion, the full protection option would make implementation of the TSP impossible. The TSP calls for a multi-modal, interconnected systems of streets, pedestrian and bicycle facilities, and transit facilities. If the TSP could not be implemented, people would be more reliant on SOVs, there would a substantial increase in out-of-direction travel, and energy consumption



would increase dramatically.

- **Goal 14 (Urbanization).** Finally, the full protection option would result in a less compact urban form, which would disperse housing, jobs, and parks, and force even more reliance on SOVs. Passing over otherwise buildable areas to achieve full resource protection would mean premature expansion of the UGB, a consequent loss of agricultural land to provide produce to urban consumers. The lack of a compact urban form would have direct and adverse impacts on energy consumption.

There are, however, positive energy consequences associated with the full protection option. Urban areas typically are warmer than rural areas because of the urban "heat island" effect. Buildings, paved areas, sparse tree canopy, and lack of water in an urban area contribute to the higher temperature. In temperate climates, temperatures of urban centers such as Corvallis are rising by approximately 0.5°F or more per decade. This can have major effects on energy consumption and air quality; a study of Los Angeles, for example, showed that a 1-degree rise in temperature could increase the city's smog risk by three percent and its energy demand by two percent, adding \$25 million in electricity costs in a single year (Wade 2000). Trees can help mitigate the heat island effect, and thereby reduce energy costs, by shading buildings and cooling the air through the evaporative process of transpiration.

Research by the USDA Forest Service and others has shown that trees strategically located to shade homes can reduce air conditioning bills significantly (McPherson 1994b). Trees reflect and absorb solar radiation before it heats the dense building and pavement materials of a home or office. Trees planted to the west of a building can significantly reduce air conditioning costs by blocking the hot afternoon sun during summer. Trees located to the south or east of a building can also provide such benefits, though to a lesser extent.

In the winter, trees can also help reduce energy costs associated with the heating of buildings. Researchers have found that trees act as windbreaks, reducing wind speed and resulting air infiltration by up to 50 percent (McPherson et al. 2002). This can reduce air infiltration and conductive heat loss from buildings, lowering heating costs. The density of the trees, species and location of tree, type of building, and the local climate determine the amount of wind reduction that occurs. Although both conifers and deciduous trees reduce wind speed, conifers tend to have a greater impact during winter months.

Researchers have studied the effect of trees on energy costs in the Willamette Valley. Two 25-foot tall trees located on the west side of an energy efficient home (in Portland) were estimated to have an energy conservation savings of \$18 each year for cooling (for the 15% of homes that use air conditioning) and \$7 for



heating (McPherson et al. 2002). Two trees thus resulted in a combined savings of \$25, which represented a 4 percent reduction in annual heating and cooling costs.

Reduced energy needs for air conditioning or heating will mean that local power plants are not required to produce as much electricity or gas energy, and this conserves fossil fuels and reduces pollution, including carbon emissions. By providing shade over roads, sidewalks, park and school buildings and parking lots, trees in natural areas reduce the urban heat island effect. Removal of these resources can have significant adverse effects on energy consumption (and costs) and air quality.

In contrast, the no protection option would allow for the efficient provision of urban facilities and services, more affordable (but less desirable) housing, a more compact growth form, and attendant reductions in energy consumption. However, as noted in the Goal 5-10 sections of this chapter, the no protection option would have extremely negative environmental, social and economic consequences.

Energy Conservation Consequences of Limited Protection Program

The key features of the Limited Protection Program that ameliorate the excesses of the full protection program include the following:

- **Goal 5 (Natural Resources).** Rather than protecting all significant natural resource areas, the Limited Protection Program would not apply Goal 5 protection to (a) several hundred acres of vegetated subpolygons located within Wildlife Habitat Areas but outside riparian corridors and hazard areas, and (b) several hundred acres of marginally significant wetlands. This reduction in protected resource area greatly reduces the "leap-frog" development effect, because urban services no longer need pass over undeveloped natural resource areas to reach buildable areas in the Urban Fringe. This reduction – coupled with the ability to construct urban facilities through natural resource areas – allows a compact urban form that will result in energy conservation.
- **Goal 8 (Parks and Recreation).** The Limited Protection Program would make it possible to develop and access park and recreational facilities inside the Corvallis UGB. In natural areas, trails, access roads and parking areas would be allowed with mitigation, thus allowing area residents the opportunity to walk, bicycle, or drive to local park and recreational facilities, with attendant energy savings.
- **Goal 9 (Economy).** The Limited Protection Program would maintain the supply of industrial and commercial land available for development, thus maintaining (a) local shopping and service opportunities, and (b) jobs.



These changes allow people convenient access to local shopping and service destinations and employment, thus increasing the likelihood that people will bike or walk to work, with attendant energy savings.

- **Goal 10 (Housing).** The Limited Protection Program would decrease *total* housing costs by maintaining the buildable land supply within the UGB, thereby reducing the costs of providing public facilities to serve new housing areas, and reducing travel distances to housing. This can undo the vicious cycle that has been observed in most urban areas throughout the country. Thus, an important consideration in maintaining an affordable housing supply is to maintain a buildable land supply near the urban center, which has the effect of reducing the need to drive single-occupancy vehicles with attendant energy savings.
- **Goal 11 (Public Facilities).** The Limited Protection Program would allow public facilities to be routed through natural resource areas, which would decrease energy otherwise needed to construct and maintain more dispersed public facilities. This program would reduce the need for sewer pump stations because gravity flow sewer would be more feasible in many cases. This program could also allow construction of higher elevation water storage reservoirs in natural resource areas, thus decreasing the need for booster pump stations. Emergency services would be less expensive to provide, because fire, police, and ambulances could serve a more concentrated area, thus consuming less energy. The effect of this form of concentrated development would be to substantially decrease energy costs associated with the provision of key public facilities and services.
- **Goal 12 (Transportation).** As noted in the Goal 12 discussion, the Limited Protection Program would make implementation of the TSP possible. The TSP calls for a multi-modal, interconnected systems of streets, pedestrian and bicycle facilities, and transit facilities. If the TSP could not be implemented, people would be more reliant on SOVs, there would a substantial increase in out-of-direction travel, and energy consumption would increase dramatically.
- **Goal 14 (Urbanization).** Finally, the Limited Protection Program would result in a more compact urban form, which would concentrate housing, jobs, and parks, and force less reliance on SOVs. By building at urban densities in otherwise buildable areas, the Limited Protection Program achieves a reasonably high level of resource protection while avoiding premature expansion of the UGB and consequent loss of agricultural land. A compact urban form would have direct and positive impacts on energy conservation.



The Limited Protection Program also maintains or improves upon the positive energy conservation effects of the full protection option. By protecting Significant Riparian Corridors and vegetation near urban development, there will be a consequent reduction in summer air conditioning and winter heating costs and a reduction in the urban "heat island" effect.

Goal 13 Conclusion

By protecting Significant Riparian Corridors, most LSWs and most Significant Vegetation, the Limited Protection Program achieves most of the positive energy consequences of the full protection option while enhancing energy conservation by encouraging a compact urban form and efficient provision of public facilities and services. The Limited Protection Program achieves an appropriate balance between energy and natural resource conservation.

Goal 14: Urbanization

Goal 14 reads in relevant part as follows:

To provide for an orderly and efficient transition from rural to urban land use. *Urban growth boundaries shall be established to identify and separate urbanizable land from rural land. Establishment and change of the boundaries shall be based upon considerations of the following factors:*

- (1) Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;*
 - (2) Need for housing, employment opportunities, and livability;*
 - (3) Orderly and economic provision for public facilities and services;*
 - (4) Maximum efficiency of land uses within and on the fringe of the existing urban area;*
 - (5) Environmental, energy, economic and social consequences;*
 - (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,*
 - (7) Compatibility of the proposed urban uses with nearby agricultural activities.*
- The results of the above considerations shall be included in the comprehensive plan.*

Conversion of urbanizable land to urban uses shall be based on consideration of:

- (1) Orderly, economic provision for public facilities and services;*
- (2) Availability of sufficient land for the various uses to insure choices in the market place;*
- (3) LCDC goals or the acknowledged comprehensive plan; and,*
- (4) Encouragement of development within urban areas before conversion of urbanizable areas.*



ESEE Relationship to Goal 14

Goal 14 is designed to ensure a long-term supply of buildable land to meet housing, population and livability (open space) needs. Growth management policies are designed to ensure orderly and efficient provision of public facilities and services (as does Goal 11), maximum efficiency of land use within the UGB, provision of sufficient serviced land to maintain a competitive land market, and a geographically-phased land development program.

Corvallis and Benton County have adopted a growth management program that meets these objectives. There is sufficient buildable land within the UGB to meet long-term growth needs. Geographic phasing of urban development is assured in Corvallis by requiring that key urban services be available before annexation of land and subsequent urban development may occur. Maximum efficiency of land use is assured by (a) maintaining large lot sizes or clustered development in Urban Fringe areas, while (b) encouraging higher density urban development once land has been annexed to the City.

The one area where Corvallis' growth management program may have been less effective is ensuring choice in the urban land market.¹²

ESEE Consequences of Full and No Protection Options for Growth Management

The ESEE consequences of the full and no protection option on the effectiveness of Corvallis' growth management program were analyzed in the Goal 9, 10, 11, 12 and 13 sections of this chapter. Basically, the full protection option has the effect of reducing land use and public facilities efficiency, increasing housing costs, decreasing job potential, and decreasing transportation connectivity. These factors combine to increase energy consumption. The no protection option has substantial adverse ESEE consequences as well.

ESEE Consequences of Limited Protection Program for Growth Management

Basically, the Limited Protection Program complements and improves the Corvallis growth management program in the following ways:

- The Natural Features Project precisely maps significant and protected natural resources and hazards, thus increasing certainty in the land development and urbanization processes.
- Draft Chapters 4.5 (Natural Hazards), 4.12 (Significant Vegetation) and 4.13 (Riparian Corridors) provide clear and objective standards for mapping and protecting natural features. These chapters also clarify the circumstances under which public facilities and services necessary to

¹² This comment was voiced frequently by participants in the Incentives Focus Group, which met during the spring of 2004.

support urban development will be permitted, thus creating even greater certainty in the land development and urbanization processes.

- Draft Chapter 4.11 (MADA) includes incentives to maximize land use efficiency by allowing "minimum assured development areas" on each parcel within the UGB. The draft MADA Chapter provides additional incentives to use land efficiently by granting automatic density increases and dimensional adjustments to meet the twin objectives of (a) preserving natural resource areas, and (b) increasing intensity of land use on remaining buildable areas of a site.

Goal 14 Conclusion

The positive ESEE consequences of Corvallis' growth management program and limited Goal 5 protection program are addressed in detail in previous sections of this chapter. Suffice to say here that the Limited Protection Program builds upon and strengthens the positive ESEE consequences of the growth management program. As a result of the ESEE Analysis and as shown on **Map C: Significant Goal 5 Natural Resource Areas (NRAs) With Proposed Natural Features Protection Designations**, the proposed Goal 5 protection program would provide *limited* protection for approximately 87% (5,249 acres) of significant natural resource areas within the Corvallis UGB. This program would provide limited protection for all mapped Significant Riparian Corridors, and for most LSWs and Significant Vegetation areas. Approximately 29% of the land area within the Corvallis UGB would have some level of protection. However, as shown in the Goal 9, Economy and Goal 10, Housing analyses, such limited protection can occur while maintaining an adequate supply of land for planned population and employment growth.

Goal 15: Willamette River Greenway

Goal 15 reads in relevant part as follows:

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway...

Developments shall be directed away from the river to the greatest possible degree; provided, however, lands committed to urban uses within the Greenway shall be permitted to continue as urban uses, including port, industrial, commercial and residential uses, uses pertaining to navigational requirements, water and land access needs and related facilities; a setback line will be established to keep structures separated from the river in order to protect, maintain preserve and enhance the natural, scenic, historic and recreational qualities of the Willamette River Greenway, as identified in the Greenway



Inventories. The setback line shall not apply to water-related or water-dependent uses.

In Corvallis and Benton County, Statewide Planning Goal 15 is implemented by acknowledged comprehensive policies and land use regulations.

ESEE Relationship to Greenway Management Plans

The Goal 5 program augments acknowledged Willamette River Greenway plans in both jurisdictions. Because both Benton County and Corvallis have *already* resolved conflicting urban development and natural resource values within the Willamette River Greenway setback area, the ESEE consequences of the revised 2004 Goal 5 limited protection program are relatively minor.

ESEE Consequences of Limited Protection Program for the Willamette and Marys River Greenways

The key differences between the existing City and County Goal 5 protection program and the proposed limited protection program are two-fold: first, the existing Goal 5 program lacks detailed mapping and clear and objective conflict resolution measures (i.e., zoning standards); and second, Benton County and Corvallis decision-makers have decided to provide a high level of protection to the floodplains of the Willamette and Marys Rivers within the Urban Fringe. Within the existing Corvallis City Limits, the Limited Protection Program is essentially the same as existing regulations for river floodplains.

The ESEE consequences of the full, no, and limited protection options as applied to the Willamette and Marys Rivers are addressed in the Goals 5 through 14 sections of this chapter. The remainder of this section focuses on the ESEE consequences of enhanced resource protection provided to the Urban Fringe floodway fringe areas of the Willamette and Marys Rivers.

Draft Chapter 4.5 (Natural Hazards) prohibits vegetation removal, grading and construction of impervious surface area for most uses within the floodplains of the Willamette and Marys River outside of the 2004 City Limits (Section 4.5.70.07). However, Section 4.5.70.07 specifically exempts the following uses that are allowed within the WRG setback subject to mitigation that is already required by the WRG overlay district:

For the development of water-related or water-dependent uses, provided they are designed and constructed to minimize impact on the existing riparian vegetation;

However, Section 4.5.30 makes it clear that existing greenway restrictions apply to the extent that they are more restrictive than draft Chapter 4.5 provisions.



Section 4.5.40 makes it clear that draft Chapter 4.11 MADA provisions apply to properties within the floodplain of these rivers.

Section 4.5.70 provides additional incentives for avoiding development within these floodplains, including residential density transfer and non-residential building height increases.

Draft Chapter 4.5 applies upon annexation to the City of Corvallis.

Environmental Consequences of Limited Protection Program

Draft Chapter 4.5 imposes a higher standard than the WRG overlay to ensure that the natural resource values of the Willamette River Floodplain are protected. However, water-dependent and water-related uses will continue to be permitted subject to mitigation for lost riparian vegetation. Thus, the environmental consequences of the proposed Limited Protection Option would be positive.

Economic and Social Consequences of Limited Protection Program

The economic and social consequences of the Limited Protection Program would be mixed. On the one hand, most types of urban development are prohibited within the Urban Fringe floodway fringe area, with adverse social and economic consequences for property owners. On the other hand, the cost for floodplain insurance and the potential loss from a flood event would be very high, with positive social and economic consequences for most people. Protection of the floodway fringe also provides off-site benefits for the general community and for adjacent property owners, in terms of open space amenities.

Energy Consequences

There are no substantial energy consequences resulting from the Limited Protection Program.

Goal 15 Conclusion

The added level of protection provided by the Limited Protection Program within the floodplains of the Willamette and Marys River will have positive environmental consequences and mixed social and economic consequences.



Chapter 6 Natural Resource Analysis Area (NRA) ESEE Analyses

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Introduction

This chapter explains why portions of certain significant Natural Resource Analysis Areas (NRAs) did not receive Goal 5 protection. Goal 5 protection is provided by three draft overlay district, the standards for which are contained in the following chapters of the Corvallis Land Development Code:

- **Chapter 4.13 – Riparian Corridors and Wetlands Provisions**
- **Chapter 4.12 – Significant Vegetation Protection Provisions**
- **Chapter 4.5 – Natural Hazard and Hillside Development Provisions**

The City's decision *not* to apply any of these overlay zones to a resource subarea means that conflicting uses permitted by the Corvallis Comprehensive Plan or applicable City Development Districts (zones, zoning) will be allowed without further Goal 5 restrictions. In some cases, reduced protections are also proposed ("some protection"). "Some protection" and "full protection" are defined for each resource in each of the above-referenced chapters.

The ESEE consequences analysis serves as the basis for this explanation. In specific cases, Corvallis and Benton County decision-makers determined that potentially adverse economic, social, and energy consequences of applying the Draft Preferred Scenario (limited protection program) outweighed the positive environmental consequences of resource protection.

Conflicting Use Matrix by Natural Resource Analysis Area

Table 6 reiterates by NRA the conflicting uses and activities identified in Chapter 3. Conflicting uses and activities identified in Table 6-1-1 are allowed by the Corvallis Comprehensive Plan or applicable City zoning district but conflict with the protection of one or more of the significant natural resource types (wetlands, riparian corridors or vegetation).

Table 6. Conflicting Use Matrix by Natural Resource Analysis Area (NRA)

NRA Natural Resource Analysis Area	Applicable Primary Zone Conflicting Use(s)	Applicable Overlay Zone(s)	Public Facilities Conflicts	Parks or Schools Conflicts	Vegetation Removal, Grading, Impervious Surfaces
North Corvallis Subarea					
N-NRA-1 Vineyard Mountain – Chip Ross Park	LDR M-HDR OS	Hillside No water Floodplain	All	Park	All



NRA Natural Resource Analysis Area	Applicable Primary Zone Conflicting Use(s)	Applicable Overlay Zone(s)	Public Facilities Conflicts	Parks or Schools Conflicts	Vegetation Removal, Grading, Impervious Surfaces
N-NRA-2 Jackson-Frazier	LDR M-HDR MU OS	Floodplain	All	School	All
N-NRA-3 Lewisburg	LDR MU	Floodplain	All	No	All
Central Corvallis Subarea					
C-NRA-4 Walnut Park	LDR UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-5 Timberhill	LDR M-HDR UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-6 Sequoia Creek	LDR M-HDR UNI OS	Hillside Floodplain	All	Park	All
C-NRA-7 Village Green	LDR M-HDR IND-CO OS	Floodplain	All	Park	All
C-NRA-8 Dixon Creek	LDR M-HDR UNI OS	Floodplain	All	Park School	All
C-NRA-9 Bald Hill	LDR IND-CO UNI OS	Hillside 4 th Water Level Floodplain	All	Park	All
C-NRA-10 Witham Hill – Oak Creek	LDR M-HDR MU IND-CO UNI OS	Floodplain	All	No	All
C-NRA-11 Riverfront Central	LDR UNI OS	Floodplain	All	Park	All
C-NRA-12 West Hills	LDR M-HDR MU IND-CO OS	Floodplain	All	No	All
C-NRA-13 Dunawi Creek	LDR M-HDR	Floodplain	All	Park School	All



NRA Natural Resource Analysis Area	Applicable Primary Zone Conflicting Use(s)	Applicable Overlay Zone(s)	Public Facilities Conflicts	Parks or Schools Conflicts	Vegetation Removal Grading Impervious Surfaces
	MU UNI OS				
C-NRA-14 Country Club	LDR OS	Floodplain	All	No	All
South Corvallis Subarea					
S-NRA-15 Confluence	LDR M-HDR MU OS	Floodplain	All	Park	All
S-NRA-16 Airport	LDR M-HDR IND-CO OS	Floodplain	All	No	All

The Corvallis Urban Growth Boundary (UGB) is divided into 16 Natural Resource Areas for the purpose of this ESEE analysis. Each is described and specific analyses of ESEE consequences are provided.

N-NRA-1 (Vineyard Mountain – Chip Ross Park)

1. Description

The Vineyard Mountain – Chip Ross Park Natural Resource Area (N-NRA-1) is located in the northwest portion of the Urban Growth Area (Crescent Valley), entirely outside the Corvallis City Limits.

Most of the Vineyard Mountain – Chip Ross Park NRA is occupied by Wildlife Habitat Assessment Areas (N-1a, N-4a, N-0a and part of N-6a). N-NRA-1 includes Chip Ross Park and the base of Vineyard Mountain and is drained primarily by the numerous intermittent and perennial tributaries of Oak Creek and the west fork of Dixon Creek. The entire western edge of the N-NRA-1 is located above Water Service Level 4, and much of the steeply-sloped land area is subject to slide and slope hazards.

N-NRA-1 is designated almost entirely for Low Density Residential or Open Space on the Corvallis Comprehensive Plan Map. Corvallis and Benton County decision-makers may also apply the draft "Extra-Low Density Residential" zone to portions of WHAs N-4a and N-9a in this NRA, as discussed in Chapter 4, which will decrease the intensity of conflicting residential uses and thereby reduce adverse



social, economic, and energy consequences from limited protection of these resources.

Table 6-1-1 summarizes the natural features that exist within N-NRA-1.

Table 6-1-2. N-NRA-1 (Vineyard Mtn. – Chip Ross Park) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Jackson Creek, Frazier Creek
Significant Vegetation (Outside Riparian Corridor within WHA)	N-1a, N-4a, N-6a (part), N-9a
Significant Isolated Vegetation	None

2. N-NRA-1 Limited Protection Decision

All significant riparian corridors that comprise the Vineyard Mountain – Chip Ross Park Natural Resource Area (N-NRA-1) received full draft Chapter 4.13 (Wetland and Riparian Corridor) protection because of the positive ESEE consequences. (See Chapter 5.)

Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within Wildlife Habitat Areas (WHA) should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social, and energy consequences.

The following portions of N-NRA-1 will receive no Goal 5 protection.

Table 6-1-2. N-NRA-1 (Vineyard Mtn. – Chip Ross Park) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-1a-A	Douglas fir, Oregon White Oak, Big leaf Maple	18	<ul style="list-style-type: none"> Buildable residential land need Remove conflicting Douglas firs to protect oaks
N-1a-C	Oregon white oak	16	
N-1a-D	Douglas fir	18	
N-1a-E	Oregon white oak; Douglas fir	15	<ul style="list-style-type: none"> More efficient public facilities provision

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-1a-F	Douglas fir, Oregon White Oak, Big leaf Maple	16	<ul style="list-style-type: none"> • More efficient land use • Larger lot home opportunities • Recognize adverse social and economic conflicts on property owners • Value of McDonald forest to serve same functions • Avoid premature expansion of UGB to farm and forest • Interim use of properties • Transportation connectivity • Allows interface between development and natural resources
N-1a-G	Oregon white oak	16	

ESEE Consequences

There are adverse environmental consequences to wildlife habitat resulting from not protecting the mosaic of vegetative polygons that comprise WHA N-1a. Corvallis and Benton County decision-makers determined that the value of these forested areas for housing, efficient provision of public facilities and services, and efficient use of urban land outweighed the environmental value of these tree groves. The proximity of McDonald forest provides many of the same social and environmental values as the tree groves in this area, further reducing the need to protect the specified tree groves. Full protection of these tree groves would lead to adverse social and economic consequences for landowners in the area. Douglas firs constitute a conflicting use with oak groves and were not protected in some areas so that social and environmental values of oak groves would be preserved. See discussion in Chapter 5 related to Goals 5, 6, 10, 11, and 14.

Areas Receiving Some Protection

Table 6-1-3 summarizes the reasons that some vegetative subpolygons described in the table below received a lower level of protection.



Table 6-1-4. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Lewisburg West End. Furthest northwest corner of the UGB along Lewisburg Road.	N-1a	B, C, D, G	<ul style="list-style-type: none"> • Further refine the some protection areas by focusing on the oaks and opportunities to allow redevelopment of these "some protection" areas. • Reduce to "some" protection of specified tree groves • "Some" protection to allow harvesting and replanting on tree farm
Crescent Valley Area. At and surrounding IV Hill.	N-6a	K	<ul style="list-style-type: none"> • Revision to have "some" protection on the southern Douglas fir area to manage for native species and no protection for the eastern tree groves along the streets. • Land needed for Residential buildable land supply • Adverse social and economic impact on landowners • Efficiency of land use

ESEE Consequences

Corvallis and Benton County determined that the value of these forested areas for commercial tree farm use, residential land supply, and efficient development of public facilities outweighed the environmental value of fully protecting these tree groves. Douglas firs constitute a conflicting use with oak groves and were not protected in some areas so that social and environmental values of oak groves would be preserved. (See discussion in Chapter 5 under Goals 5, 6, 10, 11, and 14.)

Effect on Buildable Lands Inventory

Table 6-1-4 summarizes the impact of the limited protection decision on the buildable land supply within N-NRA-1. About a quarter (26%) of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional third would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About one-fifth (22%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.



Table 6-1-4. Impact of Limited Protection Decision on N-NRA-1 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	640	170	218	34%
Medium-High Density Residential	47	1	10	22%
Mixed Use	5	0	0	0%
Industrial and Commercial / Office	0	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to N-NRA-1 resulted in protection of all riparian corridors and most significant vegetation. However, several natural resource polygons received some or no protection in order to preserve residential buildable land, allow harvesting of tree farms, allow interface between natural resources and development, protect oak groves from conflicting Douglas fir growth, and alleviate adverse social and economic consequences on land owners. See discussion in Chapter 5 under Goals 5, 6, 10, 11, and 14.

N-NRA-2 (Jackson Frazier)

1. Description

The Jackson Frazier Natural Resource Area (N-NRA-2) is located in the central northern portion of the Urban Growth Area and is entirely outside the Corvallis City Limits.

There are four Wildlife Habitat Assessment Areas in N-NRA-2 (N-2a, N-5a, N-7a, and N-7b), as well as substantial riparian and wetland areas associated with Jackson and Frazier Creeks.



N-NRA-2 is designated primarily Low Density Residential, with some Medium Density Residential, Institutional, and Open Space on the Corvallis Comprehensive Plan Map.

Table 6-2-1. N-NRA-2 (Jackson Frazier) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Jackson Creek, Frazier Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	N-2a, N-5a, N-7a, N-7b
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	N-tg-1, 4, 6, 9-11, 16

2. N-NRA-2 Limited Protection Decision

All significant riparian corridors that comprise the Jackson Frazier Natural Resource Area (N-NRA-2) received full draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA and three isolated tree groves should *not* receive draft Chapter 4.12 protection due to adverse economic, social, and energy consequences.

Areas Receiving No Protection

The following portions of N-NRA-2 will receive no Goal 5 protection.



Table 6-2-2. N-NRA-2 (Jackson Frazier) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-tg-9	Douglas fir	14	<ul style="list-style-type: none"> • Buildable land for MDR Housing • Efficient land use • Adverse social and economic impacts on landowners (contract) • Low resource values • Proximity to mixed use commercial and residential area
N-tg-10	Pine	14	
N-tg-11	Douglas fir, Big Leaf Maple	14	

ESEE Consequences

Three tree groves in N-NRA-2 will not receive draft Chapter 4.12 Significant Vegetation Protection. Corvallis and Benton County decision-makers determined that the value of these individual tree groves for low density residential housing, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves. Several of the western tree groves (N-tg-2, 3, 5, and 8) are all or partially within slope hazard or riparian areas protected under draft Chapter 4.13 or 4.5 provisions, so will maintain their habitat and functional values. See discussion in Chapter 5 under Goals 5, 6, 10, 11, and 14.

Areas Receiving Some Protection

Table 6-2-3 summarizes the reasons that some vegetative subpolygons received a lower level of protection.



Table 6-2-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
East of Kings Extension north of Walnut "Owens Farm" "Good Samaritan"	N-5a	A	<ul style="list-style-type: none"> • High protection to riparian and wetland areas and extend to where there are oaks within riparian assessment areas; • High protection to steep slopes and oak grove along northern hillside; • "Some" protection on the northeast portion between oak groves/ slopes and power line eastern boundary; • "Some" protection for middle hill; • "Some" protection to eastern Douglas fir area; • "Some" protection on slopes with cuts and fills policies; • Buffer existing neighborhood (maybe mitigation area with replantings). • Provide some protection to the Tree Grove area and the slopes; • Minimize encroachment into 15% slopes; • Buffer neighborhood with mitigation. • Hospital – positive social effects from hospital in area • City has interest in maintaining agreements and contracts for positive social and economic benefit • Protect oak groves from Douglas fir conflicts • Efficient public facilities

ESEE Consequences

As explained in Chapter 5 under Goal 1, the City of Corvallis has an interest in maintaining agreements and contracts for positive social and economic benefits. Substantial portions of Habitat Area N-5a will be used for development of a hospital, which carries strong social and economic values. On balance, the areas assigned for "some" protection were determined to provide greater social, economic, and energy values through "some" protection than would be available with full protection of



the area. This is reflected in Table 6-2-3 above. (See also Chapter 5, Goals 5, 6, 10, 11, and 14.)

Effect on Buildable Lands Inventory

Table 6-2-4 summarizes the impact of the limited protection decision on the buildable land supply within N-NRA-2. About 8% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional third would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About one-quarter (26%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-2-4. Impact of Limited Protection Decision on N-NRA-2 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	762	58	250	33%
Medium-High Density Residential	230	1	60	26%
Mixed Use	28	0	4	14%
Industrial and Commercial / Office	16	0	1	6%

ESEE Conclusion

The Limited Protection Program as applied to N-NRA-2 resulted in protection of all riparian corridors and most significant vegetation. However, some natural resource areas received "some" or no protection in order to preserve existing contractual relationships between the City, the hospital, and landowners, as well as to maintain efficient public facilities and to buffer areas between residential areas and protected natural areas.



N-NRA-3 (Lewisburg)

1. Description

The Lewisburg Natural Resource Area (N-NRA-3) is located in the northeast portion of the Urban Growth Area, entirely outside the Corvallis City Limits.

Natural features in N-NRA-3 include riparian areas and wetlands associated with Lewisburg Creek, Wildlife Habitat Assessment Area N-3a, and Isolated Tree Grove N-tg-12.

N-NRA-3 is designated primarily Low Density Residential, with some Medium Density Residential, Mixed Use, and Institutional on the Corvallis Comprehensive Plan Map.

Table 6-3-1. N-NRA-3 (Lewisburg) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Lewisburg
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	N-3a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	N-tg-12

2. N-NRA-3 Limited Protection Decision

All significant riparian corridors that comprise the Lewisburg Natural Resource Area (N-NRA-3) received full draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)

Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHAs should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social and energy consequences.

The following portions of N-NRA-3 will receive no Goal 5 protection.



Table 6-3-2. N-NRA-3 (Lewisburg) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-3a-A	Douglas fir	17	<ul style="list-style-type: none"> • Medium environmental value • Buildable land for MUR and MDR housing • Efficient land use • Trees in sloped areas protected under Goal 7

ESEE Consequences

Subpolygon N-3a-A was determined by Corvallis and Benton County to have medium environmental value and its value for medium-density and mixed-use housing, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social and energy consequences) outweighed its environmental value (Goals 5 and 6). (See discussion in Chapter 5 under Goals 5, 6, 10, 11, and 14.)

Areas Receiving Some Protection

Table 6-3-3 summarizes the reasons that some vegetative subpolygons received a lower level of protection.

Table 6-3-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
None	None	None	None

ESEE Consequences

No areas in N-NRA-3 will receive reduced Goal 5 protection through this process.

Effect on Buildable Lands Inventory

Table 6-3-4 summarizes the impact of the limited protection decision on the buildable land supply within N-NRA-3. About 9% of the vacant Low Density Residential land supply is constrained by natural hazards, and 13% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. None of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions. One acre of mixed use land would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.



Table 6-3-4. Impact of Limited Protection Decision on N-NRA-3 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	244	21	32	13%
Medium-High Density Residential	56	1	0	0%
Mixed Use	10	0	1	10%
Industrial and Comm / Office	5	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to N-NRA-3 resulted in protection of all riparian corridors and most significant vegetation. However, one NRA subpolygon received no protection in order to preserve the area’s ability to provide medium-density and mixed-use housing and efficient public facilities.

C-NRA-4 (Walnut Park)

1. Description

The Walnut Park Natural Resource Area (C-NRA-4) is located in the Western portion of the Urban Growth Area. The northern and southern sections of C-NRA-4 are outside of the Corvallis City Limits.

Natural features in C-NRA-4 include substantial riparian areas and wetlands associated with Dixon Creek and Oak Creek, several Wildlife Habitat Assessment Areas (WC-1a, WC-3a, WC-3b, and some of WC-4a), and several isolated tree groves (WC-tg-1-3, and 5).

C-NRA-4 is designated primarily Low Density Residential, with some Open Space, on the Corvallis Comprehensive Plan Map.



Table 6-4-1. C-NRA-4 (Walnut Park) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Dixon Creek, Oak Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-1a, WC-3a, WC-3b, some WC-4a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-1-3, 5

2. C-NRA-4 Limited Protection Decision

All significant riparian corridors that comprise the Walnut Park Natural Resource Area (C-NRA-4) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)

Areas Receiving No Protection

However, as a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social, and energy consequences.

The following portions of C-NRA-4 will receive no Goal 5 protection.

Table 6-4-2. C-NRA-4 (Walnut Park) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-1a-D	Douglas fir (Planted)	15	<ul style="list-style-type: none"> • Groves are tree farms • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Low resource values
WC-1a-I	Ponderosa Pine (Planted)	16	
WC-1a-J	Douglas fir	16	<ul style="list-style-type: none"> • Buildable Land for LDR Housing
WC-3a-C	Douglas fir	15	



Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-3a-D	Douglas fir	18	LDR Housing <ul style="list-style-type: none"> • Efficient Land Use • Adverse social and economic impacts on landowners • Douglas firs conflict with oak groves • Low resource values

ESEE Consequences

Substantial portions of WC-1a and WC-3a were removed through the ESEE process. Corvallis and Benton County decision-makers determined that the value of these forested areas for low-density residential housing, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11, and 14 – economic, social and energy consequences) outweighed the environmental and habitat value (Goals 5 and 6) of these tree groves. Douglas firs in these areas are conflicting uses with Oak groves. (See discussion in Chapter 5 under Goals 5, 6, 10, 11, and 14.)

Areas Receiving Some Protection

Table 6-4-3 summarizes the reasons that some vegetative subpolygons received a lower level of protection. There were no reductions in protection for C-NRA-4 as a result of the ESEE process.

Table 6-4-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
None	NA	NA	None

ESEE Consequences

No areas in C-NRA-4 will receive reduced Goal 5 protection through this process.

Effect on Buildable Lands Inventory

Table 6-4-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-4. About 8% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional third would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area



to be achieved. About one-quarter (26%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-4-4. Impact of Limited Protection Decision on C-NRA-4 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	306	61	83	27%
Medium-High Density Residential	0	0	0	0%
Mixed Use	0	0	0	0%
Industrial and Commercial / Office	0	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-4 resulted in protection of all riparian corridors and most significant vegetation. However, several natural resource polygons received no protection in order to preserve economic and social values associated with residential development, efficient public facilities, and economic use of the tree farms. Since Douglas firs are conflicting uses with oak groves, and oak groves were determined by the City and County to have higher social values, the no protection option for Douglas fir groves may act to enhance existing values of oak groves.

C-NRA-5 (Timberhill)

1. Description

The Timberhill Natural Resource Area (C-NRA-5) is located in the central-northern portion of the Urban Growth Area and is almost entirely within the Corvallis City Limits.



Natural features in C-NRA-5 include large areas of riparian corridors and wetlands associated with Dixon Creek, Wildlife Habitat Assessment Areas WC-2a and most of WC-2b, and Isolated Tree Grove WC-tg-6. The northern portion of C-NRA-5 includes Steep Slope hazard areas as well as some areas at Water Service Level 4.

C-NRA-5 is designated primarily Low Density Residential, with some areas of Medium Density Residential, Open Space, Institutional, and Mixed Use on the Corvallis Comprehensive Plan Map. Corvallis and Benton County decision-makers have may also applied the draft "Extra-Low Density Residential" zone to portions of WHA WC-2a in this NRA, as discussed in Chapter 4, which will decrease the intensity of conflicting residential uses, and thereby reduce adverse social, economic, and energy consequences from limited protection of these resources.

Table 6-5-1. C-NRA-5 (Timberhill) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Dixon Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-2a, most of WC-2b
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-6

2. C-NRA-5 Limited Protection Decision

All significant riparian corridors that comprise the Timberhill Natural Resource Area (C-NRA-5) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of Dixon Creek shown on the May 14, 2004 "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

However, as a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social and energy consequences.

The following portions of C-NRA-5 will receive no Goal 5 protection.



Table 6-5-2. C-NRA-5 (Timberhill) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-2a-A (partial)	Oregon White Oak, Douglas fir	17	<ul style="list-style-type: none"> • Buildable Land for LDR, MDR, and HDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Allow efficient transportation and public facilities • Remove Douglas fir as conflicting use with oaks • Approved development plans – social and economic benefits for maintaining contracts • Low resource values
WC-2b-B	Douglas fir	16	
WC-2b-C	Douglas fir, Oregon White Oak	17	
WC-2b-D	Oregon White Oak	17	

ESEE Consequences

Some portions of WC-2a and three subpolygons in WC-2b were removed through the ESEE process. Corvallis and Benton County decision-makers determined that the value of these forested areas for low-, medium-, and high-density housing, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves. As described in Chapter 5 under Goal 5, Douglas firs are a conflicting use with oak groves. Removal of protection for Douglas firs in WC-2a-A will enhance social values associated with the oak groves in this area.

Areas Receiving Some Protection

Table 6-5-3 summarizes the reasons that some vegetative subpolygons and riparian corridors received a lower level of protection.

Table 6-5-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub-Polygons	Change and Reasons
Ridge north of Timberhill.	WC-2a	A	<ul style="list-style-type: none"> • WHA and Tree Grove areas should have “some” protection to allow for management of the area to preserve and enhance the oaks and allow the fir trees



Resource Location	Polygon ID	Sub Polygons	Change and Reasons
			<ul style="list-style-type: none"> to be cut. Ridge north of Timberhill: High level of protection for 4th water level, steep slopes on east side of site, and upland prairie on east side of site; Allow loop roads crossing riparian areas; Some or high protection for debris run-out areas, depending on engineering studies; Some protection for WHA and tree grove areas – protect oaks and cut firs; Density transfer and low density zone. Land needed for Residential buildable land supply Adverse social and economic impact on landowners Efficiency of land use
Timberhill Area. Eastern boundary of Timberhill area, north of Walnut Boulevard and west of Highland Dell. "Timberhill C"	WC-2b	E	<ul style="list-style-type: none"> West of Kings Boulevard extension North of Walnut: Refine Open Space on the knoll to better reflect the actual locations of the steep slopes, trees, and riparian areas; High protection to the Riparian areas; No protection on southern WHA/Tree Grove because it is not a priority area and there are approved development plans for the area. Land needed for <u>Residential</u> Industrial buildable land supply Adverse social and economic impact on landowners Efficiency of land use
Urbanized portions of Dixon Creek			<ul style="list-style-type: none"> Adverse social and economic impacts to property owners Relatively low quality of urbanized stream reach

ESEE Consequences

The City of Corvallis and Benton County applied partial protection to substantial portions of WC-2a and WC-2b. This will have some negative environmental impacts to habitat values in the area. However, positive



social and economic values will result from increased efficiency of land use, transportation, and public facilities, maintaining the supply of usable industrial land, and reduced protection for Douglas fir trees that conflict with oak groves. Portions of WC-2a and WC-2b are also protected by provisions of draft Chapters 4.13 and 4.5 related to riparian areas and slope hazards, reducing the negative environmental consequences of "some" protection. Urbanized portions of streams in this NRA received only partial protection due to relatively low environmental quality and impacts to property owners. (See Chapter 5: Goals 5, 6, 9, 10, 11, and 14.)

Ms. Terri Valiant (Land Development Manager for Palisch Homes) and Mr. Michael Robinson (Attorney) submitted separate comments regarding ESEE consequences of the Limited Protection Program. As a result of substantial discussions between staff and property owner / developer representatives (Appendix A, "Summary of Oral Comments Submitted from 8-19-03 to 6-29-04), the proposed limited protection program provides no protection for some significant vegetation areas and "some protection" for portions of Timberhill. PPSV-1 located in the northeast area must protect 50% of the significant vegetation area; PPSV-4 located in the southeast area must protect 25% of the significant vegetation area. Corvallis and Benton County decision-makers carefully considered and responded to the testimony provided by Timberhill representatives at , as evidenced in Appendix A to this ESEE Analysis.

Ms. Valiant and Mr. Robinson make several points related to the provision of infrastructure and housing affordability.

- (1) First, with respect to Timberhill North / East, she suggest that reducing the buildable area by application of PPSV-1 standards calls into question the feasibility of developer financing to construct the Kings Boulevard extension. She calculates that the buildable area of this portion of the site has been reduced by 72%. Ms. Valiant then opines that the reduced buildable area *may* not be large enough to support the cost of constructing Kings Boulevard. She also expresses concerns regarding the cost of maintaining open space areas by the homeowners association. Her proposed solution is to allow for a larger development area and for the City to accept long-term maintenance costs for required open space.

Mr. Robinson, who represents Timberhill Company, states that construction of the Kings Boulevard extension will be "impossible" because some or all of the adjacent housing will be removed. He then states that the City's proposed findings on Goal 12 are inadequate because the City has not analyzed its decision to allow, limit or prohibit a conflicting use (presumably, the extension of Kings Boulevard). By not constructing Kings Boulevard, he argues, out-of-direction travel will be required with adverse energy consequences, increased traffic congestion will result in adverse social consequences, and increase commuting costs and the inability to build on neighboring properties will have adverse economic consequences. Unless Timberhill is allowed to develop homes on property adjacent to Kings Boulevard, Mr. Robinson argues, these adverse consequences will be unavoidable because "the City is presently without a way to share appropriate costs."

As noted in Chapters 4 and 5 of this ESEE Analysis, existing Corvallis Comprehensive Plan policies implemented through the approved Conceptual Development Plan *already* restrict the land area available to development. Thus, it is inaccurate to state that the objective program proposed for this area of Timberhill reduces the buildable area by 72%. Ms. Valiant's calculations assume that all of Timberhill North / East is buildable under current regulations, which is not the case. As noted in Councilor Brauner's comments at the November 15, 2004 Council hearing, "... the subject LDC provision would allow more development that is currently allowed...full protection was placed on only the most significant portion of the site, while partial protection was placed on other areas of the site...the provisions [are] a good compromise for the entire site to allow maximum development while protecting the most significant natural features." As noted by Planning Manager Schesener, "all of the undeveloped portions of the Timberhill area are part of an approved CDP, which would remain in effect. Timberhill Corporation requested more lenient provisions so it could develop more land."

In addition, Ms. Valiant's calculations do not account for clear and objective MADA standards that ensure the feasibility of density transfer from protected to buildable areas. Ms. Valiant has hypothesized, but not demonstrated, that the Limited Protection



Program as applied to this portion of Timberhill makes construction of Kings Boulevard through the site infeasible.

When Mr. Robinson submitted his comments, Chapter 5 of the draft ESEE Analysis included detailed evaluation of potential adverse economic, social and environmental consequences that could result when planned road construction is restricted by full resource protection. All of the potential adverse impacts decried by Mr. Robinson are, in fact, addressed in the Chapter 5. (See especially discussion under Goals 5, 10, 11, 12, 13 and 14.) However, Mr. Robinson's argument that homes must be "adjacent" to Kings Boulevard to ensure road construction ignores the fact that the Limited Protection Program provides for minimum development areas and that are accessible by local streets from Kings Boulevard. Contrary to Mr. Robinson's assertion, the Limited Protection Program does not make construction of King's Boulevard "impossible." Therefore, the adverse economic, social and energy consequences discussed in Chapter 5 of this ESEE Analysis are unlikely to occur as a result of adoption of the Limited Protection Program approved by Corvallis and Benton County decision-makers. As documented in Chapter 5 and in the Goal 11 and 12 analyses in Chapter 5, the Limited Protection Program allows for planned streets to be constructed through otherwise protected natural resource areas.

- (2) Second, Ms. Valiant suggests that the 25% protection requirement applicable to Timberhill Southeast (PPSV-4) reduces the developable area by 19%. She goes on to argue that the Douglas fir forest was planted, and therefore "from an ecological standpoint, should not be there today." Because trees would be subject to blowdown, they would all need to be removed for safety reasons, and the developer would have to replant the residual protected area. Therefore, she argues, the 25% requirement should be reduced. Finally, she suggests that because the public benefits from required open space set asides, the public should accept dedication and long-term maintenance of such lands. Ms. Valiant apparently is arguing that the dedication and long-term maintenance requirements associated with open space have adverse economic and social consequences for property owners and future residents. In his letter, Mr. Robinson supported the work of the Urban Services Committee, which is examining ways to



share costs of road construction through protected natural resource areas.

As noted in Chapters 4 and 5 of this ESEE Analysis, the Limited Protection Program as applied to Timberhill was the result of substantial negotiation and compromise with land owners in NRA 5. These compromises have resulted in substantial and adverse environmental consequences, as documented in the Goal 5 section of Chapter 5. Corvallis and Benton County decision-makers were well-aware of these adverse consequences when they rejected proposals by Ms. Valiant and Mr. Robinson to further reduce the environmental effectiveness of the Limited Protection Program applicable to Timberhill. However, the Council recognized that public benefits will result from open space protection, and directed staff to work with the Urban Services Committee to address this potential adverse conflict. As documented in the minutes of the November 15, 2004 Council hearing, based on the balancing of identified ESEE consequences, the Council adopted the Limited Protection Program for this area without amendment.

Mr. John Bradis, Jr., submitted a letter on behalf of his father regarding a 40-acre parcel north of Timberhill. As noted in the minutes of the November 15, 2004 Council public hearing, the property owner will have several zoning options upon annexation to the City that will allow for reasonable development of this 40-acre site. The Council adjusted MADA provisions to allow for greater flexibility, thus reducing potential adverse economic impacts to the property owner.

In a November 4, 2004 letter, Mr. James Eickelberg commented that 22 recently-built townhomes in Timberhill are located within 15 feet of a Dixon Creek tributary top-of-bank. Mr. Eickelberg identified adverse economic and social consequences that would result if one or more of these homes were to be destroyed, because they could not be rebuilt in place under proposed regulations. To address these adverse consequences, decision-makers amended LDC Section 4.13.50.b to allow for replacement buildings to be constructed within the 15-foot minimum setback area.

Effect on Buildable Lands Inventory

Table 6-5-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-5. About 19% of the vacant Low



Density Residential land supply is constrained by natural hazards, and an additional 41% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About one-quarter (26%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-5-4. Impact of Limited Protection Decision on C-NRA-5 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	135	26	56	41%
Medium-High Density Residential	108	6	28	26%
Mixed Use	0	0	0	0%
Industrial and Commercial / Office	13	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-5 resulted in protection of all riparian corridors and most significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. Several other natural resource polygons received "some" or no protection in order to preserve social and environmental values of oak groves, social and economic values of maintaining a supply of residential and industrial land within the UGB, economic and energy values of providing efficient public facilities, and social and economic values of reducing adverse impacts on landowners. (See Chapter 5: Goals 5, 6, 9, 10, 11, and 14.)



C-NRA-6 (Sequoia Creek)

1. Description

The Sequoia Creek Natural Resource Area (C-NRA-6) is located in the Northern central portion of the Urban Growth Area. The southern two-thirds of C-NRA-6 are within the Corvallis City Limits.

Natural features in C-NRA-6 include substantial riparian areas and wetlands associated with Sequoia Creek, Wildlife Habitat Assessment area N-8a, and multiple Isolated Tree Groves (N-tg-19-21, 23-25, and 38).

C-NRA-6 is designated primarily Low Density Residential, with portions of Medium Density Residential, Mixed Use, and Institutional on the Corvallis Comprehensive Plan Map.

Table 6-6-1. C-NRA-6 (Sequoia Creek) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Sequoia Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	N-8a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	N-tg-19-21, 23-25, 38

2. C-NRA-6 Limited Protection Decision

All significant riparian corridors that comprise the Sequoia Creek Natural Resource Area (C-NRA-6) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of Sequoia Creek shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

However, as a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHAs should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social and energy consequences.



The following portions of C-NRA-6 will receive no Goal 5 protection.

Table 6-6-2. C-NRA-6 (Sequoia Creek) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-8a-O (partial)	Oregon White Oak	18	<ul style="list-style-type: none"> • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Medium environmental value

ESEE Consequences

A portion of N-8a-O was determined to receive no protection during the ESEE process. Corvallis and Benton County decision-makers determined that the value of some of this forested area for low-density residential housing, preservation of economic use of the land by property owners, and efficient use of urban land (Goals 10, 11 and 14 – economic, social and energy consequences) outweighed the environmental value (Goals 5 and 6) of applying full protection to the entire subpolygon. (See Chapter 5: Goals 5, 6, 10, 11, 13, and 14.)

Areas Receiving Some Protection

Table 6-6-3 summarizes the reasons that some vegetative subpolygons and riparian corridors received a lower level of protection.

Table 6-6-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub-Polygons	Change and Reasons
Timberhill B	N-8a	P N-tg-20	<ul style="list-style-type: none"> • Allow removal of trees and mitigation in the form of planting new trees in common area tracts and parkways • Priority given to trying to locate tracts as buffers • New trees in tracts to be more urban form to be compatible with residences – can't use Douglas firs. • Social and economic value in maintaining contracts • Maintain residential buildable land supply • Remove conflicting use of Douglas fir with oak



Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Urbanized portions of Sequoia Creek			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Subpolygon N-8a-P and tree grove N-tg-20 were given "some" protection through the ESEE process. Economic and social values associated with maintaining the residential buildable land supply, buffering natural areas, and removing the Douglas fir conflict with oak groves, and economic and energy values associated with allowing efficient development of public facilities, were determined to be more important than environmental benefits from full protection of these forested areas. . Urbanized portions of streams in this NRA received only partial protection due to relatively low environmental quality and impacts to property owners.

Effect on Buildable Lands Inventory

Table 6-6-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-6. About 16% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 59% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About two-thirds (66%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-6-4. Impact of Limited Protection Decision on C-NRA-6 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	211	33	125	59%
Medium-High Density Residential	24	2	16	66%
Mixed Use	0	0	0	0%



Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BUI	Percent of Undeveloped Acres in Protected Natural Resources
Industrial and Commercial / Office	7	0	1	7%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-6 resulted in protection of all riparian corridors and , and most significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. Two other natural resource subpolygons and an isolated tree grove received "some" or no protection in order to preserve economic, social, and energy values of allowing residential and public facilities development in the specified areas. (See Chapter 5: Goals 5, 6, 10, 11, and 14.)

C-NRA-7 (Village Green)

1. Description

The Village Green Natural Resource Area (C-NRA-7) is located in the east central portion of the Urban Growth Area, entirely within the Corvallis City Limits.

Natural features in C-NRA-7 include riparian areas and wetlands associated with VIL, SEO, GAR, and Dixon Creek, as well as Wildlife Habitat Assessment Area N-10a, and multiple Isolated Tree Groves (N-tg-28-36).

C-NRA-7 is designated Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Industrial, Institutional, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.



Table 6-7-1. C-NRA-7 (Village Green) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	VIL SEO GAR Dixon Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	N-10a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	N-tg-28-31

2. C-NRA-7 Limited Protection Decision

All significant riparian corridors that comprise the Village Green Natural Resource Area (C-NRA-7) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Urbanized portions of riparian corridors in C-NRA-7 shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social and energy consequences.

The following portions of C-NRA-7 will receive no Goal 5 protection.

Table 6-7-2. C-NRA-7 (Village Green) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
N-10a-A	Black Cottonwood	23	<ul style="list-style-type: none"> Adverse social and economic impact on landowners Buildable land for Industrial uses Efficient Land Use
N-10a-B	Black Cottonwood, Oregon Ash, Douglas Hawthorn	24	
N-10a-C	Douglas Hawthorn	20	



ESEE Consequences

Corvallis and Benton County decision-makers determined that the value of these forested areas for industrial uses, efficient provision of public facilities and services, economic use of the land for landowners, and efficient use of urban land (Goals 9, 11 and 14 – economic, social and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves.

Areas Receiving Some Protection

Table 6-7-3 summarizes the reasons that some vegetative subpolygons and riparian corridors received a lower level of protection. Urbanized riparian reaches received only “some protection” in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City’s ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection.

Table 6-7-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Urbanized portions of Streams			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Urbanized portions of streams in this NRA received only partial protection due to relatively low environmental quality and impacts to property owners.

During the public hearing process, several citizens (Dana Seavy Broshnahan, Lyle Davis, Bruce McCune, Patricia Muir, Caroly Menke, Warren Coffeen, Mary Eichler, Elinor and David Griffiths, and Ted Seavy) spoke of adverse environmental consequences resulting from limited (versus full) protection of the Seavy Meadows Wetland (N-SEQ-M70-a and VII-W-3) area. For reasons stated in this ESEE Analysis (Chapter 5, Goal 5 section), allowing affordable housing development within Seavy Meadows Wetland will have substantial adverse environmental impacts. However, decision-makers determined that, on balance, that social and economic benefits associated with providing affordable housing opportunities, recognizing a valid DSL fill permit, and honoring past development agreements – in this particular case – outweigh identified adverse environmental impacts. (See Chapter 5, Goal 10 analysis.)



Effect on Buildable Lands Inventory

Table 6-7-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-7. No buildable Low Density Residential land is constrained by natural hazards or protected natural resources. About one-fifth (19%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units. Five percent (5%) of buildable employment land in this NRA is within protected Goal 5 areas.

Table 6-7-4. Impact of Limited Protection Decision on C-NRA-7 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	0	0	0	0%
Medium-High Density Residential	17	4	3	19%
Mixed Use	11	1	0	0%
Industrial and Comm / Office	129	29	6	5%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-7 resulted in protection of all riparian corridors and most significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. In addition, several natural resource polygons received no protection in order to preserve economic, social, and energy values associated with maintaining an adequate supply of industrial buildable land, efficient provision of public facilities, property owner fairness, and urban land use efficiency. (See Chapter 5: Goals 5, 6, 9, 11, and 14.)



C-NRA-8 (Dixon Creek)

1. Description

The Dixon Creek Natural Resource Area (C-NRA-8) is located in the central portion of the Urban Growth Area, entirely within the Corvallis City Limits.

Natural features in C-NRA-8 include riparian areas and wetlands associated with Dixon Creek, Wildlife Habitat Assessment Area WC-5a, and multiple Isolated Tree Groves (N-tg-27, WC-tg-6-8 and 16).

C-NRA-8 is designated primarily Low Density Residential, with some Medium Density Residential, High Density Residential, Institutional, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.

Table 6-8-1. C-NRA-8 (Dixon Creek) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Dixon Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-5a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	N-tg-27 WC-tg-6-8, 16

2. C-NRA-8 Limited Protection Decision

All significant riparian corridors that comprise the Dixon Creek Natural Resource Area (N-NRA-8) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of Dixon Creek shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

All vegetative subpolygons and isolated tree groves will continue to receive Goal 5 protection in the Limited Protection Decision.

Table 6-8-2. C-NRA-8 (Dixon Creek) Subpolygons *Not* Draft Receiving Chapter 4.12 Significant Vegetation Protection



Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
None	NA	NA	NA

ESEE Consequences

WHA and isolated tree groves within C-NRA-8 will continue to receive full Goal 5 protection.

Areas Receiving Some Protection

Table 6-8-3 shows that urbanized portions of Dixon Creek received "some protection."

Table 6-8-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Urbanized portions of Dixon Creek			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Portions of Dixon Creek shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Effect on Buildable Lands Inventory

Table 6-8-4 summarizes the impact of the limited protection decision on the buildable land supply within N-NRA-1. About 39% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional third would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About one-quarter (26%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-8-4. Impact of Limited Protection Decision on C-NRA-8 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources



Low Density Residential	18	7	1	5%
Medium-High Density Residential	5	1	0	7%
Mixed Use	9	1	0	5%
Industrial and Commercial / Office	6	0	1	14%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-8 resulted in protection of all riparian corridors, and significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. The ESEE consequences of the Limited Protection Program are described in Chapter 5.

C-NRA-9 (Bald Hill)

1. Description

The Bald Hill Natural Resource Area (C-NRA-9) is located in the west-central portion of the Urban Growth Area, and is entirely outside the Corvallis City Limits.

Natural features in C-NRA-9 include wetlands and riparian areas associated with Oak Creek and Dunawi Creek and Wildlife Habitat Assessment Area WC-6a.

C-NRA-9 is designated Open Space, Low Density Residential, and Institutional on the Corvallis Comprehensive Plan Map.

Table 6-9-1. C-NRA-9 (Bald Hill) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Oak Creek, Dunawi Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-6a
Significant Isolated Vegetation Subpolygons (Isolated Tree	None



Groves – Outside WHA and Riparian Corridors)	
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2. C-NRA-9 Limited Protection Decision

All significant riparian corridors that comprise the Bald Hill Natural Resource Area (C-NRA-9) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)

Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social and energy consequences.

The following portions of C-NRA-9 will receive no Goal 5 protection.

Table 6-9-2. C-NRA-9 (Bald Hill) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-6a-B (partial)	Oregon Ash, Oregon White Oak	25	Social benefit of parks and developable open space

ESEE Consequences

One portion of Subpolygon WC-6a-B was determined to receive no protection as part of the ESEE process. Corvallis and Benton County decision-makers determined that the value of this forested area for park use, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves. (See Chapter 5: Goals 5, 6, 8, 11 and 14.)

Areas Receiving Some Protection

Table 6-9-3 summarizes the reasons that some vegetative subpolygons received a lower level of protection.

Table 6-9-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
None	NA	NA	None



ESEE Consequences

No areas in C-NRA-9 will receive reduced Goal 5 protection through this process.

Effect on Buildable Lands Inventory

Table 6-9-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-9. About 1% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 55% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. None of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions. Forty-six percent (46%) of the buildable employment land in N-NRA-9 is within Goal 5 protected areas. There are substantial effects on the supply of buildable employment land in this area, however MADA provisions reduce this impact. See Chapter 5, Goal 9, for further discussion of MADA related to employment lands and the Limited Protection Program.

Table 6-9-4. Impact of Limited Protection Decision on C-NRA-9 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	68	1	37	55%
Medium-High Density Residential	0	0	0	0%
Mixed Use	0	1	0	0%
Industrial and Commercial / Office	32	2	15	46%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-9 resulted in protection of all riparian corridors and most significant vegetation. However, a portion of one natural resource polygon received no protection in order to preserve economic, social, and energy values associated with maintaining a supply of



land for park use and provision of efficient public facilities. See Chapter 5: Goals 8, 11, and 14.

C-NRA-10 (Witham Hill – Oak Creek)

1. Description

The Witham Hill – Oak Creek Natural Resource Area (C-NRA-10) is located in the south-central portion of the Urban Growth Area, nearly entirely within the Corvallis City Limits.

Natural features in C-NRA-10 include wetlands and riparian areas associated with Oak Creek and Dunawi Creek, Wildlife Habitat Assessment Areas WC-4a and WC-4b, and multiple Isolated Tree Groves (WC-tg-9-11, 14, and 15).

C-NRA-10 is designated primarily Open Space, with some Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Institutional, and Mixed Use on the Corvallis Comprehensive Plan Map.

Table 6-10-1. C-NRA-10 (Witham Hill – Oak Creek) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Oak Creek, Dunawi Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-4a, WC-4b
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-9-11, 14, 15

2. C-NRA-10 Limited Protection Decision

All significant riparian corridors that comprise the Witham Hill – Oak Creek Natural Resource Area (C-NRA-10) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) One LSW received no protection because public testimony had indicated that it was man made, that it was needed as industrial land, and that it was needed as a location for an important arterial roadway. A second request to remove riparian protection on the same property was rejected by the Council, for reasons stated under the ESEE Consequences discussion, below.



Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social, and energy consequences. In addition, Corvallis and Benton County decision-makers determined that one locally significant wetland should *not* receive draft Chapter 4.13 protection.

The following portions of C-NRA-10 will receive no Goal 5 protection.

Table 6-10-2. C-NRA-10 (Witham Hill – Oak Creek) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-4a-E	Oregon Ash	25	<ul style="list-style-type: none"> • Needed for OSU agricultural use • Social and economic impacts
WC-4b-D	Oregon White Oak, Douglas fir	24	<ul style="list-style-type: none"> • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners
WC-SQU W-13	Locally Significant Wetland		<ul style="list-style-type: none"> • Removed for Historic Uses of the Site and conflicts with road alignment and industrial lands

ESEE Consequences

Two subpolygons in WC-4b were determined to receive no protection as part of the ESEE process. Corvallis and Benton County decision-makers determined that the value of these forested areas for low-density housing, Oregon State University agricultural use, and efficient use of urban land outweighed the environmental value of these tree groves. The locally significant wetland received no protection through this process because social, economic, and energy consequences of allowing historic use of the site, efficient provision of public facilities, and maintaining an adequate supply of industrial land outweighed the environmental benefits of protecting the wetland. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)



Areas Receiving Some Protection

Table 6-10-3 summarizes reasons that vegetative subpolygons described in the table below received a lower level of protection.

Table 6-10-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Frager / Parkland	WC-4b	All	<ul style="list-style-type: none"> • High protection of • High protection of WHA and oak groves • Some protection of slopes • Significant vegetation in riparian areas, wetlands, and hazard areas are protected through 4.13 and 4.5 provisions • LDR housing supply • Efficient land use • Buffer between residential and resource areas

ESEE Consequences

Habitat area WC-4b received reduced Goal 5 protection as part of the ESEE process. However, significant vegetation areas within riparian areas, wetlands, and slope hazard areas retain substantial protection as described in Chapter 4. Negative environmental consequences of reduced protection are balanced by positive social and economic consequences of maintaining a residential land supply, efficient use of land within the UGB, and providing a buffer between urban and protected natural resource areas. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)

Mr. John Stewart requested removal of riparian corridor protection for a riparian corridor on the eastern side of an Industrial property due to adverse economic consequences. As noted above, Corvallis and Benton County decision-makers previously placed a note on the Comprehensive Plan Map to allow relocation of the creek and the protected Riparian Corridor on the eastern portion of the site. The decision-makers chose not to add a similar note for the western portion of the site because of adverse environmental consequences. The decision-makers adopted code text to allow the use of the Planned Development process to allow the realignment and re-vegetation of the stream segments on the western and northern portions of the site, so long as the re-alignment provided for greater environmental functions and values. By applying the ESEE consequences analysis to this site, the decision-makers achieved an appropriate balance between economic and environmental values.



Effect on Buildable Lands Inventory

Table 6-10-4 summarizes the impact of the limited protection decision on the buildable land supply within C-NRA-10. About 3% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional third (34%) would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About one-fifth (20%) of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units. Substantial portions (48%) of the employment land supply in C-NRA-10 are within protected natural resource areas. The MADA provisions address this as described in Chapter 5, Goal 9.



Table 6-10-4. Impact of Limited Protection Decision on C-NRA-10 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	198	6	66	34%
Medium-High Density Residential	133	2	27	20%
Mixed Use	2	0	1	62%
Industrial and Commercial / Office	79	0	38	48%

ESEE Conclusion

The Limited Protection Program as applied to C-NRA-10 resulted in protection of all riparian corridors and most significant vegetation. One LSW that was determined to be man made and that was in an area needed for industrial development and an important arterial street received no protection. Several other natural resource polygons received "some" or no protection. These decisions were made to preserve social, economic, and energy values associated with maintaining an adequate supply of residential land, maintaining a supply of agricultural land for Oregon State University, providing a buffer between residential and natural resource areas, and maintaining economic use of land for property owners. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)

WC-NRA-11 (Riverfront Central)

1. Description

The Riverfront Central Natural Resource Area (WC-NRA-11) is located in the south-central Urban Growth Area, and is almost completely within the Corvallis City Limits.

Natural features in WC-NRA-11 include wetlands and riparian areas associated with Oak Creek, the Willamette River, and several Isolated Tree Groves (WC-tg-17, 19-21, and 28).



WC-NRA-11 is designated primarily Institutional, with additional areas of Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Industrial, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.

Table 6-11-1. WC-NRA-11 (Riverfront Central) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Oak Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	None
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-17, 19-21, 28

2. WC-NRA-11 Limited Protection Decision

All significant riparian corridors that comprise the Riverfront Central Natural Resource Area (WC-NRA-11) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of riparian corridors in WC-NRA-11 shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

All vegetative subpolygons, isolated tree groves, and riparian corridors will receive Goal 5 protection within WC-NRA-11.

Table 6-11-2. WC-NRA-11 (Riverfront Central) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
None	None	NA	NA

ESEE Consequences

No areas in WC-NRA-11 will receive no Goal 5 protection through this process.



Areas Receiving Some Protection

Table 6-11-3 shows that urbanized portions of streams in this NRA received only partial protection.

Table 6-11-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Urbanized Riparian Corridors			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Urbanized portions of streams in this NRA received only partial protection due to the existence of a developed urban park.

Effect on Buildable Lands Inventory

Table 6-11-4 summarizes the impact of the limited protection decision on the buildable land supply within WC-NRA-11. About 33% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 43% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. None of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions.

Table 6-11-4. Impact of Limited Protection Decision on WC-NRA-11 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	3	1	1	43%
Medium-High Density Residential	15	5	0	3%
Mixed Use	1	0	0	0%
Industrial and Commercial / Office	5	0	0	0%



ESEE Conclusion

The Limited Protection Program as applied to WC-NRA-11 resulted in protection of all riparian corridors, and significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of a developed urban park. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. This decision is supported by the Chapter 5 ESEE analysis.

WC-NRA-12 (West Hills)

1. Description

The West Hills Natural Resource Area (WC-NRA-12) is located in the southwest portion of the Urban Growth Area, and is mostly outside the Corvallis City Limits.

Natural features in WC-NRA-12 include wetlands and riparian areas associated with Dunawi Creek, Wildlife Habitat Assessment Areas WC-8a, WC-8b, WC-9a, and WC-10a, and Isolated Tree Groves WC-tg-31, 37, and 38. There are substantial areas of hillside hazard at the western edge of this NRA.

WC-NRA-12 is designated primarily Low Density Residential, with areas of Medium Density Residential, High Density Residential, Commercial, Institutional, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.

Table 6-12-1. WC-NRA-12 (West Hills) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Dunawi Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-8a, WC-8b, WC-9a, WC-10a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-31, 37, 38

2. WC-NRA-12 Limited Protection Decision

All significant riparian corridors that comprise the West Hills Natural Resource Area (WC-NRA-12) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)



Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 (Significant Vegetation) protection due to adverse economic, social, and energy consequences.

The following portions of WC-NRA-12 will receive no Goal 5 protection.

Table 6-12-2. WC-NRA-12 (West Hills) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-tg-37	Douglas fir	17	<ul style="list-style-type: none"> • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Medium resource value
WC-tg-38	Douglas fir, Western Red Cedar	18	
			•

ESEE Consequences

Two low resource value isolated tree groves and a locally significant wetland were removed as part of the ESEE process in WC-NRA-12. Corvallis and Benton County decision-makers determined that the value of the tree groves for low density housing, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social, and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves. (See Chapter 5: Goals 5, 6, 9, 10, 11, and 14.)

In a November 4, 2004 letter, Mr. and Mrs. Craig requested that replacement homes be allowed within their existing footprints, regardless of setback provisions. The decision-makers recognized that this provision would cause economic and social problems for the Craigs and others, and amended Section 4.13.50.b accordingly.

Areas Receiving Some Protection

Table 6-12-3 shows that there were no reductions in protection for WC-NRA-12 as a result of the ESEE process.



Table 6-12-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
None	NA	NA	None

ESEE Consequences

No areas in WC-NRA-12 will receive reduced Goal 5 protection through this process.

Effect on Buildable Lands Inventory

Table 6-12-4 summarizes the impact of the limited protection decision on the buildable land supply within WC-NRA-12. About 1% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 52% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About 40% of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units. All of the employment land in WC-NRA-12 is within Goal 5 protected areas. However, MADA provisions limit the negative consequences of this as described in Chapter 5, Goal 9.

Table 6-12-4. Impact of Limited Protection Decision on WC-NRA-12 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	305	3	159	52%
Medium-High Density Residential	125	0	50	40%
Mixed Use	7	0	1	22%
Industrial and Commercial / Office	11	0	11	100%

ESEE Conclusion

The Limited Protection Program as applied to WC-NRA-12 resulted in protection of all riparian corridors and most significant vegetation. However,



two isolated tree groves received no protection in order to preserve social, economic, and energy values associated with retention of adequate buildable lands for residential and industrial use, efficient land use, efficient provision of public facilities, and retention of existing economic use of the area.

WC-NRA-13 (Dunawi Creek)

1. Description

The Dunawi Creek Natural Resource Area (WC-NRA-13) is located in the southern central portion of the Urban Growth Area. The northern portion of this NRA is within the Corvallis City Limits and the rest is outside the City Limits.

Natural features in WC-NRA-13 include wetlands and riparian areas associated with Dunawi Creek, Wildlife Habitat Assessment Areas WC-7a and WC-7b, and an Isolated Tree Grove (WC-tg-29).

WC-NRA-13 is designated Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Industrial, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.

Table 6-13-1. WC-NRA-13 (Dunawi Creek) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Dunawi Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-7a, WC-7b
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-29

2. WC-NRA-13 Limited Protection Decision

All significant riparian corridors that comprise the Dunawi Creek Natural Resource Area (WC-NRA-13) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of Dunawi Creek shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."



Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that some areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 protection due to adverse economic, social, and energy consequences.

The following portions of WC-NRA-13 will receive no Goal 5 protection.

Table 6-13-2. WC-NRA-13 (Dunawi Creek) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-7a-A	Black Walnut	15	<ul style="list-style-type: none"> • Buildable Land for MUR Housing and Employment • Efficient Land Use • Adverse social and economic impacts on landowners • Medium-low resource value

ESEE Consequences

One Wildlife Habitat Area subpolygon was determined to receive no protection through the ESEE process. Corvallis and Benton County decision-makers determined that the value of this forested area for housing and employment, efficient provision of public facilities and services, and efficient use of urban land outweighed the fairly low environmental value of the tree grove. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)

Areas Receiving Some Protection

Table 6-13-3 summarizes reasons that vegetative subpolygons described in the table below received a lower level of protection.



Table 6-13-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
35 th and Westhills	WC-7a	B	<ul style="list-style-type: none"> • High protection for oak grove and "Some" protection with mitigation in buffer areas. • Maintain residential buildable land supply • Social and economic consequences from existing contracts • Efficiency of land use
Urbanized portions of Dunawi Creek			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Wildlife Habitat Area subpolygon WC-7a-B received a reduced level of Goal 5 protection through the ESEE process. Social and economic values associated with maintaining a residential buildable land supply, buffering residential uses from protected natural areas, and maintaining economic use of the land for property owners were determined to be more important than the environmental value of applying full protection to this subpolygon.

In a September 10, 2004 letter, Ms. Kathryn Phillips objected to protecting significant vegetation on her SW Philomath Boulevard property, because the trees in question are not "native" and because the regulations would have result in a "public taking of property." In response, the decision-makers found the trees were part of a large tree grove, one of the few remaining tree groves in the immediate neighborhood. The decision-makers found the tree grove to also be significant due to its location along Philomath Boulevard, a gateway to the community. The decision-makers also found that several of the trees would meet the City's current standards for significant vegetation under Chapter 4.2. They further found that the trees covered a very small portion of the property, so that adverse economic and social consequences for Ms. Phillips were relatively small, compared with the positive ESEE consequences resulting from tree preservation on this site. The decision-makers found the property to include far more than the MADA for future development, even with high protection of the trees, which means that there would be no loss of residential unit potential. The decision-makers noted that some of the tree grove would be reduced and developed on the adjoining site under



the MADA provisions, and that this supported protecting the remaining trees on the Phillips property to allow more of the tree grove to remain functional.

Effect on Buildable Lands Inventory

Table 6-13-4 summarizes the impact of the limited protection decision on the buildable land supply within WC-NRA-13. About 8% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 11% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About 20% of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units.

Table 6-13-4. Impact of Limited Protection Decision on WC-NRA-13 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	39	3	4	11%
Medium-High Density Residential	216	4	44	20%
Mixed Use	6	0	0	6%
Industrial and Commercial / Office	9	1	0	6%

ESEE Conclusion

The Limited Protection Program as applied to WC-NRA-13 resulted in protection of all riparian corridors and most significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. Also, two natural resource polygons received "some" or no protection in order to preserve social and



economic values associated with retaining an adequate supply of residential and employment land, efficient land use, and allowing economic use of the area for landowners. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)

WC-NRA-14 (Country Club)

1. Description

The Country Club Natural Resource Area (WC-NRA-14) is located at the southern central edge of the Urban Growth Area, completely outside of the Corvallis City Limits.

Natural features in WC-NRA-14 include wetlands and riparian areas associated with the Marys River, Wildlife Habitat Assessment Area WC-11a, and multiple Isolated Tree Groves (WC-tg-39, 40, 42-44, and 46-48).

WC-NRA-14 is designated primarily Low Density Residential, with some areas of Open Space on the Corvallis Comprehensive Plan Map.

Table 6-14-1. WC-NRA-14 (Country Club) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Marys River
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	WC-11a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	WC-tg-39, 40, 42-44, 46-48

2. WC-NRA-14 Limited Protection Decision

All significant riparian corridors that comprise the Country Club Natural Resource Area (N-NRA-14) received draft Chapter 4.5 or 4.13 protection because of the positive ESEE consequences. (See Chapter 5.)

Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that substantial areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 protection due to adverse economic, social, and energy consequences.



The following portions of N-NRA-14 will receive no Goal 5 protection.

Table 6-14-2. WC-NRA-14 (Country Club) Areas *Not* Receiving Goal 5 Protection

Subpolygon	Vegetative Cover Type	Resource Score	ESEE Rationale
WC-tg-39	Douglas fir	17	<ul style="list-style-type: none"> • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Low resource value
WC-tg-40	Douglas fir	16	
WC-tg-43	Oregon White Oak	19	<ul style="list-style-type: none"> • Buildable Land for LDR Housing • Efficient Land Use • Adverse social and economic impacts on landowners • Land needed for Open Space

ESEE Consequences

Three isolated tree groves were determined through the ESEE process to receive no protection due to their low resource values. Corvallis and Benton County decision-makers determined that the value of these forested areas for low-density housing, park use, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social, and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves.

Areas Receiving Some Protection

Table 6-14-3 summarizes the reasons that some vegetative subpolygons described in the table below received a lower level of protection.



Table 6-14-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
Brooklane	WC-11a	All	<ul style="list-style-type: none"> • High Protection of Hazards. • High Protection of Doug Firs on north side except to allow connection through area. • "Some" protection with mitigation in some portions. • Debris run-out per UGB policies • Maintain residential land supply • Adverse social and economic impacts on landowners • Efficiency of land use

ESEE Consequences

Portions of WHA WC-11a were determined to receive reduced protection through the ESEE process. Positive environmental values associated with full protection of the WHA were outweighed by economic, social, and energy values of efficient land use, preservation of residential land supply, providing a buffer between residential and natural areas, and maintaining economic use of land for landowners. (See Chapter 5: Goals 5, 6, 10, 11, and 14.)

Effect on Buildable Lands Inventory

Table 6-14-4 summarizes the impact of the limited protection decision on the buildable land supply within WC-NRA-14. About 8% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 9% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. None of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions.

Table 6-14-4. Impact of Limited Protection Decision on WC-NRA-14 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	314	20	29	9%
Medium-High	3	0	0	0%



Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Density Residential				
Mixed Use	0	1	0	0%
Industrial and Commercial / Office	0	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to WC-NRA-14 resulted in protection of all riparian corridors and most significant vegetation. However, several isolated tree groves and natural resource polygons received "some" or no protection in order to preserve economic, social, and energy values associated with efficient land use, retention of residential and park land supply within the UGB, buffering residential and natural resource areas, and maintaining economic use of land for landowners.

S-NRA-15 (Confluence)

1. Description

The Confluence Natural Resource Area (S-NRA-15) is located in the southeastern portion of the Urban Growth Area. Sections on the east and west portions of the NRA are outside of the Corvallis City Limits.

Natural features within S-NRA-15 include riparian areas and wetlands associated with the Marys River, Mill Race, Willamette River, Ryan Creek, and Goodnight. This NRA includes Wildlife Habitat Assessment Areas S-1a and S-2a.

S-NRA-15 is designated for Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Industrial, Institutional, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.



Table 6-15-1. S-NRA-15 (Confluence) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Marys River Mill Race Willamette Ryan Creek Goodnight
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	S-1a, S-2a
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	None

2. S-NRA-15 Limited Protection Decision

All significant riparian corridors that comprise the Confluence Natural Resource Area (S-NRA-15) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5.) Portions of riparian corridors in S-NRA-15 shown on the September 9, 2004, "Riparian Corridors and Wetlands Map" have been impacted by urban development and received "some protection."

Areas Receiving No Protection

However, as a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined that some areas of significant vegetation located within WHA should *not* receive draft Chapter 4.12 protection due to adverse economic, social, and energy consequences.

In addition, Corvallis and Benton County decision-makers determined that two LSW should *not* receive draft Chapter 4.5 or 4.13 protection due to adverse economic, social, and energy consequences.

The following portions of S-NRA-15 will receive no Goal 5 protection.

Table 6-15-2. S-NRA-15 (Confluence) Areas *Not* Receiving Goal 5 Protection

Subpolygon / Wetland ID	Vegetative Cover Type	Resource Score	ESEE Rationale
S-2a-A	Black Cottonwood, Big Leaf Maple, Oregon Ash	25	Site is a portion of a developed City park
S-Goodnight W-2, S-WIL W-16			Needed for Residential and Commercial Buildable Land



ESEE Consequences

Wildlife Habitat Area subpolygon S-2a-A and two LSWs were determined to receive no protection due to low resource values and as part of the ESEE process. Corvallis and Benton County decision-makers determined that the value of the forested areas for low- and medium-density housing, park use, efficient provision of public facilities and services, and efficient use of urban land (Goals 10, 11 and 14 – economic, social, and energy consequences) outweighed the environmental value (Goals 5 and 6) of these tree groves. Tree groves within floodplain or riparian areas controlled by draft Chapters 4.5 and 4.13 will receive protection through those provisions.

The City and County determined that receiving no protection through this process would have greater positive values (economic and social) if used for residential and commercial land than if protected as wetland (environmental). (See Chapters 5, 6, 8, 9, 10, 11, 13 and 14.)

Areas Receiving Some Protection

Table 6-15-3 summarizes reasons that vegetative subpolygons described in the table below received a lower level of protection.

Table 6-15-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
COHO Housing	S-2a	S-tg-9	<ul style="list-style-type: none"> • “Some” protection on small portion of wildlife habitat area. • Land needed for Residential buildable land supply • Adverse social and economic impact on landowners • Efficiency of land use
Urbanized riparian corridors			<ul style="list-style-type: none"> • Adverse social and economic impacts to property owners • Relatively low quality of urbanized stream reach

ESEE Consequences

Urbanized riparian corridors and one tree grove subpolygon received reduced Goal 5 protection as part of the ESEE process. Decision-makers determined that the value of the tree grove for residential uses and efficient land use outweighed the grove’s environmental value. Decision-makers determined that partial protection would allow a portion of the tree grove to serve as a buffer.



In a November 4, 2004 letter, Mr. Scott Lepman described how the new floodplain regulations proposed as part of the Goal 7 (Natural Hazards) amendments could adversely affect the value of his property on Hopkins Avenue. The property is within the 100-year floodplain of Marys River, but does not have locally significant wetlands or significant vegetation, and is not locally within the Marys River riparian corridor. According to Mr. Hopkins, the new floodplain hazard regulations (especially the volumetric exchange rule) would limit his ability to carry out his business plan, which depends upon filling land within the floodplain for development. Mr. Lepman estimates that implementation of new volumetric exchange provisions, which would limit new fills on the site, would reduce his property value by \$2,250,000.

The Goal 7 natural hazard regulations included in Chapter 4.5 are governed by Statewide Planning Goal 7, and therefore do not require an ESEE analysis. However, decision-makers observed that Mr. Lepman could apply for a fill permit prior to adoption of new floodplain regulations in order to implement his business plan. They also pointed out that the property owner may obtain fill credit for the home foundation areas, construct under the revised provisions including volumetric exchange, construct raised flow-through foundations, or revise the business plan to allow for alternative industrial uses (some of which may generate higher land values).

In a November 8, 2004 letter from Mr. F. Scott Farleigh, Evanite Fiber Corporation raised concerns regarding potential economic impacts from implementation of the Goal 5 program. Although Evanite did not identify specific expansion plans for the 18 properties or 91 acres under corporate ownership, the decision-makers carefully considered potential adverse economic consequences at their November 9, 2004 public hearing. As a result of their deliberations, the decision-makers amended the Riparian Corridors and Wetlands Map to reduce the level of resource protection placed on the Evanite and Open Door, Inc. properties. The decision-makers further amended the Land Development Code provisions to allow redevelopment within existing footprints within the protected portions of the Riparian Corridor.

Effect on Buildable Lands Inventory

Table 6-15-4 summarizes the impact of the limited protection decision on the buildable land supply within S-NRA-15. About 53% of the vacant Low Density Residential land supply is constrained by natural hazards, and an



additional 7% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. None of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions.

Table 6-15-4. Impact of Limited Protection Decision on S-NRA-15 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	76	40	5	7%
Medium-High Density Residential	12	1	0	0%
Mixed Use	27	13	0	0%
Industrial and Commercial / Office	0	0	0	0%

ESEE Conclusion

The Limited Protection Program as applied to S-NRA-15 resulted in protection of all riparian corridors and most significant vegetation. Urbanized riparian reaches received only "some protection" in recognition of their relatively low resource quality and adverse social and economic consequences for owners of developed properties. The City's ESA study found that these streams were in equilibrium and would typically remain so provided upstream areas receive protection. Also, a natural resource polygon received "some" or no protection in order to preserve social, economic, and energy values associated with maintaining an adequate supply of residential and employment land, efficiency of land use within the UGB, and retention of economic use of land for landowners. Some of the tree groves that did not receive Goal 5 protection are protected through provisions in Corvallis' draft Chapters 4.5 and 4.13 related to riparian area and floodplain protections. (See Chapter 5: Goals 5, 6, 9, 10, 11, 13 and 14.)



S-NRA-16 (Airport)

1. Description

The Airport Natural Resource Area (S-NRA-16) is located in the southeastern portion of the Urban Growth Area, and is mostly outside of the Corvallis City Limits.

Natural features within S-NRA-16 include riparian areas and wetlands associated with the Marys River, Willamette River, Goodnight, and Dry Creek. There is one Isolated Tree Grove in this NRA (S-tg-13).

S-NRA-16 is designated Low Density Residential, Medium Density Residential, High Density Residential, Industrial, Institutional, Open Space, and Mixed Use on the Corvallis Comprehensive Plan Map.

Industrial districts predominate.

Table 6-16-1. S-NRA-16 (Airport) Characteristics

Significant Goal 5 Natural Resources	Natural Features Inventory Identification
Significant Wetlands and Riparian Corridors	Marys River Willamette River Goodnight Dry Creek
Significant Vegetation Sub-Polygons (Outside Riparian Corridor within WHA)	None
Significant Isolated Vegetation Subpolygons (Isolated Tree Groves – Outside WHA and Riparian Corridors)	S-tg-13

2. S-NRA-16 Limited Protection Decision

All significant riparian corridors that comprise the Airport Natural Resource Area (N-NRA-16) received draft Chapter 4.13 protection because of the positive ESEE consequences. (See Chapter 5 discussion under Goals 5, 6 and 7.)

The limited protection decision includes a 120-foot building setback from the Willamette River top-of-bank. The Natural Features Inventory (South Corvallis Study Area) documents the value of maintaining large riparian buffers along Boonville Slough (Dry Creek) which are located within the Willamette River floodplain. In deciding to protect the 120-foot riparian area adjacent to this side



channel of the Willamette River, Corvallis and Benton County decision-makers also considered the substantial evidence in the record regarding the environmental and flood storage values of undisturbed floodplains and riparian buffers in urbanizing areas. (See, for example, testimony from Tony Howell and Patricia Benner.)

Booneville Slough, which is part of the Willamette River system, defines the Urban Growth Boundary in this location. Mr. Ed Radke, a property owner who farms land abutting this slough provided written and oral testimony (November 4, 8, 9, and 15) to decision-makers arguing that a "safe harbor" buffer of 75 feet is adequate to protect environmental values, and that the 120-foot setback requirement is excessive. He also argued that the impermeable soils were not taken into consideration when defining the buffer width, and that his property has been taken without just compensation. He also presented a study showing the effectiveness of a smaller buffer in mitigating adverse impacts from agricultural operations.

At their joint hearings, Corvallis and Benton County decisionmakers considered and rejected Mr. Radke's claims. They agreed with the Department of State Lands (DLS) that the slough is part of the Willamette River system and therefore is subject to the 120-foot setback provision. In fact, soil types and vegetation were considered in the Natural Features Inventory for riparian areas conducted by Pacific Habitat Services. The decision-makers specifically reviewed the potential development (economic) impacts on Mr. Radke's residentially-designated property. Through density transfer provisions and application of MADA standards, the decision-makers determined that there would be no loss of residential development potential or value upon annexation to the City and application of development standards. Without annexation and urban zoning, the property cannot be provided with urban services and cannot develop at urban densities. The impermeable nature of the soils on Mr. Radke's property limit their suitability for on-site septic approval under DEQ standards.

The decision-makers note that Mr. Radke can continue to farm his property as he has in the past, consistent with new Benton County regulations. However, when land is eventually converted from low intensity agricultural use to urban residential uses, impacts to the Boonesville Slough and its riparian area will increase. Existing Corvallis Comprehensive Plan policies already provide a high level of protection for riparian corridors along the Willamette River system. The new code provisions (the 120-foot buffer width combined with MADA standards) provide greater objectivity in determining how these policies will be applied through the annexation and rezoning (to urban density) process.



As discussed in Chapter 5 of this ESEE Analysis (see especially Goal 5, 6 and 7 sections), there is substantial evidence that protection of riparian corridors in residential developments adds value to residential development and potential home sites. The Council and Board of Commissioners found no reason to grant a special exception in Mr. Radke's case, because adopted density transfer and MADA provisions allow full residential development of the site while protecting significant riparian area on Mr. Radke's property.

Natural Resource Areas Receiving No Protection

As a result of the ESEE Analysis, Corvallis and Benton County decision-makers determined two substantial wetland areas should *not* receive draft Chapter 4.5 or 4.13 protection due to adverse economic, social, and energy consequences.

The following portions of S-NRA-16 will receive no Goal 5 protection.

Table 6-16-2. S-NRA-16 (Airport) Subpolygons *Not* Receiving Goal 5 Protection

Subpolygon or Wetland ID	Vegetative Cover Type	Resource Score	ESEE Rationale
S-MAR W-3, W-16			<ul style="list-style-type: none"> • Needed for Industrial Land and had Low Value • Efficient Land Use • Adverse social and economic impacts on landowners

ESEE Consequences

Two large LSWs received no protection because these wetlands had low environmental value and high economic, social, and energy values for industrial use. Unlike residential areas, density transfer provisions are less effective for industrial land, because industrial buildings typically are single-story and require large parking and loading areas. See Goal 9 section of Chapter 5 for a detailed discussion of the ESEE consequences of full resource protection had these two large LSWs been fully protected.

Natural Resource Areas Receiving Some Protection

Table 6-16-3 shows that there were no reductions in protection for S-NRA-16 as a result of the ESEE process.



Table 6-16-3. Areas Receiving Reduced Goal 5 Protection

Resource Location	Polygon ID	Sub Polygons	Change and Reasons
None	NA	NA	None

ESEE Consequences

No areas in S-NRA-16 will receive reduced Goal 5 protection through this process.

Effect on Buildable Lands Inventory

Table 6-16-4 summarizes the impact of the limited protection decision on the buildable land supply within N-NRA-16. About 9% of the vacant Low Density Residential land supply is constrained by natural hazards, and an additional 6% would have some limitations placed on residential development, although MADA provisions allow planned residential densities for this area to be achieved. About 2% of the Medium-High Density Residential land supply would be affected by draft Chapter 4.12 provisions; however, MADA provisions would result in no loss of multiple-family housing units. A very small portion of the buildable industrial land supply is within protected natural resource areas. The impact is mitigated by MADA provisions, as described in Chapter 5, Goal 9.

Table 6-16-4. Impact of Limited Protection Decision on S-NRA-16 Buildable Land Supply

Conflicting Use Category	Total Undeveloped Acres	Protected Hazard Area Acres	Protected Natural Resources Acres (outside of Hazard Areas) Removed from BLI	Percent of Undeveloped Acres in Protected Natural Resources
Low Density Residential	191	17	11	6%
Medium-High Density Residential	229	2	4	2%
Mixed Use	47	1	0	0%
Industrial and Commercial / Office	922	17	7	1%

ESEE Conclusion

The Limited Protection Program as applied to S-NRA-16 resulted in protection of all riparian corridors, some LSWs, and all significant



vegetation. However, two LSWs received no protection in order to preserve economic, social, and energy values associated with efficient land use, preservation of industrial land supply, and maintaining economic use of land for property owners. (See Chapter 5: Goals 5, 9, 11, and 13.)



ESEE MAPS

(The ESEE Maps were previously distributed to the City Council as Exhibit G Maps of the October 21, 2004, City Council staff report.)

WRITTEN PUBLIC COMENTS

(The Written Public Comments 59 to 106 were previously distributed to the City Council within the October 21, 2004, City Council staff report and in separate memorandums. The Written Public Comments 1 to 59 were previously distributed to the Planning Commission and forwarded to the City Council in the Planning Commission records.)

MINUTES OF THE PLANNING COMMISSION AND CITY COUNCIL PUBLIC HEARINGS

(The minutes of the Planning Commission public hearing were previously distributed to the City Council within the October 21, 2004, City Council staff report and in separate memorandums. The minutes of the City Council public hearing were previously distributed to the City Council in separate memorandums.)

**ESEE PUBLIC
COMMENTS
SUMMARY CHARTS**

Summary of Oral Comments Submitted during the Corvallis PC Public Hearing (9-9-2004)

Date	Who	Property	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
9/9/2004	Kirk Bailey	General	<p>Social and energy consequences: Section 4.6.50.d change the word "centered" to the word "built" since centering a house on a lot is not always the best option. Consider allowing a on-story house if the developable area is large enough. Section 4.6.20.d and e, change "sites" to "lots." Section 4.6.20.c add "and where natural features or hazards presence conflict with solar access requirements." Delete Section 4.6.20.b. Section 4.6.30.b retain the phrase "east/west" since lots are oriented this way for the daylight aspect, which has a big impact on peoples' lives.</p>	<p>Chapter 4.6-Solar was significantly redrafted to incorporate the provision of sunlight on the first floor of structures. New language was included to provide limited exceptions for the protection of natural features. The concept of centering the house was deleted. The redraft includes requirements for east/west orientation of the buildings and establishes minimum wall areas that must have solar accessibility. Please see Attachment A below:</p>
9/9/2004	David Kliever	Kliever site south of City property off Highland	<p>Economic, social, and environmental consequences: The WHA polygon on the City property shows an overlap onto the Kliever property. The protection area should be adjusted to exclude the Kliever property as per a donation agreement made with the City prior to this project. This is a mapping error to be corrected.</p>	<p>The maps were corrected to reduce the protected SV polygons at the property line. This eliminated any protection for significant vegetation subject to Chapter 4.12 on the Kliever site.</p>
9/9/2004	Terri Valiant	Timberhill North/East PPSV-1 site & the PPSV-4 Timberhill site	<p>Economic, social, environmental, and energy consequences: Provided written testimony and stated the proposed standards would prevent reasonable development on this site given the costs of extending Kings Boulevard (even if the developer is only paying the local street portion). She stated that costs are also prohibitive for the PPSV-4 site. She stated that some of the proposed standards seem to be heavily weighted in natural features protection with no balancing of long-term transportation and density needs.</p>	<p>The decision-makers chose not to reduce the Chapter 4.12 - SV standards for PPSV-1 or PPSV-4. The City Council and the PW Department are examining funding for the Kings Boulevard extension. The balancing of long term transportation, housing, and environmental concerns was completed from several aspects throughout the project in determining significance, establishing the standards, and determining which areas would be protected. The decision-makers chose not to further reduce the PPSV-1 and PPSV-4 areas to provide additional densities. The MADA concept includes the provision of other transportation and public utility facilities. Exceptions are also provided in other LDC chapters to allow the extension of public facilities. The new Conservation-Open Space chapter and the proposed MADA provisions provide opportunities to reduce and/or relocate density on the site. Chapter 2.2-District Changes was also amended to aid in the use of these tools.</p>

Date	Who	Property	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
9/9/2004	Dennis Pahlisch	Timberhill North/East PPSV-1	Economic, social, environmental, and energy consequences: Stated the proposed restrictions on Timberhill North/East (PPSV-1) are too restrictive. Expressed concerns that the standards would apply to applications prior to adoption. Felt he could not develop the site with the proposed standards. Wanted to see more "ground-truthing" of the standards and concepts.	<p>The decision-makers chose not to make any further adjustments to the standards in Chapter 4.12 - SV. See response to Terri Valiant comments above.</p> <p>The decision-makers chose not to delay the project for additional "ground-truthing" as the amount of effort to develop, review, and consider the proposed regulations had been substantial. Some ground truthing had already been completed as part of the drafting of the measures.</p> <p>* Note: The proposed standards do not apply to properties prior to adoption. It should be noted however, that these properties are zoned with a Planned Development Overlay designation and Comprehensive Plan policies will apply. The draft standards are only one possible way to evaluate how those policies may be applied.</p>
9/9/2004	Siobhan	General	Social and environmental consequences: Questioned the need for additional housing. Recommended protection of the open spaces and natural areas/features. Recommended requiring development to be taller rather sprawling horizontally.	Chapter 4.11-MADA has provisions to limit the amount of encroachment into natural features areas. The LDC revisions are being completed to provide limited protection to the significant natural features. The MADA Chapter has provisions to allow height and other exceptions to protect natural features.
9/9/2004	John Stewart	General, 53 rd & Reservoir (K-4) site, Brandeis site north of Fairgrounds, and north of Timberhill (PPSV-1) site	Economic, social, environmental, and energy consequences: Asked for verification that under current regulations timber on the North of Timberhill site can be cut and could continue to be cut while property is in the County under the proposed regulations. Stated the stream on the north side of K-4 should be investigated and not protected. Owner is planning to relocate Dunawi Creek back to its natural channel on the east side. This would leave a riparian protection corridor around a dry ditch. The stream is being relocated as part of a previous agreement from the annexation approval. He raised issues about the pond and dike on the property and on the status of the stream within the non-locally protected wetland on the west side of the site. Wanted to not have to protect the stream if the wetland is not protected.	The ability to remove timber under the current regulations and proposed County regulations was confirmed. The decision-makers chose to provide protection for the stream on the north side of the K-4 site. A note to allow relocation of a portion of Dunawi Creek onto the eastern wetland and to make adjustments to the protected riparian area was included on the Comprehensive Plan, LDC, and Riparian Corridors and Wetlands Maps. The decision-makers chose to require protection for streams within wetlands, even if the wetland is not locally protected or is reduced in size. This would apply to the stream segments within the western wetland area.
9/9/2004	Irma Kapsenberg	General	Environmental consequences: Requested standards to prohibit 5' or 6' fences that trap small animals and block travel for larger mammals throughout the significant vegetation and riparian areas.	Chapter 4.12 -SV was amended. Please see Attachment B below:

Date	Who	Property	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
9/9/2004	Bruce McCune	Seavy Meadows	Social and environmental consequences: Read from his written testimony submitted 9-9-04. Requested local protection for all of the Seavy Meadows wetland areas. He submitted and read testimony from others in support of locally protecting Seavy Meadows.	The decision-makers chose to locally protect the portions of Seavy Meadows located north of Conser Street. The decision-makers chose to also provide local protections on the wetlands south of Conser Street and outside of the area proposed for an affordable housing project. The decision-makers chose to utilize the Planned Development process and the previous Seavy Meadows planning projects that established a maximum of 5 acres of development to be provided on the southern portions of Seavy Meadows and to establish a protected area on the remaining wetlands. The 5 acres of development is below the MADA that could be applied to the property, but the previous agreements would limit development to the 5 acres.
9/9/2004	Pat Muir	Seavy Meadows	Social and environmental consequences: Spoke in favor of designating all of Seavy Meadows as locally protected wetlands.	The decision-makers chose to make amendments noted above in response to this comment. See response to McCune comments above.
9/9/2004	Wesly Stoker	General	Social and environmental consequences: Spoke in favor of protecting natural features and open spaces.	The decision-makers chose not to make amendments in response to this comment. The proposed maps and text establish protections for selected significant resources areas.
9/9/2004	Ed Radke	General, ESEE	Economic and social consequences: Stated that preserving trees and riparian vegetation to address storm water was insignificant compared to the drainage being created by development. He found the ESEE document to be inadequate and lacking in substance and fact. It does not address (quantify) property values or the impacts upon those property values. Requested the riparian corridor on Booneville Slough be reduced to the "Safe Harbor" setback of 75 feet.	The decision-makers chose not to make changes to the draft ESEE Analysis in response to these comments. The decision-makers chose not to amend the draft maps or chapters in response to these comments, citing the Department of State Lands information identifying Booneville Slough as being a part of the Willamette River.
9/9/2004	Jennifer Ayotte	Seavy Meadows	Social and environmental consequences: Requested local protection on all of Seavy Meadows wetlands	The decision-makers chose to make amendments in response to this comment. See response to McCune comments above.
9/9/2004	Mike Riddle	CBUF	Social and environmental consequences: Questioned the use of 50% of the appraised value in Section 4.12.100 for enforcement and mitigation for vegetation removal. Supported the use of the Council of Tree and Landscape Appraisers Guide for Plant Appraisal, but indicated the enforcement should be based upon 100% of the value.	The use of the Council of Tree Landscape Appraisers Guide for Plant Appraisal and the 50% value were retained by the decision-makers as not only is the penalty of a financial nature, but the property owner is still restricted from developing the area subject to protection and the property owner is required to replant the area.

Date	Who	Property	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
9/9/2004	John Paul Broad	General	Process issues and social consequences: Wanted to be sure that there are provisions for correcting the maps and information.	The decision-makers made amendments in response to these comments. New Chapters 4.5, and 4.13 include provisions for map refinements and map corrections. Chapters 2.1 and 2.2 currently provide opportunities to make map corrections. Map changes beyond those identified in the regulations in Chapters 4.5 and 4.13 pertaining to natural features require additional ESEE analysis per OAR's for Goal 5. The Chapters include provisions for administrative interpretation of the maps. Please see Attachment C and Attachment D below:
9/9/2004	Patricia Benner	Chapter 4.5	Environmental and social consequences: Concerned about placing detention/retention facilities in floodplain (Section 4.4.50.07.b.5) due to ecological impacts. Also suggested that partial protection floodplains in residential areas allow only flow-through design, not building on fill - particularly along local streams. Would like the 100-year floodplain definition changed and does not think the definition and the diagram on staff report page E-49 match. Puzzled by partially protected riparian areas also only having partial protection for floodplain since floodplain regulation deal with hazards.	Chapter 4.5 was significantly amended to create different standards for partial protection floodway fringe areas for the local streams. These standards do not allow the use of fill and do require flow-through designs. The floodplain definition was also amended in Chapter 1.6. The decision-makers determined diagram was consistent with the FEMA and City definitions. The partially protected floodplain areas continue to meet at least the FEMA standards of protection to deal with the flooding hazards. Please see Attachment C and Attachment E below.
9/9/2004	Mary Ann Roberts	General	Process issues: Requested an extension to submit written testimony, then withdrew request.	Planning Commission did allow for additional time for people to submit written comments.
9/9/2004	A.L. Weber	General	Economic and social consequences: Asked if there will still be a 20- year supply of buildable lands in the UGB once the program is adopted. Noted that he losses about 20 trees per year from weather and that nature removes trees. Planned to submit written testimony.	The decision-makers chose not to make further amendments in response to these comments. If all of the areas designated in the draft maps for protection are fully protected, the community has more than a 20 year a supply of buildable lands within the UGB. The NFP did not result in any deficiencies in any land use zoning category. The Significant Vegetation chapter has provisions to recognize that nature will remove trees and provisions to require replanted within identified areas as properties surrounding those areas are developed.

Summary of Oral Comments Submitted during the Joint CC & BoC Public Hearing (11-04-04)

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	James Eickelberg	Chapters 4.13 & 4.11/Townhomes at Timberhill	Economic and social consequences, and mapping errors: Recommended removal of the 15-foot minimum riparian corridor protection. This provision was added in the worksessions and he found it causes great hardship for his neighborhood. There are 22 townhomes that would be impacted. The provisions that allowed for reconstruction within the existing footprint were better. Recommended going back to those.	The decision-makers chose to further amend the code provisions to allow rebuilding of existing structures within their original footprints, including within the 15-foot no-new construction setback area of the Riparian Corridors. Please see Attachment D (Sections 4.13.60.b.1 and 4.13.50.b) below:
11/04/04	Skip Hamilton	Chapters 4.13 & 4.11/Town-homes at Timberhill	Economic and social consequences, and mapping errors: Illustrated a mapping issue for the wetlands shown at the Townhomes at Timberhill. Supported Mr. Eickelberg's comments requesting the removal of the 15-foot minimum protected riparian area. Asked for a 60 day continuance.	The inventory data was reviewed and the maps were corrected by designating the wetland that was less than ½ acre in size as a potential wetland with a dot shown on the map. The maps were corrected to show that it is not a locally protected or locally significant wetland. The data base and forms do not include information regarding potential wetlands. Please see response to Eickelberg comments above. The decision-makers chose not to provide for a 60-day continuance of this legislative hearing. However, the decision-makers did allow for both written testimony to be submitted until November 9 th and oral testimony was accepted through November 8 th .
11/04/04	George Heilig	General	Economic, social and environmental consequences: Spoke against the project. Felt it is not supportive of affordable housing and orderly growth. Felt the riparian corridor recommendations were the biggest problem and recommended just going with "Safe Harbor" except where the Riparian Corridor should be reduced below Safe Harbor" standards. Did not like the analysis in the Salmon Response Plan. Felt the ESEE did not cover the soft issues like privacy sufficiently, that with MADA the density transfer would cause other issues. Also challenged the accuracy of the maps and inventory.	The decision-makers chose not to make any further amendments in response to these comments.
11/04/04	Bob Zybach	General and Chapters 4.12 & 4.13	Economic, Social and Environmental consequences: Raised concerns about the Measure 37. Felt that NOAA guidelines are all but goofy - they don't protect sufficiently and that planting trees in the riparian corridors is bad, trees under power lines are crazy, planting firs in residential neighborhoods is crazy. Felt the most hazardous thing in this areas is trees and that we don't have landslides here. Before this area developed the wildlife was bears and deer. Felt it does not make sense to protect wildlife habitat for large mammals in the urban areas.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers determined Chapter 4.12 includes provisions for maintaining utility areas within forests. Chapter 4.2 addresses the planting of appropriate urban trees in power line areas.
11/04/04	Lyle Hutchens	Chapters 4.0, 4.5, & 4.13	Economic and Environmental consequences: Recommended revisions to the location of the bioswale requirements as per the staff report recommendation.	The decision-makers chose to amend the draft language. Please see Attachment F (Section 4.0.140.c) below:

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	Edward Radke	Chapter s 4.13 & 4.15 and Booneville Slough	<p>Economic and Social Consequences, and Mapping Errors: Referred to his written comments. Wanted confirmation regarding the definition of top-of-bank. Testified the 120-foot setback along Booneville Slough is inappropriate. Requested the City use the "Safe Harbor" amount. Stated the City is asking for a public utility without compensation and has chosen not to collect SDC's for storm water to help compensate property owners for the use of their land. His position was that he would give the "Safe Harbor" area, but the City should buy the rest of the area. His water rights document that some of his water comes from the Willamette River and some is listed separately from Booneville Slough. Felt this documentation from the Oregon Dept. of Water Resources demonstrated that Booneville Slough is not part of the Willamette River. State the UGB area that drains into Booneville Slough is 1200 (not 12,000) acres and his property is 1% of that watershed but would be about 20% of the riparian corridor. Felt this represented a Dolan issue. Felt there were not enough studies modeling this stream. Wanted additional time to testify.</p>	<p>The draft Corvallis LDC provisions define the top-of-bank consistent with OAR 141-085-0010. The decision-makers chose not to make any further amendments to the maps or code provisions in response to these submitted materials and comments. The decision-makers accepted the Department of State Lands determination that Booneville Slough is part of the Willamette River. The decision-makers also reviewed the amount of land that would remain developable on the Radke property and surrounding properties and found that the remaining portions of the sites generally exceeded the MADA standards. The draft ESEE Analysis was expanded to include additional information regarding this area/issue. The public hearing was extended until November 8th for oral testimony and November 9th for written testimony.</p>
11/04/04	Warren Swartzen	General, Chapter 4.13, & Booneville Slough	<p>Economic, social, and environmental consequences: Applauded identifying and protecting natural resources. Felt this is too much micro-management of private property. Urged the use of a 50-foot "Safe Harbor" setback on Booneville Slough - not 120 feet. Asked the decision-makers to carefully consider the stack of regulations without compensation.</p>	<p>The decision-makers chose not to make any further amendments in response to these comments. Please see response to Edward Radke comments above.</p>
11/04/04	Daniel Ziegler	Chapters 4.0 & 4.13 & Dixon Creek	<p>Social and Environmental consequences: Applauded the protection of riparian corridors including the protection of Dixon Creek. Testified that Chapter 4.13 protects riparian corridors with provisions prohibiting vegetation and tree removal and construction and paving in riparian corridors. He supports that. However, he felt there are too many exceptions for streets and public utilities. Felt this is a serious omission, particularly in the County where roadways often run along streams. Requested changes to require the private property standards of protection for roads and utilities. Requested that roads and utilities be required to avoid locating in riparian corridors if feasible, and if not feasible, to avoid degrading the riparian corridor, and to mitigate for any degradation that cannot be avoided. Recommended requiring revegetation if roads and utilities are placed in the riparian corridors.</p>	<p>The decision-makers found the public need for infrastructure and public utilities to efficient land use, and the management practices of public agencies indicated a need and ability to have different standards for public versus private land development projects. The decision-makers did choose to further amend the language regarding the location and construction of streets, bicycle facilities, pedestrian paths, and utilities in natural features areas. The decision-makers also further amended the language regarding maintenance activities by both private and public parties. Please see Attachment D (Sections 14.13.50 and 4.13.80.01) and Attachment F below:</p>

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	Mike Robinson	Timberhill Area & Chapters 4.11 & 4.12	<p>Economic, social, environmental, and energy consequences: Testified that the Significant Vegetation requirements will cause Timberhill Corporation to lose areas that they anticipated being able to develop. Also testified that the City relies on development to extend infrastructure so if they can't develop those areas, they cannot extend the infrastructure. Urged that if the code provisions and maps are adopted, the public should help pay for the infrastructure, especially through the natural features areas.</p>	<p>The decision-makers chose not to make any further amendments to the proposed maps and Land Development Code provisions. The decision-makers discussed the ramifications of limiting the land uses on the Timberhill property and impacts that may have upon the extension of infrastructure. The City Council has assigned the Urban Services Committee the task of looking at alternative funding mechanisms. The City Council also discussed the opportunities that remain available for Timberhill to cluster residential units and to construct medium and medium-high density housing on the property to further support the infrastructure extensions.</p> <p>As a related note regarding the property north of Timberhill also owned by the Brandis family: The decision-makers and Staff noted that the property north of Timberhill could be developed with either the proposed RS-1 District, or with RS-5 or RS-6 standards once the property is annexed. The Comprehensive Plan designation is Low-Density Residential, so the property owner can choose which District designation they wish to apply for at the time of annexation. The City Council would then determine the most appropriate designation. The City Council noted that the new RS-1 designation and Code Chapter were drafted at the request of Timberhill Corporation and John Brandis to provide an additional option. The City Council further amended Chapter 4.11 to increase the MADA for the RS-1 to 10,000 square feet. Please see Attachment G below:</p>
11/04/04	George Mears	Chapter 4.12 and General	<p>Social and Environmental consequences: Received 12 Measure 56 notices. Wanted to state that he has Madrones on his property that are dying and he doesn't want to be required to replace them. The Douglas firs are getting bigger and are killing the Madrones. Does not favor this program. Worked on the Incentives Report. Urged the decision-makers to go slow and to go with "Safe Harbor."</p>	<p>Mr. Mears owns multiple properties so Measure 56 provisions require that he receive multiple notices. The decision-makers chose not to make any further amendments in response to these comments.</p>

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	Kathryn Phillips	Property off of Philomath Blvd. and General	Economic, social, and environmental consequences: Objected to her property having a significant vegetation overlay. Objected to planted and cultivated trees and shrubs being included as significant vegetation. Stated the planting was done to increase the property value and for her, and her tenants' use and enjoyment. Wanted compensation for preserving her trees. Felt the significant vegetation area should be limited to the property next door to hers. Also wanted to be clear that she has property at 2645 SW 49 th street that was a nursery and landscape company and does not want an overlay on that property. Expressed concern about the project deadline. Felt there were errors. Wants written notice of there are current and future limits.	The decision-makers chose not to amend the maps to remove the significant vegetation overlay on her property. The decision-makers found the trees were part of a large tree grove, one of the few remaining tree groves in the immediate neighborhood. The decision-makers found the tree grove to also be significant due to its location along Philomath Blvd., a gateway to the community. The decision-makers also found that several of the trees would meet the City's current standards for significant vegetation under Chapter 4.2 and the trees covered a very small portion of the property. The decision-makers found the property to include far more than the MADA for future development, even with high protection of the trees. The decision-makers noted that some of the tree grove would be reduced and developed on the adjoining site under the MADA provisions, and that this supported protecting the remaining trees on the Phillips property to allow more of the tree grove to remain functional.
11/04/04	Jim Funck	General	Mapping questions: Expressed concerns and questions about how the maps were prepared and what they mean. Was concerned about how the maps changed in his area.	Staff met with Mr. Funck and explained the differences in the maps and how the standards would apply to his neighborhood. The decision-makers chose not to make any further amendments in response to Mr. Funck's concerns, which were related to mapping questions rather than code provisions or mapping corrections.
11/04/04	Ronald Mull	Chapter 4.12 & Wildrose Drive	Mapping issues and economic, social and environmental consequences: Testified that the vegetation on his property is landscaping vegetation that was originally planted for a golf course that was not built and therefore the vegetation should not be considered significant.	The decision-makers chose not to make any further amendments in response to these comments. Staff explained that the SVA is shown based upon the aerial photographs and the drip lines of the trees at the time the inventories were taken, regardless of why they were planted.
11/04/04	Alison Weber	Chapter 4.12	Mapping issues: Stated the maps were in error for the area along Highland Blvd. at her property.	The decision-makers chose not to make any further amendments in response to these comments. The significant vegetation area may include non-treed areas within and connecting treed areas. However, in her area, the lines she was describing do not show the non-treed area along the street as a Significant Vegetation area. The area was drawn around. Staff explained that the SVA is shown based upon the aerial photographs and the drip lines of the trees at the time the inventories were taken. There may be subareas under the tree canopies, such as driveways that do not contain the tree trunks. There are provisions in the draft codes to provide for exemptions to allow vegetation removal for driveways, fire breaks, etc. within protected Significant Vegetation Areas.
11/04/04	Joe Weber	Chapter 4.12	Economic, social, and environmental consequences: Suggested the City and County revisit his property at 4125 Highland Drive. He cannot guarantee the trees will be there in the future.	Please see response to Alison Weber comments above.

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	John Stewart	Timberhill, 53 rd & Reservoir, & Chapters 4.11 & 4.12	<p>Economic, social, environmental, and energy consequences: Supported Mike Robinson's comments regarding Timberhill and the extension of infrastructure. Testified that the MADA limits for RS-1 were insufficient. Testified that the Martin property at 53rd and Reservoir contained streams and riparian corridors that are in areas that are very degraded and there should be provisions to allow them to be relocated/removed and this was allowed for only the western ones with a note on the Comprehensive Plan Map. The others, within the western pond and on the north should also be allowed to be removed/relocated on this highly altered site. The present designation is a problem for extending the road. The program needs a mechanism to allow these to be changed.</p>	<p>Please see response to Mike Robinson comments above regarding the Timberhill properties and the revision to increase the MADA to 10,00 sq. ft. for RS-1 properties.</p> <p>Regarding the 53rd and Reservoir properties: The decision-makers had previously placed a note on the Comprehensive Plan Map to allow relocation of the creek and the protected Riparian Corridor on the eastern portion of the site. The decision-makers chose not to add a similar note for the western portion of the site. The decision-makers noted the Staff recommended language change to allow the use of the Planned Development process to allow the realignment and re-vegetation of the stream segments on the western and northern portions of the site, so long as the re-alignment provided for greater functions of the resources. The decision-makers also noted the potential for a Comprehensive Plan Amendment based upon a specific proposal for the industrial development of this site. The decision-makers further noted the exceptions allowing the re-alignment of the road through the western stream and riparian areas with an appropriate mitigation program. Please see Attachment G and Attachment H below:</p>
11/04/04	Kathryn Baker	17 acre Baker/ Owens site off of Crescent Valley	<p>Economic, social, environmental, and energy consequences: Testified the land has been in the family for over 100 years. The maps show conflicts because they show that over 75% of the site is shown as wetlands, yet other maps show a road proposed to go through the site.</p>	<p>Staff met with Ms. Baker and reviewed the inventory information and maps to further explain the process to her. The wetlands on her site are not locally protected – they are just included on the Local Wetlands Inventory Map. The decision-makers chose not to make any further amendments in response to these comments.</p>
11/04/04	Steve Lieshman	Chapter 4.12 and Highland Dell	<p>Mapping issues: Testified that the maps for Highland Dell have been changed since he last testified, but felt that they still had overlaps of significant vegetation that are incorrect.</p>	<p>The decision-makers chose not to make any further amendments in response to these comments.</p>
11/04/04	Tony Howell	Chapters 4.5 and 4.13	<p>Economic, social, and environmental consequences: Testified that some of the provisions and recommendations from the Planning Commission regarding incremental requirements for redevelopment situations were not specified directly and the staff had to interpret the Planning Commission comments to draft the language. Some of the Planning Commissioners also wanted to address that where development is not increasing impervious surfaces but are still major redevelopments, there should be some requirements to improve the riparian and flood management functions of the site - there should still be some incremental improvements in functions, even if the development is not increasing the impervious surface on the site.</p>	<p>The decision-makers chose to further amend the ordinances to address stormwater detention and improvements over existing conditions as property is redeveloped. Please see Attachment F (Section 4.0.140) below:</p>

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/04/04	Barbara Craig	General	Economic, social, environmental, and energy consequences: Stated her objections to the program.	The decision-makers chose not to respond to these comments, but did respond to other comments submitted by Ms. Craig. Please see response to Barbara Craig comments below.
11/04/04	Patricia Benner	General	Economic, social, environmental, and energy consequences: Stated her support of a program to protect natural resources and lands with natural hazards. Testified the protection of the natural features is the protection of the sustainability of the community, including values. Illustrated how a watershed works with a sculpture. Pointed out that the drafts being presented include many compromises that have already been made. Testified the proposed riparian corridor widths are far below what is recommended in the literature to really protect all of the natural functions the waterways and riparian areas serve. Most of the scientific literature recommends setback and protection areas of 300 feet, for almost all portions of the stream. Testified that further reductions in setback will further erode the functions of the streams, including providing for clean water and flood management. Reminded the decision-makers that the Willamette River and Marys River are already listed streams due to pollution. Recommended that setbacks not be further reduced beyond the compromises already made.	The decision-makers chose not to make any further amendments in response to these comments.
11/8/04	Skip Hamilton	Chapters 4.11, 4.12, & 4.13	Economic, social, environmental, and energy consequences: Stated the proposed regulations would be burdensome for his homeowner's association. Requested a correction to the mapping error of a wetland at Timberhill Townhomes. Was particularly concerned about the management of existing landscaping within the protected riparian corridor.	Please see response to Skip Hamilton comments above. The decision-makers made further amendments to clarify the requirements for areas with existing vegetation. Please see Attachment D below:
11/8/04	Alison Weber	Chapter 4.12 and Mapping	Read testimony that she believes the mapping of significant vegetation is incorrect on and near her property. Raised concerns about maintaining her driveway access.	See response to Alison Weber comments above.
11/8/04	Bob Zybach	Chapters 4.12 & 4.13	Economic, social, and environmental consequences: Stated that the project does not adequately consider maintenance costs of having large trees in the environment, that encouraging tree growth is not ecologically or economically advantageous to the community. He showed photographs of trees along power lines and that show damage to trees with development. Also stated that there has never been a salmonid population in Corvallis's local streams, and that use of the National Oceanic and Atmospheric Administration (NOAA) standards is not appropriate.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers determined that the Tree Grove inventory provides additional information regarding the aesthetic factors of vegetation areas. Chapter 4.12 addresses the issue of Douglas firs in urban settings. Chapter 4.12 includes provisions for maintaining utility areas within forests. Chapter 4.2 addresses the planting of appropriate urban trees in power line areas. The decision-makers pointed out, and Mr. Zybeck agreed, there are salmonids in the Willamette River and the land uses and development patterns along local streams impact the health of the Willamette River.

Date	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
11/8/04	Jay Doyle, Evanite Corporation	General and Chapter 4.13	Economic, social, environmental, and energy consequences: Reviewed written testimony outlining several specific objections to the proposed amendments that primarily focused on the ability of Evanite Corp. to continue to develop and redevelop their properties.	The decision-makers chose to amend the Riparian Corridors and Wetlands Map to place partial protections on the Evanite and Open Door, Inc. properties. The decision-makers also further amended the Land Development Code provisions to allow redevelopment within existing footprints within the protected portions of the Riparian Corridor. Please see response to James Eickleberg comments above.
11/8/04	Larry Venell	General, Mapping, and Chapter 4.13	Economic, social, and environmental consequences and mapping and inventory questions: Questioned the inventory process and results regarding wetlands on his property that are within 1/4 mile of the Marys River. Advised the City to move slowly in this project, particularly considering the passage of State Measure 37.	Staff reviewed his inventory information which correctly stated (in revised up-dates) the status of his wetlands. If any part of a wetland is within 1/4 mile of the Marys River, then the wetland is regarded as being within 1/4 mile of the river as per the Oregon Freshwater Assessment Methodology. Wetland connection can be considered on both the basis of drainage or direct physical connection. The decision-makers chose not to make any further amendments to the draft maps or ordinances.
11/8/04	Scott Lepman	Chapter 4.5	Economic, social, environmental, and energy consequences: Referenced his previously submitted written testimony regarding his property on South Third Street. He has additional fill on the site that he intended to use. He would like to ensure that he will be able to move the dirt later. Asked the City to not have fill permits expire.	The decision-makers chose not to make any further amendments in response to these submitted materials and comments. The decision-makers recognized that the property owner continues to have several options such as applying now for a fill permit (prior to enactment of the proposed Code revisions), obtaining fill credit for the home foundation areas, constructing under the revised provisions including volumetric exchange, raised flow-through foundations, or constructing for alternative industrial uses, some of which may generate higher land values.
11/8/04	David Quay	Mapping issues	Mapping issues: He is a real estate agent who recently sold the property on NW Wild Rose Drive (Tax Lot 1000) and wanted to have the site revisited to examine the natural features, particularly a riparian area.	Staff reviewed the information regarding this site. County staff re-examined the site. No further map amendments were recommended. The decision-makers chose not to make any further amendments in response to these comments.
11/8/04	Rana Foster	General, Chapter 4.12	Economic, social, environmental, and energy consequences: Reviewed written testimony that included a list of botanic species of concern for Benton County and addressed several specific points. She asked that all of the proposed protections and conservation measures in the project be retained.	The decision-makers chose to make further amendments in response to these comments.

Summary of Written Comments from 5-14-04 to 6-28-04

#	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
1	5/14/04	Corvallis Area Corporate Round Table - B. Humphreys	General	Economic, Social, Environmental, and Energy consequences: Support clear & objective standards and balanced approach	The decision-makers found the project created clear and objective standards and a balanced approach.
2	5/21/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Support tree preservation throughout the UGB.	Provisions were included to preserve trees within the City within Riparian Corridors and Significant Vegetation Areas. (Provisions for preserving/replacing trees in Riparian Corridors and Significant Vegetation Areas were also included in County ordinances. The County ordinances allow for tree cutting/harvesting within Significant Vegetation Areas for species other than Oregon White Oaks. The County also allows some tree cutting within Riparian Areas under the Oregon Afforestation Incentive Rules.) The decision-makers chose not to include a tree ordinance for areas outside of the areas with greater than or equal to 35% slopes, Riparian Corridor, and Significant Vegetation Areas. Chapter 4.2 includes provisions to protect trees as properties are developed (outside of SVA inventoried areas) through permit review procedures. Chapters 4.2 and 4.12 include provisions to require landscaping as development occurs.
2	5/21/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Eliminate clear-cutting.	Chapter 4.12 eliminates clear-cutting in Riparian Corridors, Highly Protected Significant Vegetation Areas, and most of the Partially Protected Significant Vegetation Areas within the City limits. The decision-makers chose to allow clear-cutting and partial replacement within the PPSV-4 areas. (In the County, clear-cutting is permitted except in areas with greater than or equal to 35% slope, most Riparian Corridors, and of Oregon White Oaks. However, the County prohibits development in the Highly Protected Significant Vegetation Areas and when those areas are annexed into the City, the City standards require replanting. Thus the concept is to protect the areas for continued forest and open space uses, even through tree harvesting remains a viable use within the County.) As the community grows and urbanizes, the Riparian Corridors, Highly Protected Significant Vegetation Areas, and portions of the Partially Protected Significant Vegetation Areas remain as open space/forested areas. See Griffiths comments above.

4	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
2	5/21/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Protect trees prior to annexation.	(The County decision-makers chose to not require tree protection other than in areas with greater than or equal to 35% slopes, Riparian Corridors, and for Oregon White Oaks prior to annexation.) The City decision-makers chose not to delete the annexation of clear-cut properties. (The County decision-makers do protect Significant Vegetation lands from being further developed and have included incentives for retaining the areas for open space.) The City decision-makers chose to not allow development on previously logged Significant Vegetation Areas and to require replanting as the lands are annexed into the City/developed on other portions of the site. The concept adopted as amendments to Chapter 4.12 focused on preserving the areas for vegetation, and allow some removal and replacement/restoration of vegetation in those areas as the community grows. Please see Attachment B below:
3	6/10/01	Arn McKenna	Riparian & Hazards	Economic, social, and environmental consequences and inventory issues: Remove portion of Sequoia Creek from the Natural Features Inventory and regulations.	The decision-makers chose not to remove portion of Sequoia Creek from the NFI or the regulations. The regulations for riparian areas within previously developed neighborhoods were modified to place lower restrictions on those sites. These adjustments were made in Chapters 4.13 and 4.5 and to the Comprehensive Plan, LDC, and Riparian Corridors and Wetlands Maps. Please see Attachment C and Attachment D below:
4	6/13/04	Steve Schuetz	Riparian & Hazards	Economic and environmental consequences: Concerned about pesticide restrictions.	The decision-makers amended the draft to remove the proposed local government regulations regarding the use of pesticides through Chapters 4.5, 4.12, and 4.13. Rather, in the future, amendments may be made to the Municipal Code. The LDC chapters were amended to indicate the need for compliance with State and Federal regulations and court decisions. Please see Attachment B , Attachment C , and Attachment D below:

#	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
4	6/13/04	Steve Schuetz	Riparian & Hazards	Economic, social, and environmental consequences: Don't have 100-foot setback on Dixon Creek.	The Comprehensive Plan Map, LDC Map, Riparian and Wetlands Maps, and the Natural Hazards Map, Chapter 4.5, and Chapter 4.13 were all amended to reduce the setback areas along Dixon Creek. The Dixon Creek area was amended to have a series of protection levels based upon the characteristics of the reaches. In general, the setbacks along Dixon Creek were reduced to either 25 feet or the width of existing drainage easements for full protection. Chapter 4.13 and Chapter 4.11 provisions also may, in certain circumstances, allow the setback to be reduced to 15 feet and to allow reconstruction within the existing footprints for buildings within the protected Riparian Corridor, including the 15-foot setback area. Please see Attachment C and Attachment D below:
4	6/13/04	Steve Schuetz	Riparian & Hazards	Economic, social, and environmental consequences: Keep properties along Dixon Creek buildable.	See response to Steve Schuetz comment above.
5	6/10/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Don't annex areas that have been clear cuts ala Lake Oswego	See responses to David & Elinor Griffiths Comments above.
5	6/10/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Don't allow clear cutting on Melville property	See responses to David & Elinor Griffiths Comments above. The decision-makers chose to allow development on the Melville property outside of the protected wetland and significant vegetation areas. Portions of the site were designated for no clear-cutting if the property is annexed into the City.
5	6/10/04	David & Elinor Griffiths	SVA	Economic, social, and environmental consequences: Co & City should prevent clear cutting in UGB -- Adopt tree ordinances	See responses to David & Elinor Griffiths Comments above.
5	6/10/04	David & Elinor Griffiths	SVA & Hazards	Social and environmental consequences: Include view-shed protections.	The decision-makers chose not to pursue separate provisions for view-shed protections at this time. There are some indirect provisions for view-shed protection through the provisions in Chapters 4.12 -SV, 4.13 -Riparian and Wetlands, and Chapter 4.5 -Natural Hazards and Hillside Development. These standards preserve trees and open spaces within hillside and riparian areas. Please see Attachment B , Attachment C , and Attachment D below:

#	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
6	6/15/04	Lyle Hutchens	General	Economic, social, and environmental consequences and technical code questions and corrections: Allow City NFP maps to be modified by site specific engineering or environmental studies and include process in code -- how is MADA location determined? -- correct MADA table references --	Chapters 4.5, 4.13, and 4.11 all included and were further amended to allow for site specific engineering or environmental studies to refine maps. The decision-makers also chose to provide provisions for City and County administrative procedures for map corrections. The decision-makers chose not to allow additional environmental studies to refine or correct the maps for Significant Vegetation Areas because those are based upon the areas defined during the inventory and balancing processes, not the specific conditions at the time of development. Chapter 4.11 was amended to specify the location of the encroachments into the MADA. Within the prioritized categories or resources and hazards, Chapter 4.11 allows the property owner/developer to chose the location of the development area. The MADA table references and amounts were amended. Please see Attachment C , Attachment D , and Attachment G below:
6	6/15/04	Lyle Hutchens	MADA	Environmental consequences and technical questions: How will multiple MADA areas be prioritized/located on a site	See response to Lyle Hutchens comments above.
6	6/15/04	Lyle Hutchens	MADA	Technical corrections: MADA table references should be corrected	See responses to Lyle Hutchens comments above.
6	6/15/04	Lyle Hutchens	SVA	Technical corrections: Need definitions for trees and shrubs - suggested Salem's	Chapter 1.6 was amended to include specific definitions for significant trees and significant shrubs. The decision-makers chose not to include a specific definition for tree or for shrub. Please see Attachment E below:
6	6/15/04	Lyle Hutchens	SVA	Economic, social, and environmental consequences and technical corrections: Section 4.12.60.b is problematic - see letter	Section 4.12.60.b was deleted as written and redrafted (and renumbered to 4.12.50.b). Please see Attachment B below:
6	6/15/04	Lyle Hutchins	SVA	Economic and environmental consequences and technical corrections:: Define diameter for mature large & medium canopy trees.	The decision-makers chose not to amend chapter 4.12 to define or identify large & medium canopy trees. Chapter 4.2 contains a partial list of large and medium canopy trees. The decision-makers chose to accept a series of vegetation lists to be prepared and used in a manner that is similar to way the engineering standards are prepared and used. These tree and vegetation lists would identify large and medium canopy trees, native vegetation species, and which species are appropriate for each general eco-system. The vegetation lists would also include information regarding the mature tree canopy expected for the tree species as needed to implement the provisions drafted in Chapter 4.12. The vegetation lists are expected to be drafted after January 1, 2005.

#	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
6	6/15/04	Lyle Hutchins	Riparian	Economic, social, and environmental consequences: Proposed Riparian Corridor Easement widths in 4.13.70.d are a good balance.	The decision-makers chose not to make any further amendments due to this comment.
7	6/15/04	Arn McKenna	Riparian	Economic and social consequences and inventory issues: Sequoia Creek should not be included - study is inaccurate.	The decision-makers chose to include Sequoia Creek in the inventory and the regulated riparian and floodplain areas. The standards in these areas were modified to include partial protection measures rather than high protection measures.
8	6/19/04	Bruce McCune	Riparian & Hazards	Social and environmental consequences and inventory issues: Sequoia Creek should be included in NFP both for riparian and flooding issues.	See response to Arn McKenna comments above.
9	6/22/04	Lyle Hutchens	MADA	Technical questions: Confirmation of MADA calculations requested.	The calculation methods were confirmed by staff.
9	6/22/04	Lyle Hutchens	MADA	Economic and environmental consequences: Request that storm water quality and/or detention areas be included as MADA credit.	Chapter 4.11 was amended to increase the MADA by crediting qualified above ground storm water quality and/or detention areas. Please see Attachment G below:
9	6/22/04	Lyle Hutchens	MADA	Economic, social, and environmental consequences: Request City change hospital site to PPSV-4 (from PPSV-3).	The Significant Vegetation Areas Map was amended to change the hospital campus site to PPSV-4.
10	6/23/04	DCA - Pat Lampton	General	Economic, social, environmental, and energy consequences: Maintain balanced approach and provide clear & objective standards.	The decision-makers chose to maintain a balanced approach and to create clear and objective standards.
11	6/28/04	Don & Cecilia Smullin (radio)	General	Economic and social consequences: No new restrictions that infringe on property rights without compensation.	The decision-makers chose to meet the state requirements for adopting new clear and objective standards. The decision-makers noted that the Minimum Assured Development Area concept and Chapter 4.11 standards provide property owners with protections of development opportunities for at least the minimum density levels for each zone and permit deviations from zoning standards to facilitate clustering development away from the protected natural features. Property owners have more assurance that they will be able to develop properties containing natural features under the proposed chapters than they currently have under the discretionary permit review procedures. Property owners retain the ability to choose to use discretionary permit review procedures.
12	6/30/04	Economic Development Partnership, Inc	General	Economic, social, environmental, and energy consequences: Support of clear and objective standards for development without public hearings and clear and objective standards for earthwork and hillside development.	See response to DCA - Pat Lampton and Don & Cecilia Smullin comments above.

#	When	Who	Property /Chapter	Comment	Response/Action/Non-Response/Non-Action by Decision-Makers -- The Decision-Makers Chose to Take the Following Approaches
13	6/28/04	Business Enterprise Center	General	Economic, social, environmental, and energy consequences: Support of clear and objective standards and balancing of concerns.	See response to DCA - Pat Lampton and don & Cecilia Smullin comments above.

Summary of Written Comments for PC Public Hearing (9-3-04 to 9-16-04)

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
14	9/3/04	Robert Schonbrod	WC-10a & Chapter 4.12 -SV	Environmental and social consequences: Wanted to be sure that his vegetation management program could continue - remove dying evergreens & noxious vegetation, create fire breaks, use Greenbelt Land Trust restoration recommendations.	Chapter 4.12 includes provisions for fire breaks, allows removal of noxious vegetation, and management of forests to allow thinning and removal of hazardous trees. If implemented, future vegetation management activities would either be exempted or require an approved vegetation management plan as per the methods Mr. Schonbrod indicated he is using.
15	9/3/04	Al Hutchinson	6100 block of Philomath Road 1250DC TL 200	Economic and environmental consequences and inventory issues: Protested the mapping of the wetland on his property. Indicated that he will seek a delineation of the wetland. Stated that there is no stream on his property.	The decision-makers chose not to make any adjustments to the inventory map at this time. Chapter 4.13 allows for map refinements based upon DSL approved delineations.
16	9/7/03	Robert Schonbrod	WC-10a & Chapter 4.12 -SV	Environmental and social consequences: Clarified the location of the significant vegetation on his property.	See response to Schonbrod comments above.
17	9/7/04	Laura White Srying	Seavy Meadows	Economic, social, environmental, and energy consequences: Requested local protection for all of the Seavy Meadows wetland areas.	The decision-makers chose to locally protect the portions of Seavy Meadows located north of Conser Street. The decision-makers chose to also provide local protections on the wetlands south of Conser Street and outside of the area proposed for an affordable housing project. The decision-makers chose to utilize the Planned Development process and the previous Seavy Meadows planning projects that established a maximum of 5 acres of development to be provided on the southern portions of Seavy Meadows and to establish a protected area on the remaining wetlands. The 5 acres of development is below the MADA that could be applied to the property, but the previous agreements would limit development to the 5 acres.
18	9/9/04	Patricia Muir	Seavy Meadows	Economic, social, environmental, and energy consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Srying comments above.
19	9/9/04	Bruce McCune	Seavy Meadows	Economic, social, environmental, and energy consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Srying comments above.
20	9/9/04	Terri Valiant	4.5.11.03	Economic, social, and environmental consequences: Requested changing the 10% threshold to 15% for hillside regulations.	The decision-makers chose not to make this amendment to the standards.

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20	9/9/04	Terri Valiant	4.5.110.03	Economic, social, and environmental consequences: Requested inclusion of the 15% maximum driveway grade as a factor in the standards.	Chapter 4.5 had previously been amended to include maintenance of a 15% or less slope to the driveway as an exentuating circumstance in 4.5.80.04. Please see Attachment C below:
20	9/9/04	Terri Valiant	4.11.20.01	Economic consequences and procedural question: Asked if resource surveys are required?	Property owner resource surveys are not required under the draft regulations. The community paid for and completed the community-wide inventory as per OARs.
20	9/9/04	Terri Valiant	4.11.30.03	Economic, social, environmental, and energy consequences: Asked if the development of streets is included in the MADA. Indicated concerns with small lots then allowed and the limits of the use of the land	The local streets are included in the MADA. There is a credit to increase the MADA for portions of collector and arterial streets beyond local street levels. The decision-makers recognized the limited development areas and lot sizes and approved the previously drafted MADAs. The MADAs for RS-1 and C-OS were amended for the City Council staff report to increase the MADA for RS-1 from 8,750 sq. ft. to 9,500 sq. ft. The City Council further increased it to 10,000 sq. ft. The MADA for the C-OS was also increased by giving credit for trails to be added to the base MADA. Please see Attachment G below:
20	9/9/04	Terri Valiant	4.12.10	Environmental consequences: Identified a need to create more specific requirements or protections for certain vegetative species, most specifically Oregon White Oaks. Need to tailor management plans for specific areas.	Chapter 4.12.10 had previously been amended to allow different canopy coverage credits for Oak savannahs and upland prairies. The Chapter was amended to allow for vegetation management plans to implement the recommendations included in the NFI for each sub-polygon vegetation area/type. Please see Attachment B below:
20	9/9/04	Terri Valiant	4.12.30	Economic, social, and environmental consequences: Indicated the need to be able to selectively use herbicides and pesticides within Significant Vegetation areas.	Chapters 4.5, 4.12, and 4.13 had previously been amended to remove the drafted prohibitions on the use of herbicides and pesticides. Provisions to limit the use of herbicides and pesticides may be adopted into the Municipal Code though a separate project. The LDC chapters were amended to include compliance with state and federal regulations and court case requirements. Please see Attachment B, Attachment C, and Attachment D below:
20	9/9/04	Terri Valiant	4.12.60.b	Economic and environmental consequences: Asked about the differences between the 8" and 4" standards in Chapter 4.2 and Chapter 4.12. Suggested keeping the 8" standard.	The decision-makers chose not to amend Chapter 4.12 to use the 8" standard for inventoried areas. The landscaping concepts are different between preservation of groves and of specimen trees. The decision-makers found the Chapters reflect those differences.

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20	9/9/04	Terri Valiant	4.12.70.a.2	Economic and environmental consequences: Questioned the concept of enhancement in protected vegetation areas. Recommended the use of a 4-5 trees per acre standard rather than the 70% canopy coverage standard for Oregon White Oak stands.	The decision-makers chose not to make any further adjustments to the chapters due to this comment. The enhancement provisions were included to address areas that had been cut or over-thinned. The 70% canopy coverage standards were retained recognizing that the canopy coverage could be provided by 4-5 large, mature oak trees, but would not be provided within 15 years by new plantings based upon only 4-5 trees per acre.
20	9/9/04	Terri Valiant	4.12.70.a.3	Economic, social, and environmental consequences: Requested that Oregon white Oaks that reach 4 trees per acre or more be credited as 100% tree canopy coverage.	Chapter 4.12 had been amended to credit Oregon White Oak savannahs listed in the NFI as 30% or more canopy coverage be credited as 70% canopy coverage. Also, see response to previous comment. Please see Attachment B below:
20	9/9/04	Terri Valiant	4.12.70.b.1	Economic, social, and environmental consequences: Raised concerns about the MADA calculations for the Timberhill PPSV-1 areas at Timberhill north and Timberhill east.	The decision-makers chose not to amend Chapters 4.12 or 4.11 to further increase the amount of development that would be standard for the Timberhill north and Timberhill east PPSV-1 areas. The decision-makers recognized the Timberhill properties are within a Planned Development and may be developed under a different standard based upon existing codes. However, if the property is developed under the new proposed standards, the decision-makers retained the drafted MADA and PPSV-1 standards, except that the MADA allowance for RS-1 was increased which will provide more development flexibility for the area PPSV-1 north of Timberhill (not at Timberhill north which is not a potential RS-1 area). Please see Attachment G below.
20	9/9/04	Terri Valiant	4.12.70.b.2	Economic, social, and environmental consequences and technical question: Asked how the application of the MADA to PPSV-1 would work.	Staff reviewed the concept and explained how the MADA would apply.
20	9/9/04	Terri Valiant	4.12.70.b.3	Economic, social, and environmental consequences: Recommended that area containing 500-year old Queen oaks not be enhanced or have the requirement for 70% tree canopy coverage. Wanted to allow tree thinning to remove competing species.	The decision-makers chose not to amend the requirements for this area which has 100% canopy coverage. Provisions in the chapter allow for thinning to enhance the Oregon oaks. No additional plantings would be required under the chapter as drafted.
20	9/9/04	Terri Valiant	4.12.70.b.4	Economic, social, and environmental consequences: Asked that the PPSV-1 area be credited as 100% canopy coverage after tree thinning to preserve the Oregon White Oaks.	The decision-makers chose not to amend the chapter to provide for an automatic 100% canopy coverage after thinning. Amendments had been made to allow for 70% canopy coverage credit for oak savannas and to allow for thinning of the PPSV-1 area to 70% canopy coverage. The coverage credit will depend upon the canopy anticipated at maturity when the property is developed. This will be based upon the Significant Vegetation Management Plan that is proposed. Please see Attachment B below:

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
20	9/9/04	Terri Valiant	4.12.70.e.1	Economic, social, and environmental consequences: Expressed concern that given the extent of the PPSV, developers could not place all of the development outside of the PPSV area.	The decision-makers chose to retain the PPSV areas and standards except that the MADA for RS-1 areas was increased to 10,000 sq.ft. Chapter 4.12 had been amended to clarify the language allowing limited development within the PPSV areas. The decision-makers recognized the need to cluster units and utilize the MADA to develop the remaining Timberhill sites. Please see Attachment B and Attachment G below:
20	9/9/04	Terri Valiant	4.12.70.e.3 & 4.17.70.g	Economic, social, and environmental consequences: Asked questions and raised concerns about the PPSV standards in the Timberhill east area. Recommended the replacement planting standard be reduced from 6 inches to 2 inches. Raised concerns about the loss of developable area, density, and housing affordability.	Chapter 4.12 had been amended to clarify the language and establish the Douglas firs can be removed from the site, 25% of the site is retained as common open space, and the common open space areas are to be replanted to achieve a 70% canopy coverage within 15 years (4.12.60.e). Replacement tree requirements had been amended in Chapter 4.12 to require smaller replacement trees - 1-inch caliper or the caliper needed per species to achieve the canopy coverage standard - whichever is greater. The decision-makers chose to not make any additional changes to respond to the general concerns raised in these comments. They noted that balancing had occurred, many compromises had been made over Timberhill as a whole, and that it wasn't appropriate to look at one PPSV area in isolation. Please see Attachment B below:
20	9/9/04	Terri Valiant	4.12.70.1	Economic consequences: Requested that the bond rate be 120% and the bonding term be 3 years as per the current practices for Chapter 4.2 landscaping bonds.	The decision-makers chose not to revise the drafted bonding requirements, because it may be more difficult to establish and maintain planting in natural areas because they are not part of someone's yard.
20	9/9/04	Terri Valiant	4.12.80.c	Economic, environmental, and energy consequences: Requested flexibility to not have wide streets through significant vegetation areas, particularly with wider planter strips.	Chapter 4.0 had been amended to specifically allow and require narrow streets within protected SV areas. Planting strip requirements were also deleted within protected SV areas. Chapter 4.0 was further amended to allow for limited on-street parking in natural features areas with reduced street widths. Please see Attachment F below:
20	9/9/04	Terri Valiant	4.12.90.a	Economic, social, and environmental consequences: Asked that clubhouses be allowed within open space tracts. Expressed concerns about the costs of housing and project feasibility due to open space requirements.	The decision-makers chose not to amend the open space tract or MADA provisions to allow clubhouses in the same tracts. The clubhouse area could be in a separate tract but the developed clubhouse areas would still be part of the overall MADA calculations.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
20	9/9/04	Terri Valiant	4.12.90.b	<p>Economic, social, environmental, and energy consequences and procedural questions: Requested clarification in the code to establish the relationship between a Planned Development and Chapter 4.12, particularly whether a Planned Development would allow deviation from Chapter 4.12 standards. Also requested deviations if density, necessary infrastructure, or other important Comprehensive Plan or Master Plan goals are desired.</p>	<p>The decision-makers considered the balancing used to determine the protected areas and the standards to be the appropriate balancing and further balancing on a development project-by-development project basis would be counter-productive to the total balancing that was to occur under the Comprehensive planning and the Goal 5 (including ESEE analysis) processes. Such changes would be required to go through an additional Comprehensive Plan Amendment and a new ESEE process as per Statewide Goal 5 requirements. Amendments had been made to Chapters 2.2, 2.3, 2.4, 2.5, 2.6, and 2.12 to clarify the procedures to amend the districts, maps, and plan text set forth in the proposed Land Development Code and Comprehensive Plan provisions. The decision-makers amended the Planned Development chapters to allow the standards adopted in Chapters 4.5, 4.11, 4.12, and 4.13 are to be modified through the PD process, but only if the proposed PD provided the same or enhanced functions for each of the natural features on the site. Please see Attachment B, Attachment C, Attachment D, Attachment G, Attachment H, Attachment I, Attachment J, Attachment K, Attachment L, and Attachment M below.</p>
20	9/9/04	Terri Valiant	Timberhill North/East PPSV-1	<p>Economic, social, environmental, and energy consequences: Indicated that the restrictions, along with the costs of extending King Boulevard, make it too difficult and expensive to develop this site. There is a total land reduction estimated to be 72% and the remaining land cannot support developing the road. The conditions and standards make it too expensive to develop this site. Adjustments are needed.</p>	<p>The decision-makers chose not to make any further amendments to the proposed maps and Land Development code provisions. The decision-makers discussed the ramifications of limiting the land uses on the Timberhill property and impacts that may have upon the extension of infrastructure. The City Council has assigned the Urban Services Committee the task of looking at alternative funding mechanisms. The City Council also discussed the opportunities that remain available for Timberhill to cluster residential units and to construct medium and medium-high density housing on the property to further support the infrastructure extensions.</p>
20	9/9/04	Terri Valiant	Timberhill Southeast/ PPSV-4	<p>Economic, social, and environmental consequences: Expressed concern that the standards were for saving/replanting 25% of the area rather than 25% of the trees. Supported the allowance to remove the Douglas fir trees and replace with other species. Suggested a lower standard for tree replacement area. Requested elimination of the replacement requirements in 4.12.70.g. Asked the City to accept ownership and maintenance of open space tracts. Asked for down-zoning of the site.</p>	<p>The decision-makers chose not to make any of the recommended changes, again pointing out that balancing had occurred, many compromises had been made over Timberhill as a whole, and that it wasn't appropriate to look at one PPSV area in isolation. The city Council indicated their desire to investigate alternative maintenance programs for selected areas as part of an incentives review to be conducted after this LDC Update Phase III Project is completed.</p>

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
20	9/9/04	Terri Valiant	General	Economic, social, and environmental consequences: Argued against the multiple burdens of setting aside areas for open space, and then also being responsible for the continued maintenance of that open space.	The decision-makers chose not to make any further amendments to the drafts in response to these comments. However, there was a recognition of the need to investigate alternative maintenance programs for selected areas as part of an incentives review to be conducted after this LDC Update Phase III Project is completed.
20	9/9/04	Terri Valiant	General	Economic and social consequences: Recommended additional time be taken to "ground-truth" the standards with specific sites.	The decision-makers chose not to delay the project for additional "ground-truthing" as the amount of effort to develop, review, and consider the proposed regulations had been substantial. Some ground truthing had already been completed as part of the drafting of the measures.
21	9/9/04	Carolyn Menke	Seavy Meadows	Economic, social, environmental, and consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
22	9/9/04	Karin Rohland	Seavy Meadows	Economic, social, environmental, and energy consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
23	9/9/04	Siobhan	General	Social and environmental consequences: Supported the preservation of open spaces, the value of wildlife habitat areas, and protection of natural resource areas.	The decision-makers chose not to amend the drafts in response to these comments. The proposed ordinances and maps are designed to protect the selected significant natural features and provide open space throughout the community.
24	9/9/04	Kapsenberg	General	Social and environmental consequences: Requested regulations to prevent fences greater than 4 feet in height within wildlife habitats since the fences block migration patterns.	Chapter 4.12 was amended to include fence regulations to restrict the height and design of the fences. Chapter 4.13 already had provisions prohibiting new fences riparian corridors. Please see Attachment B below.
25	9/9/04	Bruce McCune	Seavy Meadows	Economic, social, environmental, and consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
26	9/9/04	David & Jean Kliever	Kliever property 11-5-23 TL 204 off of Highland Dr.	Economic, social, and environmental consequences: Wanted to be certain the maps were amended to reflect a previous land dedication agreement with the City. The Significant Vegetation, Comprehensive Plan, and LDC Maps should be corrected to show no protection for trees on the Kliever property. The protected trees are on the City's property to the north.	The maps were so corrected.
27	9/9/04	David Gore	11-5-11B TL 01101 and 01200	Economic and environmental consequences: Objected to actions that protect rare habitats and important tree groves such as oak savannahs and upland prairies.	The decision-makers chose not to make any amendments in response to these comments. Staff clarified the property does not contain protected upland prairies or oak savannahs. It does contain other natural features that would be regulated, primarily slopes.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
28	9/9/04	Rick and Ginny Taylor	General	Economic, social, and environmental consequences: Strongly opposed to the NFP provisions. Concerned about being able to harvest trees outside of the City. Opposed to changing the densities in the County because of the problems with providing water and septic facilities.	The decision-makers chose not to make any amendments in response to these comments. The County provisions do allow for harvesting trees (other than Oregon White Oaks) outside of riparian corridors and areas with 35% or more slopes. The City ordinances require replanting when the property is annexed into the City.
29	9/10/04	Jacqueline Seavy King	Seavy Meadows	Economic, social, environmental, and energy consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
30	9/10/04	Fred Wright	Chapter 3.38 C-OS	Social and environmental consequences: Recommend Section 3.38.20 be amended to include conservation as a permitted use in Open Space areas.	Chapter 3.38 was amended to include conservation as a permitted use. Please see Attachment N below.
31	9/11/04	Brian C. Lee	Seavy Meadows	Economic, social, and environmental consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
32	9/11/04	Susan Wechsler	Seavy Meadows	Economic, social, and environmental consequences: Requested local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
33	9/12/04	Denis & Anne White	Chapter 4.6	Economic, social, and energy consequences: Urged the Planning Commission to reject the proposed changes to Chapter 4.6 - Solar. Indicated the proposed changes did not address improvements to the chapter and left too many exceptions. Suggested new approaches should be examined.	Chapter 4.6 was rewritten to take a different approach based upon comments from Kirk Bailey, Denis White, and Staff input. The chapter was redrafted to require minimum standards for ground floor solar access and to reduce the exceptions included in the previous draft. Please see Attachment A below.
34	9/12/04	Denis Pahlisch	Timberhill, Chapters 4.12 & 4.11	Economic, social, and energy consequences: Raised concerns that the requirements were too restrictive for the remaining Timberhill property, particularly with the high costs of extending Kings Boulevard. Also questioned the use of the proposed clear and objective standards as guidelines for Planned Developments and other discretionary permits for this site.	See response to Terri Valiant comments above. *Note: The proposed standards do not apply to properties prior to adoption. The Timberhill properties are subject to an approved Conceptual Development Plan and the provisions of it, the current Code, and the Comprehensive Plan will apply, provided Detailed Development Plans are proposed in accordance with the approved Conceptual Development Plan. The draft standards are only one possible way to evaluate how Comprehensive Plan policies may be applied. However, if the new standards are in place and a Major Modification to the approved Conceptual Development Plan is proposed, then the new standards would apply.
35	9/12/04	Trish Daniels	Comp Plan and Chapter 3.26	Economic consequences and corrections for Comprehensive Plan and Land Development Code: Indicated an error in the draft language of 40.4.5 - Research and Technology Center Overlay. Stated the RTC District should not be an overlay district. It should be an underlying district that does not expire.	The Comprehensive Plan Map was amended to remove references to Research Technology. The LDC was amended to define the RTC District as an underlying district that does not expire. The LDC was amended to allow the RTC district to be placed within various Comprehensive Plan Industrial designations. Please see Attachment O below.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
36	9/12/04	Kathryn Phillips	4865 & 4905 SW Philomath Blvd.	Economic, social, and environmental consequences: Objected to the protection of significant vegetation on her properties at 4865 & 4905 SW Philomath Blvd. Disagreed with the concept of protecting trees on private property unless the property owner is paid for the trees.	The decision-makers chose not to amend the maps or the draft standards to remove proposed protections on these properties or for trees on private properties within the City. The decision-makers determined the trees cover a small portion of the site and that development of the anticipated density could still occur even if the trees are protected.
37 / 38	9/12/04	John Stewart	53rd & Reservoir site (K-4)	Economic, environmental, and energy consequences: Requested the continued ability to relocate Dunawi Creek from the north & east boundaries of the site back to the location within the eastern wetland. Also requested that the associated riparian corridor not be protected since the stream will be relocated and the riparian corridor would not protect the stream. Also requested removal of riparian protection for the streams crossing the western wetland area where the wetland does not have local protections. Also requested removal of the protections for the wetland/stream/ditch on the north side of the site near the bicycle path.	The decision-makers had previously placed a note on the Comprehensive Plan Map to allow relocation of the creek and the protected Riparian Corridor on the eastern portion of the site. The decision-makers chose not to add a similar note for the western portion of the site. The decision-makers noted the Staff recommended language change to Chapter 2.5 allow the use of the Planned Development process to allow the realignment and re-vegetation of the stream segments on the western and northern portions of the site, so long as the re-alignment provided for greater functions of the resources. The decision-makers also noted the potential for a Comprehensive Plan Amendment based upon a specific proposal for the industrial development of this site. The decision-makers further noted the exceptions allowing the re-alignment of the road through the western stream and riparian areas with an appropriate mitigation program. Please see Attachment H below.
39	9/10/04	Patrica Benner	Maps	Social and environmental consequences and technical corrections: Asked that all of the maps have scale bars. Asked that the maps provide an additional high protection area in Willamette Park. Asked that each map rendition be dated so that it would be easier to tell them apart and to track the progression of the changes.	The maps were amended to include a scale bar. The Comp Plan, LDC, and Riparian and Wetlands Maps were amended to add a highly protected public easement area in Willamette Park. The decision-makers chose not to go back and date earlier versions of the maps or the individual maps in the inventory. The LDC map versions for the remaining portions of the project were dated. For future planning projects, the decision-makers directed Staff to require dating for each revision.
39	9/10/04	Patricia Benner	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetland areas.	See response to Laura White Syring comments above.
40	9/13/04	Herb Cres	Chapter 4.13	Economic consequences: Pointed out the discrepancy between proposed local restrictions on tree cutting in riparian corridors and the Oregon Division 611 Afforestation Incentives Rules for tree harvesting in certain riparian areas.	The City decision-makers chose not to amend Chapter 4.13 in response to this comment. The known impacted property(ies) is in the County. Benton County amended their draft LDC to allow a one time harvesting of trees planted as per the Oregon Afforestation Incentive Rules.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
41	9/13/04	Kevin Tarrant M.D.	Maps and Chapter 4.12	Environmental consequences and technical correction: Pointed out a mapping registration error locating a street over a creek. Also suggested that Chapter 4.12 be amended to clarify that 70% of the vegetation does not include the secondary, invasive species.	The mapping issue was recognized as a registration problem. The decision-makers chose not to amend Chapter 4.12 in response to these comments. The draft language allows the removal of invasive species. The 70% retention/replacement requirement is for native, non-invasive species. The decision-makers did amend the LDC provisions to establish procedures for map refinements and map corrections. Please see Attachment C and Attachment D below:
42	9/7/04	Valerie Stanik	General	Economic, social, and environmental consequences: Supported the NFP provisions to protect natural features to make the community a good place to live.	The decision-makers chose to not make any further amendments in response to these comments.
43	9/14/04	Nancy Emery	General	Economic, social, and environmental consequences: Supported protection of natural features and the use of medium density housing. Urged protection of the natural features near Witham Hill. Supported protection of old growth forests and wildlife.	The decision-makers chose to not make any further amendments in response to these comments.
44	9/14/04	Jean Hall and Steve	General and Chapter 4.12	Economic, social, environmental, and energy consequences: Protested any restrictions to protect natural features on private property. Wanted all zoning to be based upon when the property was purchased.	The decision-makers chose to not make any further amendments in response to these comments.
45	9/16/04	John Stewart	Chapter 4.11 & property north of Timberhill	Economic, social, and energy consequences: Provided information regarding the impacts of the RS-1 and MADA provisions for the property north of Timberhill. Also indicated issues with the restrictions on streetside parking within Significant Vegetation areas.	Chapter 4.11 was amended to increase the MADA for RS-1 properties and to change the standards and formula for the MADA for C-OS properties. Chapter 4.0 (and MADA) was amended to allow limited streetside parking within SV areas. Please see Attachment G below:
46	9/16/04	Bruce & Carol Berning	Dixon Creek, Comp Plan Map, & Chapter 4.5 2041 & 2053 NW Arthur Place	Economic and social consequences: Supported the reductions of protection standards along Dixon Creek.	The decision-makers supported the Staff Report recommendation to amend the Comp Plan, LDC, and Natural Hazards Maps to show partial protection for the floodway fringe areas where there is also partial protection for the riparian corridors along urban streams.
47	9/16/04	Patricia Benner	Chapter 1.6 as correlated to Chapter 4.5	Economic, social, environmental, and energy consequences: Suggested changes to Chapter 1.6 to define pre-development versus prior to development. Also suggested the use of pre-development as a storm water standard of comparison based upon 1850's surveys of the original landscape.	The decision-makers chose not to use the term "pre-development." The decision-makers did further amend Chapter 4.0 to address the issues of measuring stormwater impacts of development and re-development. Please see Attachment F below:
48	9/16/04	Lyle Hutchins	Chapter 4.12 & Hospital properties	Economic, social, environmental, and energy consequences: Supported Chapters 4.12 and 4.11 as revised.	The decision-makers chose to not make any further amendments in response to these comments.
49	9/16/04	Patricia Benner	Chapter 1.6	Economic, social and environmental consequences: Requested a definition for pre-development	See response to Patricia Benner comments above.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
49	9/16/04	Patricia Benner	Chapter 4.14	Economic, social, and environmental consequences: Include the Stormwater Master Plan as a supporting document.	The Stormwater Master Plan was included as a supporting document.
49	9/16/04	Patricia Benner	Chapter 1.6	Economic, social, and environmental consequences: Requested changes to the floodplain, 100-year definition.	The floodplain, 100-year definition was amended per different language crafted in response to comments from Patricia Benner, Tony Howell (see PC minutes), and Staff input. Please see Attachment C and Attachment E below;
49	9/16/04	Patricia Benner	Chapter 1.6	Environmental consequences and technical correction: Requested changes to the Habitat Site definition.	Chapter 1.6 was amended to exclude the Habitat Site definition since the term was not used in any of the Code standards. Please see Attachment E below;
49	9/16/04	Patricia Benner	Chapter 1.6	Environmental consequences and technical correction: Requested changes to the Riparian Wetlands definition	Chapter 1.6 was amended to substitute the term proximate wetlands for riparian wetlands and to define proximate wetlands. Please see Attachment E below;
49	9/16/04	Patricia Benner	Chapter 1.6	Environmental consequences and technical correction: Requested changes to the Stormwater Functions definition	The stormwater functions definition was amended per different language crafted in response to comments from Patricia Benner, Tony Howell (see PC minutes), and staff input. Please see Attachment E below;
49	9/16/04	Patricia Benner	Chapter 1.6	Environmental consequences and technical correction: Requested changes to the Stream, Intermittent definition to reflect the U.S.G. S. water year and to identify that as from October 1, to Sept. 30.	The decision-makers chose to use the same water year that was the basis of the Natural Features Inventory. Based upon further research staff amended the definition to reflect the water year which used to prepare the inventory and it was from October 1, to September 30. Please see Attachment E below;
49	9/16/04	Patricia Benner	Chapter 3.38	Economic, social, environmental, and energy consequences and technical correction: Requested adding the protection and restoration of wetland, floodplains, riparian corridors, significant vegetation, and other natural features to the list of permitted uses and adding the preservation of historic and historical structures and resources.	Chapter 3.38 was amended to include preservation of natural resources and protect natural hazards areas and the preservation of historic resources listed on the local and national register. Please see Attachment N below;
49	9/16/04	Patricia Benner	Section 4.0.140	Economic, social, and environmental consequences and technical correction: Requested that (b) be modified to require that all of a redevelopment's impervious area be considered for this standard.	The decision-makers further amended Chapter 4.0 to address redevelopment and impervious surface requirements to improve stormwater ecological functions over time. Please see Attachment F below;
49	9/16/04	Patricia Benner	Section 4.5.50.01 (a)	Environmental consequences and technical correction: Recommended changes to the definition of floodplain, 100-year	See Patricia Benner comment above.
49	9/16/04	Patricia Benner	Section 4.5.50.01 (b)	Economic, social, environmental, and energy consequences and technical correction: Requested high protection for all of the 0.2-foot floodway as part of the riparian corridor	The decision-makers chose not to place high protection on the 0.2-foot floodway as part of the riparian corridor standards. However, the 0.2-foot floodway is highly protected in Chapter 4.5 due to the flooding hazard.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
49	9/16/04	Patricia Benner	Section 4.5.50.07 (d)	Economic, social, and environmental consequences and technical corrections: Requested the text be modified to include fill as a prohibited activity and require tracts for floodplains within residential areas - not allow yards on individual lots. Also, not use balanced cut-and-fill for local streams. Also add the opportunity for tracts in floodplains. Also reconsider allowing the removal of downed wood within an easement area.	The decision-makers chose to amend Chapter 4.5 to allow the use of tracts in the floodplains, but not to require them. Chapter 4.5 was amended to create standards for partially protected floodway fringe areas. For those PPF areas along local streams, fill remained a prohibited activity, balanced cut-and-fill was not an approved construction method, and flow-through designs were encouraged. The chapter was also amended to limit the removal of downed wood. Please see Attachment C below;
49	9/16/04	Patricia Benner	Section 4.13.70	Economic, social, and environmental consequences: Requested the minimum easement width be increased to 50 feet unless the lot becomes undevelopable.	The decision-makers chose not to amend the chapter in response to this comment.
49	9/16/04	Patricia Benner	Section 4.13.70	Economic, social, and environmental consequences: Requested the 25-foot easement within the Partially Protected Riparian Areas be Highly Protected.	The chapter does require high protection for the 25-foot easement area. No amendment was made in response to this comment.
49	9/16/04	Patricia Benner	Existing Easements	Economic, social, and environmental consequences and technical correction: Requested the language be clear that if the City currently has an easement that is greater than 25 feet, that with redevelopment, the easement will remain greater than 25 feet.	The decision-makers chose not to amend the chapter in response to this comment. They discussed their expectation that the easements would not be reduced so no additional language amendments were considered necessary.
49	9/16/04	Patricia Benner	Trees & Shrubs	Economic, social, environmental, and energy consequences: Provided information regarding the importance of trees and shrubs for cost-effective storm water management. Also the importance of riparian corridors to serve multiple functions including providing for an average of a 40% tree canopy coverage in an urban setting.	No amendments were suggested by these comments. The decision-makers chose not to further amend the chapters in response to these comments.
50	9/16/04	Rana Foster	General	Economic, social, and environmental consequences; technical corrections; and inventory concerns: Asked about correcting mapping errors and reading the maps. Indicated the mapping of Willamette Park is incorrect. Concerned about the lack of access to private parcels in performing the inventory and the difficulty of identifying and protecting specific areas for threatened and endangered plants. Desired options for property owners to provide more detailed information to the inventory in the future to protect valuable rare and very rare endangered natural resources. Requested consideration of the contiguity of resources when ranking the value of various resources. Requested code provisions to address how developers move invasive species around in seed and plant material form.	The decision-makers amended the maps to include more high protection areas within the Willamette Park area. While, contiguity had been a factor used by the decision-makers for balancing the land uses, the decision-makers chose not to review the maps again in response to this comment. The decision-makers chose not to make any further amendments to the materials in response to these comments.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
50	9/16/04	Rana Foster	General	Economic, social, and environmental consequences; technical corrections; and inventory concerns: Requested high protection for small riparian areas in the Crescent Valley watershed along Jackson and Frazier creek. Requested utility, roadway, and other infrastructure not be allowed to degrade the watershed and impact the Jackson-Frazier Wetland.	The decision-makers chose not to make any further amendments to the draft materials in response to these comments.
50	9/16/04	Rana Foster	General	Technical corrections and inventory concerns: Questioned whether the City should hire another independent contractor to review the materials.	The decision-makers chose not to hire another independent contractor to review the materials. The inventory and project materials have been through several peer reviews and extended public comment processes during the past three years.

Summary of Written Comments for CC Public Hearing (10-21-04 to 11-09-04)

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
51	9/15/04	Scott Ollerenshaw	County Chapter 88 & Highland Dell Property	Economic, social, and environmental consequences: Recommended an increase in the Minimum Constraint-Free (MCFA) are from 10% to 25% for lots of 5 acres or less. Also requested removal of the HPSV classification on his property with the possible placement of the PPSV classification in smaller areas. Also, indicated a mapping error for a seasonal drainage bed (stream).	The county PC chose not to amend the standards for the MCFA finding the 10% development area to be sufficient for County parcels to provide the anticipated level of development for the zones. The decision-makers chose not to remove the HPSV designation on this property due to its location within a large HPSV area adjacent to a riparian area. The mapping error was recognized as a registration issue.
52	9/15/04	OR Dept. of Forestry	County Chapter 88	Economic, social, and environmental consequences: ODF gave information regarding urban forestry ordinances and the Oregon Forest Practices Act. The Co. ordinance needs to state that it only applies within the UGB. Suggested the Benton County ordinance apply to all urban fringe areas. Need to be clear about which rules & jurisdiction apply where. Suggested using specific language pertaining to state rules. Need to clarify terms such as "forest practices." Allowing the removal of only one tree essentially eliminates logging in some areas. Note that the timber owner and the landowner may be separate parties. Asked when and where are written wildlife habitat conservation and management plans required. Make it clear, where jurisdiction for ODF will and will not apply and that ODF cannot enforce County standards.	The City decision-makers chose not to further amend the proposed LDC provisions in response to these comments. The County decision-makers amended the draft ordinances to include the suggested clarifications and technical corrections. The decision-makers amended the drafts to recognize the ability to continue logging in specified areas and to make it clear that logging would be regulated by the County in other areas (e.g. riparian areas and significant vegetation areas).
53	9/21/04	Dana (Seavy) Broshnahan	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	The decision-makers chose to locally protect the portions of Seavy Meadows located north of Conser Street. The decision-makers chose to also provide local protections on the wetlands south of Conser Street and outside of the area proposed for an affordable housing project. The decision-makers chose to utilize the Planned Development process and the previous Seavy Meadows planning projects that established a maximum of 5 acres of development to be provided on the southern portions of Seavy Meadows and to establish a protected area on the remaining wetlands. The 5 acres of development is below the MADA that could be applied to the property, but the previous agreements would limit development to the 5 acres.
54	9/22/04	Lyle Davis	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.
55	9/24/04	Ted Seavy	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.

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56	10/7/04	Dan Ziegler	Chapters 4.0 and 4.13	Economic, social, environmental, and energy consequences: Raised concerns and requested adjustments regarding the exemptions for public utilities and roads within natural features areas. Recommended that the Comprehensive Plans and ordinances require that roads and utilities avoid riparian corridors. Suggested that routine maintenance, construction, and other activities conducted by public agencies be as controlled as those activities by private parties.	The decision-makers found the public need for infrastructure and public utilities to efficient land use, and the management practices of public agencies indicated a need and ability to have different standards for public versus private land development projects. The decision-makers did choose to further amend the language regarding the location and construction of streets, bicycle facilities, pedestrian paths, and utilities in natural features areas. The decision-makers also further amended the language regarding maintenance activities by both private and public parties. Please see Attachment D and Attachment F below:
57	10/15/04	Ed Radke	Chapters 1.6 & 4.13 Booneville Slough & Dry Creek	Economic, social, and environmental consequences and technical questions: Requested confirmation the local ordinances define top-of-bank consistent with OAR 141-085-0010. Contended Booneville Slough and Dry Creek are not part of the Willamette River except for the northern leg of the Slough that contains backwater from Booneville Channel. Requested the riparian corridor for Booneville Slough and Dry Creek be reduced. Asked the City and County to use the "Safe Harbor" provisions rather than the standard Goal 5 process to establish regulated riparian corridors. Expressed opinion that the burden of proof to support the restrictions rests upon the City and County and that requiring more than "Safe Harbor" to supplement the stormwater utility is a taking under Dolan.	The draft Corvallis LDC provisions define the top-of-bank consistent with OAR 141-085-0010. The decision-makers chose not to make any further amendments to the maps or code provisions in response to these submitted materials and comments. The decision-makers accepted the Department of State Lands determination that Boonesville Slough is part of the Willamette River. The decision-makers also reviewed the amount of land that would remain developable on the Radke property and surrounding properties and found that the remaining portions of the sites generally exceeded the MADA standards. The draft ESEE Analysis was expanded to include additional information regarding this area/issue.
58	10/21/04	Margarete Kummerow	1195 SW Poplar Place	Economic, social, and environmental consequences: Stated that her property contains cherry and hazelnut trees. She does not plan to cut Douglas firs, but wants to continue to have the right to do so.	The decision-makers chose not to make any further amendments in response to these comments. The ordinances contain provisions for vegetation management plans. Those vegetation management plans may include provisions for removal of Douglas fir trees and some ornamental trees.
59	10/26/04	Organizations of the Economic Vitality Partnership	Complete Program	Economic, social, environmental and energy consequences: Endorsed the Natural Features Inventory and LDC Update Phase III Project and the steps taken to strike a balance in terms of community livability, development needs, and the need to protect natural features. Encouraged the City to take steps toward clear and objective standards in all areas of development and to create certainty for those seeking to develop in the Corvallis community. Encouraged: Elimination of discretionary review of projects, except by request of property owner; approve clear and objective standards for cut/fill & earthwork; development of incentives for protection of Natural Features; Use of ESEE analysis to insure an adequate supply of buildable lands and Consideration of potential added costs to new, local housing; and Insurance of a reasonable definition of "some protection" for natural features.	The decision-makers chose not to make any further amendments in response to these comments. The program addresses the points endorsed and encouraged in the comments.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
60	10/27/04	Gene & Charlotte Thompson	Chapters 4.12, 4.13, & 4.5	Economic, social, and environmental consequences: Objected to restriction being placed on their lands. Objected to the erosion of property rights for no real compelling reason.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers reviewed the history of known wetlands and hydric soils, the ability of the property owner to obtain a wetland delineation, the location of vegetation on the site, and the potential development on the unconstrained portions of the site and through the MADA provisions, and determined that no further amendments were appropriate.
61	10/26/04	Herb Crew	Riparian Areas	Economic, social, and environmental consequences: Recommended continued use of private crop rotations as per the Oregon Department of Forestry Afforestation Program. Requested amendments to the County drafts to allow continued crop rotations, rather than being restricted to currently planted areas.	The decision-makers chose to further amend the Benton County Land Development Code provisions in response to these comments. The drafts were amended to allow continued crop rotations through the ODF Afforestation Program. The City decision-makers chose not to further amend the standards in response to these comments because the known Afforestation Program lands are located outside of the City limits and as the City expands, these resources are expected to be converted from forest production to urban natural features.
62	10/27/04	Eric Thompson/ Courect Investments, Inc.	Chapters 4.12, 4.13, & 4.5	Economic, social, and environmental consequences: Objected to restriction being placed on their lands. Objected to the erosion of property rights for no real compelling reason.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers reviewed the history of known wetlands and hydric soils, the ability of the property owner to obtain a wetland delineation, the location of vegetation on the site, and the potential development on the unconstrained portions of the site and through the MADA provisions, and determined that no further amendments were appropriate.
63	10/27/04	Eric Thompson	Chapters 4.12, 4.13, & 4.5	Economic, social, and environmental consequences: Objected to restriction being placed on their lands. Objected to the erosion of property rights for no real compelling reason.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers reviewed the history of known wetlands and hydric soils, the ability of the property owner to obtain a wetland delineation, the location of vegetation on the site, and the potential development on the unconstrained portions of the site and through the MADA provisions and determined that no further amendments were appropriate.
64	10/27/04	Eric Thompson/ East Fork Corp.	Chapters 4.12, 4.13, & 4.5	Economic, social, and environmental consequences: Objected to restriction being placed on their lands. Objected to the erosion of property rights for no real compelling reason.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers reviewed the history of known wetlands and hydric soils, the ability of the property owner to obtain a wetland delineation, the location of vegetation on the site, and the potential development on the unconstrained portions of the site and through the MADA provisions and determined that no further amendments were appropriate.
65	11/1/04	Bruce McCune	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
66	11/2/04	Patricia Muir	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas. Submitted supportive information regarding the use of the site by Western Meadow Lark, use as a mitigation site, and City ownership and payment for the site.	See response to Dana Broshnahan comments above.
67	11/2/04	Al Hutchinson	Chapter 4.13 & 6100 Block of Philomath Blvd.	Economic and social consequences and technical issues with the inventory: Claimed the inventory was not completed correctly.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers acknowledges Mr. Hutchinson's ability to seek a wetland delineation and the small portion of the site impacted by the wetland. The site contains unconstrained portions exceeding the MADA provisions.
68	11/4/04	Brian Lee	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.
69	11/4/04	Don Herbert	Chapter 4.13 and 183 acres west of S. 3 rd Street north of SW Weltzin Ave. (S-MAR-3)	Economic, environmental, and energy consequences and inventory and mapping issues: Requested the inventory designation of his property be changed from "wetlands" to "potential wetlands." Questioned the methodology and accuracy of the inventory.	The decision-makers chose not to make any further amendments in response to these comments. The inventory was conducted in compliance with U.S. Army Corps of Engineers and Oregon Department of State Lands requirements. The property owner has the option to apply for a wetlands delineation and to amend the maps through identified administrative procedures. The decision-makers noted that there are no local protections for the wetlands on this site due to its importance for needed lands and the limited function the wetlands provide.
70	11/4/04	Roger Evans	General and New Chapters 3.9 * 3.38 and draft Chapters 4.5, 4.11, 4.12, & 4.13	Economic, social, environmental, and energy consequences: Suggested a different approach and simplifying the project. Proposed a new Chapter 3.9 to removed most natural features recognition to intensify development. Proposed a new Chapter 3.38 to separate publicly owned land from privately owned space. Proposed new MADA guidelines by the size of the property. Proposed that only sites greater than 4 acres be impacted by Chapter 4.12. Suggested that the language in Chapter 4.13 refer to the edge of stream or standing water rather than top-of-bank. Suggested that Chapter 4.5 be limited to lands with slopes greater than 35%. Suggested that scientific definitions should be given for landslide and earthquake hazards and that a list of specific endangered wildlife and vegetation should be provided.	The decision-makers chose not to make any further amendments in response to these suggestions. The Chapters refer to lands within the City limits. Many of the suggested changes would have eliminated many of the properties balanced within the project. The listed species are identified in the inventory reports. The definitions for hazards are in the DOGAMI studies.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
71	4/4/04	Tony Howell	Chapter 4.0	<p>Economic, social, environmental, and energy consequences: Recommended amendments to Section 4.0.140 regarding stormwater detention and/or retention to include new provisions for detention in redevelopments that replace but do not add impervious surface. The proposed amendments were to the Staff recommended language in response to Planning Commission comments.</p> <p>Section 4.0.140 Stormwater Management Measures</p> <p>b. When detention and/or retention are required:</p> <ol style="list-style-type: none"> 1. New development projects...in excess of 25,000 square feet are required to implement stormwater detention and/or retention measures... 2. Expansion to existing development or redevelopment that adds at least 10,000 square feet of impervious surface area to a site, and which results in at least 25,000 square feet of impervious surfaces on the site, shall implement the stormwater detention and/or retention measures for the area of <u>new and redeveloped impervious surfaces, as specified in the Corvallis Design Criteria Manual. Detention facilities shall be designed to maximize stormwater infiltration, and underground detention facilities will be allowed when surface detention area is not available.</u> 3. <u>Expansion to existing development or redevelopment that adds less than 10,000 square feet of impervious surface area to a site, but which results in at least 35,000 square feet of new or redeveloped impervious surfaces on the site, shall implement stormwater detention and/or retention measures for 50% of the area of new or redeveloped impervious surfaces, as specified in the Corvallis Design Criteria Manual. Surface detention facilities shall be designed to maximize infiltration, and underground detention facilities will be allowed when surface detention areas is not available.</u> 4. Exemptions to Stormwater Detention Requirement. <u>Properties east of Marys River...storm water. Properties subject to 4.0.140.b.2 and 3 above may subtract the square footage of underground parking or of each level of structured parking from the square footage subject to detention requirements.</u> 5. Stormwater facilities south of Goodnight...Plan. 	<p>The decision-makers chose to further amend the ordinances to address stormwater detention and improvements over existing conditions as property is redeveloped. Please see the language changes in Attachment F below:</p>

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
72	11/4/04	Edward Radke	Chapter 4.13, Benton County ESEE Analysis, and "takings"	Economic, social, environmental, and energy consequences and issues with the Benton County ESEE analysis: Submitted water rights records from the Dept. of Water Resources to support claim that Boonesville Slough is not part of the Willamette River. Submitted notes and comments regarding excerpts from the Benton County ESEE Analysis including claims that sections were false or editorial. Submitted information regarding the Supreme Court decision on Dolan v. Tigard and the need to demonstrate rough proportionality when local governments address potential takings claims. Submitted excerpts from the American Forests Report Regional Ecosystem Analysis: Willamette/Lower Columbia Region. Submitted a technical report from the Journal of Environmental Quality titled "Nitrate Removal Effectiveness of a Riparian Buffer along a Small Agricultural Stream in Western Oregon."	The decision-makers chose not to make any further amendments to the maps or code provisions in response to these submitted materials and comments. The decision-makers accepted the Department of State Lands determination that Boonesville Slough is part of the Willamette River. The decision-makers also reviewed the amount of land that would remain developable on the Radke property and surrounding properties and found that the remaining portions of the sites generally exceeded the MADA standards. The draft ESEE Analysis was expanded to include additional information regarding this area/issue.
73	11/4/04	Bill Kloos representing Century Properties LLC	General	Economic, social, environmental, and energy consequences: General letter of appearance and request to be on the mailing list for notice of adoption of any ordinance, resolution or order that results or any other notice of proceedings.	The decision-makers could not identify any substantive comments that warranted a response, therefore, they chose not to make any further amendments in response to the letter.
74	11/4/04	Scott Lepman Company	Assessor's Map 12-5-5W-2-CC Tax Lots 1600, 1700 & 1800 on Hopkins Avenue	Economic, social, and environmental consequences: Submitted information and concerns regarding restrictions on the placement of fill on his property, particularly the volumetric exchange provisions. Requested: 1. The rules be modified for filling his property, 2. A grandfather provision to allow filling his property, 3. Allowing renewal of his fill permit, 4. Renewal of his previous fill permit, and 5. Approval of a new fill permit that does not expire.	The decision-makers chose not to make any further amendments in response to these submitted materials and comments. The decision-makers recognized that the property owner continues to have several options such as applying now for a fill permit (prior to enactment of the proposed Code revisions), obtain fill credit for the home foundation areas, construct under the revised provisions including volumetric exchange, raised flow-through foundations, or constructing for alternative industrial uses, some of which may generate higher land values.
75	11/4/04	Elinor & David Griffiths	Chapter 4.13	Economic, social, environmental, and energy consequences: Requested language in 4.13.20 be revised again towards earlier draft provisions requiring that street be located and constructed in routes that do not impact wetlands.	See response to Dan Ziegler comments above.
76	11/4/04	Bill Kemper & Elinor & David Griffiths	Witham Oaks Annexation Area	Economic, social, environmental, and energy consequences: Requested a review of the merits of open space acquisition at the cost of a 57-acre subdivision.	The decision-makers chose not to make any further amendments in response to these comments.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
77	11/4/04	James Eickelberg	Timberhill Townhouses & Chapter 4.13	Economic, social, environmental, and consequences: Identified 22 homes that would be substantially impacted by Section 4.13.60 requiring a 15 foot no rebuild area withing Partially Protected Riparian Corridors. Requested a return to the former draft language that allowed the replacement of existing buildings within the building's original footprint and elimination of the minimum of 15 foot setback to replace existing structures.	The decision-makers chose to further amend the code provisions to allow rebuilding of existing structures within their original footprints, including within the 15-foot no-new construction setback area of the Riparian Corridors. Sections 4.13.50 and 4.13.60 were amended. Please see Attachment D below:
78	11/4/04	Lyle Hutchens	Chapter 4.0	Economic and environmental consequences: Suggested that Section 4.0.140 be revised to allow the location of bioswales and other biofiltration facilities within the riparian corridors. Suggested paragraph c be rewritten to read: "Use of biofiltration facilities is allowed consistent with the Corvallis Design Criteia Manual. Biofiltration facilities within the regulated Riparian Corridor shall be located no closer to the top of bank than is determined by the City Engineer, and shall be re-vegetated with trees consistent with 4.13.50.d.1 & 2 and with under storm planting s needed for water quality treatment."	The decision-makers chose to amend the draft language for Section 4.0.140.c. Please see Attachment F below:
79	11/4/04	Edward Radke	Booneville Slough and Greenberry Road properties	Economic, social, and environmental consequences: Provided information and support for his request to reduce the Riparian Corridor width along Booneville Slough. Opined the ESEE report is inadequate and does not properly address many listed factors.	The decision-makers chose not to make any further amendments to the maps or draft code language in response to these comments. However, the ESEE Report was amended to further analyze the riparian corridor width along Booneville Slough. The decision-makers found the ESEE Report, along with the additional information provided through the staff reports, the public testimony, and the deliberations to be sufficient to make their findings for the adoption of the maps, comprehensive plan text, and land development code amendments.
80A	11/4/04	Daniel Ziegler	Chapters 4.0 and 4.13	Economic, social, environmental, and energy consequences: Opposed exemptions for Riparian Corridor protection standards for public utilities and roads. Requested draft language in Section 4.13.50 be revised to match the requirements for private property development in Section 4.13.7. Requested that road and utility maintenance and construction activities be required to protect riparian corridors in equal and identical measure as are private property owners. Requested the standards require avoiding the placement of roads and utilities in riparian corridor, avoiding the degradation of riparian corridors by nearby construction, and requiring that riparian corridors are re-vegetated when construction does occur within or impacting Riparian Corridors.	The decision-makers found the public need for infrastructure and public utilities to efficient land use, and the management practices of public agencies indicated a need and ability to have different standards for public versus private land development projects. The decision-makers did choose to further amend the language regarding the location and construction of streets, bicycle facilities, pedestrian paths, and utilities in natural features areas. The decision-makers also further amended the language regarding maintenance activities by both private and public parties. Please see response to Dan Ziegler comments above. Please see Attachment D and Attachment F below:

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
80B	11/8/04	Kathryn Phillips	Chapter 4.12 & Mapping of 4865 & 4905 SW Philomath Blvd.	Economic, social, and environmental consequences: Requested the protection for significant vegetation be removed for the trees on her property. Opposed the protection of planted trees and the placement of restrictions on the cutting, removal, and destruction of trees on private properties.	The decision-makers chose not to amend the maps to remove the significant vegetation overlay on her property. The decision-makers found the trees were part of a large tree grove, one of the few remaining tree groves in the immediate neighborhood. The decision-makers found the tree grove to also be significant due to its location along Philomath Blvd., a gateway to the community. The decision-makers also found that several of the trees would meet the City's current standards for significant vegetation under Chapter 4.2 and the trees covered a very small portion of the property. The decision-makers found the property to include far more than the MADA for future development, even with high protection of the trees. The decision-makers noted that some of the tree grove would be reduced and developed on the adjoining site under the MADA provisions, and that this supported protecting the remaining trees on the Phillips property to allow more of the tree grove to remain functional.
81	11/4/04	James Funck	Mapping and Chapter 4.13	Mapping and Inventory issues/questions: Raised several questions and potential issues regarding the riparian and wetlands maps for his neighborhood and how the proposed standards would impact his area. Asked for mapping corrections.	Staff met with Mr. Funck and explained the differences in the maps and how the standards would apply to his neighborhood. The decision-makers chose not to make any further amendments in response to Mr. Funck's concerns, which were related to mapping questions rather than code provisions or mapping corrections.
82	11/4/04	Alison Weber	Chapter 4.12 and Mapping at 4125 Highland Drive	Economic, social, and environmental consequences and mapping issues: Protested the mapping of the trees on her property and driveway as containing significant vegetation. Expressed concerns that the significant vegetation areas include areas without trees (such as her driveway and a strip along the street).	The decision-makers chose not to make any further amendments in response to these comments. The significant vegetation area may include non-treed areas within and connecting treed areas. However, in her area, the lines she was describing do not show the non-treed area along the street as a Significant Vegetation area. The area was drawn around. Staff explained that the SVA is shown based upon the aerial photographs and the drip lines of the trees at the time the inventories were taken. There may be subareas under the tree canopies, such as driveways that do not contain the tree trunks. There are provisions in the draft codes to provide for exemptions to allow vegetation removal for driveways, fire breaks, etc. within protected Significant Vegetation Areas.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
83	11/4/04	John Stewart	General, Chapter 4.13, and the 53 rd and Reservoir Road properties	Economic, social, environmental, and energy consequences: Requested removal of the Riparian Corridor and protections for the Riparian Corridor along a ditch/stream along the eastern and northeastern portions of the site to allow realignment of the creek to its diagonal pattern through the eastern portions of the site. Also requested that the associated riparian corridor not be protected since the stream will be relocated and the riparian corridor would not protect the stream. Also requested removal of riparian protection for the streams crossing the western wetland area where the wetland does not have local protections. Also requested removal of the protections for the wetland/stream/ditch on the north side of the site near the bicycle path.	The decision-makers had previously placed a note on the Comprehensive Plan Map to allow relocation of the creek and the protected Riparian Corridor on the eastern portion of the site. The decision-makers chose not to add a similar note for the western portion of the site. The decision-makers noted the Staff recommended language change to allow the use of the Planned Development process to allow the realignment and re-vegetation of the stream segments on the western and northern portions of the site, so long as the re-alignment provided for greater functions of the resources. The decision-makers also noted the potential for a Comprehensive Plan Amendment based upon a specific proposal for the industrial development of this site. The decision-makers further noted the exceptions allowing the re-alignment of the road through the western stream and riparian areas with an appropriate mitigation program. Please see Attachment D, Attachment F, and Attachment H below.
84	11/4/04	Terri Valiant	Chapters 4.11 & 4.12 and the Timberhill Properties	Economic, social, environmental, and energy consequences: Requested a reduction of the protected areas (or conversely an increase in the MADA) /level of protection for properties in the Timberhill site identified as Timberhill North/East (PPSV-1) and Timberhill Southeast PPSV-4). Commented that the provisions requiring the areas that are set aside for natural features protection and that private property owners be responsible for the maintenance of those protected areas for a general public benefit is too burdensome and is unfair.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers noted the issues related to maintenance responsibilities and the benefits of the set aside areas were discussed in the incentives report and will be further explored as subsequent work tasks.
85	11/4/04	Don Herbert	Mapping of property along S. 3 rd (S-MAR-W-3) Chapter 4.13	Economic, social, and environmental consequences and inventory and mapping issues: Requested that wetlands be identified as potential wetlands. Protested the mapping methodology and use of inventory versus having a delineation.	The decision-makers chose not to amend the inventory maps. The methodology used was based upon the requirements of the U.S. Army Corps of Engineers for determining the wetland, and the OARs for conducting the inventory.
86	11/4/04	Gerald Allison	915 NW Wildrose Dr. & Chapter 4.12 and Chapter 4.5	Economic, social, and environmental consequences and mapping issues: Asked not to have any encumbrances on his property that will cause him difficulty in using or selling his property.	The decision-makers chose not to further amend the maps or code provisions in response to these comments.

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
87	11/8/04	Edward Radke	27430 Greenberry Road & Chapter 4.13	Economic, social, and environmental consequences and inventory and mapping issues: Protested to 120-foot Riparian Corridor along Boone's Slough. Contended there is a Dolan takings issue for the Riparian Corridor width beyond "Safe Harbor" setbacks. Felt the City and County ESEE Reports were not adequate or accurate because they did not address soil types, the dollar value of land resources, have adequate comments from agencies, does not address the significance of resource lands outside of the UGB versus resource lands within the UGB, did not include input from the County Assessor and impacts upon the tax base, and inadequate scientific data, with samples given from the Benton Co. ESEE report on page 5-30 and page 5-26.	The decision-makers chose not to make any further amendments to the width of the Riparian Corridor due to their finding that the Division of State Lands identifies Boone's Slough as a portion of the Willamette River, the Willamette River is a Department of Water Quality listed stream, Booneville Slough drains approximately 1200 acres (as per Mr. Radke's testimony), and the remaining land on the sites allows for the anticipated level of development as per the Benton County LDC and of the Corvallis LDC once the property is annexed - and that in each jurisdiction, there remains sufficient land to achieve at least the minimum densities of the zones and sufficient lands outside of the RC to meet the constraint free expectations of the County zones. The decision-makers chose to amend the ESEE reports to include additional information.
88	11/8/04	Barbara & Morrie Craig	1226 SW 15 th Street & Chapters 4.11 & 4.13	Economic, social, environmental, and energy consequences: Requested removal of the 15 foot minimum setback provisions in Chapter 4.11, particularly within floodplains and riparian areas. Requested re-instatement of the provisions to allow rebuilding and repairing structures within their existing footprints.	The decision-makers chose to further amend the code provisions to allow rebuilding of existing structures within their original footprints, including within the 15-foot no-new construction setback area of the Riparian Corridors. Please see response to James Eickelberg comments above. Please see Attachment D below:
89	11/8/04	Barbara & Morrie Craig	General & Mapping	Economic, social, environmental and energy consequences and mapping issues: Requested methods to correct errors and amend the maps and that there be no time limits on these requests for corrections. Also requested changes to the project time lines if needed to more fully review the items.	The decision-makers chose to add language in the Comprehensive Plan Text and the Land Development Code provisions to address mapping errors and to amend the provisions regarding mapping refinements. These provisions include periodic City and County initiated map corrections. Please see Attachment C and Attachment D below.
90	11/8/04	Brent and Andrea Pawlowski	General	Economic, social, environmental, and energy consequences: Opposed the overall direction of the City of Corvallis planning provisions and the Natural Features provisions. Supported planning programs that would reduce the bureaucratic rules for developers. Supports large lots, reduced clustering, wider streets, and reduced open spaces.	The decision makers chose not to further amend the Land Development Code provisions in response to these comments. The program is designed to provide clear and objective standards for developers and to implement Statewide Goals and Comprehensive Plan policies supporting clustering, efficient use of land, and avoidance of natural features.
91	11/8/04	Carolyn Menke & Warren Coffeen	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.
92	11/8/04	Evanite Corp. & Farleigh Wada & Witt PC	General and Evanite properties	Economic, social, environmental, and energy consequences: Opposed the proposed amendments and any further restrictions on the real property owned by Evanite.	The decision-makers chose to amend the Riparian Corridors and Wetlands Map to place partial protections on the Evanite and Open Door, Inc. properties. The decision-makers also further amended the Land Development Code provisions to allow redevelopment within existing footprints within the protected portions of the Riparian Corridor. Please see Attachment D below:

#	When	Who	Property/Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
93	11/8/04	Timberhill Company & Michael Robbison	Timberhill Properties and General	Economic, social, environmental, and energy consequences: Opposed further restrictions on the Timberhill properties. Opined that the restrictions will result in Timberhill being unable to extend Kings Blvd. without participation from other funding sources. Stated the ESEE analysis as it relates to Goal 12 is inadequate because it fails to consider all of the ESEE impacts of the proposed drafts.	The decision-makers chose not to make any further amendments to the proposed maps and Land Development Code provisions. The decision-makers discussed the ramifications of limiting the land uses on the Timberhill property and impacts that may have upon the extension of infrastructure. The City Council has assigned the Urban Services Committee the task of looking at alternative funding mechanisms. The City Council also discussed the opportunities that remain available for Timberhill to cluster residential units and to construct medium and medium-high density housing on the property to further support the infrastructure extensions.
94	11/8/04	John Brandis, Jr. & Timberhill	North of Timberhill Properties and Chapter	Economic, social, and environmental consequences: Opposed the restrictions for significant vegetation and hillsides as they would apply to the north of Timberhill site.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers and Staff noted that the property could be developed with either the proposed RS-1 District, or with RS-5 or RS-6 standards once the property is annexed. The Comprehensive Plan designation is Low-Density Residential, so the property owner can choose which District designation they wish to apply for at the time of annexation. The City Council would then determine the most appropriate designation. The RS-1 designation was drafted at the request of Timberhill Corporation and John Brandis to provide an additional option.
95	11/8/04	Bruce McCune	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.
96	11/8/04	Patricia S. Muir	Seavy Meadows	Economic, social, environmental, and energy consequences: Supported the proposed changes to the Land Development Code. Supported local protection for all of the Seavy Meadows wetlands areas.	See response to Dana Broshnahan comments above.
97	11/8/04	Bob Frenkel	General	Economic, social, environmental, and energy consequences: Supported the Natural Features Inventory and regulatory program. Supported protections to support the Jackson-Frazier Wetland preservation, particularly riparian vegetation. Provided supportive information regarding the Jackson-Frazier Plan.	The decision-makers chose not to make any further amendments in response to these comments.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
98	11/8/04	Patricia Benner	Chapters 1.6, 4.0, and 4.13	<p>Economic, social, and environmental consequences: Supported amendments that would require mitigation for storm water drainage based upon the intensification of the use/redevelopment, not just the addition to the impervious surface area. Supported the use of both sub-surface and surface drainage systems. Suggested the definition of pre-existing condition be modified to read: "Pre-Existing Condition – ...a reference to land characteristics and habitat conditions <u>at the time of Euro-American pioneer settlement and modification</u>. Supported the protections for wetland and Riparian Corridors as drafted. Supported that if they are changed, they be increased, rather than decreased. Recommended that residential back yards not be located within the riparian corridors and floodplains. Opined that Booneville Slough is functionally and physically a part of the Willamette River channel system.</p>	Please see response to the Tony Howell comments above. The decision-makers chose not to make further amendments to other portions of these comments.
99	11/8/04	Bob Zyback	General and Chapter 4.12	<p>Economic, social, and environmental consequences: Opined the amendments should not be adopted because of inadequate economic analysis, inappropriate use of federal regulations for decision-making purposes, lack of detailed aesthetic analysis, and lack of consideration of the hazardous presence of forest trees in urban developments. Submitted pictures regarding trees in urban settings (primarily along power lines). Raised concerns about the economic impacts of Measure 37, maintaining trees in urban settings, and aesthetics. Opined that since there are no records of salmonid populations within the city limits, the NOAA fisheries rules should not be used to address ESA listing of salmonids. Opined that the hazards inventory and provisions are misdirected since trees pose the greater (and a growing) hazard.</p>	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers determined that the Tree Grove inventory provides additional information regarding the aesthetic factors of vegetation areas. Chapter 4.12 addresses the issue of Douglas firs in urban settings. Chapter 4.12 includes provisions for maintaining utility areas within forests. Chapter 4.2 addresses the planting of appropriate urban trees in power line areas. The decision-makers pointed out, and Mr. Zybeck agreed, there are salmonids in the Willamette River and the land uses and development patterns along local streams impact the health of the Willamette River.
100	11/8/04	Alison Weber	Mapping and Chapter 4.12	<p>Economic, social, and environmental consequences: Raised concerns and protested the mapping of significant vegetation on her property, particularly where her driveway is located. Raised concerns about being able to maintain access to her property.</p>	The decision-makers chose not to make any further amendments due to these comments. Chapter 4.12 include provisions that allow the creation and maintenance of access and firebreaks on the property. The significant vegetation mapping is done based upon the tree canopy, not the specific locations of trunks. Thus a driveway may exist or be built through a Significant Vegetation Area.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
101	11/8/04	Rana Foster	General and Chapter 4.13	Economic, social, environmental, and energy consequences: Concurred with D. Ziegler regarding the different standards for riparian corridors for private property owners and civic uses. Opposed the placement of infrastructure within the narrow riparian corridors. Supported higher protection of the riparian corridors. Requested no further amendments to reduce the conservation protections in the drafted program. Requested stated procedures for correcting and adding information to the data and maps. Requested protection of significant Threatened and Endangered plants and help for landowners with mitigation programs. Also requested protection and mitigation for Benton County Species of Concern. Opined the program does not adequately address the removal of invasive plants such as False Brome. Raised concerns about the location of infrastructure in areas that may negatively impact the Jackson-Frazier Wetlands. Indicated the ESEE Analysis does not sufficiently analyze the negative impacts of development within the riparian corridors and wetlands. Also supported the removal of infrastructure that currently negatively impacts riparian corridors.	The decision-makers chose to make further amendments in response to some of these comments. Please see the Dan Ziegler comments above. The decision-makers chose not to make further amendments to other portions of these comments.
102	11/8/04	Douglas Hoselton/ Marysville Golf Course	Marysville Golf Course, INC. Mapping	Economic, social, and environmental consequences and mapping/ inventory issues; Disagreed with the inventory and mapping of the golf course site pertaining to the location of wetlands and streams on the site.	Benton County Staff visited the site. The decision makers chose not to make any further amendments regarding the inventory information or mapping of the wetlands and drainage streams. The decision-makers recognized that a delineation may reduce the size of the wetlands. The site is designated as open space and conservation area so development opportunities are limited. The decision-makers reviewed the consequences of the location and protections of the drainage streams and the associated Riparian Corridors. These drainage streams impact a wetland area and the Marys River. The golf course activity will be able to continue on the site with the existing mowed areas. Additional plantings and growing strips along the drainages could improve the water quality, but are not required for the continued use of the site for a golf course.
103	11/9/04	Edward Radke	Chapter 4.13, Boonesville Slough, and Greenberry Road property	Economic, social, and environmental consequences: Requested consideration to the total impact of the legislation. Concerned about the use and financial impacts to his family's property.	The decision-makers chose not to make any further amendments in response to these comments. Please see response to Edward Radke comments above.
104	11/9/04	Scott Lepman	General and Chapter 4.5	Economic, social, and environmental consequences: Requested that his property be grand-fathered to allow him to fill his site without volumetric exchange limitations.	The decision-makers chose not to make any further amendments in response to these comments. The decision-makers noted that Mr. Lepman could fill his site now, prior to enactment of the proposed volumetric exchange provisions. They also noted the reasons for volumetric exchange provisions and that these provisions provide for greater public safety and better water quality throughout the floodplain.

#	When	Who	Property/ Chapter	Comment	The Decision-Makers Considered and Chose to Take the Following Approaches (Responses/Non-Responses) Regarding the Identified ESEE Consequences
105	11/9/04	Larry Oliver	Chapter 4.13	Environmental consequences and technical clarification: Requested clarification regarding the provisions that lawn maintenance be kept to a minimum.	The decision-makers made further amendments in response to these comments. See response to Dan Ziegler comments above. Please see Attachment D and Attachment F below:
106	11/9/04	Mary Eichler	General, Chapter 4.13, & Seavy Meadows	Economic, social, environmental, and energy consequences: Supported the protection of Seavy Meadows. Supported the need for the City to provide equal protections for City properties as private landowners are required to provide. Provided information regarding the economic value of wetlands, riparian corridors, and significant vegetation. Provided information regarding surveys of public opinion in Corvallis supporting protecting natural features. Provided information regarding her property and endangered species within the Corvallis area.	See response to Dana Broshnahan comments above. See response to Dan Ziegler comments above. Please see Attachment D and Attachment F below:

**ESEE PUBLIC
COMMENTS
SUMMARY
ATTACHMENTS
"A" TO "O"**

**EXCERPTS FROM THE
AMENDED LAND
DEVELOPMENT CODE
CHAPTERS**

ATTACHMENT A

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. Additional staff-recommended changes are indicated with the italic version of those same fonts. All of these changes were adopted by the City Council. Additional's Council-directed changes are included at the end of this attachment.

CHAPTER 4.6 SOLAR ACCESS

Section 4.6.10 - PURPOSES

This chapter is intended to require that opportunities for use of solar energy be protected during the design of new residential subdivisions and residential planned developments. Solar energy can make a significant long-term contribution to the City's energy supply. Use of this energy can be encouraged by providing and protecting solar access for use of property owners.

Section 4.6.20 - EXEMPTIONS

Residential buildings constructed or lots developed in locations noted below are exempt from the requirements of this chapter:

- a. On north-facing slopes of 10 percent or more;
- b. On portions of sites where solar access, as defined in Code Chapter 1.6, is unavailable due to shading from natural features or natural hazards subject to the provisions of Chapters 4.2, 4.5, 4.12, and 4.13.
- c. On sites where density is concentrated because density is being transferred from an area on the same development site that is simultaneously being redistricted to Conservation - Open Space; or
- d. On sites which contain natural features or natural hazards subject to the provisions of Chapters 4.2, 4.5, 4.12, and 4.13 and where the developed portion of the site will exceed minimum required density by at least 50 percent for properties designated as Extra-Low, Low, or Medium Density Residential; and by at least 25 percent for properties designated as Medium High or High Density Residential.

Section 4.6.230 - PERFORMANCE STANDARDS

Residential subdivisions and planned developments on parcels of more than ± one acre shall be designed so that solar access protection, as defined in Chapter 1.6, is available at ground level or to to consistent with the following:

- a. No reduction in solar access at ground level of the sSouth face of existing residential buildings adjacent

to the development;

- b. Within residential subdivisions, a minimum of 80 percent of lots contain with sufficient east/west dimension to allow orientation of the following minimum ground floor lengths long axis of a building to utilize solar energy:
 - 1. Thirty (30) lineal feet per unit for single family detached dwelling units; and
 - 2. Fifteen (15) lineal feet per ground floor unit for dwelling units other than single family detached; and

- c. In planned developments, a minimum of 80 percent of the buildings contain:
 - 1. with Sufficient east/west dimension to allow the following minimum ground floor lengths long axis of the building to utilize solar energy:
 - a) Thirty (30) lineal feet per unit for single family detached dwelling units; and
 - b) Fifteen (15) lineal feet per ground floor unit for dwelling units other than single family detached.
 - 2. Additionally, for single family detached dwelling units, a minimum of 100 square feet of roof area (dwelling unit or garage) which could allow the utilization of solar energy.

Section 4.6.340 - REDUCTION OR WAIVER OF STANDARD IN SUBDIVISIONS

A reduction or waiver from the requirements of Section 4.6.230 above may be granted by the Planning Commission to the minimum extent necessary to:

- ~~a. Preserve existing vegetation;~~

- ba. Reflect development constraints associated with complying with the hillside development provisions of Code Chapter 4.5 or ~~Reflect physical land development constraints related to the shape or topography of the site;~~

- ~~c. Accommodate north-facing slopes of 10 percent or more; or~~

- db. Meet City design requirements for provision of streets, drainageways, utilities, landscaping and location of buildings consistent with minimum setbacks; or

- c. Address sites where site planning to achieve solar access is negatively affected by the construction

of streets, roads, utilities, bridges, bicycle, and pedestrian facilities that are required by the City of Corvallis Transportation Plan, or other adopted City Plan, or that are necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. It must be shown that no other reasonable location is available for the required infrastructure.

Section 4.6.450 - ADJUSTMENTS TO IMPLEMENT SOLAR STANDARD IN SUBDIVISIONS

For residential subdivisions approved by the Planning Commission or City Council, modifications to solar provisions on a lot by lot basis may be authorized by the Director, without public notice under any of the following conditions:

- a. Where the affected property is developed and the change would not affect an existing dwelling; or
- b. Where the affected property is vacant and the Director finds that the proposed change will still maintain a 1400 sq. ft building area on the affected lot where the long side of a dwelling located in this area would have solar access as outlined in 4.6.30; or
- c. Where the proposed change would not increase shade on the affected dwelling more than that resulting from more than a 6-ft high fence on the property line fence; or
- d. Where the Director finds an error in the original solar calculations has been made so that a two-story house cannot be built within the setbacks centered on the height restricted lot, then a variation may be granted to the minimum extent necessary to assure two-story construction.

Any other modifications shall be in accordance with Chapter 2.12 - Lot Development Option.

Section 4.6.560 - REDUCTION OR WAIVER OF STANDARD IN PLANNED DEVELOPMENTS

For residential planned developments, a waiver from the requirements of Section 4.6.230 above may be granted by the Planning Commission based on the provisions of Section 4.6.340 above or to the minimum extent necessary to:

- a. Meet a broad range of residential needs by encouraging use of innovative site development techniques and a mix of dwelling types; or
- b. Address future housing needs in the community by encouraging affordable housing, as defined in Chapter 1.6, to increase housing choices;
- c. Reflect development constraints associated with complying with the hillside development provisions of Code Chapter 4.5 or reflect physical land development constraints related to the shape of the site;

- d. *Meet City design requirements for provision of landscaping and location of buildings consistent with minimum setbacks; or*

- e. *Address sites where site planning to achieve solar access is negatively affected by the construction of streets, roads, utilities, bridges, bicycle, and pedestrian facilities that are required by the City of Corvallis Transportation Plan, or other adopted City Plan, or that are necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. It must be shown that no other reasonable location is available for the required infrastructure.*

A waiver may not be granted under this section unless the applicant demonstrates that the loss of solar access for current and future generations has been mitigated by a substantial increase in energy efficiency of the proposed dwellings over Uniform Building Code requirements.

Presented below are the Council-directed changes to Draft Chapter 4.6 of the Land Development Code that were developed during Council deliberations. These are excerpts from an existing Code Chapter. Changes to the existing chapter that were reflected in Attachment E of the October 21, 2004, staff report to the City Council are indicated by redline/double underline and strike-out fonts. Additional City Council-recommended changes are indicated with the italic version of those same fonts.

Section 4.6.560 - REDUCTION OR WAIVER OF STANDARD IN PLANNED DEVELOPMENTS

For residential planned developments, a reduction or waiver from the requirements of Section 4.6.230 above may be granted by the Planning Commission based on the provisions of Section 4.6.340 above or to the minimum extent necessary to:

- a. Meet a broad range of residential needs by encouraging use of innovative site development techniques and a mix of dwelling types; or
- b. Address future housing needs in the community by encouraging affordable housing, as defined in Chapter 1.6, to increase housing choices;
- c. Reflect development constraints associated with complying with the hillside development provisions of Code Chapter 4.5 or reflect physical land development constraints related to the shape of the site;
- d. Meet City design requirements for provision of landscaping and location of buildings consistent with minimum setbacks; or
- e. Address sites where site planning to achieve solar access is negatively affected by the construction of streets, roads, utilities, bridges, bicycle, and pedestrian facilities that are required by the City of Corvallis Transportation Plan, or other adopted City Plan, or that are necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. It must be shown that no other reasonable location is available for the required infrastructure.

A reduction or waiver may not be granted under this section unless the applicant demonstrates that the loss of solar access for current and future generations has been mitigated by a substantial increase in energy efficiency of the proposed dwellings over Uniform Building Code requirements.

ATTACHMENT B

This is a new Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. Additional staff-recommended changes are indicated with the italic version of those same fonts. The City Council adopted this Chapter with the additional modifications included at the end of this attachment.

CHAPTER 4.12 - SIGNIFICANT VEGETATION PROTECTION PROVISIONS

Section 4.12.10 - PURPOSES

The Significant Vegetation Overlay identifies properties within the Corvallis Urban Growth Boundary that contain vegetation in a Wildlife Habitat Area or an Isolated Tree Grove determined by the community to be significant, as shown on the City's Significant Vegetation Map. This chapter implements standards for development and vegetation management on such properties. The overlay and these standards are intended to:

- a. Protect, conserve, maintain, and/or enhance the natural, environmental, scenic, recreational, open space, and economic qualities of the identified significant vegetation;
- b. Minimize impacts to soils and maintain or improve air and water quality within the Corvallis Urban Growth Boundary;
- c. Provide diverse, multi-layered vegetation to support continued diversity of fish and wildlife species within the Corvallis Urban Growth Boundary;
- d. Conserve energy by providing solar benefits and temperature moderation;
- e. Store and maintain carbon levels within the ecosystem;
- f. Provide groundwater recharge opportunities;
- g. Protect the economic values of the community associated with open spaces, recreational and visual amenities, and managed, sustainable forests;
- h. Enhance stormwater and natural hazards management;

- i. Protect and enhance the tree canopy throughout the Urban Growth Boundary;
- j. Provide sound-absorbing and visual buffer amenities throughout urban neighborhoods; and
- k. Implement the wildlife habitat and significant vegetation policies of the City of Corvallis Comprehensive Plan.

4.12.20 - APPLICABILITY

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). Standards for development and vegetation management on sites containing Significant Vegetation are included below.

4.12.30 EXEMPTIONS

The following activities are exempted from the requirements of this chapter:

- a. Routine maintenance and/or replacement of structures constructed or placed on the site prior to December 31, 2004. 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. Additionally, the application of herbicides or other pesticides, and the application of synthetic fertilizers is subject to applicable State and Federal regulations and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code. Where replanting is done, native species listed on the City of Corvallis Native Plant List shall be used. Maintenance pruning of existing trees shall be kept to a minimum, *shall be in accordance with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations.* and under no circumstances shall the maintenance pruning 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. Requests for removal of hazardous trees, except in emergency circumstances, shall be reviewed by the City Urban Forester (or another qualified arborist) and approved, conditionally approved, or denied by the Community Development Director. Any trees removed shall be replaced by like native species or alternative approved native species (listed on the City of Corvallis Native Plant List).
- d. Creation and maintenance of fire fuel breaks surrounding all structures designed for human occupancy, based on the following standards:
1. Fire fuel breaks are areas that are free of dead or dying vegetation, and have native, fast-burning species sufficiently thinned so that there is no interlocking canopy of this type of vegetation;
 2. 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;
 4. Fire fuel break areas shall be kept clear and/or maintained with vegetation trimmed to below 2 feet in height and above 8 feet in height and with trees spaced at least 15 feet apart;
 5. Where necessary for erosion control or aesthetic purposes, the fire fuel break area may be planted in slow-burning species;
 6. Establishment of a fire fuel break shall not involve stripping the ground of all native vegetation;
 7. 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 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, up to 14 feet in width, for each development site.

- g. Creation and maintenance of one fire truck turn-around area 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. 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 (Appendix 1)*, including weeds designated as "A," "B," and/or "T." 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 as outlined in Section 4.12.90.

4.12.40 - GREATER RESTRICTIONS

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter conflicts or overlaps with other provisions of this Code or any other ordinance, easement, covenant, or deed restriction, whichever imposes the more stringent restrictions shall prevail.

4.12.50- PROCEDURES

- a. Compliance with the provisions of this chapter shall be determined through the development review processes identified in Chapter 1.2 - Legal Framework (Section 1.2.110) and/or through the building permit or construction permit review processes. Applications for building permits, other land development permits, and/or permits for vegetation removal on sites containing Significant Vegetation shall be reviewed to assure that existing vegetation is preserved, enhanced, and/or its removal mitigated for based on and consistent with the standards contained in this Chapter. No building permits, other land development permits, and/or permits for vegetation removal shall be approved for sites containing Significant Vegetation without an approved Significant Vegetation Management Plan, which may be applied for as a concurrent application.
- b. Within Significant Vegetation Areas, the following activities are prohibited unless they are specifically exempted in Section 4.12.30, or are allowed as a result of the approval of a Significant

Vegetation Management Plan (Section 4.12.90), a land use development permit, or a construction permit:

1. Removing, damaging, destroying, or cutting any tree greater than four (4) inches in diameter as measured four (4) feet above grade;
2. Removing, damaging, destroying, or cutting any shrub over four (4) feet in height;
3. Removing any ground covers or soil;
4. Preparing a site for development (excavating, grading, clearing); and
5. Constructing fences over four (4) feet in height or of a material that will prevent small animal passage.

4.12.50.01 - Submittal Requirements for Development on Sites Containing Significant Vegetation

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 Comprehensive Plan and Land Development Code District Maps. Significant Vegetation is one of the natural resources identified. Second, the Corvallis Significant Vegetation Map depicts the actual locations of significant vegetation and the specific levels to which different Significant Vegetation areas are to be protected. Significant Vegetation areas are identified on the Significant Vegetation Map and standards are established in this Chapter 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). As a part of any development proposal or vegetation management effort on sites containing any of these Significant Vegetation designations, 4 copies of the following information shall be submitted on forms provided by the Director.

- a. The Director may waive any of the requirements below when such information is found to be unnecessary for the evaluation of a proposed plan. The Director may also require additional information, if needed, to evaluate the proposal.
- b. Description of the land (address, lot, block, tract, or similar description) on which the proposed development is to take place;

- c. Signed consent of the owner(s) or the owners' legal representatives of the subject property(ies);
- d. Narrative addressing how the application meets the standards in this Chapter;
- e. Data sheets from the Corvallis Natural Features Inventory for each of the natural resources located on the site;
- f. Site plans indicating existing conditions. Plans shall be no larger than 24 inches by 36 inches and shall include a legible copy reduced to either 8.5 inches by 11 inches or 11 inches by 17 inches. The site plan shall be drawn to scale and show:
 - 1. Date, scale, scale bar, and north arrow;
 - 2. Relationship of the site to adjoining properties, streets, alleys, structures, public utilities, drainageways, and drainage patterns (especially those that would affect adjacent natural features identified as significant on the Natural Hazards Map, Riparian Corridors and Wetlands Map, or the Significant Vegetation Map);
 - 3. Property lines and dimensions;
 - 4. Location and extent of each of the natural hazards identified as Highly Protected on the Natural Hazards Map both on and within 150 feet of the site;
 - 5. Location and extent of each of the natural hazards identified as Partially Protected on the Natural Hazards Map both on and within 150 feet of the site;
 - 6. Location and extent of each of the natural resources identified as Highly Protected on the Significant Vegetation and Riparian Corridor and Wetlands Maps both on and within 150 feet of the site;
 - 7. Location and extent of each of the natural resources identified as Partially Protected on the Significant Vegetation and Riparian and Wetlands Maps both on and within 150 feet of the site;
 - 8. Public and private roadways and driveways;

9. Location and extent of required Department of State Lands and/or U.S. Army Corps of Engineers wetland mitigation areas located on the site and/or a permit indicating any off-site mitigation acreage requirements.
 10. Vehicle and pedestrian access points and accessways;
 11. Public and private easements and labels as to the purpose of the easements;
 12. Existing structures, including fences and walls;
 13. Existing off-street parking facilities; and
 14. Any dedications that exist on the site.
- g. Site plans indicating areas of proposed vegetation removal, vegetation preservation, vegetation planting, and development and/or areas of ground disturbance. Plans are to be no larger than 24 inches by 36 inches and shall include a copy of the site plan reduced to either 8.5 inches by 11 inches or to 11 inches by 17 inches. Plans shall be drawn to scale and shall include the information required in Section 4.12.50.01.f and the following:
1. Location, extent, acreage, and types of vegetation to be protected and/or enhanced;
 2. Location, extent, acreage, and types of vegetation to be removed;
 3. Location, extent, and net area calculations indicating any proposed encroachments into each specific protected natural feature or natural hazard area indicated on the Natural Hazards Map, Riparian Corridors and Wetlands Map, or the Significant Vegetation Map;
 4. Location, development pattern plans, and drainage pattern impacts as required for associated grading and development permit reviews;
 5. A grading plan, if grading is to occur, showing existing and finished contours on the site, at 2-foot contour intervals;
 6. Existing percentage of cover for the areas where vegetation is to be removed;
 7. A reforestation/replanting plan in protection/enhancement areas that includes:

- a) Location, extent, and acreage of the vegetation to be planted;
- b) Types of vegetation to be planted;
- c) Number of deciduous trees, conifers, and shrubs to be planted;
- d) Size and spacing of the plantings;
- e) Planting schedule;
- f) Erosion control measures;
- g) Estimated cost of replanting the trees and shrubs; and
- h) Mitigation for any negative impacts resulting from changed drainage patterns.

h. All necessary permits from those Federal, State or local governmental agencies from which prior approval is required including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, as amended, shall be obtained, or obtaining such permits shall be a condition of approval to be satisfied prior to issuance of any construction permit.

i. In addition to the application requirements identified in Section 4.12.50.01 "a" through "g," development proposals on sites containing areas designated as PPSV-4 shall include the following information:

1. A detailed planting plan of proposed trees, shrubs, and ground-covers at the same scale as the project site plan. This plan shall include:

- a) Location, extent, and acreage of vegetation to be preserved and/or enhanced;
- b) Location, extent, and acreage of vegetation to be planted;
- c) Number and types of deciduous trees, conifers, shrubs, and ground-covers to be planted;
- d) Size and spacing of the plantings;

- e) Mature tree canopy site coverage based on either the anticipated canopy at 15 years of age or, the canopy of the preserved existing trees, whichever is greater;
 - f) Planting techniques/standards and schedule;
 - g) Protection fencing location and method of installation;
 - h) Irrigation plan;
 - i) Maintenance plan indicating the responsibility to maintain and replace the required vegetation, including the Conditions, Covenants, and Restrictions (CC&R's) of the Homeowners' Association when a Homeowners' Association is proposed; and
 - j) Estimated cost of planting the trees, shrubs, and ground-covers.
- j. An electronic version of these documents shall be provided (both text and graphics, as applicable) if an applicant has produced part or all of a submittal in an electronic format. The applicant shall coordinate with the City regarding compatible electronic formats.

4.12.60 - STANDARDS FOR DEVELOPMENT ON SITES CONTAINING SIGNIFICANT VEGETATION

The location and extent of development on sites containing significant vegetation shall be based on the standards established below. Encroachments into areas of Significant Vegetation may be permitted based on the provisions of Chapter 4.11- Minimum Assured Development Area and the following:

- a. **For properties containing areas designated as Highly Protected Significant Vegetation (HPSV), the following standards shall apply:**
 - 1. Development shall be limited to portions of properties outside of the areas designated as HPSV, except to the extent allowed by the Minimum Assured Development Area, as determined through the use of the procedures and criteria established in Chapter 4.11- Minimum Assured Development Area;
 - 2. Vegetation that is required to be protected shall be preserved and/or enhanced in specific tracts, which shall ensure that a minimum of a 70% mature tree canopy coverage is achieved in the tracts. Exceptions to this requirement shall be granted based on the following:

a) Preserved existing upland prairie areas shall be credited as 100% canopy coverage;
and

b) Preserved Oak savannas (ARA type 13 in the Natural Features Inventory) shall be credited at 70% mature tree canopy coverage.

3. Vegetation that is required to be protected, that has been damaged, destroyed, or cut shall be restored or replaced in specific tracts, such that a minimum of 70% mature tree canopy coverage is achieved in the tracts. This mitigation shall be completed consistent with Section 4.12.100- Enforcement and Mitigation Provisions;

4. Portions of the site developed according to the MADA provisions contained in Chapter 4.11 areas outside of preserved Significant Vegetation tracts) shall be planted to achieve 40% 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.

b. For properties containing areas designated as Partially Protected Significant Vegetation-1 (PPSV-1) the following standards shall apply:

1. Development shall be located on areas outside of the PPSV, except to the extent allowed by the provisions of Chapter 4.11- Minimum Assured Development Area;

2. The provisions for determining Minimum Assured Development Area may be applied directly to the PPSV-1 resource area, rather than applying it to the entire development site, as required in all other instances;

3. Vegetation that is required to be protected shall be preserved and/or enhanced in specific tracts, which shall be planted and/or preserved such that a minimum of a 70% mature tree canopy coverage is achieved within the tracts. Exceptions to this requirement shall be granted based on the following:

a) Preserved existing upland prairie areas shall be credited as 100% canopy coverage;
and

b) Preserved Oak savannas (ARA type 13 in the Natural Features Inventory) shall be credited at 70% mature tree canopy coverage.

4. Vegetation that is required to be protected, that has been damaged, destroyed, or cut shall be restored or replaced in specific tracts, such that a minimum of 70% mature tree canopy coverage is achieved in the tracts. This mitigation shall be completed consistent with Section 4.12.100- Enforcement and Mitigation Provisions; and
5. Portions of the site developed according to the MADA provisions contained in Chapter 4.11 (areas outside of preserved Significant Vegetation tracts) shall be planted to achieve 35% 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.

c. For properties containing areas designated as Partially Protected Significant Vegetation-2 (PPSV-2) the following standards shall apply:

1. Development shall be located on areas outside of the PPSV, except to the extent allowed by the provisions of Chapter 4.11- Minimum Assured Development Area, with an additional allowance of 20 percent of the entire site;
2. Vegetation that is required to be protected shall be preserved and/or enhanced in specific tracts, which shall be planted and/or preserved such that a minimum of a 70% mature tree canopy coverage is achieved within the tracts. Exceptions to this requirement shall be granted based on the following:
 - a) Preserved existing upland prairie areas shall be credited as 100% canopy coverage; and
 - b) Preserved Oak savannas (ARA type 13 in the Natural Features Inventory) shall be credited at 70% mature tree canopy coverage;
3. Vegetation that is required to be protected, that has been damaged, destroyed, or cut shall be restored or replaced in specific tracts, such that a minimum of 70% mature tree canopy coverage is achieved in the tracts. This mitigation shall be completed consistent with Section 4.12.100- Enforcement and Mitigation Provisions;
4. Undeveloped portions of the PPSV shall be contiguous to adjacent preserved natural resources; and

5. Portions of such sites developed according to the MADA provisions contained in Chapter 4.11 (areas outside of preserved Significant Vegetation tracts) shall be planted to achieve 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.

d. For properties containing areas designated as Partially Protected Significant Vegetation-3 (PPSV-3) the following standards shall apply:

1. Development may be located on areas inside the PPSV provided that:
 - a) A minimum of 50% of the area within the PPSV is preserved/enhanced; and
 - b) Including the area preserved in section “a,” above, 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 with 70% mature tree canopy coverage. Exceptions to this requirement shall be granted based on the following:
 - 1) Preserved existing upland prairie areas shall be credited as 100% canopy coverage; and
 - 2) Preserved Oak savannas (ARA type 13 in the Natural Features Inventory) shall be credited at 70% mature tree canopy coverage;
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;
3. Vegetation that is required to be protected, that has been damaged, destroyed, or cut shall be restored or replaced in specific tracts, such that a minimum of 50% mature tree canopy coverage is achieved in the tracts. This mitigation shall be completed consistent with Section 4.12.100- Enforcement and Mitigation Provisions;
4. Portions of such sites developed according to the MADA provisions contained in Chapter 4.11 (areas outside of preserved Significant Vegetation tracts) shall be planted to achieve 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

e. For properties containing areas designated as Partially Protected Significant Vegetation-4 (PPSV-4) the following standards shall apply:

1. Development may only be located on areas inside the PPSV in cases where 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;
2. Preserved existing upland prairie areas shall be credited as 100% canopy coverage;
3. Preserved areas identified as Oak savannas (ARA type 13) shall be credited at 70% mature tree canopy coverage; and
4. Portions of such sites developed according to the MADA provisions contained in Chapter 4.11 (areas outside of preserved Significant Vegetation tracts) shall be planted to achieve 35% 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.

f. For areas containing Significant Vegetation to be considered preserved, they must treated as follows:

1. 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." A circle of protection is created by the greater of the two areas defined by the formulas below:
 - a) A radius in feet that equals the diameter in inches of the tree trunk at 4 ft. above grade (e.g. a 15-inch diameter tree creates a 15-foot radius of protected area) or
 - b) A perimeter located 5 feet outside of the tree's drip-line.
2. Existing vegetation may be considered preserved only if no cutting, filling, or compaction of the soil takes place within the vegetation's circle of protection. A circle of protection for vegetation is created by defining a circle around the vegetation, the perimeter of which is located 1 ft. outside of the vegetation's drip-line or edge.

3. Temporary fencing to protect trees and vegetation shall be used to clearly mark areas to be preserved; such fencing shall be placed outside the circle of protection of all trees and/or vegetation located within 50 feet of any area where construction, ground disturbance, and/or vegetation removal is likely to occur. All such fencing shall be in place prior to vegetation removal and/or the issuance of an excavation and grading permit and shall be maintained throughout the vegetation removal and/or construction period.
 4. Vegetation removal and ground disturbance shall be prohibited within the circle of protection for all trees and vegetation areas to be preserved.
 5. Irrigation shall be prohibited and no increase or decrease in either drainage volume or frequency shall occur within the circle of protection of preserved oak tree(s).
- g. Mature tree canopy coverage shall be based on either the anticipated canopy at 15 years of age or the canopy of the preserved existing trees, whichever is greater.
 - h. A minimum of 30% of the planted mitigation trees must be large canopy tree species.
 - i. Required street trees and parking lot landscaping shall not be credited toward mitigation trees, shrubs, or ground covers.
 - j. Required street trees and parking lot landscaping trees shall be credited for mature tree canopy coverage in developed areas (areas outside protected HPSV or PPSV areas).
 - k. Trees, shrubs, and ground covers required in Section 4.12.60 to be planted to achieve minimum landscape and/or tree canopy coverage shall be continuously maintained in a healthy manner. Prior to the removal of any vegetation a cash deposit, bond, or other financial security allowed by Code in the amount of 125% of the cost of required mitigation trees, shrubs, and ground covers shall be provided. Similar financial security for maintenance and replacement of vegetation shall be provided for a minimum of five (5) years after the plantings. Required trees, shrubs, and ground-covers that die within the first 5 years after initial planting must be replaced in kind.
 - l. Required trees, shrubs, and ground-covers shall be planted within 180 days of their removal and shall be irrigated as per Chapter 4.2 (except as provided in "f.5," above).

- m. In addition to the standards in this chapter, developed areas shall be landscaped in accordance with Chapter 4.2.
- n. Construction site activities, including but not limited to parking, material storage, soil compaction, and concrete washout shall be located outside of vegetation protection areas.

4.12.70- PROVISIONS LIMITING EXTENSIONS OF PUBLIC AND PRIVATE ROADWAYS AND UTILITIES ON SITES CONTAINING SIGNIFICANT VEGETATION

- a. Location and construction of streets, roads, utilities, bridges, bicycle, and pedestrian facilities that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans, or involve the redevelopment of electrical utility operations existing as of December 31, 2004. The location and construction must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards; and
- b. Location and construction of streets, roads, bridges, bicycle, and pedestrian facilities is in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards.

4.12.80- ADDITIONAL PROVISIONS

- a. Location of recreational facilities (e.g., developed camp sites, horse arenas, barns, clubhouses) on sites containing Significant Vegetation Areas are limited to areas outside of Significant Vegetation except as allowed by the Minimum Assured Development Area provisions in Chapter 4.11.
- 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 are prohibited, with the exception of lots created for public park purposes .

4.12.90 - STANDARDS FOR SIGNIFICANT VEGETATION MANAGEMENT PLANS

Significant Vegetation Management Plans (SVMPs) may be approved as part of or separate from development applications. They shall meet the standards outlined below and, when found to comply with these standards, the SVMPs shall be approved by the Community Development Director. The SVMP shall:

- a. Provide application materials outlined in Sections 4.12.50.01.a-f; 4.12.50.01.g.1,2,6, and 7; 4.12.50.10.h-j.
- b. Allow for the removal of Douglas Fir trees and provide for the retention of non-conifer vegetative species.
- c. Preserve non-conifer vegetation in HPSV areas and PPSV areas consistent with Section 4.12.70.f, g, k, and n.
- d. Provide for erosion control measures consistent with the City of Corvallis Engineering Standards.
- e. Include the vegetation management activities as recommended in the Natural Features Inventory Report and Database for enhancement for the each Wildlife Habitat Area and/or Tree Grove (sub-polygon) located within the Significant Vegetation Management Plan area and ensure the Vegetation Management Plan is consistent with those recommended activities.
- f. Remain in effect until modified or replaced with a subsequently approved SVMPS.

4.12.100 ENFORCEMENT AND MITIGATION PROVISIONS

- a. In addition to being subject to Municipal Code enforcement provisions, violations of Section 4.12.50.b shall be partially remedied within 90 days of the violation and within the period from October 1 to May 1, (the 90-day period may be extended to ensure that planting occurs at the first opportunity in this period), by replacing the vegetation in a manner that is consistent with this Chapter. Any tree removed from a HPSV or PPSV area in a manner inconsistent with the provisions of this chapter, shall have its losses mitigated by replacement of trees and irrigation within the HPSV or PPSV area in an amount equal to 50 percent of the appraised value of the damaged or removed vegetation. The appraised value of the vegetation shall be determined by using the Council of Tree and Landscape Appraisers Guide for Plant Appraisal and shall be applied by an ISA Certified Arborist Trained in this process. If the cost of providing the mitigation measures is less than fifty percent of the appraised value of the removed or damaged vegetation, payment in the amount of the unused value shall be dedicated to the City's Urban Forestry Project Account to be used to plant additional trees and restore associated tree ecosystems elsewhere in the community. Mitigation vegetation shall be installed to the standards below:

1. Tree with a minimum planting size of one inch in diameter;

2. Shrubs with a minimum planting size of one gallon; and
 3. Ground covers with a minimum planting size of one gallon, planted 12 inches-on-center.
 4. Installed irrigation system, for a minimum of five years, designed and operated to support the species planted.
- b.** Within HPSV and PPSV areas where vegetation was legally or illegally removed, damaged, destroyed, or cut while the properties were located within the Urban Fringe, and where vegetation has not been replaced consistent with this Chapter prior to annexation, the vegetation shall be replanted consistent with the provisions in this Chapter (including “a” above) within 90 days of approval of any City applications, including Significant Vegetation Management Plans and/or development or construction permits of any kind. However, the vegetation shall be planted within the period from October 1 to May 1, and the 90-day period may be extended to ensure that planting occurs at the first opportunity in this period. Vegetation that has been planted in compliance with Benton County permit approvals or standards shall be preserved, protected, or enhanced prior to approval of a Significant Vegetation Management Plan, land use development permit, or construction permit by the City of Corvallis. The replacement and maintenance of vegetation, and land use development shall be completed in a manner that is consistent with this Chapter.
- c.** Any remedy set forth in this Chapter is in addition to and not an alternative to all other remedies for violations of the Land Development Code or Municipal Code.
- d.** Failure to comply with an order of the Director to mitigate shall be a separate violation for each day, beyond the time frame specified in the order, that mitigation has not occurred. Each separate violation shall be subject to citation to the Municipal Court.
- e.** If found guilty of the violation of not obeying an order to mitigate under this Chapter, a person shall be subject to a fine no less than \$50 and no more than \$100 for each day, beyond the time frame specified in the order, that mitigation has not occurred. Fines shall be deposited in the City’s Urban Forestry Project Account to be used to plant additional trees and restore associated tree ecosystems either on-site or elsewhere in the community.

4.12.110 - DISCLAIMER OF LIABILITY

This chapter shall not create liability on the part of the City of Corvallis or any officer or employee thereof for any fire damages or other hazard damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder. Compliance with the minimum standards established by this chapter is not intended to relieve any private party from liability for the design or construction of development that causes damage or injury by aggravating an existing and known hazard.

Presented below are the Council-directed changes to Draft Chapter 4.12 of the Land Development Code that were developed during the Council deliberations. These changes are relative to a new chapter entitled "Significant Vegetation Protection Provisions." The entire chapter is contained in Attachment E of the October 21, 2004, City Council staff report. Only the Council-directed additional changes are included below. These changes are indicated with the italic version of redline/double underline and ~~strike-out~~ fonts.

Section 4.12.70 to read as follows:

4.12.70 - REQUIREMENTS FOR EXTENSIONS OF PUBLIC AND PRIVATE ROADWAYS AND UTILITIES ON SITES CONTAINING SIGNIFICANT VEGETATION

- a. Location and construction of streets, utilities, bridges, bicycle, and pedestrian facilities within significant vegetation areas must be deemed necessary to maintain a functional system by the City Engineer. This Code, City Transportation and Utility Master Plans, and other adopted City plans shall guide this determination. The design standards of Chapter 4.0 shall be applied to minimize the impact to the significant vegetation area.
- ~~a. Location and construction of streets, roads, utilities, bridges, bicycle, and pedestrian facilities that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans, or involve the redevelopment of electrical utility operations existing as of December 31, 2004. The location and construction must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards; and~~
- ~~b. Location and construction of streets, roads, bridges, bicycle, and pedestrian facilities is in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards.~~

ATTACHMENT C

This is a replacement Chapter for the existing Code Chapter 4.5 entitled "Flood Control, Storm Drainage, riparian, and Wetland Provisions." All the Planning Commission-recommended changes from the public hearing process are incorporated already. Additional staff-recommended changes are indicated with the italic version of those same fonts. The City Council adopted this chapter, with the additional modifications included at the end of this attachment.

CHAPTER 4.5 - NATURAL HAZARD AND HILLSIDE DEVELOPMENT PROVISIONS

Section 4.5.10 - PURPOSES - NATURAL HAZARD PROVISIONS

Without establishing any priority, the purposes of this chapter are intended to:

- a. Reduce flood damage and loss of life in areas subject to periodic flooding;
- b. Reduce damage and loss of life from other natural hazards, including steep slopes, landslide risk areas, and landslide-related risk areas;
- c. Implement the requirements of Statewide Planning Goal 7 - which relates to Areas Subject to Natural Disasters and Hazards;
- d. Implement some of the land use aspects of the City's Stormwater Master Plan, as well as some aspects of the City's Endangered Species Act Salmon Response Plan;
- e. Via regulation in the floodplain, contribute to the properly functioning condition of streams and rivers and address, in part, the water quality aspects of Statewide Planning Goal 6;
- f. Manage stormwater drainage in a manner that: maintains the properly functioning conditions of streams; provides for the conveyance and temporary storage of floodwater; reduces floodwater velocity; facilitates sediment deposition in the floodplain; provides an opportunity for groundwater recharge; and promotes other stormwater and floodplain functions. These provisions are also intended to minimize maintenance costs, eliminate potential hazards before they occur, and protect properties and persons adjacent to drainageways and to other natural hazard areas; and

- g. Implement requirements for the City's participation in the National Flood Insurance Program, including the Community Rating System.

In order to assist in the furtherance of these purposes, where not required, creation of open space tracts are encouraged within areas designated as Natural Resources or Natural Hazards on the Comprehensive Plan and Land Development Code Maps.

Section 4.5.20 - APPLICABILITY

These provisions apply to:

- a. Public and private properties in the 100-year floodplain of rivers and local streams;
- b. Areas with slopes equal to or greater than 10%;
- c. High landslide risk areas;
- d. Existing landslide areas; and
- e. Landslide debris run-out areas.

These areas are mapped on the Corvallis Natural Hazards Map.

The Flood Insurance Study for the City of Corvallis, dated July 2, 1984, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRM) and Flood Boundary & Floodway Maps of Corvallis, Oregon, dated January 3, 1985, and any revisions thereto, are the basis for establishing areas of special flood hazard (100-year floodplain) and is hereby adopted by reference and declared to be part of this Ordinance.

Hazards associated with the Corvallis Fault Line and liquefaction soils are not addressed as part of this Code. Hazards associated with the Corvallis Fault, and with fault lines in general, are difficult to anticipate, in part because the Fault has not been precisely mapped and in part because other faults may exist in the area which are not yet known. The hazards posed by liquefaction soils can be addressed by the application of more stringent building construction requirements. However, the City will have a map(s) available for informational purposes that shows the approximate location of the Corvallis Fault and the location of liquefaction soils, and these hazards may need to be addressed per the requirements of the adopted Building Code and/or per the recommendations of geologic studies, etc.

4.5.20.01 - GREATER RESTRICTIONS

This chapter of the Code is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

4.5.20.02 - EXCEPTIONS

Chapter 4.11 of this Code explains how Minimum Assured Development Area (MADA) is determined. Development is prohibited in certain areas, regardless of MADA, as outlined in Section 4.11.40.06. If the application of hazard regulations outside prohibited areas, or if the cumulative impact of such hazard regulations and the application of the regulations in Chapters 4.12 and 4.13 would limit the developable portion of a property below the property's MADA, then development will be allowed on the property, to the degree necessary to achieve the MADA, as explained in Chapter 4.11.

Section 4.5.30 - DISCLAIMER OF LIABILITY

The degree of flood and other hazard protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods and hazard events can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. Areas impacted by other natural hazards may differ from those shown on the Corvallis Natural Hazards Map. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages, nor does it imply that land outside of mapped hazard areas will be free from damage or earth movement in a hazard event. This chapter shall not create liability on the part of the City of Corvallis, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages or other hazard damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder. Compliance with the minimum standards established by this chapter is not intended to relieve any private party from liability for the design or construction of development which causes damage or injury by increasing flooding or aggravating an existing and known hazard.

Section 4.5.40 - PROCEDURES

Compliance with the provisions of this chapter shall be determined through the development review processes identified in Chapter 1.2 - Legal Framework (Section 1.2.110). Applications for excavation and grading permits, building permits or other permits for structures (including manufactured homes) and other development activities (including, but not limited to, mining, dredging, filling, grading, paving, and excavating) on sites containing the 100-year floodplain or other hazard areas, as defined in Section 4.5.20, shall be submitted and reviewed to assure compliance with specifications referenced herein and that development is reasonably safe from anticipated hazards.

4.5.40.01 - Development Application

Development applications for all properties containing or abutting a mapped hazard area shall accurately indicate the locations of these features and the location of any proposed development. "Development applications" shall include excavation and grading permits, building permits, privately-engineered public improvement permits, and any land use application identified in Chapters 2.1 through 2.14 of this Code. The Building Official, City Engineer, or Community Development Director may determine that the following information is not necessary in conjunction with permits for work that would not exacerbate hazard conditions in any way.

All such development applications shall include the following information:

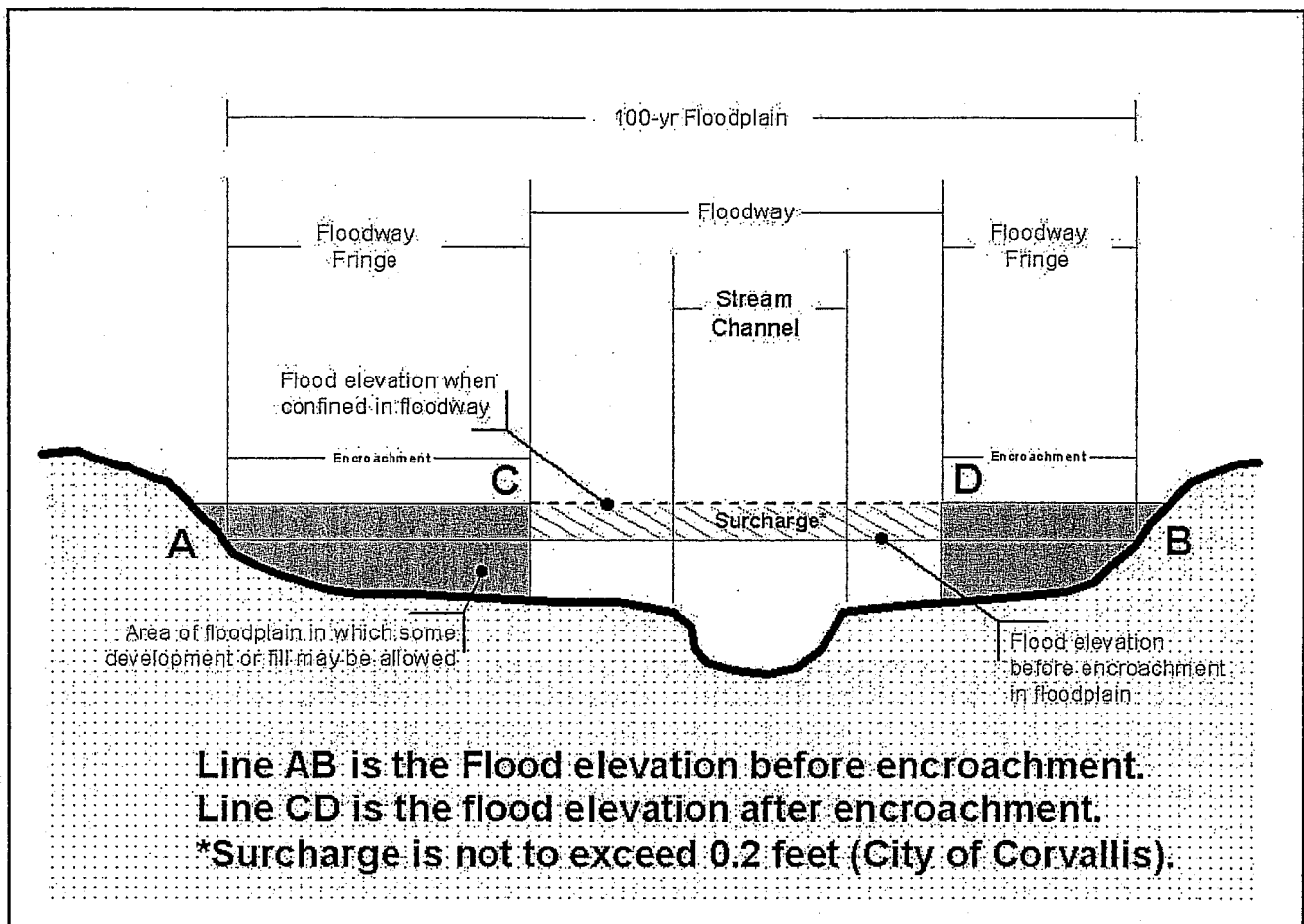
- a. A site plan showing the proposed development on the site, drawn to a standard scale and including an illustrated scale for use in reductions;
- b. Location of all proposed infrastructure; including streets, driveways, water, sanitary sewer, and storm drainage; necessary to serve the proposed development;
- c. Land uses within 300 ft of the subject property;
- d. Title block;
- e. North arrow and bar scale;
- f. Date(s) of field check(s);
- g. A grading plan, if grading is to occur, showing existing and finished contours on the site, at 2-foot contour intervals;
- h. Sources of information (national, state or local soil survey maps, Comprehensive Plan and Development District (zoning) maps, Natural Hazards Map, Significant Vegetation Map, Riparian Corridors and Wetlands Map, date and scale of aerial photos, etc.); and
- i. Any other submittal requirements identified for development in areas with specific natural hazards, as specified in Sections 4.5.50, 4.5.60, and 4.5.70.

Section 4.5.50 STANDARDS FOR AREAS OF SPECIAL FLOOD HAZARD (100 YEAR FLOOD PLAIN)

4.5.50.01 - Definitions and Related Standards

- a. The 100-year floodplain is a land area adjacent to a river, stream or other water body that is subject to a one percent chance of flooding in any given year. It consists of land ranging from that which is subject to annual flooding to that which has a one percent chance of flooding in any given year. The floodplain is divided into two sections: the floodway and floodway fringe areas. The 100-year floodplain is mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRMs) and is the area subject to base flood regulations. The “0.2-foot floodway” is defined as the river channel or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood (100-year flood) without cumulatively increasing the water surface elevation more than 0.2 feet. The “floodway fringe” is defined as the area of the 100-year floodplain lying outside of the 0.2-foot floodway itself. (See Figure 4.5 - 1, below)
- b. Areas of the 0.2-foot Floodway and Floodway Fringe that fall within a regulated riparian corridor are also subject to the provisions of Chapter 4.13. Where regulations are in conflict, the most restrictive shall apply.

Figure 4.5 - 1



4.5.50.02 - Application Requirements - In addition to the application requirements in Section 4.5.40.01, the following information is required with development applications for property in the 100-year floodplain:

- a. Elevation in relation to the National Geodetic Vertical Datum 1929 (NGVD29), of either:
 1. The lowest finished floor level, including basements and attached garages, electrical equipment (except utility meters), heating and ventilation equipment, plumbing, air conditioning equipment and/or other service facilities (including ductwork) of all new structures; or
 2. Elevation to which any existing structure has been or is proposed to be flood proofed and certification by a registered professional engineer that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in 4.5.50.08.c.4 below;
- b. A description of the extent to which any floodplain or watercourse is proposed to be altered or affected as a result of proposed development;

- c. Topographic Survey - a topographic survey of the development site, showing existing and proposed topography in 2-foot contour intervals. The survey shall indicate the location of top-of-bank, consistent with the definition in Chapter 1.6 of this Code. The survey shall show the 0.2-foot floodway boundary and the 100-year floodway fringe boundary. The survey shall also show the location of existing and proposed improvements on the site, including structures, landscaping, parking areas, and other impervious surface areas. The survey shall be drawn to scale and shall note the distance from top-of-bank to the improvements on the site;
- d. The applicable base flood elevation;
- e. All necessary permits from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, as amended, shall be obtained, or obtaining such permits shall be a condition of approval to be satisfied prior to issuance of any construction permit.

4.5.50.03- City Responsibility for Flood Elevation Records

It shall be the responsibility of the City to record and maintain a public record of elevation and floodproofing information for new construction and substantial improvements and other related information as required for submittal by this chapter of the Code.

4.5.50.04 - Interpretation of Flood Insurance Rate Map and Other Floodplain Boundaries

When there appears to be a conflict between a mapped boundary and actual field conditions, the City Engineer shall determine the exact location of the boundaries of the floodplain. Where FEMA base flood elevation information is unavailable for flood hazard areas, the City Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data as a basis for applying standards in the floodway fringe, 1-ft. floodway, and 0.2-ft. floodway.

4.5.50.05 - Incentives for Relocating Structures, Parking Lots, and other Impervious Surfaces outside of the 100-Year Floodplain

Existing structures, parking lots, and other impervious surface areas that are removed from the 100-year floodplain will qualify for the following benefits. Additionally, new development, in areas of the 100-year floodplain where such development is allowed (identified portions of the Willamette River, Mary's River, and Millrace floodplain), is also eligible for the following benefits:

- a. **Allowed Intensification:**
 - 1. For residentially-zoned properties:

- a) Development or redevelopment of a property, or of a group of contiguous properties, may transfer density from portions of the site within the 0.2-ft. floodway fringe to portions of the site outside of the 0.2-ft. floodway fringe to the extent allowed by use of the development standards in the next most intensive development district, provided that, in resultant development, no structures or parking areas are located within the 0.2-ft. floodway fringe portion of the site.
2. For properties with commercial, industrial, or other, non-residential, land use designations for which at least 25% of the total site area is within the 100-year floodplain:
 - a) Allowed building height may be increased by 10 feet (in any development district) if all improvements (including buildings and parking areas) are removed from at least 75% of the site area within the floodplain. This is not a cumulative standard and cannot be combined with height exceptions allowed elsewhere in this Code.
 - b) Allowed building height may be increased by 20 feet if all improvements (including buildings and parking areas) are removed from 100% of the site area within the floodplain. This is not a cumulative standard and cannot be combined with height exceptions allowed elsewhere in this Code.

b. Reduction of Impervious surface area:

1. For development sites with at least 50% of their area within the 100-year floodplain: When a development site has at least 50% of the site area within the 100-year floodplain, the height of structures may be increased by 10 feet above the height normally allowed in the applicable development district when development or redevelopment of the site results in pervious surface area for at least 50% of the development site (gravel, paving, concrete, and structures are all impervious). This is not a cumulative standard and cannot be combined with height exceptions allowed elsewhere in this Code.

4.5.50.06 - Standards in the 0.2-ft. Floodway

No encroachments, including fill, new construction, substantial improvements (except as provided in subsection "c" of this section), and other development are allowed within the 0.2-foot Floodway, with the exception of bridges, infrastructure, utilities, or water dependent uses, and for which it may be demonstrated, through hydrologic and hydraulic analyses performed in accordance with standard engineering practices, that the proposed encroachment would not result in any increase in flood levels within the community during the base flood discharge. Development within the 0.2-ft. Floodway shall comply with all applicable State and Federal requirements. Construction of these

facilities must be shown to cause minimal harm to the properly functioning condition of the stream. These improvements shall be subject to the City's Engineering Design Standards.

Watercourse alteration by artificial means is prohibited, with exceptions only for emergency management purposes or as mandated by State or Federal actions that would supercede local authority. For riverine situations, prior to the alteration or relocation of a watercourse, the applicant for such authorization must notify the Oregon Department of State Lands (DSL) and submit copies of such notification to the City Engineer. The applicant is required to submit copies of said notification to those adjacent communities as determined by the City Engineer. The applicant shall submit to the City Engineer, certification provided by a registered professional engineer, assuring that the flood carrying capacity of an altered or relocated watercourse can and will be maintained.

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within the 0.2-Foot Floodway. Where applicable State or Federal regulations provide greater restrictions, such regulations shall apply. All necessary local, State, and Federal approvals shall be secured prior to the commencement of earth movement or construction in these areas.

- a. **Removal of Vegetation** - Removal of vegetation from the 0.2-Foot Floodway is prohibited, except for the following purposes, as approved by the City Engineer:
1. Stream restoration and enhancement programs;
 2. Removal of non-native, invasive and/or noxious vegetation as identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System (Appendix 1), including weeds designated as "A," "B," and/or "T." If necessary in conjunction with vegetation removal, non-rip-rap erosion control measures shall be utilized;
 3. For the development of water-related or water-dependent uses, provided they are designed and constructed to minimize impact on the existing riparian vegetation;
 4. Removal of emergent in-channel vegetation likely to cause flooding events that result in structural damage;
 5. Mowing/cutting of vegetation in a 20-foot perimeter around structures for fire hazard prevention;
 6. Continuation of agricultural activities (such as grazing livestock, growing crops, etc.) occurring on a property prior to December 31, 2004. However,

the use of herbicides, or other pesticides, the application of synthetic fertilizers, and the storage of toxic materials in these areas is subject to applicable State and Federal regulations and is also subject to the restrictions set forth in the Corvallis Municipal Code; and

7. Hazardous Tree Removal - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.

- b. **Maintenance within the 0.2-Foot Floodway** - The limitations imposed by this section do not preclude the routine maintenance of existing structures in the 0.2-foot floodway. Maintenance of lawns, non-native riparian planted vegetation and landscaping shall be kept to a minimum. Additionally, the application of herbicides or other pesticides, and the application of synthetic fertilizers is subject to applicable State and Federal regulations and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code. Where replanting is done, native species shall be used, with the exception of continuing agricultural uses, as specified in Section 4.5.50.06.a.6. Maintenance pruning of existing trees shall be kept to a minimum, shall be in accordance with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations. and under no circumstances shall the maintenance pruning 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. However, no trees shall be planted within utility easements. Disposal of yard waste or other organic materials is prohibited within the top-of-bank boundary of any stream, and is regulated by restrictions in the Corvallis Municipal Code.

- c. Structures that were constructed prior to December 4, 1984, and are located in the area between the one-ft. floodway and the 0.2-ft. floodway shall not be considered nonconforming structures for the purposes of this chapter, and substantial improvement or replacement within the same footprint is permitted. Such replacements shall comply with the mandatory construction standards in Sections 4.5.50.08.b and 4.5.50.08.c.

4.5.50.07 - Standards in High Protection Floodway Fringe Areas

The following standards shall apply to activities and development in High Protection Floodway Fringe Areas, as identified on the Corvallis Natural Hazards Map. Generally, these areas contain the 100-year floodplain of local streams but not the portions of the Millrace and Willamette and Mary's River 100-year floodplains within the City Limits boundary, as of December 31, 2004.

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within the High Protection Floodway Fringe. Where applicable State or Federal regulations provide greater restrictions, such regulations shall apply. All necessary local, State, and Federal approvals shall be secured prior to the commencement of earth movement or construction in these areas.

- a. **Removal of Vegetation** - Removal of vegetation from High Protection Floodway Fringe areas is prohibited, except for the following purposes, as approved by the City Engineer:
1. Stream restoration and enhancement programs;
 2. Removal of non-native, invasive and/or noxious vegetation as identified in the Oregon Department of Agriculture's *Oregon Weed Policy and Classification System (Appendix 1)*, including weeds designated as "A," "B," and/or "T." If necessary in conjunction with vegetation removal, non-rip-rap erosion control measures shall be utilized;
 3. For the development of water-related or water-dependent uses, provided they are designed and constructed to minimize impact on the existing riparian vegetation;
 4. Removal of emergent in-channel vegetation likely to cause flooding events that result in structural damage;
 5. Mowing/cutting of vegetation in a 20-foot perimeter around structures for fire hazard prevention;
 6. Continuation of agricultural activities (such as grazing livestock, growing crops, etc.) occurring on a property prior to December 31, 2004. However, the use of herbicides, or other pesticides, the application of synthetic fertilizers, and the storage of toxic materials in these areas is subject to

applicable State and Federal regulations and is also subject to the restrictions set forth in the Corvallis Municipal Code.

7. Maintenance and protection of the function of City utilities and transportation facilities located within floodway fringe areas.

b. Building, Paving, and Grading Activities: Within High Protection Floodway Fringe areas, the placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, is prohibited except as stated below. Exceptions to the floodway fringe restrictions may be made for the purposes identified in items 1-7 of this section, provided they are designed and constructed to minimize adverse impacts to stormwater and floodplain functions within the floodway fringe, and comply with the mandatory construction standards in 4.5.50.08.b and 4.5.50.08.c.

1. Replacement of existing buildings, either within the building's original building footprint, or within the same square footage area elsewhere within the floodplain portion of the site, if the relocation of the structure enhances stormwater and floodplain functions. The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening any other goal:
 - a) Replaces standard construction with flow-through construction;
 - b) Moves the structure to a higher elevation;
 - c) Moves the structure further from the top-of-bank of the adjacent watercourse;
 - d) Reduces the amount of impervious surface area in the floodway fringe; and
 - e) Does not negatively impact non-noxious riparian vegetation. Noxious vegetation is identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System (Appendix 1), including weeds designated as "A," "B," and/or "T;"
 - f) Maintains or reduces the volume of floodwater displacement.

2. Replacement of structures other than buildings; either within the original footprint, or within the same or reduced square footage elsewhere within the floodplain portion of the site, if the relocation enhances stormwater and floodplain functions. The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening another goal:
 - a) Moves the paved area to a higher elevation;
 - b) Moves the paved area farther from the top-of-bank of the adjacent watercourse;
 - c) Reduces the amount of impervious surface area in the floodway fringe; and
 - d) Does not negatively impact non-noxious riparian vegetation. Noxious vegetation is identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System (Appendix 1), including weeds designated as "A," "B," and/or "T."
3. Additions to existing structures that either fall below the threshold of "substantial improvement" as defined in Chapter 1.6, or which will not result in the filling of additional floodway fringe area, such as a second story addition or flow-through construction;
4. Construction of streets, utilities, bridges, bicycle, and pedestrian crossings that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans, or involve the redevelopment of electrical utility operations existing as of December 31, 2004. The location and construction of crossings must be shown to cause minimal harm to the properly functioning condition of the stream. These improvements shall be subject to the City's Engineering Design Standards;
5. Construction of streets, bridges, bicycle, and pedestrian crossings necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction of crossings must be shown to cause minimal harm to the properly functioning condition of the stream. These improvements shall be subject to the City's Engineering Design Standards;

6. Development of water-related and water-dependent uses, including associated drainage facilities, water and sewer utilities, stormwater detention and retention facilities, flood control projects, and drainage pumps. These improvements shall be subject to the City's Engineering Design Standards;
 7. Erosion control or flood control measures that have been approved by the Oregon Department of State Lands (DSL), the U.S. Army Corps of Engineers, or other state or federal regulatory agency with jurisdiction in this area. 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; and
 8. Development associated with the Minimum Assured Development Areas that would be allowed in accordance with Chapter 4.11 of this Code
- c. **Subdivisions, Land Partitions, and Property Line Adjustments** - For properties with natural resources or natural hazards subject to Chapters 4.5, 4.12, or 4.13, no subdivision, partition, or lot line adjustment shall create new lots or parcels unless each new and remaining lot or parcel contains an area unconstrained by natural resources or natural hazards and that area is equal to or greater than the Minimum Assured Development Areas for the District or Districts in which the development site falls. Exceptions to this requirement are lots created for public park purposes and privately- or publicly-owned lots completely contained within a district designation of Conservation-Open Space. New subdivisions and partitions may contain common open space tracts for the purpose of protecting natural resources and/or avoiding natural hazards.
- d. **Maintenance within Floodway Fringe Areas** - The limitations imposed by this section do not preclude the routine maintenance of allowed or pre-existing structures. Maintenance of lawns, non-native riparian planted vegetation and landscaping shall be kept to a minimum. Additionally, the application of herbicides or other pesticides, and the application of synthetic fertilizers is subject to applicable State and Federal regulations and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code. Where replanting is done, native species shall be used, with the exception of continuing agricultural uses, as specified in Section 4.5.50.07.a.6.

Maintenance pruning of existing trees shall be kept to a minimum, shall be in accordance with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations, and under no circumstances shall the maintenance pruning 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. However, no trees shall be planted within utility easements. Disposal of yard waste or other organic materials is prohibited within 25 feet of the top-of-bank boundary of any stream, and is regulated by restrictions in the Corvallis Municipal Code.

- e. **Hazardous Tree Removal** - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.

4.5.50.08 - Standards in Partial Protection Floodway Fringe Areas

The following standards shall apply to activities and development in Partial Protection Floodway Fringe Areas, as identified on the Corvallis Natural Hazards Map. These areas contain the portions of the Millrace and Willamette and Mary's River 100-year floodplain within the City Limits boundary, as of December 31, 2004, and specific portions of local streams as noted on the Riparian Corridors and Wetlands Map.

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within the Partial Protection Floodway Fringe. Where applicable State or Federal regulations provide greater restrictions, such regulations shall apply. All necessary local, State, and Federal approvals shall be secured prior to the commencement of earth movement or construction in these areas.

- a. **Volumetric Exchange** - To compensate for the deposition of fill materials or construction of flood-proofed buildings within any portion of the 100-year floodplain, an equal amount of material shall be removed from the same property or development site to ensure that the available flood volume of the 100-year floodplain is not reduced. In addition, the following provisions shall apply:

1. Material removed from the site shall not be taken from Significant Natural Resource areas as mapped on the Corvallis Significant Vegetation Map and Riparian Corridors and Wetlands Map, and shall be removed consistent with all requirements of this Code and other applicable City policies;
2. Areas of fill and excavation shall be designed to accommodate floodwater flows and shall not create barriers to the flow of floodwater. Proposals to alter topography in the floodplain must demonstrate that they will not result in alteration of hydrology or flow regimes that would cause erosion, unwanted ponding, or other problems;
3. Volumetric exchange will not be required of buildings within the floodway fringe constructed with flow-through design, but will be required of floodproofed structures within the floodway fringe.
4. Dikes are prohibited in these areas;
5. The volume of a stormwater detention facility necessary to accommodate the designed-for storm event shall not count as an element of volumetric exchange; and
6. Provisions allowing the use of volumetric exchange shall apply only to areas within the floodway fringes of the Millrace and the Willamette and Marys Rivers.

b. Parking Limitation (to reduce impervious surface area in the floodplain):

1. Where permitted, no expansion, redevelopment, or development of a parking lot containing four or more parking spaces within any portion of the Floodway Fringe shall contain more than the minimum amount of parking that would be required per Chapter 4.1 of this Code, unless the new parking area is constructed of pervious materials, such as grass-crete, or is contained in a multi-story structured parking facility with at least 50% of the provided parking located above ground level and utilizing flow-through design, in which case the parking lot may contain up to 130% of the required parking amount. Parking lots within the floodway fringe may be reduced to 80% of the minimum parking required by Chapter 4.1 of this Code.

2. Where parking lots are permitted in the floodway fringe, 40% of the parking spaces within new and redeveloped parking lots within the floodway fringe shall be compact spaces. If existing parking lots within the floodway fringe are permitted to expand, per the provisions of this Chapter, all additional parking spaces created in the expanded parking lot shall be compact spaces, until the 40% threshold is reached for the overall parking lot.

c. Construction Standards within the 100-year Floodplain:

1. **General standards for all construction:** Development within the floodway fringe (Zones A, AH, A1-A30, AE, AO, and A99 on the Flood Insurance Rate Map), including residential and non-residential structures and the public and private facilities serving these structures, shall adhere to the following standards so as to minimize damage from flooding. Although other types of construction are allowed by this Code, flow-through designs are preferable. These standards shall apply to all construction within the floodway fringe, in addition to the provisions in items 2-5 below, where those provisions are applicable:
 - a) All necessary permits from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, as amended, shall be obtained, or obtaining such permits shall be a condition of approval to be satisfied prior to issuance of any construction permit.
 - b) All land division and building permit applications, including the placement of mobile and manufactured homes within special flood hazard zones A, A1-A30, AE, AH, AO, and A99, shall be reviewed for conformance with these standards. Land division and mobile or manufactured home park proposals shall be consistent with the need to minimize flood damage; shall locate and construct utilities such as sewer, gas, electrical, and water systems to minimize or eliminate flood damage; and shall provide adequate drainage to reduce exposure to flood hazards. New and replacement water systems within flood prone areas shall be designed to minimize or eliminate infiltration of flood waters into the systems. New and replacement sanitary sewer systems within flood prone areas shall be designed to minimize or eliminate infiltration of flood

waters into the systems and discharges from the systems into flood waters. On-site waste disposal systems are not allowed.

c) Flood Protection Construction Standards.

- 1) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- 2) All mobile homes and manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors as approved by the Building Official; and
- 3) All building materials not elevated one foot above base flood elevation shall be constructed with materials that resist, and methods that minimize, flood damages.

2. **Standards for Recreational Vehicles:** For the purposes of this section, "Recreational Vehicle" is defined as a vehicle which includes all the following characteristics: built on a single chassis; 400 square feet or less in size when measured at the largest horizontal projection; designed to be self-propelled or permanently towable by a light duty truck; and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

All recreational vehicles placed on sites within **Zones A, AH, A1-A30, AE, AO, and A99** shall either:

- a) be on the site for fewer than 180 consecutive days;
- b) be fully licensed and ready for highway use; or

- c) meet all standards of Section 60.3 (b) (1) of the National Flood Insurance Program Regulations and the elevation and anchoring requirements for "manufactured homes" in Paragraph (c)(6) of Section 60.3.

3. Residential Construction:

- a) New construction and substantial improvement (as defined in Chapter 1.6) of any residential structure, including mobile and manufactured homes, shall have the lowest floor, including basements and attached garages, and electrical (except utility meters), heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), elevated to a minimum of one foot above base flood elevation.
- b) Accessory structures and fully enclosed nonhabitable areas below the lowest floor that are subject to flooding are prohibited, unless designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting these requirements shall meet standards outlined in the adopted Oregon Structural Specialty Code and shall meet or exceed the following minimum criteria:
 - 1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - 2) The bottom of all openings shall be no higher than one foot above grade; and
 - 3) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

4. Non-Residential Construction:

- a) New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall either have the lowest floor, including basements and attached garages, and electrical (except

utility meters), heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), elevated a minimum of one foot above the level of the base flood elevation, or:

- 1) Together with attendant utilities and sanitary facilities, be flood proofed so that the structure is watertight a minimum of one foot above the base flood level;
- 2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- 3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications, and plans.

b) Designs for meeting the requirements in "a" above shall meet standards outlined in the adopted Oregon Structural Specialty Code.

- 1) Non-residential structures that are elevated, not flood proofed, must have structural components, for space below the lowest floor, capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- 2) Applicants proposing to flood proof non-residential buildings shall be notified that the flood insurance premiums shall be based on rates for structures with a lowest floor that is one foot below the flood proofed level.

d. Subdivisions, Land Partitions, and Property Line Adjustments - 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 are prohibited, with the exception of lots created for public park purposes.

4.5.60.01 Purposes - Steeply Slopes Areas Provisions - It is the purpose of these regulations to provide supplementary development regulations to underlying zones to ensure that development occurs in such a manner as to protect the natural and topographic character and identity of these areas, environmental resources, the aesthetic qualities and restorative value of lands, and the public health, safety, and general welfare by ensuring that development does not create soil erosion, sedimentation of lower slopes, slide damage, flooding problems, and severe cutting or scarring. It is the intent of these development standards to encourage development that is responsive to natural topography and which allows for a reasonable use that complements the natural and visual character of the city.

4.5.60.02 - Applicability - Steeply sloped areas are identified on the Corvallis Natural Hazards Map. The following standards regulate development on areas with slopes of 15% or greater, which are slopes identified as having a significant hazard potential. In addition to these regulations, the Hillside Development standards in Section 4.5.80 apply to development in areas with slopes of 10% or greater. The Corvallis Natural Hazards Map provides information regarding the location of steep slopes on property within the Corvallis Urban Growth Boundary.

No portion of this Code shall preclude the Building Official's authority to require geotechnical reports and other analyses, as deemed necessary, and in compliance with the City's currently adopted Oregon Structural Specialty Code. All construction in these areas shall be subject to currently adopted Oregon Structural Specialty Code requirements.

4.5.60.03 - Topographic Mapping Requirements - Applications for development on properties containing areas of 15% slope or greater, as indicated on the Corvallis Natural Hazards Map, shall include a topographic map of the development site showing 2-foot contour intervals for the entire site. This information can be obtained from the Corvallis Natural Hazards database, or the applicant may submit a topographic survey prepared and stamped by a licensed surveyor or civil engineer. In either case, the topographic map shall include the following information:

- a. The topographic map shall differentiate between the following slope increments:
 1. equal to, or greater than 35%;
 2. equal to, or greater than 25%, but less than 35%; and
 3. equal to, or greater than 15%, but less than 25%.

- b. The topographic map shall also indicate the location of all existing and proposed improvements on the development site, including existing and proposed structures; driveways, parking areas, and other impervious surface areas; and proposed retaining walls. The topographic map shall also generally indicate the location of existing trees and landscaping on the development site.

4.5.60.04 - Site Assessment - Site Assessments are required in conjunction with development proposals on areas with slopes of 15% or more (and for development in landslide hazard areas, as stipulated in Section 4.5.70 of this Code). The Site Assessment is an overview of site conditions and a professional evaluation of the need for additional studies prior to development on a property. The Site Assessment shall be completed and stamped by either a Certified Engineering Geologist or by a Licensed Civil Engineer, licensed in the Specialty of Geotechnical Engineering. At a minimum, the Site Assessment shall include the following elements:

- a. A field investigation of the site and vicinity;
- b. A discussion of geologic hazards, if any;
- c. Suitability of the site for proposed development, from a geologic standpoint;
- d. If applicable, discussion of any unusual or extreme geologic processes at work on the site, for example: rapid erosion, landslide hazard, flood hazard, rockfall, subsidence, debris run-out, or other features;
- e. A list of any geologic hazards that may affect the proposed land use, including slope stability, debris flow, flooding, topography, erosion hazard, shallow groundwater, springs, expansive soils, subsidence, fault rupture, or any other geologic hazard discovered by the investigation;
- f. If applicable, an identification of any areas of the site recommended to be avoided by human-occupied structures;
- g. If necessary, identification of mitigation measures needed to address any anticipated geologic problems;

- h. A discussion regarding the need for follow-up studies that should be conducted, such as engineering geotechnical reports, additional subsurface exploration, or more extensive soil reports; and
- i. Feasibility of the site for the proposed development.

4.5.60.05 - Geotechnical (Soils Engineering) Report Requirements - Geotechnical Reports are required in conjunction with development proposals in areas with slopes of 25% or greater, when called for by a Site Assessment Report, in conjunction with development proposals in landslide hazard areas (as stipulated in Section 4.5.70 of this Code), and *or* at the discretion of the Building Official. A Geotechnical Report is intended to include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fill, when necessary, and opinion on the adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes. When a Geotechnical Report is required by this Code, it shall comply with the requirements for such reports, as prescribed in the Development Services Division's document, once developed, to be entitled "Geotechnical Report Requirements."

It is the responsibility of the geotechnical engineer to provide a report and design recommendations that are appropriate for existing site conditions and the proposed development. The Geotechnical Report shall be completed and stamped by a Licensed Civil Engineer, licensed in the Specialty of Geotechnical Engineering by the Oregon State Board of Engineering Examiners.

4.5.60.06 - Standards for Areas with Slopes Equal to or Greater than 35% - Generally, development in these areas is strongly discouraged due to concerns with safety, ground movement, slope stability, high levels of cut and fill, and hydrological and erosion impacts. However, very limited development, as described and regulated in Sections a - d below, may occur in areas with slopes equal to or greater than 35%. These standards are applicable only to the specific portions of a site which contain the specified slopes, as indicated on a topographic survey. If an applicant demonstrates, by submittal of the topographic map, that development on a property can be accommodated without encroachment into the specified slope areas, then the following standards would not apply.

- a. **Development Limitations** - Development of streets and the location of utilities may occur on the specified slope areas only if it can be shown that passage through the steeply sloped area is the only viable route available to afford access to the developable portion of a property;
- b. **Site Assessment and Geotechnical Report Required** - Applications for development on the specified slope areas, including land use applications, privately-engineered public improvement permits, excavation and grading permits, and building permit submittals, shall be accompanied by a site assessment, geotechnical report, and any other report deemed necessary by the site assessment report. Reports shall meet the criteria identified in Sections 4.5.60.04 and 4.5.60.05 of this Code. Development shall conform with all recommendations and requirements established by these required reports.
- c. **Compliance with Hillside Development Standards** - Development shall comply with the Hillside Development Standards in Section 4.5.80.
- d. **Tree Cutting Limitations** - No tree cutting is allowed on slopes equal to or greater than 35%, with the exception of the following circumstances:
 - 1. To remove a hazardous tree. Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a Certified Arborist;
 - 2. To accommodate development allowed under 4.5.60.06.a above; or
 - 3. To accommodate a public or private utility for which permits have been obtained.

4.5.60.07 - Standards for Areas with Slopes Equal to or Greater than 25%, but less than 35% - Development in these areas should be avoided, if feasible, due to concerns with safety, ground movement, slope stability, and erosion impacts. However, the following standards shall apply for development in areas with slopes equal to or greater than 25%, but less than 35%. These standards are applicable only to the specific portions of a site which contain the specified slopes, as indicated on a topographic survey. If an applicant demonstrates, by submittal of the

topographic map, that development on a property can be accommodated without encroachment into the specified slope areas, then the following standards would not apply.

- a. **Site Assessment and Geotechnical Report Required** - Applications for development on the specified slope areas, including land use applications, privately-engineered public improvement permits, excavation and grading permits, and building permit submittals, shall be accompanied by a site assessment, geotechnical report, and any other report deemed necessary by the site assessment report. Reports shall meet the criteria identified in Sections 4.5.60.04 and 4.5.60.05 of this Code. Development shall conform with all recommendations and requirements established by these required reports.
- b. **Compliance with Hillside Development Standards** - Development shall comply with the Hillside Development Standards in Section 4.5.80.

4.5.60.08 - Standards for Areas with Slopes Equal to or Greater than 15%, but less than 25% - Development in these areas should be carefully evaluated, due to concerns with safety, ground movement, slope stability, and erosion impacts. The following standards shall apply for development in areas with slopes equal to or greater than 15%, but less than 25%. These standards are applicable only to the specific portions of a site which contain the specified slopes, as indicated on a topographic survey. If an applicant demonstrates, by submittal of a topographic survey, that development on a property can be accommodated without encroachment into the specified slope areas, then the following standards would not apply.

- a. **Site Assessment Required** - Applications for development on the specified slope areas, including land use applications, privately-engineered public improvement permits, excavation and grading permits, and building permit submittals, shall be accompanied with a Site Assessment which meets the criteria identified in Section 4.5.60.04 of this Code. If the Site Assessment identifies the need for a Geotechnical Report, or other reports, those reports shall be submitted with the application for development and shall be consistent with the requirements of Section 4.5.60.05. Development shall conform with all recommendations and requirements established by any and all required reports.
- b. **Compliance with Hillside Development Standards** - Development shall comply with the Hillside Development Standards in Section 4.5.80.

4.5.90.01 - Survey Requirements - Applications for development of new, redeveloped, or expanded habitable structures within 100 feet of the Corvallis Fault Line, as mapped on the Corvallis Natural Hazards Map, shall include a site map. The site map shall be drawn to a standard scale and shall show the location of the fault line in relation to the proposed habitable structure, and shall show the nearest distance between the two. The site map shall also show other existing and proposed improvements on the property, including all structures, parking areas, infrastructure locations (including water, sanitary sewer, stormwater, and gas lines), and existing and proposed retaining walls. Information regarding the location of the fault line may be obtained from the Corvallis Natural Hazards database.

4.5.90.02 - Development Restrictions - Development or redevelopment of habitable structures is prohibited within 20 feet of the Corvallis Fault. Additions to existing structures located within 20 feet of the fault line are permitted if the additions are wholly outside of the 20 foot buffer area, and if the addition falls below the threshold of a “substantial improvement,” as defined in Chapter 1.6 of this code.

4.5.90.03 - Development Recommendations - The applicant for development is encouraged to design the location of infrastructure lines, including water, sanitary sewer, stormwater, and gas lines, to avoid crossing the fault line. Similarly, the applicant for development is encouraged to locate non-habitable structures away from the fault line as well.

4.5.90.04 - Required Indemnification and Release- Prior to issuance of building permits for habitable structures within 100 feet of the Corvallis Fault, the applicant shall sign an agreement, provided by the City, to indemnify and release the City from potential liability resulting from damage to life or property resulting from seismic action. This indemnity and release shall be recorded with the property, and shall run with the land.

Section 4.5.70 - STANDARDS FOR DEVELOPMENT IN LANDSLIDE HAZARD AREAS -

4.5.70.01 - Purposes - Standards for Development in Landslide Hazard Areas - It is the purpose of these regulations to provide supplementary development regulations to underlying zones to ensure that development occurs in such a manner as to mitigate potential impacts from landslides in Corvallis. Landslide hazard areas include High Landslide Risk areas, Existing Landslide areas, and Landslide Debris Runout areas. These areas are mapped on the Corvallis Natural Hazards Map. The following regulations shall apply to development and other activities in identified landslide hazard areas.

4.5.70.02 - Applicability - Except as provided under Section 4.5.70.03 below, no person shall engage in any of the following regulated activities on properties containing or abutting the landslide hazard areas designated on the Corvallis Natural Hazards Map, unless it can be shown that the proposed activity is located at least 500 feet distant from any portion of the hazard area as mapped on the City's Natural Hazards Map:

- a. Excavation;
- b. Fill;
- c. Installation or construction of any accessory structure with a building code occupancy classification other than "U;"
- d. Construction, reconstruction, structural alteration, relocation or enlargement of any building or structure for which permission is required pursuant to this Code, or the adopted building code; or
- e. Construction or expansion of utilities, streets, driveways, or other accessways.

4.5.70.03 - Site Assessment and Geotechnical Report Requirement - Applications for development on properties containing or abutting identified landslide hazard areas, including land use applications, excavation and grading permits, privately-engineered public improvement permits, building permits, and any other "development" permits, shall include a Site Assessment and Geotechnical Report which meet the criteria identified in Sections 4.5.60.04 and 4.5.60.05 of this Code. In addition to the items identified in Section 4.5.60.05, the Geotechnical Report shall specifically address the presence, characteristics, and precise location of the identified hazard(s) on the subject property which is/are depicted on the Corvallis Natural Hazards Map. If other reports are called for by the Site Assessment, these reports shall also be submitted. Prior to issuance of permits for any work on the development site, the Building Official and/or City Engineer shall review the submitted Site Assessment, Geotechnical Report, and any other required reports. Permits shall not be issued until the Building Official and/or City Engineer approve the required reports. Upon approval of these reports, permits for construction activities may be issued, if they are in accordance with the findings and recommendations of the reports. Site inspections and submitted permit materials shall demonstrate that all necessary measures recommended by the reports and by City staff are addressed in the construction process. In no

case will permits be issued for development that would increase landslide risks on the development site, or upon neighboring properties, as indicated in the approved reports.

4.5.70.04 - Required Indemnification and Release- Prior to issuance of building permits for structures within or abutting landslide hazard areas, the applicant shall sign an agreement, provided by the City, to indemnify and release the City from potential liability resulting from damage to life or property resulting from landslides. This indemnity and release shall be recorded with the property, and shall run with the land.

Section 4.5.80 - HILLSIDE DEVELOPMENT STANDARDS

4.5.80.01 - Purposes - Hillside Development standards have been developed for the following purposes:

- a. To plan development to fit the topography, soil, geology, and hydrology of hillsides;
- b. To align the built surface infrastructure, such as streets and waterways, with the natural contours of terrain, and to minimize cutting and filling in developments;
- c. To minimize soil disturbances and the removal of native vegetation, and to avoid these activities during winter months, unless impacts can be mitigated;
- d. To encourage the design of developments and the utilization of construction techniques that minimize erosion and surface water runoff;
- e. To balance a view of the hills with the view from the hills;
- f. To provide or maintain landscaping that enhances the identified open space resources; and
- g. To design developments that consider landscaping management that will minimize the threat of fire on improved property spreading to wildland habitat.

4.5.80.02 - Applicability - Areas with slopes of 10% or greater are identified on the Corvallis Natural Hazards Map. The following standards regulate development on areas with slopes of 10% or greater. In addition to these regulations, the Standards for Development in Steeply

Sloped Areas in Section 4.5.60 apply to development in areas with slopes of 15% or greater. The Corvallis Natural Hazards Map provides information regarding the location of slopes of 10% or greater on property within the Corvallis Urban Growth Boundary.

4.5.80.03 - Definitions -

- a. **Corvallis Natural Hazards Map** - The Corvallis Natural Hazards Map is based on recent aerial photography (2002) and provides a level of accuracy equivalent to two-foot contour intervals. An applicant for development may contest the accuracy of the slope data on the Corvallis Natural Hazards Map by providing a slope survey prepared and stamped by a licensed surveyor. The slope survey must show natural grade, prior to any site grading.
- b. **Individual Lot Grading** - Grading done on an individual lot, in conjunction with the development of a building, or buildings, on the lot.
- c. **Mass Grading** - Site grading done in anticipation of future development, prior to grading done to accommodate specific structures. Typically, grading for street and infrastructure improvements is done in conjunction with mass grading. For subdivisions, mass grading is done after preliminary plat approval, but prior to application for building permits for individual lots.
- d. **8-Foot Standard** - Restricts grade changes (cuts or fills) in excess of 8 feet on an individual lot or development site. Cut and fill is measured vertically from natural grade. In no case shall a combination of cut and fill in the same location exceed 16 feet.
- e. **10-Foot Standard** - Restricts grade changes (cuts or fills) in excess of 10 feet in an area where an exception to the 8-Foot Standard is allowed. Cut and fill is measured vertically from natural grade. In no case shall a combination of cut and fill in the same location exceed 16 feet.
- f. **12-Foot Standard** - Restricts grade changes (cuts or fills) in excess of 12 feet in an area where an exception to the 8-Foot Standard is allowed. Cut and fill is measured vertically from natural grade. In no case shall a combination of cut and fill in the same location exceed 16 feet.

4.5.80.04 - Grading Regulations - The following regulations address two types of grading: Mass Grading and Grading on Individual Lots. “Mass Grading” and “Individual Lot Grading” are defined in Section 4.5.80.03 above. These regulations prescribe grading area limitations based on zoning and lot size, as set out in Sections 4.5.80.04.a.2 and 4.5.80.04.b.2. On development sites where both Mass Grading and Individual Lot Grading are employed, Mass Grading and Individual Lot Grading must be contained within the same grading limitation areas. The following text is organized into three sections: Section a - Mass Grading Standards; Section b - Grading Standards for Individual Lots; and Section c - Retaining Wall Height Limit and Design Standards. Exceptions to these standards for streets may be allowed through the Planned Development process of Chapter 2.5, or through the Capital Improvements Program process.

a. Mass Grading Standards - The following standards shall apply to development throughout the City of Corvallis:

1. **Maximum Allowed Cut Depth and Fill Height** - The following standards govern the maximum cut depth and fill height:

Site Characteristics	Maximum Cut Depth and Fill Height
No Extenuating Conditions	8-Foot Standard
1 Extenuating Condition	10-Foot Standard only where allowed to work around extenuating condition
2 or more Extenuating Conditions	12-Foot Standard only where allowed to work around extenuating conditions

a) Extenuating Conditions - The following exceptions to the 8-Foot Standard for mass grading shall be limited to addressing specific extenuating conditions:

- 1) Street/Pedestrian Alignment: Additional Cut/Fill provides for the alignment of a necessary street or pedestrian connection. A necessary street or pedestrian connection is one which is needed to create a block perimeter of approximately 1,600 feet, or which is identified in an adopted City Master Plan document. A necessary street connection must comply with the slope standards in Section 4.0.70.i.2 of this Code, which stipulates that arterial streets shall not exceed a 6 percent grade, collector streets shall not exceed 10 percent, and local streets shall not exceed 15 percent. The width and overall extent of any street exceeding the 8-ft. standard shall be minimized, where feasible, to minimize grading impacts.

- 2) Significant Natural Feature: Additional cut/fill is necessary to protect a significant natural feature, which is defined as a feature subject to a Natural Hazards and/or Natural Resource Overlay on the Comprehensive Plan Map, or a significant tree, as defined in Section 4.2.20.c of the Corvallis Land Development Code . In the case of a preserved tree, a certified arborist must find that the proposed cut/fill exception would preserve the viability of a

significant tree that would otherwise have been damaged by the application of the Cut and Fill Standards.

- 3) Detention Facilities: To accommodate stormwater detention facilities where no other viable location exists on the site.*

2. Grading Area Limitations - The following requirements apply to mass grading in areas with slopes equal to or greater than 10%, as mapped on the Corvallis Natural Hazards Map:

<p>Ultimate lot size of tentatively approved subdivision/development within Low and Medium Density Residential Development Districts:</p>	<p>Mass Grading Regulations:</p>
<p>< or = 6,500 square feet</p>	<p>Grading up to 100% of the lot area is allowed. Grading shall comply with the 8-Foot Standard, unless extenuating conditions are present.</p>
<p>> 6,500 square feet, but < 10,000 sq. feet</p>	<p>Grading up to 6,500 square feet of each lot is allowed. Grading shall comply with the 8-Foot Standard, unless extenuating conditions are present.</p>
<p>> or = 10,000 sq. feet</p>	<p>No mass grading is allowed. See standards for grading on individual lots</p>

<p>Medium-High and High Density Residential Development Districts:</p>	<p>Mass Grading Regulations:</p>
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<p>RS-12, RS-12U, RS-20, and MUR</p>	<p>For development sites greater than 6,500 square feet in size: Graded area shall not exceed 75%. The 8-Foot Standard shall apply, unless extenuating conditions are present.</p> <p>For development sites less than or equal to 6,500 square feet in size: Grading of up to 100% of the site is allowed. The 8-Foot Standard shall apply, unless extenuating conditions are present.</p>
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<p>Commercial and Industrial Development Districts:</p>	<p>Grading Regulations:</p>
<p>All Commercial and Industrial Development Districts, OSU District, C-OS, and AG-OS District</p>	<p>For development sites greater than 6,500 square feet in size: Graded area shall not exceed 75%. The 8-Foot Standard shall apply, unless extenuating conditions are present.</p> <p>For development sites less than or equal to 6,500 square feet in size: Grading of up to 100% of the site is allowed. The 8-Foot Standard shall apply, unless extenuating conditions are present.</p>

b. **Grading Standards for Individual Lots** - These standards are in addition to “a” above, and apply to lots which contain slopes equal to or greater than 10%, as mapped on the Corvallis Natural Hazards Map:

1. **Maximum Allowed Cut Depth and Fill Height** - The following standards govern the maximum cut depth and fill height:

Extenuating Conditions	Maximum Cut and Fill Height
No Extenuating Conditions	8-ft. Standard
1 Extenuating Condition	10-ft. Standard only where allowed to work around extenuating condition
2 Extenuating Conditions	12-ft. Standard only where allowed to work around extenuating conditions
If lot would otherwise be unbuildable	The least extensive cut and fill necessary, not to exceed the 12-ft. Standard, to reach the Minimum Assured Development Area, as defined by Chapter 4.11.

a) **Extenuating Conditions** - The following exceptions to the 8-Foot Standard for Individual Lot Grading shall be limited to addressing specific extenuating conditions::

1) Street/Pedestrian Alignment: Additional Cut/Fill provides for the alignment of a necessary street or pedestrian connection. A necessary street or pedestrian connection is one which is needed to create a block perimeter of approximately 1,600 feet, or which is identified in an adopted City Master Plan document.

2) Significant Natural Feature: Additional cut/fill is necessary to protect a significant natural feature, which is defined as a feature subject to a Natural Hazards and/or Natural Resource Overlay on the Comprehensive Plan Map, or a

significant tree, as defined in Section 4.2.20.c of the Corvallis Land Development Code. In the case of a preserved tree, a Certified Arborist must find that the proposed cut/fill exception would preserve the viability of a significant tree that would otherwise have been damaged by the application of the Cut and Fill Standards.

- 3) Maintain Driveway Slope: Additional Cut/Fill is necessary to allow for the construction of a driveway at a slope of 15% or less. It must be demonstrated, to the satisfaction of the Building Official, that other driveway alignments have been considered and are not feasible before additional Cut/Fill is authorized.

b) Locational Standards:

- 1) Within the portion of each lot within 50 feet of the edge of public right-of-way, the combination of cuts and fills may not exceed 16 feet from natural grade, as measured within a linear distance perpendicular from the edge of right-of-way to the 50-foot boundary.
- 2) All retaining walls must be located at least four feet from any property line or easement line.

2. Gradable Area - In no case shall the cumulative impact of mass grading and individual lot grading impact more site area on an individual lot than is allowed under the following standards:

Lot size within Low and Medium Density Residential Development Districts:	Grading Regulations:
<p>< or = 6,500 square feet</p>	<p>Grading up to 100% of the lot area is allowed. Grading shall comply with the 8-Foot Standard, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p>
<p>> 6,500 square feet, but < 10,000 sq. feet</p>	<p>Grading up to 6,500 square feet of each lot is allowed. Grading shall comply with the 8-Foot Standard, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p>
<p>> or = 10,000 sq. feet</p>	<p>Grading area is limited to 6,500 sq. feet + 25% of lot area over 10,000 sq. feet. Grading shall comply with the 8-Foot Standard, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p>

<p>Medium-High and High Density Residential Development Districts:</p>	<p>Grading Regulations:</p>
<p>RS-12, RS-12U, and RS-20</p>	<p>For development sites greater than 6,500 square feet in size: Graded area shall not exceed 75%. The 8-Foot Standard shall apply, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p> <p>For development sites less than or equal to 6,500 square feet in size: Grading of up to 100% of the site is allowed. The 8-Foot Standard shall apply, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p>

Commercial and Industrial Development Districts:	Grading Regulations:
<p>All Commercial and Industrial Development Districts, OSU District, C-OS, and AG-OS District</p>	<p>For development sites greater than 6,500 square feet in size: Graded area shall not exceed 75%. The 8-Foot Standard shall apply, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p> <p>For development sites less than or equal to 6,500 square feet in size: Grading of up to 100% of the site is allowed. The 8-Foot Standard shall apply, unless extenuating conditions are present. Grading must also comply with adopted Building Code standards.</p>

c. Design Standards

Terracing - When a cut or fill, or combination thereof, exceeds 8 feet and is greater than a 25% slope, terracing shall be provided, as follows:

- 1) For cuts/fills between 8-10 feet, at least one terrace shall be provided between the 2 and 8 foot level, with a shelf no less than 6-feet deep. The slope of the shelf may not exceed 20%.
- 2) For cuts/fills that are more than 10 feet, risers shall not exceed 4-feet in height and shelves shall be a minimum of 6-feet deep. The slope of the shelf may not exceed 20%.
- 3) Terraces shall be landscaped with a combination of ground cover plants and shrubs, planted with adequate coverage to stabilize soil in the terraced areas. Trees shall be required, at a minimum 30 foot on-center spacing, to mitigate trees removed due to grading and to stabilize soil in the shelf area. Irrigation and maintenance for required landscaping shall be addressed as stipulated in Chapter 4.2.
- 4) Wall materials and landscaping shall be subject to final review and approval by the City Engineer and Community Development Director. Acceptable exterior wall materials include quarried stone, brick, concrete masonry, and similar quality materials. Additional flexibility shall be allowed for wall materials for retaining walls which are wholly internal to the development site, provided the materials and design meet Oregon Structural Specialty Code requirements. Retaining walls shall comply with all applicable building code requirements.
- 5) Exceptions to the terracing requirement may be allowed by the City Engineer and Community Development Director if the applicant demonstrates, with the submittal of a report from a certified arborist, qualified stream scientist, or qualified wetlands scientist that potential impact to an existing significant tree or a significant natural feature in the area of the cut and fill would be significantly reduced by an exception to the terracing requirement. A "significant natural features is defined as a feature subject to a Natural Hazards and/or Natural Resource Overlay on

the Comprehensive Plan Map. In the case of a preserved tree, a certified arborist must find that the proposed retaining wall treatment would preserve the viability of a significant tree that would otherwise have been damaged by the application of the Cut and Fill Standards, and that the tree's continued growth will not adversely affect the structural integrity of the wall.

Per LDC Section 2.12.30.03.a.11, exceptions to the above requirements may be granted through the Major Lot Development Option process. The Lot Development Option may allow an increase in retaining wall height of up to 25% of the permitted height, or a reduction of shelf width of up to 25% of the required depth, subject to compliance with all Lot Development Option criteria in Section 2.12.30.06 of the Land Development Code.

Presented below are the Council-directed changes to Draft Chapter 4.5 of the Land Development Code that were developed during the Council deliberations. These changes are relative to a replacement Chapter for the existing Code Chapter 4.5 entitled "Flood Control, Storm Drainage, riparian, and Wetland Provisions." The entire chapter is contained in Attachment E of the October 21, 2004, City Council staff report. Only the Council-directed additional changes are included below. As all the Planning Commission-recommended changes from the public hearing process are incorporated already, the additional Council-directed changes are indicated with the italic version of redline/double underline and ~~strike-out~~ fonts.

Chapter 4.5:

4.5.50.05 - Incentives for Relocating Structures, Parking Lots, and other Impervious Surfaces outside of the 100-Year Floodplain

Existing structures, parking lots, and other impervious surface areas that are removed from the 100-year floodplain will qualify for the following benefits. Additionally, new development, in areas of the 100-year floodplain where such development is allowed (identified portions of the Willamette River, Mary's River, and Millrace floodplain and partially protected local stream areas), is also eligible for the following benefits:

4.5.50.06 - Standards in the 0.2-ft. Floodway

a. **Removal of Vegetation** - Removal of vegetation from the 0.2-Foot Floodway is prohibited, except for the following purposes, as approved by the City Engineer:

7. ~~*Hazardous Tree Removal - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.*~~

Removal of hazardous trees. Requests for removal of hazardous trees, except in emergency circumstances, shall be reviewed by the City Urban Forester (or another qualified arborist) and approved, conditionally approved, or denied by the Community Development Director. Any trees

removed shall be replaced by like native species or alternative approved native species (listed on the City of Corvallis Native Plant List).

4.5.50.07 - Standards in High Protection Floodway Fringe Areas

a. **Removal of Vegetation** - Removal of vegetation from High Protection Floodway Fringe areas is prohibited, except for the following purposes, as approved by the City Engineer:

8. Removal of hazardous trees. Requests for removal of hazardous trees, except in emergency circumstances, shall be reviewed by the City Urban Forester (or another qualified arborist) and approved, conditionally approved, or denied by the Community Development Director. Any trees removed shall be replaced by like native species or alternative approved native species (listed on the City of Corvallis Native Plant List).

b. **Building, Paving, and Grading Activities** -

4. Location and construction of streets, roads, utilities, bridges, bicycle, and pedestrian facilities within High Protection Floodway Fringe Areas must be deemed necessary to maintain a functional system by the City Engineer. This Code, and City Transportation and Utility Master Plans, and other adopted City plans shall guide this determination. The design standards of Chapter 4.0 shall be applied to minimize the impact to the floodway fringe area, that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans, or involve the redevelopment of electrical utility operations existing as of December 31, 2004, The location and construction must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards; and

5. Redevelopment of utility operations existing as of December 31, 2004, is also permitted. Required riparian easement areas shall be re-vegetated consistent with Section 4.13.50.d, subsections "1" and "2." Location and construction of streets, roads, bridges, bicycle, and pedestrian facilities is in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction must be shown to

~~cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards.~~

- d. **Maintenance within Floodway Fringe Areas** - The limitations imposed by this section do not preclude the routine maintenance of allowed or pre-existing structures and landscaped areas. Maintenance of lawns, non-native riparian planted vegetation and landscaping shall not expand lawn areas (defined as vegetated area mowed to 18" height or less) or remove or damage any non-hazardous tree. be kept to a minimum. Additionally, the application of herbicides or other pesticides, and the application of synthetic fertilizers is subject to applicable State and Federal regulations and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code. Where replanting is done, native species shall be used, with the exception of continuing agricultural uses, as specified in Section 4.5.50.07.a.6. Maintenance pruning of existing trees shall be kept to a minimum, shall be in accordance with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations. and under no circumstances shall the maintenance pruning 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. However, no trees shall be planted within utility easements. Disposal of yard waste or other organic materials is prohibited within 25 feet of the top-of-bank boundary of any stream, and is regulated by restrictions in the Corvallis Municipal Code.

~~e. **Hazardous Tree Removal** - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.~~

4.5.80.04 - Grading Regulations - The following regulations address two types of grading: Mass Grading and Grading on Individual Lots. "Mass Grading" and "Individual Lot Grading" are defined in Section 4.5.80.03 above. These regulations prescribe grading area limitations based on zoning and lot size, as set out in Sections 4.5.80.04.a.2 and 4.5.80.04.b.2. On development sites where both Mass Grading and Individual Lot Grading are employed, Mass Grading and Individual Lot Grading must be contained within the same grading limitation areas. The amount of gradable area allowed, per lot, is the same under both standards. This means that when Mass Grading is employed, the area that is Mass Graded on an individual lot will be the area in which Individual Lot Grading is allowed, unless the Mass Graded area is less than

the maximum gradable area allowed. In this case, additional area, up to the maximum allowed, can be graded at the time of Individual Lot Grading. The following text is organized into three sections: Section a - Mass Grading Standards; Section b - Grading Standards for Individual Lots; and Section c - Retaining Wall Height Limit and Design Standards. Exceptions to these standards for streets may be allowed through the Planned Development process of Chapter 2.5, or through the Capital Improvements Program process.

4.5.80.04.a.1(a)(2) Significant Natural Feature: Additional cut/fill is necessary to protect a significant natural feature, which is defined as a feature subject to a Natural Hazards (except slopes) and/or Natural Resource Overlay on the Comprehensive Plan Map, or a significant tree, as defined in Section 4.2.20.c of the Corvallis Land Development Code . In the case of a preserved tree, a certified arborist must find that the proposed cut/fill exception would preserve the viability of a significant tree that would otherwise have been damaged by the application of the Cut and Fill Standards.

4.5.80.04.a.1(a)(2) Significant Natural Feature: Additional cut/fill is necessary to protect a significant natural feature, which is defined as a feature subject to a Natural Hazards (except slopes) and/or Natural Resource Overlay on the Comprehensive Plan Map, or a significant tree, as defined in Section 4.2.20.c of the Corvallis Land Development Code. In the case of a preserved tree, a Certified Arborist must find that the proposed cut/fill exception would preserve the viability of a significant tree that would otherwise have been damaged by the application of the Cut and Fill Standards.

~~4.5.90.01 - Survey Requirements - Applications for development of new, redeveloped, or expanded habitable structures within 100 feet of the Corvallis Fault Line, as mapped on the Corvallis Natural Hazards Map, shall include a site map. The site map shall be drawn to a standard scale and shall show the location of the fault line in relation to the proposed habitable structure, and shall show the nearest distance between the two. The site map shall also show other existing and proposed improvements on the property, including all structures, parking areas, infrastructure locations (including water, sanitary sewer, stormwater, and gas lines), and existing and proposed retaining walls. Information regarding the location of the fault line may be obtained from the Corvallis Natural Hazards database.~~

~~4.5.90.02 - Development Restrictions - Development or redevelopment of habitable structures is prohibited within 20 feet of the Corvallis Fault. Additions to existing structures located within~~

~~20 feet of the fault line are permitted if the additions are wholly outside of the 20 foot buffer area, and if the addition falls below the threshold of a "substantial improvement," as defined in Chapter 1.6 of this code.~~

~~4.5.90.03 - Development Recommendations - The applicant for development is encouraged to design the location of infrastructure lines, including water, sanitary sewer, stormwater, and gas lines, to avoid crossing the fault line. Similarly, the applicant for development is encouraged to locate non-habitable structures away from the fault line as well.~~

~~4.5.90.04 - Required Indemnification and Release- Prior to issuance of building permits for habitable structures within 100 feet of the Corvallis Fault, the applicant shall sign an agreement, provided by the City, to indemnify and release the City from potential liability resulting from damage to life or property resulting from seismic action. This indemnity and release shall be recorded with the property, and shall run with the land.~~

4.5.90 - MAP REFINEMENTS

4.5.90.01 - Map Refinements Defined

Map Refinements are adjustments made through professional analyses to refine the actual boundaries of some natural resources and natural hazards. Map Refinements must be made in accordance with Land Development Code provisions in Chapters 4.5 and 4.13 and are specifically allowed to determine the location and extent of:

- the 0.2-foot Floodway;
- the 1.0-foot Floodway (in accordance with FEMA regulations);
- the 100-year Floodway Fringe (in accordance with FEMA regulations);
- Landslide Hazard areas;
- Slopes;
- the Top-of-Bank of streams and rivers;
- Riparian Corridors (once Top-of-Bank is accurately determined); and
- Wetlands (through delineations approved by the Oregon Department of State Lands).

Map Refinement provisions for the 0.2-foot Floodway, the 1.0-foot Floodway, the 100-year Floodway Fringe, Landslide Hazard areas, and slopes are outlined below. Map Refinement provisions for Top-of-Bank, and Riparian Corridor and wetland boundaries are outlined in Chapter 4.13 - Riparian Corridor and Wetland Provisions. Map refinements are also adjustments to resolve registration issues that may occur between different GIS layers or maps.

a. Floodplain and Floodway Boundaries

The precise locations of floodplain and floodway boundaries are determined as follows:

1. 0.2-ft. Floodway - Surveved and mapped by a licensed surveyor or civil engineer, using 2-ft. contour intervals established by the survey and outlining a river channel or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood (100-year flood) without cumulatively increasing the water surface elevation more than 0.2 feet.
2. 1.0-ft. Floodway - Surveved and mapped by a licensed surveyor or civil engineer, using 2-ft. contour intervals established by the survey and outlining a river channel or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood (100-year flood) without cumulatively increasing the water surface elevation more than one foot.
3. 100-Year Floodplain - Surveved and mapped by a licensed surveyor or civil engineer, using the Base Flood Elevations established by the Federal Emergency Management Agency (FEMA) and 2-ft. contour intervals established by the survey.

b. Landslide Hazard Area Boundaries

The precise locations of Landslide Hazard area boundaries are determined by one of the following two methods:

1. Site Assessments and/or Geotechnical Reports, as required per Section 4.5.70; or
2. Information provided by the Oregon Department of Geology and Mining Industries (DOGAMI), once it has been developed and finalized by DOGAMI.

If these areas are not precisely mapped by one of these two methods, the 500-ft. setback required by Section 4.5.70.02 shall be maintained.

c. Slope Boundaries

The precise locations of the steep slope boundaries are determined by one of the following two methods, consistent with the provisions of Section 4.5.60.03:

1. Using the information from the Corvallis Natural Hazards database and creating a topographic map of the development site showing 2-ft. contour intervals; or

2. *Using a topographic survey, showing 2-ft. contour intervals, prepared and stamped by a licensed surveyor or civil engineer.*

4.5.90.02 - Map Refinement Procedures

Adjustments to maps consistent with the provisions of Section 4.5.90.01 above are considered to be Map Refinements and may be administratively adjusted on the relevant maps, with no land use process required other than a demonstrated adherence to the provisions of Section 4.5.90.01.

4.5.100 - Map Corrections

No District Change or Comprehensive Plan Map Amendment shall be required to accomplish Map Corrections approved in accordance with the provisions outlined in this Section - 4.5.100.

- a. *Decisions regarding Map Correction requests shall be made by the Community Development Director, as specified in 4.5.100.01 & 02 below. Upon approval of a Map Correction request, the Director shall ensure that changes are reflected in the City's affected maps and databases. Notice of such Map Correction shall be provided to decision-makers as outlined in Section 4.5.100.b below.*
- b. *When requests for five (5) Map Corrections (on any hazard or resource for which a Map Correction is allowed) have been submitted to and decided upon by the Community Development Department Director, or approximately twice a year, whichever is sooner, the Map Correction requests shall be summarized in an informational memo for decision-makers so that they may review them for tracking purposes in accordance with Comprehensive Plan Policy 4.2.6. This memo shall be shared with the Corvallis Planning Commission and City Council for Map Correction requests on lands within the City limits; and with the Corvallis and Benton County Planning Commissions, the Corvallis City Council, and the Benton County Board of Commissioners for Map Correction requests on lands within the Urban Fringe.*

4.5.100.01 - Map Corrections Defined

A Map Correction is not the type of adjustment described in the Map Refinement provisions of Section 4.5.90 above. A Map Correction is, however, an actual correction to maps referencing natural hazards or natural resources (other than significant vegetation areas) where it is found that the map depiction does not reflect the Natural Features Inventory. As the Natural Features Inventory (NFI) was the basis for developing the City's maps that reference natural hazards and natural resources, a correction to the NFI for natural hazards or natural resources (other than significant vegetation areas) could result in a correction to the related maps (Comprehensive Plan Map, Local Wetlands Inventory Map, District Map, Natural Hazards Map, or Riparian Corridors and Wetlands Map). Map Correction provisions for the 100-year Floodplain and

Landslide Hazard areas are outlined below. Adjustments to other hazards are not Map Corrections, but are Map Refinements and are addressed through the provisions of Section 4.5.90 above. Map Correction provisions for Riparian Corridor widths and wetland boundaries are outlined in Chapter 4.13 - Riparian Corridor and Wetland Provisions.

a. 100-Year Floodplain -

Map corrections for 100-year floodplain information may be approved by the Community Development Department Director subsequent to the approval of a Letter of Map Amendment (LOMA) by the Federal Emergency Management Agency (FEMA). The Director shall only correct the 100-year floodplain portion of the City's maps to exactly reflect FEMA decisions.

b. Landslide Hazard Areas -

Landslide Hazard area boundaries may be refined through the Map Refinement procedures outlined in 4.5.90 above. However, if technical data demonstrates that no Landslide Hazard exists within or near an area identified as a potential Landslide Hazard on the City's maps, a Map Correction may be accomplished to delete the Landslide Hazard indication from the maps. The technical data must be from: (1) a site assessment and geotechnical report; or (2) the Oregon Department of Geology and Mining Industries (DOGAMI).

4.5.100.02 - Map Corrections Procedures

a. 100-Year Floodplain -

Map corrections for 100-year floodplain information may be requested following written verification of a Letter of Map Amendment (LOMA) approved by the Federal Emergency Management Agency (FEMA). When the FEMA determines that a LOMA should be approved, and written documentation of the approval is provided to the Community Development Director, the Director shall ensure that changes reflected in the LOMA are reflected in the City's affected maps and databases.

b. Landslide Hazard Areas -

There are two procedures available for a Map Correction involving the removal of a Landslide Hazard area from the Natural Hazards Map.

1. Removal of a Landslide Hazard Area from Determination by the Oregon Department of Geology and Mining Industries (DOGAMI) -

If in finalizing its data and maps regarding Landslide Hazard areas the Oregon Department of Geology and Mining Industries (DOGAMI) determines that no Landslide Hazard exists within or near an area identified as a potential Landslide Hazard on the Natural Hazards Map, then a Map Correction to remove indication of the Landslide Hazard area shall be done by the Community Development Department Director, following written verification of the DOGAMI's determination. When such written documentation of the determination is provided to the Director, the Director shall ensure that the changes reflected by the DOGAMI decision are reflected in the City's affected maps and databases.

2. Removal of a Landslide Hazard Area from Determinations Reached by a Site Assessment and Geotechnical Report -

If a property owner or property owner's legal representative provides the Community Development Department Director with the items listed in "a" below, a request to remove indication of a Landslide Hazard area from the Natural Hazards Map and other affected maps may be considered as outlined in "b" and "c" below.

a) For a Map Correction request to consider removal of a Landslide Hazard from the Natural Hazards Map and other related maps, the following information is required:

- 1) A Site Assessment and Geotechnical Report which meet the criteria identified in Sections 4.5.60.04 and 4.5.60.05 of this Code. In addition to the items identified in Section 4.5.60.05, the Geotechnical Report shall specifically address the lack of presence, characteristics, and/or precise location of the identified hazard(s) on the subject property which is/are depicted on the Corvallis Natural Hazards Map. If other reports are called for by the Site Assessment, these reports shall also be submitted; and
- 2) An indemnification and release agreement in accordance with the provisions of Section 4.5.70.04:

b) For lands within the City limits, Map Correction requests shall be reviewed by the Building Official and City Engineer, in coordination with the Community Development Department. The Community Development Director shall make the final decision. For lands within the Urban Fringe, Map Correction requests shall be reviewed by the Building

Official and City Engineer, in coordination with the Corvallis Community Development Department and the Benton County Development Department. For the Urban Fringe lands, the Corvallis Community Development Department Director shall also make the final decision.

c) To approve a Map Correction request, the Director must find that:

- 1) the information required by "a" above has been provided and is complete;
- 2) the required technical reports and recommendations sufficiently demonstrate that there is no Landslide Hazard on or near the area identified on the Natural Hazards Map; and
- 3) the required technical reports and recommendations sufficiently demonstrate that development on the subject area would not increase landslide risks on the development site, or upon neighboring properties.

ATTACHMENT D

This is a new chapter and it incorporates all the Planning Commission-recommended changes. Any additional staff-recommended changes are shown in red-line/double underline and strike-out fonts. The City Council adopted this chapter with the additional modifications included at the end of this attachment.

CHAPTER 4.13 - RIPARIAN CORRIDOR AND WETLAND PROVISIONS

Section 4.13.10 - PURPOSES

These provisions are intended to protect and preserve significant riparian corridors and wetland areas within the City of Corvallis. They are intended to protect open, natural streams, drainageways, floodplains, and wetlands as integral parts of the City environment. These provisions are also intended to maintain both the hydrological and biological functions of open drainageways, floodplains, and wetland systems in accordance with the Corvallis Stormwater Master Plan, the Administrative Rule (OAR Chapter 660, Division 23) that implements Statewide Planning Goal 5 (Open Spaces, Scenic and Historic Areas, and Natural Resources) and other State and Federal regulations, including Statewide Planning Goal 6 (Air, Water, and Land Resources Quality). In order to assist in the furtherance of these purposes, where not required, open space tracts are encouraged within areas designated as Natural Resources or Natural Hazards on the Comprehensive Plan and Land Development Code Maps.

These provisions are necessary in order to:

- a. Manage stormwater drainage;
- b. Accommodate increases in runoff volume resulting from urbanization;
- c. Moderate increases in peak flows resulting from urbanization;
- d. Minimize drainageway and other maintenance costs;
- e. Protect properties adjacent to drainageways;
- f. Improve surface and groundwater water quality; and
- g. Protect riparian corridor and wetland plant and animal habitats.

Consistent with the *Corvallis Comprehensive Plan*, these provisions are also intended to:

- h. Minimize harm to natural systems from their use as a stormwater facility;
- i. Maintain the properly functioning conditions of stream and wetland systems;

- j. Preserve hydrological conveyance and storage capacity;
- k. Provide for infiltration and groundwater recharge;
- l. Allow for natural channel lateral migration and bank failure;
- m. Allow for channel widening and other channel modifications that result from changes in hydrology from urban development;
- n. Provide proper shading of the stream to maintain or improve water quality;
- o. Allow for a vegetative management strategy that encourages native riparian species;
- p. Provide a pollutant filtering zone for surface runoff;
- q. Allow for natural stream processes to minimize stream channel, bank, and corridor maintenance needs;
- r. Buffer urban uses from stream processes;
- s. Provide a source for large woody debris; and
- t. Preserve the 0.2-foot floodway.

Section 4.13.20 - APPLICABILITY

These provisions apply to significant riparian corridor and wetland areas, as mapped on the Corvallis Riparian Corridors and Wetlands Map . Please note that State and Federal wetland and riparian regulations will continue to apply to wetland and riparian corridor areas within the City, regardless of whether or not they are mapped on the Corvallis Riparian Corridors and Wetlands Map. Nothing in these regulations should be interpreted as superceding or nullifying State or Federal requirements.

Section 4.13.30 - GREATER RESTRICTIONS

This chapter of the Code is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. It is likely that there will be some overlap between the regulations in this Chapter and those in Chapter 4.5, which regulates development in hazard areas, including the 100-year floodplain. Where two regulations are in conflict, the most stringent shall govern.

Section 4.13.40 - PROCEDURES

Compliance with the provisions of this chapter shall be determined through the development review processes identified in Chapter 1.2 - Legal Framework (Section 1.2.110), or through the building permit or construction permit review processes, or on a complaint basis through applicable sections of the Municipal Code. Applications for building permits or other permits for structures and other development activities on

sites containing significant riparian corridors or wetland areas shall be submitted and reviewed to assure that riparian corridors and wetland areas are appropriately protected before any permits are issued or before improvements, excavation, grading, construction, or development begin.

4.13.40.01 - Application

When development is proposed on a property containing or abutting a significant riparian corridor or wetland area, an application shall be submitted that accurately indicates the locations of these resources and the location of any proposed development. The application shall contain a description of the extent to which any floodplain, water course, or wetland is proposed to be altered or affected as a result of proposed development and shall include the following information:

a. For Properties Adjacent to or Containing Drainageways:

1. Surveyed Site Map, prepared by a licensed surveyor or civil engineer, depicting 2-foot contour intervals and the location on the subject property of:
 - a) All water courses (e.g., rivers, streams, ponds, other drainageways, and natural swales);
 - b) T top-of-bank (as defined in Chapter 1.6 of this Code);
 - c) Appropriate riparian corridor width(s), as indicated on the City's Riparian Corridors and Wetlands Map, measured from top-of-bank, to include the base riparian corridor widths as described in Table 4.13-1 below, plus any expanded width required to address riparian-related areas. Base riparian corridor widths in Table 4.13-1 are established by the size of the drainage basin of each portion of a stream.
 - 1) "Riparian-Related Areas" are defined as proximate wetlands, drainage easements and drainage dedications under the City's jurisdiction, and open space tracts that have been created for riparian corridor protection purposes.
 - 2) "Base Riparian Corridor Widths" shall be taken directly from the Riparian Corridors and Wetlands Map and shall be measured from top-of-bank.

Table 4.13 - 1: Base Riparian Corridor Widths (Easement Widths are different and are addressed in Code Section 4.13.70)	
Drainage Basin (as established in the Natural Features Inventory and shown on the Riparian Corridors and Wetlands Map)	Base Riparian Corridor Width (Riparian Corridors may be required to be expanded to address Riparian-Related Areas)
Less Than 20 Acres	50 - Foot Riparian Corridor
20 to 160 Acres	75 - Foot Riparian Corridor
More Than 160 Acres	100 - Foot Riparian Corridor
Willamette River, Marys River and Their Channels (e.g Boone's Slough)	120 - Foot Riparian Corridor
<p>Note: When a stream segment is inventoried as part of a wetland, and a wetland delineation reduces the dimensions of the wetland area surrounding the stream, in no case shall the Riparian Corridor width of that stream be reduced below the appropriate width stated above.</p>	

- d) Appropriate Riparian Easement Width(s), as described in Code Section 4.13.70.
 - e) Existing and proposed development, including areas of fill, excavation, stream or wetland crossings, altered vegetation, etc.
2. Location of the stream's 0.2-foot rise floodway, floodplain, and all proximate wetlands, consistent with the application requirements in Section 4.5.50.02 of this Code. The location of the floodway and floodplain shall be consistent with the mapped areas on the Flood Insurance Rate Map (FIRM), unless the FIRM conflicts with field conditions or does not map the boundary in a specified location, in which case the City Engineer shall make a determination consistent with Section 4.5.50.04 of this Code. The location of proximate wetlands may be taken directly from the City's Riparian Corridors and Wetlands Map, or the applicant may provide a wetland delineation that has been accepted by the Department of State Lands to precisely

located the wetland area(s);

3. Topographic lines indicating 2-foot contour levels of both existing and proposed conditions. The existing 2-foot contour levels may be obtained from the City's database, or the applicant may provide a surveyed drawing prepared by a licensed surveyor or civil engineer;
 4. Land uses within 100 ft. of the watercourse edge;
 5. Title block (showing related development and stream names, if applicable);
 6. North arrow and illustrated scale;
 7. Date(s) of field check(s), if any; and
 8. Sources of information (national, state or local soil survey maps; the City's Natural Hazards, Riparian Corridors and Wetlands, Significant Vegetation, Comprehensive Plan, and/or Development District (zoning) maps, date and scale of aerial photos, etc.).
- b. For properties containing ~~Locally Protected or Non-Locally Protected and proximate~~ wetlands, as indicated on the City's Riparian Corridors and Wetlands Map and the Corvallis Local Wetland Inventory Map:
1. The submittal materials listed below are required. Please also note that all applications will be reviewed to determine that all necessary permits have been obtained or will be obtained from those Federal, State, or local governmental agencies that require prior approval.
 - a) Site plan that graphically depicts all wetland boundaries, as indicated on the Corvallis Local Wetland Inventory Map. Additionally, the site plan shall graphically depict a 25-foot "buffer" around the upland edge of locally and non-locally protected wetlands (but not proximate wetlands) ~~the wetland~~ boundary, as mapped on the City's Local Wetland Inventory Riparian

Corridors and Wetlands Map ¹; or a wetland delineation of the boundaries of the wetland area (with an accompanying site map) that has been accepted and approved by the Department of State Lands (DSL) *may be substituted for this information*;

- b) Site plan and a Aerial photo with *all* wetland boundaries identified, *as indicated on the Corvallis Local Wetland Inventory Map, and distinguished to show the locally protected wetlands, non-locally protected wetlands, and proximate wetlands*;
- c) Location of existing and proposed development, including areas of fill, excavation, stream or wetland crossings, altered vegetation, etc.;
- d) Topographic lines indicating 2-foot contour levels of both existing and proposed conditions. The existing 2-foot contour levels may be obtained from the City's database, or the applicant may provide a surveyed drawing prepared by a licensed surveyor or civil engineer;
- e) Land uses within 100 ft. of the wetland edge;
- f) Title block (showing related development and stream names, if applicable);
- g) North arrow and illustrated scale;
- h) Date(s) of field check(s), if any;
- i) Sources of information (national, state or local soil survey maps; the City's Natural Hazards, Riparian Corridors and Wetlands, Significant Vegetation, Comprehensive Plan, and/or Development District (zoning) maps, date and scale of aerial photos, etc.); and

1

Local Wetland Inventories are considered to provide a "level of accuracy" of within 25 feet for identification of the wetland-upland interface. Consequently, the 25-ft "buffer" identified in Section 4.13.40.01.b.1.a is intended to ensure that significant wetlands are protected consistent with the requirements of OAR 660, Division 23 prior to the receipt of a Department of State Lands (DSL) approved wetland delineation. For development review purposes, a property owner may propose development within this "buffer," and approval may be granted, contingent upon receipt by the City of an approved wetland delineation indicating that the proposed development is outside of lands determined to be wetlands by the Department of State Lands. In such cases, no development permits shall be issued prior to receipt of said wetland delineation.

j) Wetland mitigation sites approved by DSL or proposed for approval by DSL, if applicable.

~~2. For properties containing or abutting Non-Locally Protected Wetlands as shown on the City's Local Wetland Inventory Map, and for which applications for excavation and grading permits, demolition permits, privately-engineered public improvement permits, or building permits are submitted, no specific wetland information is required at the time of initial submittal. However, before any permits are issued and before improvements, excavation, grading, construction, or development may begin, the applicant shall demonstrate compliance with all applicable State and Federal requirements.~~

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

Highly Protected Riparian Corridors are those which have been identified as warranting a high level of protection due to their environmental importance and resource quality. "Riparian-Related Areas" are defined as proximate wetlands, drainage easements and drainage dedications under the City's jurisdiction, and open space tracts that have been created for riparian corridor protection purposes. Additionally, it should be noted that the area of the 100-year floodplain serves an important riparian function. This area is mapped on the City's Natural Hazards Map, and is subject to the protections outlined in Chapter 4.5.

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within Highly Protected Riparian Corridors and Riparian-Related Areas, as mapped on the City's Riparian Corridors and Wetlands Map.

a. Removal of Vegetation - Removal of vegetation from riparian corridors and riparian-related areas is prohibited, except for the following purposes:

1. Stream restoration and enhancement programs;
2. Removal of non-native, invasive and/or noxious vegetation as identified in the Oregon Department of Agriculture's *Oregon Weed Policy and Classification System (Appendix 1)*, including weeds designated as "A," "B," and/or "T." If necessary in conjunction with vegetation removal, non-rip-rap erosion control measures shall be utilized;

3. Substitution of local source (originate from stock collected from wild plants within 75 miles of planting site) native plant species for non-native plants;
 4. Development of water-related or water-dependent uses, as defined in Chapter 1.6 of this Code, provided such uses are designed and constructed to minimize impact on existing riparian vegetation;
 5. Removal of emergent in-channel vegetation likely to cause flooding events that result in structural damage;
 6. Perimeter mowing/cutting of vegetation for fire hazard prevention/fuel reduction 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. However, the use of herbicides, or other pesticides, the application of synthetic fertilizers, and the storage of toxic materials in these areas is subject to applicable State and Federal regulations and is also subject to the restrictions set forth in the Corvallis Municipal Code.
 8. Maintenance and protection of the function of City utilities and transportation facilities located within riparian corridors and wetlands; and
 9. Allowance of activities under an Oregon Department of Fish and Wildlife-approved restoration plan for improving riparian function. 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. Building, Paving, and Grading Activities** - The placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, are prohibited. Exceptions to the drainageway restrictions may be made for the purposes identified in items 1-7 of this section, provided they are designed and constructed to minimize adverse impacts to riparian corridors and riparian-related areas.
1. Replacement of existing buildings, either within the building's original footprint, or within the same square footage area elsewhere on the site, if the relocation of the building enhances riparian, stormwater, and floodplain functions. Under no circumstances shall a replaced or relocated building be located within 15 feet of top-

of-bank. The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening any other goal:

- a) Replaces standard construction with flow-through construction (if the building is within the 100-year floodplain);
 - b) Moves the structure to a higher elevation;
 - c) Moves the structure further from the top-of-bank of the adjacent water body;
 - d) Reduces the amount of impervious surface area in the riparian corridor; and
 - e) Does not negatively impact non-noxious riparian vegetation. (Noxious vegetation is identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System (Appendix 1), including weeds designated as "A," "B," and/or "T.")
2. The location and construction of streets, public utilities, and bicycle and pedestrian crossings that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans. The crossings must be shown to cause minimal harm to the properly functioning condition of the riparian area. These improvements shall be subject to the City's Engineering Design Standards;
 3. The location and construction of streets, roads, and pedestrian crossings necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. The crossings must be shown to cause minimal harm to the properly functioning condition of the riparian area. These improvements shall be subject to the City's Engineering Design Standards;
 4. Development of water-related and water-dependent uses, 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 Department of State Lands (DSL), the U.S. Army Corps of Engineers, or other state or federal regulatory agency with jurisdiction in this area. 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;

6. Development associated with the Minimum Assured Development Areas that would be allowed in accordance with Chapter 4.11 of this Code; and
 7. Water quality or detention facilities located outside of riparian easement areas, as determined in Section 4.13.70.
- c. **Residential Setback Reduction** - When development is occurring pursuant to the provisions of Chapter 4.11 - Minimum Assured Development Area (MADA), the following setback reductions are allowed for low density residential-zoned properties containing Highly Protected riparian corridors. The setback reductions shall apply to redevelopment in which all structures are removed from the riparian corridor area and to new development on vacant properties in which no structures are placed within the riparian corridor 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 front-loading garages is to remain at 19 feet.
- d. **Revegetation of streambanks** - 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 Riparian Corridors and Wetlands Map, the revegetation of stream banks is required. For each 500 square feet of new structure area or impervious surface area, 100 lineal feet of the development site's stream frontage shall be revegetated according to the following standards (up to the total amount of the development site's stream frontage):
1. Stream bank vegetation, as outlined in "2" below, shall be provided within the first thirty feet from top-of-bank, with the exception of the Willamette River, which shall be addressed as indicated in "3" below;
 2. Revegetation Standards:
 - a) Streams that already have existing vegetation as outlined in this provision are considered to be compliant with these stream shading standards. To be considered compliant, at minimum the vegetation within the first 30 feet from

the top-of-bank, as described in "1" above, shall include:

- 1) an existing vegetated tree canopy consisting of healthy trees at least 4 inches in diameter, measured at 4 feet above grade, and located at an average spacing of 20 feet along the stream bank; and
 - 2) an existing vegetated understory consisting of healthy riparian shrubs over at least 50% of the area and healthy groundcover such that the combination of shrubs and groundcover results in a coverage over at least 90% of the area.
- b) Streams that do not have the required existing vegetated tree canopy and existing vegetated understory in the area to be shaded are subject to revegetation. Such revegetation shall either be that required by an Oregon Department of Fish and Wildlife-approved restoration plan for improving riparian function, or that required by the provisions outlined below:
- 1) In areas that do not meet the tree canopy requirement outlined in "a" above, large-canopy riparian trees (such as *Acer Macrophyllum*) with a minimum caliper size of 3/4 - 1-inch shall be planted in a triple row in a staggered spacing of 20 feet on-center along the length of the stream bank. All new trees are required to be mulched with 4 cubic feet of bark chips and drip irrigated for a period of five years to ensure establishment. All new trees shall be staked and protected by rodent-proof fencing, as specified by the Public Works Department.
 - 2) In areas that do not meet the riparian shrub coverage portion of the understory requirement outlined in "a" above, riparian shrubs shall be planted and maintained to provide the required 50% coverage within five years. The minimum planting size for the riparian shrubs shall be one gallon or 18-inch livestakes. All new shrubs shall be mulched with 3 inches of bark chips (extending one foot from the drip line of the shrub or around the livestake or livestake bundle) and irrigated and maintained for a period of five years to ensure establishment.
 - 3) In areas that do not meet the groundcover coverage portion of the understory requirement outlined in "a" above, groundcover shall be

maintained or planted to provide a minimum of 90% total coverage of shrubs and ground covers within five years. The minimum planting size shall be one gallon. Groundcovers are to be mulched with 3 inches of bark chips and irrigated for a period of five years to ensure establishment.

3. For properties along the Willamette River, any revegetation within the Willamette River Greenway (WRG) shall be determined through the WRG Conditional Development Review process and shall be based upon the criteria contained in Chapter 3.30 of this Code. However, for riparian corridor areas of the Willamette River Greenway that are subject to the provisions of this Chapter, and are preserved as part of the Conditional Development process, such preserved portions of riparian corridors shall be subject to the revegetation standards contained in section "2.b" above.
- e. **Subdivisions, Land Partitions, and Property Line Adjustments** - For properties with natural resources or natural hazards subject to Chapters 4.5, 4.12, or 4.13, no subdivision, partition, or lot line adjustment shall create new lots or parcels unless each new and remaining lot or parcel contains an area unconstrained by natural resources or natural hazards and that area is equal to or greater than the Minimum Assured Development Areas for the District or Districts in which the development site falls. Exceptions to this requirement are lots created for public park purposes and privately- or publicly-owned lots completely contained within a district designation of Conservation-Open Space. New subdivisions and partitions may contain common open space tracts for the purpose of protecting natural resources and/or avoiding natural hazards.
- f. **Maintenance** - The limitations imposed by this section do not preclude the routine maintenance of structures. Maintenance of lawns, non-native riparian planted vegetation and landscaping of development existing prior to December 31, 2004, or within new lots developed under MADA provisions, shall be kept to a minimum. Additionally, the application of herbicides or other pesticides, and the application of fertilizers is subject to applicable State and Federal regulations and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code. Where replanting is done, vegetation shall be replanted with native species or approved alternatives, with the exception of continued agricultural uses, as specified in Section 4.13.50.a.7. Maintenance pruning of existing trees shall be kept to a minimum, shall be in accordance

with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations. and under no circumstances shall the maintenance pruning 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. Disposal of yard waste or other organic materials, with the exception of downed trees, leaf litter from riparian vegetation, and mulch for allowed riparian plantings, is prohibited within Highly Protected Riparian Corridors, or within 25 feet of the top-of-bank within Partially Protected Riparian Corridors, and is regulated by restrictions in the Corvallis Municipal Code.

- g. Hazardous Tree Removal** - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.
- h. Exemptions** - When performed under the direction of the City, and in compliance with the provisions of the Stormwater Master Plan, the following activities shall be exempt from the provisions of this chapter:

 - 1) Response to public emergencies, including emergency repairs to public facilities;
 - 2) Routine maintenance or replacement of existing public facilities.

Section 4.13.60 - USE LIMITATIONS AND EXCEPTIONS WITHIN PARTIALLY PROTECTED RIPARIAN CORRIDORS

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within Partially Protected Riparian Corridors, as mapped on the City's Riparian Corridors and Wetlands Map .

The following regulations shall apply within 25 feet of the top-of-bank of the identified riparian feature, unless otherwise noted:

- a. Removal of Vegetation** - Removal of vegetation from riparian corridors is 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, are prohibited except as stated below. Exceptions to these restrictions may be made for the purposes identified in items 1-2 of this section, provided they are designed and constructed to minimize adverse impacts to the riparian corridor area.

1. Replacement of existing buildings, either within the building's original footprint, or within the same square footage area elsewhere on the site, if the relocation of the building enhances stormwater and floodplain functions. Under no circumstances shall a replaced or relocated building be located within 15 feet of top-of-bank. Alterations of structures along the Willamette River may be subject to the Willamette River Greenway Permit requirements in Chapter 3.30. The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening any other goal:

- a) Replaces standard construction with flow-through construction (if the building is within the 100-year floodplain);
- b) Moves the structure to a higher elevation;
- c) Moves the structure further from the top-of-bank of the adjacent water body;
- d) Reduces the amount of impervious surface area in the riparian corridor; and
- e) Does not negatively impact non-noxious riparian vegetation. (Noxious vegetation is identified in the Oregon Department of Agriculture's Oregon Weed Policy and Classification System (Appendix 1), including weeds designated as "A," "B," and/or "T.")

2. Exceptions as outlined in Sections 4.13.50.b. 2-7.

c. Residential Setback Reduction - The following setback reductions are allowed for low density residential-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 front-loading garages is to remain at 19 feet.

- d. **Revegetation of streambanks** - As outlined in Section 4.13.50.d, except that streambank vegetation is required within the first 25 feet from the top-of-bank, instead of the first 30 feet.
- e. **Compliance** with Sections 4.13.50.e-h is required.

Section 4.13.70 - DRAINAGEWAY TRACTS, EASEMENTS, AND DEDICATIONS

Development can have a number of impacts on the drainage system and its associated water quality. These potential impacts include, but are not limited to: increases in the amount and velocity of surface water runoff; decreases in the time for stormwater destined for drainageways to reach peak flow; increases in the frequency and velocity of floods; channel incision and widening; increases in water temperature; and increases in the quantity and types of pollutants that may enter drainageways. The drainageways within the City are intended to function as a wholistic natural system that includes both fish-bearing streams and other streams whose flow is recognized to have direct impacts on these fish-bearing streams. The City intends to manage stormwater from development in a manner that maintains or improves the functioning conditions of the streams utilized for stormwater discharge. To ensure that negative impacts to this system are minimized, to accommodate and maintain the natural hydrological functions and processes, and to provide and maintain adequate stormwater facilities, new development, expansion of existing development, or redevelopment proposed on land abutting or containing an open, natural drainageway, shall require granting of an easement, under the conditions described in "a" of this section, over lands suitable for conveying storm waters and for maintaining and operating an effective open drainageway system. The easement is intended to satisfy the purposes cited in Section 4.13.10 above, as well as the stormwater management purposes identified in Chapter 4.5, and shall be reviewed and approved by the City Engineer.

- a. **Easement** - An easement shall be required when:
 - 1. Development is proposed on a vacant parcel or a partially developed parcel, and the amount of impervious surface on the parcel resulting from new development and/or redevelopment occurring after December 31, 2004, would cumulatively

equal or exceed 20% of the total area of the parcel. The effects of new development and/or redevelopment shall be cumulative from the date of adoption of this Code, and when the net effect of one or more changes results in 20% impervious coverage or more, an easement shall be required; or

2. A parcel of land is divided into 2 or more parcels, whether by land partition or subdivision.

b. Easement Restrictions - The easement shall contain sufficient restrictions on the use of the area to satisfy the purposes cited in Section 4.13.70 above. Restrictions shall apply to structural improvements, regrading, filling, and alteration of existing vegetative cover, as specified on an easement document provided by the City Engineer. Trees that fall within riparian easement areas are not to be removed, unless they are a hazard, or unless they would create a flooding that would cause structural damage.

c. Dedications - The City will strongly consider accepting voluntary drainageway dedications provided:

1. Public maintenance of the drainageway is anticipated or public ownership will enhance protection of the resource or maintenance of stormwater functions;
2. Dedication of the drainageway area does not create substandard lot size, substandard building setbacks, or otherwise reduce applicable development standards to the point that would render the existing development non-conforming;
3. The methodologies for determining width described in subsection "d" are utilized; and
4. The land to be dedicated is placed in a separate tract through the land division process.

d. Easement Widths - When an easement is required, the appropriate width shall be as described below, with the exception that, in no case, shall riparian easements include areas containing existing buildings that are intended to remain, nor shall easements include development area assured under item 3 below. Easement areas shall be measured from top-of-bank, as indicated from a submitted topographic survey, and shall be placed

in a separate tract.

Easements are required as follows:

1. For areas with the following riparian corridors, as designated on the City's Riparian Corridors and Wetlands Map, the associated easement width is required:

Easement Width - When an easement is required, the appropriate width shall be as follows:

Riparian Corridor Areas Mapped on the Riparian Corridors and Wetlands Map:	Required Easement Area (to be placed in separate tracts):
All Partially Protected Stream Corridors	Drainage channel + 25 feet from top-of-bank or the boundary of the 0.2 ft. floodway, whichever is greater ²
Highly Protected Riparian Corridors along the Willamette and Mary's Rivers	Drainage channel + 75 feet from top-of-bank or the boundary of the 0.2 ft. floodway, whichever is greater ²
All other Highly Protected Riparian Corridors	Drainage channel + 50 feet from top-of-bank or the boundary of the 0.2 ft. floodway, whichever is greater ²

Note: The area between the outer edge of the easement boundary and the outer edge of the riparian corridor is regulated by Sections 4.13.50 and 4.13.60.

2. If the 0.2 ft rise floodway boundary (as determined by maps on file with the City Engineer) extends beyond the required width as specified in item "1" below, additional easement width shall be provided as needed to encompass the floodway.
3. If, through the provisions of Chapter 4.11, it is determined that encroachment into

a riparian corridor area is necessary to allow for utilization of the Minimum Assured Development Area, any associated easement requirement shall be relaxed to the extent necessary to allow for the minimum necessary encroachment into the resource area.

4. Easement widths wider than required in "1" above may be accepted to cover the full riparian corridor, as determined per Section 4.13.40.01.a.1.

Section 4.13.80 - STANDARDS FOR PROPERTIES WITH WETLANDS

The City's Riparian Corridors and Wetlands Map identifies two types of wetlands within the City: Locally Protected Wetlands and Non-Locally Protected Wetlands. All wetlands are identified in the City's adopted Local Wetlands Inventory Map. The inventory includes all wetlands within the Urban Growth Boundary that are at least 0.5 acres in size, whether isolated, within riparian assessment areas, or within wildlife habitat assessment areas. The methodology for identifying the wetlands was taken from the Oregon Department of State Lands' (DSL) administrative rules. The *Oregon Freshwater Assessment Methodology* (OFWAM) was utilized to assess whether or not a wetland met the State criteria for a Locally Significant Wetland (LSW). Once a list of Locally Significant Wetlands is identified, a local jurisdiction is able to apply additional local regulations to those LSWs, if it is deemed appropriate. The City Council determined that a number of the identified LSWs should be locally protected. The identified Locally Protected Wetlands, on the City's Riparian Corridors and Wetlands Map, represent the wetlands which are to 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 Oregon Freshwater Assessment Methodology (OFWAM) factors such as the presence of known habitat for rare, threatened, and endangered species. Non-locally Protected Wetlands are mapped on the City's Local Wetlands Inventory Map, but are not subject to local regulations beyond State and Federal requirements.

4.13.80.01. USE LIMITATIONS AND EXCEPTIONS WITHIN LOCALLY PROTECTED WETLANDS

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within Locally Protected Wetlands (LPWs) as shown on the City's Riparian Corridors and Wetlands Map, and to the associated 25-foot buffer area described in Section 4.13.40.01.b.1.a (unless a delineation results in a different boundary):

- a. Removal of Vegetation** - Removal of vegetation from Locally Protected Wetlands is prohibited, except for the following purposes:
1. Wetland restoration and enhancement programs approved by the Department of State Lands; and
 2. Activities outlined in Sections 4.13.50.a.2,3, and 5-8.
- b. Building, Paving, and Grading Activities** - Within LPW areas, the placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, is prohibited, except as outlined below. Exceptions to the LPW restrictions may be made for the purposes identified in items 1-3 of this section, provided they are designed and constructed to minimize adverse impacts to wetland functions.
1. Replacement of existing buildings with buildings located within the original building footprint, provided replacement does not disturb additional surface area within the wetland area. Vertical additions may be added to these structures if they do not disturb additional surface area within the wetland area.
 2. Location and construction of streets, roads, and pedestrian crossings necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction of these crossings must be shown to cause minimal harm to the properly functioning condition of the wetland. These improvements shall be subject to the City's Engineering Design Standards.
 3. Activities outlined in Sections 4.13.50.b.2, 5, and 6.
- c. Adherence** to Sections 4.13.50.d-g-h is required.
- d. Department of State Lands and US Army Corps of Engineers Notification Required**
In addition to the restrictions and requirements of this section, all proposed development activities within any wetland are also subject to Oregon Department of State Lands (DSL) and US Army Corps of Engineers standards and approval. Where there is a difference, the more restrictive regulation shall apply. In accordance with ORS 227.350, the applicant shall be responsible for notifying DSL and the Corps of Engineers whenever any portion of any wetland is proposed for development. No application for development will be accepted as complete until documentation of such notification is provided, and no

site development permits (including grading and excavation permits, public improvement permits, and building permits) shall be issued until the City has received verification of DSL and Corps of Engineers approval for development on the subject site.

4.13.80.02 - PROCEDURES FOR NON-LOCALLY PROTECTED WETLANDS

Department of State Lands and US Army Corps of Engineers Notification Required - In addition to the restrictions and requirements of this section, all proposed development activities within any wetland are also subject to Oregon Department of State Lands (DSL) and US Army Corps of Engineers standards and approval. Where there is a difference, the more restrictive regulation shall apply. In accordance with ORS 227.350, the applicant shall be responsible for notifying DSL and the Corps of Engineers whenever any portion of any wetland is proposed for development. No application for development will be accepted as complete until documentation of such notification is provided, and no site development permits (including grading and excavation permits, public improvement permits, and building permits) shall be issued until the City has received verification of DSL and Corps of Engineers approval for development on the subject site. Non-locally Protected Wetlands are shown on the City's Local Wetlands Inventory Map.

Chapter 4.13:

Presented below are the Council-directed changes to Draft Chapter 4.13 of the Land Development Code that were developed during the Council deliberations. These changes are relative to a new chapter entitled "Riparian Corridor and Wetland Provisions." The entire chapter is contained in Attachment E of the October 21, 2004, City Council staff report. Only the Council-directed additional changes are included below. These changes are indicated with the italic version of redline/double underline and ~~strike-out~~ fonts.

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

- a. **Removal of Vegetation** - Removal of vegetation from riparian corridors and riparian-related areas is prohibited, except for the following purposes:

10. *Removal of hazardous trees. Requests for removal of hazardous trees, except in emergency circumstances, shall be reviewed by the City Urban Forester (or another qualified arborist) and approved, conditionally approved, or denied by the Community Development Director. Any trees removed shall be replaced by like native species or alternative approved native species (listed on the City of Corvallis Native Plant List).*

- b. **Building, Paving, and Grading Activities** -

1. Replacement of existing buildings, either within the building's original footprint, or within the same square footage area elsewhere on the site, if the relocation of the building enhances riparian, stormwater, and floodplain functions. *Under no circumstances shall a replaced or relocated building be located within 15 feet of top-of-bank. Under no circumstances shall a relocated building be located within 15 feet of top-of-bank.* The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening any other goal:

2. ~~Location and construction of streets, roads, utilities, bridges, bicycle, and pedestrian crossings facilities within Highly Protected Riparian Corridors and riparian related areas must be deemed necessary to maintain a functional system by the City Engineer. This Code, and City Transportation and Utility Master Plans, and other adopted City plans shall guide this determination. The design standards of Chapter 4.0 shall be applied to minimize the impact to the subject area, that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans, or involve the redevelopment of electrical utility operations existing as of December 31, 2004, The crossings must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards, and~~

3. ~~Redevelopment of utility operations existing as of December 31, 2004, is also permitted. Required riparian easement areas shall be re-vegetated consistent with Section 4.13.50.d. subsections "1" and "2." Location and construction of streets, roads, bridges, bicycle, and pedestrian crossings is in order to maintain an acceptable functional classification of roadways adjacent to the property. The crossings must be shown to cause minimal harm to the Significant Vegetation. These improvements shall be subject to the City's Engineering Design Standards.~~

f. Maintenance -

The limitations imposed by this section do not preclude the routine maintenance of structures and landscaped areas. Maintenance of lawns, non-native riparian planted vegetation and landscaping shall not expand lawn areas (defined as vegetated area mowed to 18" height or less) or remove or damage any non-hazardous tree. ~~of development existing prior to December 31, 2004, or within new lots developed under MADA provisions, shall be kept to a minimum.~~ Additionally...

- ~~g. **Hazardous Tree Removal** - Hazardous trees are defined in Chapter 1.6. Hazardous tree removal requests, except in emergency circumstances, are required to be reviewed and approved by the Urban Forester or the Community Development Director, following receipt of a recommendation from a certified arborist. Any trees removed are required to be replaced by like native species or alternate native species approved by the Urban Forester or the Community Development Director.~~

Section 4.13.60 - USE LIMITATIONS AND EXCEPTIONS WITHIN PARTIALLY

PROTECTED RIPARIAN CORRIDORS

- b. **Building, Paving, and Grading Activities** - The placement of structures or impervious surfaces, and grading, excavation, and the placement of fill, are prohibited except as stated below. Exceptions to these restrictions may be made for the purposes identified in items 1-2 of this section, provided they are designed and constructed to minimize adverse impacts to the riparian corridor area.
- a. Replacement of existing buildings, either within the building's original footprint, or within the same square footage area elsewhere on the site, if the relocation of the building enhances stormwater and floodplain functions. *Under no circumstances shall a replaced or relocated building be located within 15 feet of top-of-bank. Under no circumstances shall a relocated building be located within 15 feet of top-of-bank.* Alterations of structures along the Willamette River may be subject to the Willamette River Greenway Permit requirements in Chapter 3.30. The relocation shall be considered to enhance stormwater and floodplain function if it furthers any of the following goals without worsening any other goal:

4.13.80.01. USE LIMITATIONS AND EXCEPTIONS WITHIN LOCALLY PROTECTED WETLANDS

- a. **Removal of Vegetation** - Removal of vegetation from Locally Protected Wetlands is prohibited, except for the following purposes:
- b. Activities outlined in Sections 4.13.50.a.2,3, *and 5-8, and 10.*
- b. **Building, Paving, and Grading Activities** - Within LPW areas, the placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, is prohibited, except as outlined below. Exceptions to the LPW restrictions may be made for the purposes identified in items 1-3 of this section, provided they are designed and constructed to minimize adverse impacts to wetland functions.
1. Replacement of existing buildings with buildings located within the original building footprint, provided replacement does not disturb additional surface area within the wetland area. Vertical additions may be added to these structures if

they do not disturb additional surface area within the wetland area.

2. ~~Location and construction of streets, roads, and pedestrian crossings necessary in order to maintain an acceptable functional classification of roadways adjacent to the property. The location and construction of these crossings must be shown to cause minimal harm to the properly functioning condition of the wetland. These improvements shall be subject to the City's Engineering Design Standards.~~
3. Activities outlined in Sections 4.13.50.b.2, 5, and 6.

4.13.90 - Map Refinements

4.13.90.01 - Map Refinements Defined

Map refinements are adjustments made through professional analyses to refine the actual boundaries of some natural resources and natural hazards. Map refinements must be made in accordance with Land Development Code provisions in Chapters 4.5 and 4.13 and are specifically allowed to determine the location and extent of:

- the 0.2-foot Floodway;
- the 1.0-foot Floodway (in accordance with FEMA regulations);
- the 100-year Floodway Fringe (in accordance with FEMA regulations);
- Landslide Hazard areas;
- Slopes;
- the Top-of-Bank of streams and rivers;
- Riparian Corridors (once Top-of-Bank is accurately determined); and
- Wetlands (through delineations approved by the Oregon Department of State Lands).

Map refinement provisions for Top-of-Bank, and Riparian Corridor and wetland boundaries are outlined below. Map refinement provisions for the 0.2-foot Floodway, the 1.0-foot Floodway, and the 100-year Floodway Fringe are outlined in Chapter 4.5 - Natural Hazards and Hill-sides. Map refinements are also adjustments to resolve registration issues that may occur between different GIS layers or maps.

a. Top-of-Bank and Riparian Corridor Boundaries

Riparian Corridor Boundaries and widths are as noted on the Riparian Corridors and Wetlands Map. They are measured with respect to Top-of-Bank. The precise Top-of-Bank is determined in the field by a licensed civil engineer. The civil engineer determines the location of Top-of-Bank using 2-ft. contour intervals and using the methodology cited in the definition for Top-of-Bank in Code Chapter 1.6 - Definitions. The 2-ft. contour intervals must be surveyed by a licensed surveyor or civil engineer. The outer bounds of the Riparian Corridors is determined by measuring from the precise location of Top-of-Bank, using the widths specified on the Riparian Corridors and Wetlands Map. The boundaries must then be surveyed by a licensed surveyor or civil engineer and mapped using 2-ft. contours.

b. Wetland Boundaries

Wetland boundaries must be determined by one of the following two methods:

1. Using the Corvallis Local Wetland Inventory Map, in which case a 25-ft. buffer must be added to the upland edge of the wetland; or
2. Using an established and unexpired wetland delineation accepted and approved by the Department of State Lands (DSL), in which case, no buffer is required from the upland edge of the wetland.

4.13.90.02 - Map Refinement Procedures

Adjustments to maps consistent with the provisions of Section 4.13.90.01 above may be administratively adjusted on the relevant maps, with no land use process required other than a demonstrated adherence to the provisions of Section 4.13.90.01.

4.13.100 - Map Corrections

No District Change or Comprehensive Plan Map Amendment shall be required to accomplish Map Corrections approved in accordance with the provisions outlined in this Section - 4.13.100.

- a. Decisions regarding Map Correction requests shall be made by the Community Development Director, as specified in 4.13.100.01 & 02 below. Upon approval of a Map Correction request,**

the Director shall ensure that changes are reflected in the City's affected maps and databases. Notice of such Map Correction shall be provided to decision-makers as outlined in Section 4.13.100.b below

b. When requests for five (5) Map Corrections (on any hazard or resource for which a Map Correction is allowed) have been submitted to and decided upon by the Community Development Department Director, or approximately twice a year, whichever is sooner, the Map Correction requests shall be summarized in an informational memo for decision-makers so that they may review them for tracking purposes in accordance with Comprehensive Plan Policy 4.2.6. This memo shall be shared with the Corvallis Planning Commission and City Council for Map Correction requests on lands within the City limits; and with the Corvallis and Benton County Planning Commissions, the Corvallis City Council, and the Benton County Board of Commissioners for Map Correction requests on lands within the Urban Fringe.

4.13.100.01 - Map Corrections Defined

A Map Correction is not the type of adjustment described in the Map Refinement provisions of Section 4.13.90 above. A Map Correction is, however, an actual correction to maps referencing natural hazards or natural resources (other than significant vegetation areas) where it is found that the map depiction does not reflect the Natural Features Inventory. As the Natural Features Inventory (NFI) was the basis for developing the City's maps that reference natural hazards and natural resources, a correction to the NFI for natural hazards or natural resources (other than significant vegetation areas) could result in a correction to the related maps (Comprehensive Plan Map, Local Wetlands Inventory Map, District Map, Natural Hazards Map, or Riparian Corridors and Wetlands Map). Map Correction provisions for Riparian Corridor widths and wetland boundaries are outlined below. Map Correction provisions for the 100-year Floodplain and Landslide Hazards are outlined in Chapter 4.5 - Natural Hazards and Hillides.

a. Riparian Corridor Widths

Riparian Corridor boundaries may be refined through the Map Refinement procedures outlined in Section 4.13.90 above. Riparian Corridor widths used to determine the boundaries were developed using information from the Natural Features Inventory regarding the amount of acres drained within specified areas, and then appropriate corridor widths were applied to the Riparian Corridors and Wetlands Map. The relationship between the areas drained and the different Riparian Corridor widths is

contained in Table 4.13-1, entitled "Base Riparian Corridor Widths." If an error is discovered in the mapping portrayal of the information contained within the Natural Features Inventory, a Mapping Correction may be requested.

b. Wetland Boundaries

Wetland boundaries may be refined through the Map Refinement procedures outlined in Section 4.13.90 above. However, if it can be scientifically demonstrated that an error exists in the translation of the Natural Features Inventory Information to the associated City Maps, then a Mapping Correction may be requested.

4.13.100.02 - Map Corrections Procedures

a. Riparian Corridor Widths

Map Correction requests to Riparian Corridor Widths indicated by the mapping portrayal of the information contained within the Natural Features Inventory shall be accomplished as follows:

1. If a property owner or property owner's legal representative provides the Community Development Department Director with the items listed in "a" below, a request to revise the Riparian Corridor width indicated on the Riparian Corridors and Wetland Map and other affected maps may be considered as outlined in "b" and "c" below.

a) Documents identifying the specific reach of Riparian Corridor in question, and the specific information in the Natural Features Inventory that the property owner believes has not been accurately translated to the Riparian Corridors and Wetlands Map and related other City maps.

b) If review of the items in "a" above indicate that a mapping error has occurred, then the Director shall ensure that the appropriate changes are made to correct the Riparian Corridors and Wetlands Map and other affected maps and databases.

c) To approve a Map Correction request, the Director must find that the

Natural Features Inventory contains information for the specific Riparian Corridor reach in question that is different from that indicated by the Riparian Corridor Width on the Riparian Corridor and Wetlands Map. The appropriate Riparian Corridor widths are as noted in Table 4.1301 entitled, "Base Riparian Corridor Widths."

b. Wetland Boundaries

Map Correction requests for Wetland boundaries indicated on the Riparian Corridors and Wetlands Map and other affected maps shall be accomplished as follows:

1. If a property owner or property owner's legal representative provides the Community Development Department Director with the items listed in "a" below, a request to revise the Wetland boundaries indicated on the Riparian Corridors and Wetland Map and other affected maps may be considered as outlined in "b" and "c" below.
 - a) Documents that identify information contained within the Natural Features Inventory and an explanation of how the property owner believes that the information has not been accurately translated to the Riparian Corridor and Wetlands Map and other City maps. The documents shall identify the specific wetland in question and demonstrate that an error exists.
 - b) If review of the items in "a" above indicate that a mapping error has occurred, then the Director shall ensure that the appropriate changes are made to correct the Riparian Corridors and Wetlands Map and other affected maps and databases.
 - c) To approve a Map Correction request, the Director must find that an error exists in the translation of the Natural Features Inventory Information to the associated City Maps.

ATTACHMENT E

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. There are no additional staff-recommended changes. The City Council adopted it as shown.

CHAPTER 1.6 DEFINITIONS

(last amended 10-06-0312-20-04)

Section 1.6.10 - GENERAL MEANING OF WORDS

All words and terms assume their dictionary definitions unless they are specifically defined in this Code or the context in which they are used clearly indicates to the contrary.

Section 1.6.20 - COMMON WORDS

- a. All words in present tense include the future tense.
- b. All words in plural include the singular, and all words in singular include the plural unless the context clearly indicates to the contrary.
- c. The word "shall" is mandatory and the word "may" is permissive.
- d. The word "building" includes the word "structure."
- e. The phrase "used for" includes the phrases "arranged for," "designed for," "intended for," "maintained for," and "occupied for."
- f. The words "land" and "property" are used interchangeably unless the context clearly indicates to the contrary.
- g. The words "lot" and "parcel" are used interchangeably unless the context clearly indicates to the contrary.

Conservation Easement – Nonpossessory interest of a holder in real property imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural, scenic, or open space values of real property; ensuring its availability for agricultural, forest, recreational, or open space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archaeological, or cultural aspects of real property. Also defined in ORS 215.715.

Consolidation – Elimination of property line(s) of unplatted land to create a single unit of land.

Contiguous -- Same as “adjacent.” Properties separated by a street may also be considered contiguous.

Corvallis Streams – All streams that are located either in part or entirely within the City’s Urban Growth Boundary.

Cupola – Small dome or tower-like structure on a roof.

Day(s) – Calendar days unless working days are specified.

Day Care, Commercial Facility – Institution, establishment, or place that commonly receives at one time more than 12 persons for a period not to exceed 12 hours per day. The facility provides the persons with board, care, or training apart from their parents or guardians for compensation or reward in accordance with ORS 657A.250-440. Refer to section 4.9.70 of Chapter 4.9 -- Additional Provisions for additional development standards (area per child and buffering).

Day Care, Family – “Babysitting,” care of 12 or fewer children, including resident family members, as accessory to any residential use. Family day care is not subject to the definition of “Home Business.”

Density – The number of dwelling units per acre of land, calculated in accordance with the definition for “Density Calculation.”

Density Calculation -- Density is calculated as either gross density or net density. The minimum density for a site is net density and the maximum density is gross density.

- a. **Density, Gross** – Number of dwelling units per gross area in acres. (See definition for Area, Gross). Additionally, in calculating gross density for a Minor Land Partition site, applicants may include in their calculation 50 percent of the area of any street rights-of-way that front the subject site (for the distance the streets front the subject site).

- b. **Density, Net** – Number of dwelling units per net area in acres. (See definition for Area, Net).
- c. When the sum of the dwelling units is a fraction of a dwelling unit, and the fraction is equal to or greater than 0.5, an additional dwelling unit shall be required (minimum density) or allowed (maximum density). If the fraction is less than 0.5, an additional dwelling unit shall not be required or allowed.

~~**Density Transfer** -- Permits residential density on a single tax lot or adjoining tax lots under a single development application to be shifted from one part of a site to another part of the same site. Density transfer does not permit a net increase in density for the entire site; however, it can specify that more intense residential building types are permitted within the area of the site that is to receive the density transfer.~~

Density Transfer – Permits residential density under a single development application to be shifted from one part of a development site and added to another part of the same development site. It can be used to protect significant natural features that are on the development site without losing overall density in the development. Density transfer does not permit an increase in the gross density for the entire development site.

DSL – Oregon Department of State Lands.

Detention Basin – A constructed pond and/or underground facility that is designed to temporarily collect runoff from a development to maintain the runoff rate to a specified pre-development flow.

Developer – Any person, including a governmental agency, undertaking development.

Development – Making a material change in the use or appearance of a structure or land, dividing land into two or more parcels, changing the land use designation, or creating or terminating a right of access. Where appropriate to the context, development refers to the act of developing or the result of development.

Development Constraints – Conditions that limit or preclude development of an area or site such as location within: a natural hazard on the Natural Hazards Map; a riparian corridor or wetlands on the Riparian Corridors and Wetlands Map; an area of significant vegetation Area on the Significant Vegetation Map; within a 4th-level water service area (not served by City water), and/or within an area that is permanently preserved via a conservation easement or a drainage easement/dedication.

Development District – An area of land within the Corvallis City limits designated for specific types of permitted developments and subject to the development requirements of that district.

Development, Intensity of – Relative measure of development impact as defined by characteristics such as the number of dwelling units per acre, amount of traffic generated, and amount of site coverage.

Development-Related Concerns – Identification on the Notice of Disposition for a development approval of issues that are worthy of special attention for the developer or for permitting agencies. These are generally issues raised during the development review process.

Development Site – Legally established lots, or parcels, or tracts of land involved in a land use application or building/construction permit application. *Sites that are occupied* or capable of being occupied by a building or group of buildings including accessory structures and accessory uses, together with yards or open spaces, setback areas, and access as required by this Code.

Director – Community Development Director of the City of Corvallis, or the Director's official designee, with responsibility for administration of this Code.

Discontinued Use – A use that has ceased to be active. Shall not require a determination of the voluntary or involuntary nature of the discontinuance or intent to resume the use. Rental payments or lease payments and taxes are not considered a continued use.

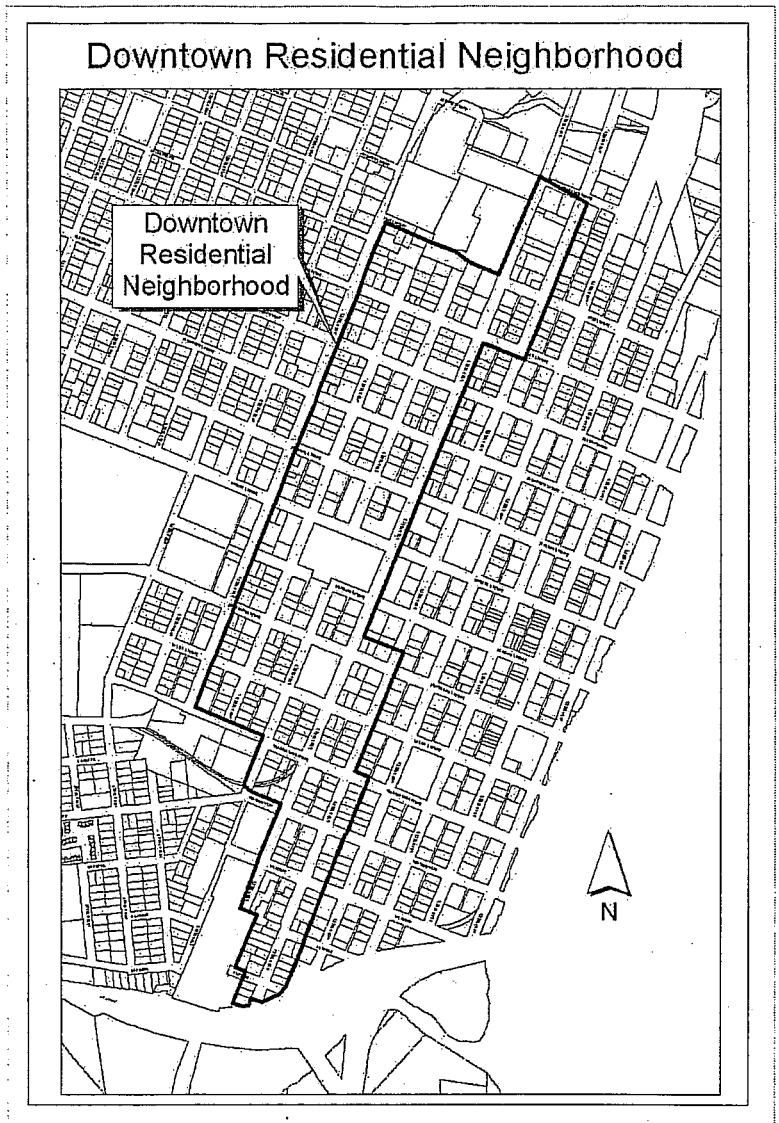
Dominant Cover Type – One or more vegetative species that provide a minimum of 20 percent areal cover within the corresponding vegetative layer.

Downtown Parking Assessment District – A portion of the downtown in which property owners contributed to the construction of parking facilities. Within the area (see figure below), new development has no required new parking to be constructed.

Downtown Residential Neighborhood – Area generally bounded by Sixth Street on the east, Ninth Street on the west, Fillmore Avenue on the north, and Marys River on the south. This area is intended to provide housing in close proximity to the Central Business Zone and is identified by the map on the following page.

Drainageway – Natural or artificial watercourse, including adjacent riparian vegetation, that transmits natural stream or stormwater runoff from a higher elevation to a lower elevation.

Drainageway Dedication – The transfer, in fee-simple, of ownership of a given piece of property for the purpose of stormwater functions.



Drive-Through Facilities – Facilities that provide services directly to patrons in motor vehicles. Typically, these types of facilities rely on a long driveway or lane that provides adequate room for vehicle stacking at a drive-up service window.

Dwelling Unit – One or more rooms, with bathroom and kitchen facilities (limited to one kitchen only), designed for occupancy by one family. See "Family."

Easement – Right that a person has to use another's land for a specific purpose, such as for access or for utilities.

Ecological Restoration – Restoration is the process of repairing damage to the diversity and dynamics of ecosystems. Ecological restoration is the process of returning an ecosystem as closely as possible to predisturbance conditions and functions.

Effects of Buoyancy – Uplift force of water on a submerged or partially submerged object.

Endangered Species – Any species that is in danger of extinction throughout all or a significant portion of its range.

Endangered Species Act (ESA) – A Federal regulatory program to protect fish, wildlife, and plants from extinction. It provides a means whereby the ecosystems upon which threatened and endangered species depend may be conserved to ensure the continued survival of the species.

Enhance – To augment into a more desirable condition. In the context of natural features regulations, to improve the functions and values of an existing natural resource.

Erosion – Movement or displacement of soil resulting from natural and human-induced processes including weathering, dissolution, abrasion, corrosion, and transportation.

Excavation – Process of mechanically altering the natural grade by stripping or cutting and/or filling the earth. See “Grading.”

Family – An individual or two or more persons related by blood, adoption, or marriage, or a group of not more than five adults unrelated by blood or marriage, living together in a dwelling unit. As used in this Code, "family" also refers to not more than five unrelated physically or mentally handicapped, elderly, or drug- or alcohol-dependent persons receiving treatment, and any number of resident staff persons engaged in their care. The relevant Oregon Revised Statutes that pertain to this definition include ORS 197.660(2) and ORS 197.665.

Family Day Care – See "Day Care, Family."

FAR – See “Floor Area Ratio.”

Final Plat – Final recorded version of a subdivision plat, replat, or partition plat.

Final Plat, Partition – Final recorded map, diagram, drawing, replat, or other writing containing all the descriptions, locations, specifications, provisions, easements, dedications, and information concerning a partition.

Final Plat, Subdivision – Final recorded map, diagram, drawing, replat, or other writing containing all the descriptions, locations, specifications, dedications, provisions, easements, dedications, and information concerning a subdivision.

Fire Fuel Break Safety Area – Area maintained or constructed, through the reduction of combustible vegetation and other fire fuel materials around structures, to prevent the spread of fires, and the resulting damage to life and property, and/or the area provided for safer fire suppression operations.

Fish-bearing Streams – Fish-bearing streams are those indicated on maps developed by the Oregon Department of Fish and Wildlife and the Oregon Department of Forestry or those where fish presence is documented by the Natural Features Inventory or a recognized fish biologist.

Fish Habitat – Those areas upon which fish depend in order to meet their requirements for spawning, rearing, food supply, and migration.

Flag Lot – Lot not meeting the minimum street frontage requirements and that gains access to the nearest public or private street (private street must be within a separate tract) by means of a narrow strip of land.

Flood Insurance Rate Map (FIRM) – Official map on which the Federal Insurance Administration has delineated areas of special flood hazards and the risk premium zones applicable to portions of the community.

Flood, 100-year – A flood with a 1 percent chance of occurring in any given year. This is the flood most commonly used for regulatory purposes and is called the base flood. This flood event inundates the entire 100-year floodplain. (See “Base Flood”)

Floodplain – The area adjacent to a stream or river channel that is covered by water when the river or stream overflows its banks.

Floodplain Functions – Hydrological and ecological functions including conveyance and temporary storage of floodwater, depositions of sediments outside of the channel, groundwater recharge, filtering of pollutants, and reduction of floodwater velocity and erosive forces. Also included, but to a lesser extent in previously urbanized areas, are such functions as nutrient exchange, refuges, and feeding areas for fish.

Floodplain, 100-year – Land aArea adjacent to a river, stream or other water body river-channel that includes land with a range of flooding frequency, from areas that flood frequently to the highest ground that has a 1 is subject to a one percent chance of flooding in any given year. It consists of land ranging from that which

is subject to annual flooding to that which has a one percent chance of flooding in any given year. The 100-year floodplain is the area subject to base flood regulations, and consists of the floodway and floodway fringe (See Base Flood). The 100-year floodplain is mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRMs) and is the area subject to base flood regulations.

Floodway, 0.2- foot – River channel or other watercourse and the adjacent land areas that accommodate the base flood event must be reserved in order to discharge the base flood (100-year flood) without cumulatively increasing the water surface elevation more than 0.2 feet.

Floodway Fringe – The area of the 100-year floodplain lying outside of the 0.2-foot floodway.

Floor Area Ratio (FAR) – Gross floor area of all buildings on a lot or development site divided by the net area (see “Area, Net”) of a lot or development site on which the buildings are located. In cases where outdoor areas are directly related to the subject land use(s) (e.g., outdoor storage areas; planting areas for nurseries, tree farms, and agricultural businesses; portions of parking lots used for storage and circulation of moving vans associated with moving businesses; etc.), these outdoor areas may be included in the floor area ratio square footage calculation. However, unless specified otherwise, in no case shall standard parking and circulation areas, landscaping, etc., be included in the floor area ratio square footage calculation.

Flow-Through Design – Typically a structure that does not hinder or obstruct the movement of or displace surface floodwater.

Frontage – Portion of a development site that abuts a public or private street.

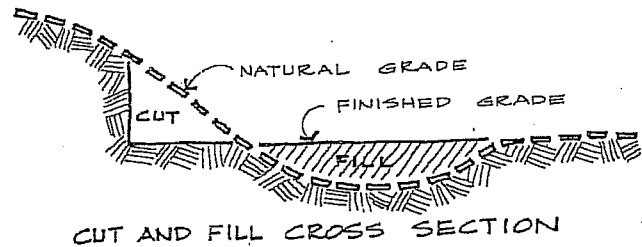
Full-Line Department Store – Store that provides a depth and variety of general merchandise, apparel, furniture, appliances, and home furnishings.

Geographic Information System (GIS) – A system of hardware, software and data storage that allows for the analysis and display of information that has been geographically referenced.

Grade – (1) Average elevation of the land; (2) the percent of rise or descent of a sloping surface. Usually described as finished or natural, and measured in feet above sea level. There is a distinction between percent of slope and degree of slope. For example, a forty-five degree slope is a 100 percent grade.

Grade, Finished – Final elevation of the ground level after development.

Grade, Natural – Elevation of the ground level in its natural state, before construction, filling, or excavation.



Grading – Stripping, cutting, filling, or stockpiling of earth or land, including the land in its cut or filled condition, to create new grades.

Green Area – Includes a site’s landscaping, private preservation areas, and/or pedestrian amenities such as sidewalks, plazas, multi-use paths, unenclosed patios, and decks. Does not include areas covered by buildings, covered structures enclosed on one or more sides, parking areas, or vehicle circulation areas.

Habitable Floor – Floor usable for living purposes, which includes working, sleeping, eating, cooking, or recreation, or a combination of these.

Habitat Site – A habitat site is a contiguous area of natural vegetation that is generally bounded by urban or agricultural land uses. Each habitat site is composed of a collection of vegetation subareas with different cover types within a site. The minimum size of a habitat site in the Corvallis Natural Features Inventory is five acres.

Hearing Authority – City Council or an agency or officer of the Council designated by this Code to conduct public hearings regarding applications for development.

Hydrostatic Load – Force of water at rest.

Impact – The consequences of a course of action; the effect of a goal, guideline, plan, or decision.

Improvement Plan – Maps or drawings showing the layout of improvements to be installed as a condition of approval for development.

Infill – Developing vacant and partially vacant land within a built environment. To be considered infill, such land shall be less than 0.5 acres in size for residentially designated lands or less than 1.0 acre in size for lands designated otherwise.

~~**Intermittent Streams** – An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. (Moved to "Stream, Intermittent"~~

Irrigation System – Manual or mechanically controlled method of supplying water to an area that needs it.

Key Areas of Exchange – Locations within a watershed where groundwater recharge from surface water occurs (e. g., permeable depressions) or where streams are fed by groundwater (e.g., springs).

Kitchen – Any room used, intended, or designed for preparation of food and storage of food, including any room with a sink and either a 3/4-in. gas opening or provision for a range or stove.

Land Area, Net – See "Area, Net."

Land Division – Land divided to create legally separate areas in one of the following ways:

- a. **Partition** – Division of land that creates three or fewer parcels within a calendar year when such parcels exist as a unit or contiguous units of land under single ownership at the beginning of the year. See also "Replat, Minor."

A partition does not include division of land resulting from any of the following:

1. Establishment or modification of a "tax lot" by the County Assessor;

Limited Land Use Decision – A land use decision made by staff through an administrative process and that qualifies as a Limited Land Use Decision under ORS 197.015. Limited land use decisions are identified in Chapter 1.2 - Legal Framework as Type II Special Developments.

Lot – A unit of land created by a subdivision of land and intended as a unit for the purpose, whether immediate or future, of transfer of ownership and/or for development.

Lot Area – The total horizontal area within the lot lines of a lot.

Lot, Corner – A lot situated at the intersection of 2 streets, the interior angle of such intersection not exceeding 135 degrees.

Lot Coverage – Unless otherwise noted in a development district, percent portion of a development site covered; by building footprints, structures enclosed on one or more sides, parking areas, and vehicle circulation areas. (including all gravel and paved surface areas). ~~and areas encompassed by buildings.~~

Lot Depth – The distance from the midpoint of the front lot line to the midpoint of the rear lot line.

Lot, Interior – A lot, other than a corner lot, having frontage on only one street.

Lot Line – The property line bounding a lot.

Lot Line Adjustment – The relocation of a common property boundary wherein an additional unit of land is not created and where an existing unit of land reduced in size by the adjustment complies with any applicable development district regulation.

Lot Line, Front – In the case of an interior lot, a property line that abuts the street. In the case of a corner lot, the front line shall be determined by orientation of the structure based on at least two of the following factors: location of the front door, location of the driveway, or legal street address.

Lot Line, Side – Any lot boundary not a front or rear lot line (see figure under Lot Line, Rear).

Manufactured Home Space – Any portion of a manufactured dwelling park (see "Manufactured Dwelling Park" - under "Building Types") that is designated or used for occupancy of one manufactured home or mobile home, including its accessory structures and its outdoor living areas, but exclusive of space provided for the common use of tenants such as roadways and guest parking.

Manufactured Home Stand – That portion of the manufactured home space reserved for the location of the manufactured home or mobile home structure.

Minimum Assured Development Area (MADA) – The minimum area on a development site that is permitted to be disturbed for development, regardless of the Natural Resources or Natural Hazards Overlay designation(s) on the site. The methodology for determining the MADA are listed in Chapter 4.11.

Map Refinements – Map refinements are adjustments made through professional analyses to refine the actual boundaries of some natural resources and natural hazards. Map refinements must be made in accordance with Land Development Code provisions in Chapters 4.5 and 4.13 and are specifically allowed to determine the location and extent of: the 0.2-foot Floodway; the 1.0-foot Floodway; the 100-year Floodway Fringe (in accordance with FEMA regulations); the Top-of-Bank of streams and rivers; Riparian Corridors (once Top-of-Bank is accurately determined); and Wetlands (through delineations approved by the Oregon Department of State Lands).

Mitigation – Methods used to alleviate or lessen the impact of development and/or to increase or improve natural resource functions within natural resource areas.

Mobile Home – A residential structure intended for permanent human occupancy and constructed for movement on the public highways, constructed prior to adoption of June 15, 1976 U.S. Housing and Urban Development (HUD) standards, but meeting the requirements of Oregon's mobile home laws in effect between January 1, 1962 and June 15, 1976.

Mobile Home Park – See Manufactured Dwelling Park under "Building Types" definition.

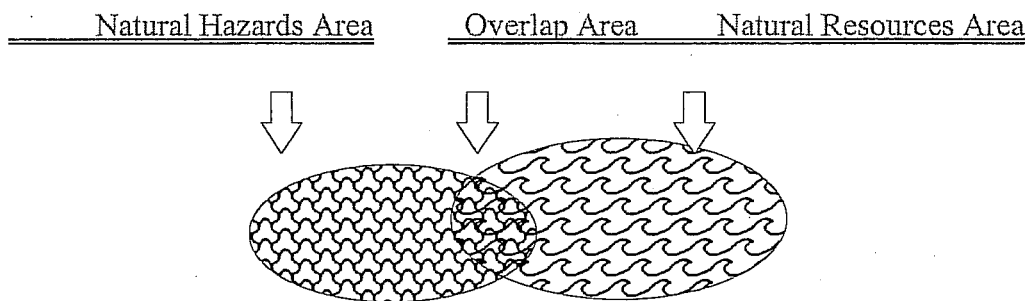
Modular Structure – A structure not built on-site, but which is placed on a permanent foundation and meets the State Building Code standards.

National Geodetic Vertical Datum – An elevation reference mark used in determining a flood boundary and floodway maps, formerly referred to as Mean Sea Level.

Natural Features Map Overlays – Comprehensive Plan and Land Development Code overlay designations for natural hazard areas and natural resource areas. Natural Features Map Overlays are designated on the Comprehensive Plan Map and the Land Development Code Map. The natural features are further identified on the sub-maps entitled Natural Hazards Map, Significant Vegetation Map, and the Riparian Corridors and Wetlands Map.

Natural Swale – A naturally-occurring linear depression that carries surface water only after rainfall. It also transports sub-surface water either seasonally or throughout the year.

Net Aggregate Natural Features Area – The area containing protected natural hazards, plus the area containing protected natural resources, minus the overlap area containing both natural hazards and natural resources so that areas are not double-counted.



Nonconforming Development – See “Legal Nonconforming Development.” Also pertains to an unlawful existing structure or use that does not conform to the requirements of the Code or any of its predecessors.

Non-native, Invasive, and/or Noxious Vegetation – Vegetation identified in the Oregon Department of Agriculture’s *Oregon Weed Policy and Classification System (Appendix 1)*, including weeds designated as “A,” “B,” and/or “T.”

Open Space, Private – Areas intended for the private use by residents of an individual dwelling unit, designed for outdoor living and recreation, and normally including patios and landscaped areas. Does not include off-street parking, maneuvering, loading or delivery areas.

Order – Final disposition of a case, which can be affirmative, negative, injunctive, or declaratory in form. Includes grant, conditional grant, or denial of an application for development.

Overlay Zone – Zone created by ordinance in recognition of a property's or area's unique characteristics, such as ~~environmental or historic resources,~~ natural resources, ~~or natural hazards,~~ or Willamette River Greenway; or a zone created by ordinance to signify that a Planned Development exists or is needed. An overlay zone is applied over the top of a property's main zone. For example, a Planned Development applied to all or a portion of a Low Density Residential (RS-6) property would result in a PD (RS-6) overlay zone.

Parcel – Unit of land created from a partition or subdivision and intended for immediate or future transfer of ownership and/or development. See also "Land, Parcel of" and "Lot."

Partition – See "Land Division."

Patio – Inner courtyard or a space for dining or recreation, adjacent to a dwelling, that has a permanent hard surface for a floor (not gravel).

Pedestrian-Friendly – A built environment or development pattern that provides direct and convenient access for handicapped persons and persons on foot (pedestrians) within a development and from a development to adjacent public transportation facilities (e.g., sidewalks, bus routes, and bus shelters). A pedestrian-friendly environment also provides amenities such as window space for visual relief along sidewalks (rather than parking areas), doorways adjacent to public sidewalks for ease of access, awnings and other weather protection, benches, plazas, etc., which help to make walking an efficient and desirable method of transportation.

Perennial Stream – ~~A perennial stream has flowing water year-round during a typical year. The water table is located above the streambed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow. (Moved to "Stream, Perennial)~~

Periodic Review – Process between the State, local governments, and others, requiring local governments to update their Comprehensive Plans and land use regulations to carry out State and local goals and objectives. Required every four to 10 years.

Permeability – The ability of the soil to absorb water.

Permitted Outright – Development activity not subject to discretionary review. An example is a detached single-family residence in an RS-3.5 Zone.

Person – Individual, corporation, governmental agency, business trust, estate, personal trust, partnership, association, two or more people having a joint or common interest, or any other legal entity.

Planned Development – Land development project comprehensively planned as an entity via a unified site plan called a Conceptual and/or Detailed Development Plan. Permits modifications to the site development standards of the underlying zone while maintaining the intent behind the standards. Often proposed to allow for better preservation of significant natural features and/or for innovation in site planning and architectural design. Requires compensating benefits that offset the requested development standard modifications.

Plat – See “Final Plat.”

Plat, Partition – See “Final Plat, Partition.”

Plat, Subdivision – See “Final Plat, Subdivision.”

Policy – A decision-making guideline for actions to be taken in achieving goals and the community’s vision.

Practicable – Capable of being effected; feasible.

Pre-existing Condition – This phrase is used in the Stormwater Master Plan (SWMP) as a reference to the land characteristics and habitat condition prior to man-made modifications.

Preserve – To save from change or loss and reserve for a special purpose. The most strict non-degradation standard.

Pretreatment – The treatment of urban runoff prior to discharging into a public water body.

Preserve – To save from change or loss and reserve for a special purpose.

Principal Use – Primary or predominant use.

Properly Functioning Condition (PFC) – The National Marine Fisheries Service defines PFC as the sustained presence of natural habitat-forming processes that are necessary for the long-term survival of a species through the full range of environmental conditions.

Protect – To save or shield from loss, destruction, or injury or to save for future intended use. ~~After "preserve," the next most strict non-degradation standard.~~

Quasi-Judicial Decision – Similar to a court proceeding in which affected parties are afforded procedural safeguards. The quasi-judicial process is characteristic of most meetings of the Planning Commission and Land Development Hearings Board. Personal notice must be mailed to property owners and occupants living within a prescribed distance from the affected area. Unlike legislative cases, the Planning Commissioners or Land Development Hearings Board members are expected to avoid outside discussion of the business at hand and must declare *ex parte* contacts. See also "Legislative Decision above.)

Recreational Vehicle – (Pertaining to floodplain regulations) a vehicle which includes all the following characteristics: built on a single chassis; 400 square feet or less in size when measured at the largest horizontal projection; designed to be self-propelled or permanently towable by a light duty truck; and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Redevelopment – Restoring or replacing existing buildings.

Replat, Major – Reconfiguration of lots in a recorded subdivision plat that results in the creation or deletion of four or more lots within one calendar year.

Replat, Minor – Reconfiguration of a portion of the lots in a recorded subdivision or partition plat that results in the creation or deletion of three or fewer lots within one calendar year.

Reserve Strip – Strip of land dedicated to the City and reserved for use as part of a future public street or facility.

Residential Care – Services such as supervision; protection; assistance while bathing, dressing, grooming, or eating; management of money; transportation; recreation; and the providing of room and board.

Restoration – The process of returning an area to a close approximation of a former condition, and re-establishing functions.

Right-of-Way – Public travel route dedicated for vehicular, bicycle, or pedestrian use. Can and often does contain public and franchise utilities.

Riparian Area – Land adjacent to a water body that directly affects or is affected by the aquatic environment. This includes streams, rivers, and lakes and their side channels, floodplains, and wetlands, and portions of adjacent slopes that shade the channel or provide streamside habitat. The area of transition from an aquatic ecosystem to a terrestrial system.

Riparian Assessment Area – Bounded area inventoried for the Riparian Assessment portion of the the Natural Features Inventory.

Riparian Management Zone – Area within the Willamette River Greenway, extending from the edge of the waterway to either the top of the bank or to the 10-year flood plain, whichever is greater.

Riparian Corridors, Regulated – Riparian (and associated upland) areas regulated by Chapter 4.13 to protect riparian areas and water resources. Regulated Riparian Corridors are clearly defined on the Comprehensive Plan Map, Land Development Code Map, and the Riparian Corridors and Wetlands Map. Regulated Riparian Corridors have been identified for both intermittent and perennial streams and widths are measured from top-of-bank and based on areas drained.

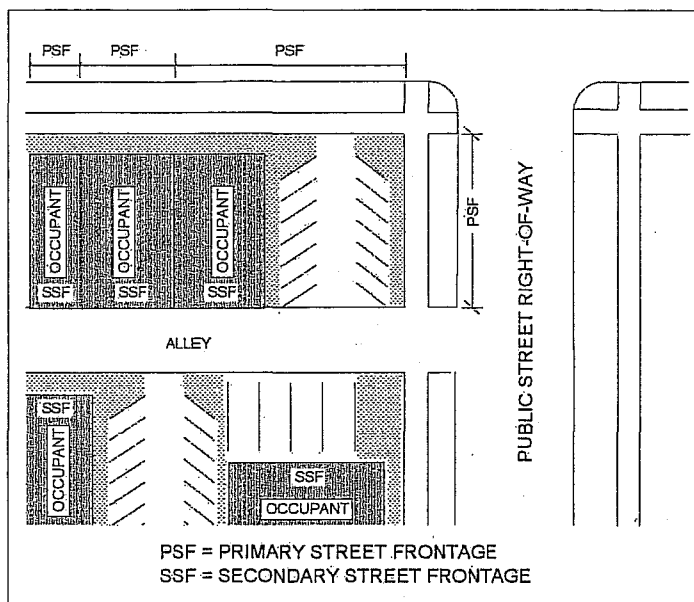
Riparian Function – A characteristic action or role provided by riparian areas, such as water quality; flood management; thermal regulation; and wildlife habitat. (DSL)

Riparian Vegetation – For the purposes of these regulations, vegetation located within the regulated Riparian Corridor.

Setback – Minimum allowable horizontal distance from a property line (unless otherwise noted) to the nearest vertical wall of a building or structure, fence, or other element as defined by this Code.

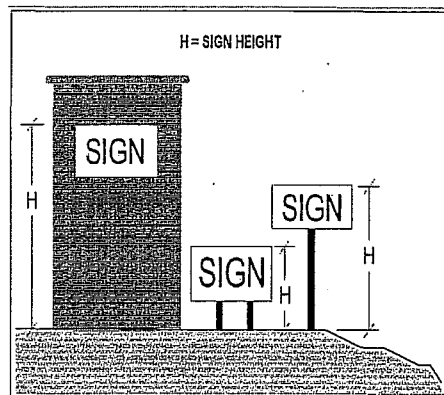
Sign Frontage, Primary – Length of the property line parallel to and along the street right-of-way adjacent to a property. On through-lots, primary frontage corresponds to the legal street address, auto entrance, building entrance, or front yard of the property.

Sign Frontage, Secondary – Face of a building oriented toward an onsite parking lot, private roadway, or public alley.



Sign Height – Height as measured from the lowest grade directly beneath the sign to the top of the sign structure enclosing the sign face.

Sign, Permanent - Sign permanently affixed or attached to a building, structure, or to the ground.



Sign, Temporary - Sign temporarily affixed or attached to a building, structure, or to the ground, and/or intended to be displayed for a limited time.

Sign, Variable Message -- Sign which utilizes manual, mechanical, electro-mechanical, electronic, radio-frequency, fiberoptic, or other automated means of changing the sign message or copy at timed intervals. Includes LED, incandescent luminaries, electronic message centers, and video display boards.

Significant – A description of a feature that has been specifically identified as worthy of special recognition or protection (e.g., a "significant" wetland, etc.), or a resource that has been formally identified by the City through adopted plans and ordinances by the City.

Significant Shrub – Living, standing plant over 4 ft. tall (excluding blackberries or poison oak and similar noxious vegetation) that is either:

- a. required to be preserved through the provisions of Chapters 4.5, 4.12, and/or 4.13; or
- b. over 4 ft. in height and located outside any area inventoried by the Natural Features Inventory.

Significant Tree – Living, standing woody plant (excluding noxious vegetation) with a trunk 8 in. or more in diameter at breast height (diameter at breast height = DBH) that is either:

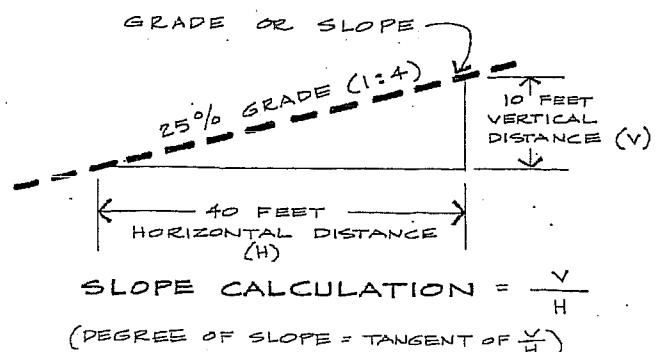
- a. required to be preserved through the provisions of Chapters 4.5, 4.12, and/or 4.13; or
- b. located outside any area inventoried by the Natural Features Inventory and of a trunk size that is 8 in. or greater in diameter at breast height (diameter at breast height = DBH).

Significant Vegetation – Vegetation identified and assessed in the Natural Features Inventory and determined to be significant through the Natural Features Project. Significant Vegetation is clearly identified on the Significant Vegetation Map and through the provisions of Chapter 4.12.

Significant Vegetation Management Plan – Plan required by Chapter 4.12 prior to the removal of any vegetation governed by the provisions of Chapter 4.12, and required either prior to or as part of a land use application, building permit application, or construction permit application (whichever comes first).

Site – Lot or parcel of land or, when involved in a development proposal, any combination of contiguous lots or parcels of land: (Redundant with "Development Site")

Slope – The deviation of a surface from the horizontal, usually expressed in percent or degrees. See Grade.



Soil Bioengineering – Method of soil or land stabilization that uses living plant material

selected for the specific site situation as the major structural or engineering component of the stabilization.

Solar Access – Line-of-sight path to the sun during hours that provide beneficial use of solar energy.

Solar Access Easement – Private agreement between property owners that protects solar access. Solar easements are prepared and recorded pursuant to ORS 105.880-105.895.

Solar-Access-Friendly Trees – Trees with minimal effect on solar access during winter months because of their leafing and branching characteristics; deciduous trees.

Solar Access Protection – Right to unobstructed solar access for at least four hours between 9 a.m. and 3 p.m. on November 21 of each year.

Solar Building Line – Southern-most place that the south wall of a house can be located and still receive shade protection from buildings located offsite to the south.

Solar Collector – Heating or cooling system in which the thermal energy of solar radiation is captured and stored for later release.

Solar Energy System – Set of devices used to collect solar energy and convert and store it for purposes including heating and cooling of buildings or for the production of power.

- a. **Active** – Solar energy system that uses a separate collector to transform solar radiation into usable heat and a mechanical system to transfer heat to its point of use.
- b. **Passive** – Solar energy system that uses natural and architectural components to collect and store solar energy using minimal or no external mechanical equipment.

Solar Envelope – Drawing or representation by contour lines of a three-dimensional space over a lot or development site representing the allowable height of structures and vegetation that provides solar access protection for neighboring lots.

Solar South – Thirty degrees east to 30 degrees west of true south. In Corvallis, true south is 20 degrees east of magnetic south.

Special District (Zone) – A development district (zone) created by ordinance in recognition of an area's unique characteristics such as environmental or historic resources, natural hazards, or an identified need for redevelopment.

Specification Standards – Measurable standards applicable to development. These standards contain the minimum requirements for design and construction of improvements covered by this Code.

Staff – Administrative officers responsible for the operation and management of the City's departments and divisions.

Stormwater – Rainfall or snow melt that drains into streams or pipes.

Stormwater Functions – Includes interception and temporary storage of precipitation, natural surface conveyance, stream subsurface flow, infiltration, groundwater recharge, sediment and pollutant filtration, cooling, sustaining aquatic habitats, cleansing, nutrient transfer, and other beneficial functions.

Stormwater Phase II Rules – Federal Clean Water Act regulations that deal with runoff water quality issues, including pollutants and construction sediments.

Stream – A channel such as a river or creek that carries flowing surface water, including perennial streams and intermittent streams with defined channels, and excluding man-made irrigation and drainage channels.

Stream Corridor – A corridor of land of variable width along each side of a stream channel that is primarily reserved for stormwater-related and other stream system functions and processes.

Stream Corridor Functions – The attributes (uses and processes) that are connected with a stream corridor. These include ecological functions like pollutant filtering, shading the channel, floodwater management, supplying food for fish (insects, leaves, etc.) and other aquatic life, providing space for channel movement, and providing large wood to the channel when trees die.

Stream, Ephemeral – Stream that has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Groundwater is not a source of water for ephemeral streams.

Stream, Intermittent – Stream that flows primarily during the wet seasons when the water table is high, and remains dry for a portion of the year. Most intermittent streams flow for a good portion of the year. (DSL -- ORS 196.800). Typically, when intermittent streams lack surface flow, they continue to have groundwater flow through gravels below the surface. Intermittent streams in Corvallis, defined through the Natural Features Scoping Project, are further defined as natural drainageways that: 1) do not have year-round flows in a water year (October 1 through September 31) based on a precipitation total at the time of determination that is within 20% of average total precipitation for the past 30 years; and 2) drain at least 20 acres. Upon field verification, an intermittent stream may be defined to include a distinct channel upstream from the 20-acre drainage basin, provided that riparian vegetation is present.

Stream, Perennial – Stream that has flowing water year-round during a typical year. The water table is located above the streambed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow. Perennial streams in Corvallis, defined through the Natural Features Scoping Project, are further defined as natural drainageways that include all stream segments inventoried through the City of Corvallis Endangered Species Act 2001 Inventory and other natural drainageways that: 1) do have year-round flows in a water year (September 1 to August 31) based on a precipitation total at the time of determination that is within 20% of average total precipitation for the past 30 years; and 2) drain at least 20 acres.

Stream System – The channel, subsurface flow, and adjacent corridor, including the floodplain.

Streets – Designated in the City of Corvallis Transportation Plan as follows (see also Chapter 4.0 -- Improvements):

- a. **Arterial Highways** – These consist of State highways, which are the primary gateways into Corvallis and carry nearly all vehicles entering, leaving, or passing through the Corvallis area. The ORE 34/US 20 corridor is designated a Statewide Highway on the National Highway System (NHS) and is a key corridor between I-5 and the Oregon coast.
- b. **Arterial Streets** – These connect the State highways, linking major commercial, residential, industrial, and institutional areas. Arterial streets are critical to the Corvallis street network because they generally serve the highest traffic volumes and longest trips. Access control is critical on these facilities to ensure safe and efficient operation.

local streets. Local connectors are generally the means by which traffic accesses the community arterial-collector system.

- h. Shopping Streets** – These are located within Neighborhood Centers and may include local, local connector, neighborhood collector, and/or collector streets. Access control and traffic calming along shopping streets shall be typical, sidewalks shall be wider to enhance special pedestrian accessibility and shopping opportunities, and planting strips shall be reduced or eliminated, provided that tree wells and other vegetation amenities are furnished and maintained (such as permanent on-ground or hanging planters).

Structure – Combination of materials to form a construction for use, occupancy, or ornamentation whether installed on, above, or below the surface of land or water.

Structure Height – See "Height of Buildings."

Subdivision – See "Land Division."

Substantial Damage – Damage to structures within the 100-year flood plain or damage to non-conforming structures, and/or damage to structures containing nonconforming uses, as defined below:

- a. Substantial Damage to Structures within the 100-Year Flood Plain** – Damage of any origin sustained by a structure located within the 100-year flood plain, whereby the cost of restoring the structure to its prior condition would equal or exceed 50 percent of the structure's market value before the damage occurred. Substantial damage also pertains to flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the structure's market value before the damage occurred. Note: Pursuant to section 4.5.70 of Chapter 4.5 -- Flood Control, Storm Drainage, and Wetland Provisions, new construction, substantial improvements, and encroachments are prohibited within the 0.2-ft.-rise floodway.
- b. Substantial Damage to Nonconforming Structures and Structures Containing Nonconforming Uses** – Damage of any origin sustained by a structure containing a nonconforming use, to an extent exceeding 60 percent of the structure's market value before the damage occurred.

Substantial Improvement – Any rehabilitation, repair, reconstruction, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the structure's market value (before "start

of construction”). Note: Pursuant to section 4.5.70 of Chapter 4.5 -- Flood Control, Storm Drainage, and Wetland Provisions, new construction, substantial improvements, and encroachments are prohibited within the 0.2-ft.-rise floodway. Substantial improvement exempts the following:

- a. Any improvement to a structure that would make it comply with existing state or local health, sanitary, or safety regulations to ensure safe living conditions; or
- b. Any alteration of a structure listed on the National Register of Historic Places.

Sunchart – Photograph showing the sun’s positions during different hours and seasons of the year and any trees, buildings, or topographies that obstruct solar access. The sunchart shall include as coordinates the solar altitude in 10-degree or smaller increments and solar azimuth in 15-degree or smaller increments.

Sustainable – Able to be maintained or continued indefinitely.

Through Lot – Lot that fronts two parallel streets or that fronts two streets that do not intersect at the lot’s boundaries.

Through Lot Easement – Landscape easement adjacent to a street and adjacent to or part of a through lot. Contains landscape screening.

Timber Harvest – Commercial – Cutting, removing, severing from the land, trees for wood production and/or for sale. Commercial harvesting may be regulated by the Oregon Forest Practices Act. Christmas tree farming is not a form of commercial timber harvesting. It is an agricultural land use.

Timber Harvest – Noncommercial - Cutting, removing, severing from the land, trees for personal uses such as fire wood, and/or clearance to create development areas. Wood is not sold to another party, and activities are generally not regulated by the Oregon Forest Practices Act.

Top-of-Bank -- The “Bankfull stage” of a stream or river which is 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 or delineate the top-of-bank.

Tract – An area, parcel, site, piece of land, or property that is, in whole or in part, the subject of a development application. Tracts are required under certain circumstances by Chapters 4.5, 4.12, and 4.13 for the purposes of addressing significant natural resources and hazards.

Traffic Calming – Use of devices to slow traffic speeds. Devices include bulbed intersections, speed humps, raised planted medians, mid-block curb extensions, traffic circles, signage, and varied paving materials. Traffic calming is addressed in the Transportation Plan and may be used on Neighborhood Collector and Local streets.

Tree Canopy – A view which is dominated by the appearance of trees. As used in the Comprehensive Plan, “tree canopy” refers to those hillside areas where trees are the major visual feature when viewed from a horizontal plane or from lower elevations.

Tree Canopy Coverage – The percentage of a lot, parcel, tract, development site, and/or common area that is within the drip line of trees as measured on a horizontal plane.

- a. **Mature tree canopy coverage** – The area that is expected to be within the drip line at the anticipated time of maturity of the tree by species.
- b. **Fifteen year mature tree canopy coverage** – The area that is expected to be within the drip line at year fifteen from the date of planting based upon a planting of one- or 1.5- inch caliper trees and based upon the specific tree by species.

Tree Grove – A group of trees that are predominantly 25 feet or more in height and have continuous canopy cover of one-half acre or more and are identified in the Natural Features Inventory.

Tree Grove, Isolated – Tree Groves that are not located within other resource areas.

Tree Grove, Mitigation – Tree Groves required to be planted or retained as mitigation for development.

Tree, Hazardous – Trees which are determined by a certified arborist and/or the City Urban Forester to be of immediate health, safety, or welfare threat to persons and property. Immediate health, safety, or welfare threat includes damage to persons and property from tree collapse or limb breakage that is imminent or expected during average annual winter storm events. Hazardous trees include trees that are cracked, split, leaning or physically damaged to the degree that they are likely to fail and injure persons or property. Hazardous trees also include trees that are sufficiently diseased, damaged, and/or

decayed that treatment to restore their health is not warranted, and that without reasonable treatment and pruning, the disease is likely to spread to adjacent trees and cause such adjacent trees to become diseased or hazardous.

Tree, Large Canopy – Trees that, at maturity, are expected to have a tree canopy of thirty feet or more in diameter.

Tree, Medium Canopy – Trees, that at maturity, are expected to have a tree canopy of less than thirty feet in diameter.

Undeveloped Land in the 100-year Floodplain – Either: 1) land that does not contain a primary structure; or 2) in cases where land does contain a primary structure, then land that can be divided and the resulting vacant parcels can be developed per the Corvallis Land Development Code.

Unwanted Species – Species that are either non-native or that do not contribute to the properly functioning condition of an adjacent stream.

Upland Natural Resources – Natural features and areas outside of the stream corridor and the 100-year floodplain that influence stormwater function and management. They include uplands, wetlands, vegetation, swales, and groundwater zones.

Urban Fringe – The area within the Urban Growth Boundary and outside the City limits.

Urban Growth Boundary – A line that circumscribes the Urban Fringe and the City Limits and that is intended by State and local regulations to contain the area available to urban development.

Urban Stream – A seasonally or perennially surface-flowing watercourse presently with a defined channel, including watercourses in either a native or altered form.

Use – Purpose of or activity on a site.

Use Type – Classification of a use or uses on the basis of common functional, product, or compatibility characteristics, thereby regulating uses in accordance with criteria directly relevant to the public interest. See Chapter 3.0 – Use Classifications for definitions of specific use types.

Vacate – Release of interest in a piece of property.

Vegetation Cover Types, ARA – ARA Habitat classes in the Natural Features Inventory. The ARA Habitat Classes are as follows:

<u>ARA Vegetation Cover Types</u>	
<u>6. Conifer > 70% closed canopy</u>	<u>15. Seasonally inundated shrub wet valley</u>
<u>7. Mixed Forest > 70% closed canopy</u>	<u>20. Grass short (lawn . pasture)</u>
<u>8. Hardwood > 70% closed canopy</u>	<u>21. Grass natural/dry prairie</u>
<u>9. Conifer woodland 30-70% closed</u>	<u>22. Grass tall (ryegrass, meadow)</u>
<u>10. Mixed woodland 30-70% closed</u>	<u>23. Bare soil/rock/burnt</u>
<u>11. Hardwood woodland 30-70% closed</u>	<u>26. Emergen/herb wetland or pond (seasonal)</u>
<u>12. Open (.30% canopy) non-oak woods</u>	<u>27. Emergent wetland or pond (water year-round)</u>
<u>13. Oak savanna (.30% canopy)</u>	<u>30. Developed</u>
<u>14. Shrub dry, tree open</u>	

Vegetation Sub-polygon – A subarea within a Wildlife Habitat Area containing a single vegetation cover type such as a conifer woodland or oak savanna.

Vision Clearance Area – Specific distances and prohibitions on visual obstructions within vision clearance areas are contained in Chapter 4.1 - Parking, Loading, and Access Requirements and the “Off-street Parking and Access Standards.”

Visual Obstruction – Fence, hedge, tree, shrub, device, wall, or structure between the elevations of 2 ft. and 8 ft. above the adjacent curb height or above the elevation of the gutter line of a street edge where there is no curb, as determined by the City Engineer, and so located at a street, driveway, or alley intersection as to limit the visibility of pedestrians or persons in motor vehicles.

Watercourse – Any natural or artificial stream, river, creek, ditch, channel, canal, conduit, culvert, drain, waterway, gully, ravine, or wash in which water flows in a definite direction or course, either continuously or intermittently, and has a definite channel, bed, and banks and includes an area adjacent thereto subject to inundation by reason of overflow or floodwater.

Water-Dependent – Use or activity that can be carried out only on, in, or adjacent to water areas because the use requires access to the water source or to the water body for water-borne transportation, recreation, or energy production.

Water-Related – Use not directly dependent upon access to a water body, but that provides goods or services directly associated with water-dependent land or waterway use and that, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, factories, and manufactured home facilities are not generally considered water-dependent or water-related.

Water Service Levels – The Corvallis Urban Growth Boundary is divided into four levels based on elevation and associated water pressure in each area. These elevation ranges are: 1st level = 210'-290'; 2nd level = 290'-410'; 3rd level = 410'-560'; and 4th level = above 560 feet. The 4th level is not served by City water.

Watershed – The drainage area of a specific stream system. Small watersheds are components of larger watersheds.

Wetland – Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are generally characterized by one of three parameters: certain soil types, aquatic plants, and hydrology.

Wetland Assessment – Determining the relative quality of a wetland by assessing its functions and conditions. The methodology generally used to determine the relative quality of wetlands for purposes of a Local Wetland Inventory (LWI) is the Oregon Freshwater Wetland Assessment Methodology. (Roth, et.al. 1996)

Wetland Delineation – Process of determining the boundary between wetland and upland. Delineations must be carried out following the guidelines of the U.S. Army Corps of Engineers and the Oregon Department of State Lands. Wetland delineation locates the wetland-upland boundary based on field indicators – vegetation, soils, and hydrology.

Wetland Function – A characteristic action or behavior associated with a wetland that contributes to a larger ecological condition such as wildlife habitat, water quality and/or flood control.

Wetland Hydrology – Permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the upper soil profile.

Wetlands, Local Wetlands Inventory – An inventory of all wetlands greater than 0.5-acre in size within a local jurisdiction using the standards and procedures of OAR 141-86-110 through 141-86-240.

Local Wetlands Inventory information and mapping are intended for planning purposes only. Mapped wetland boundaries are accurate to within 25 feet; however, there may be unmapped wetlands that are subject to State and Federal regulation. In all cases, actual field conditions determine specific wetland boundaries.

Wetlands, Locally Protected Locally Significant (LPLSW) – Locally Significant Wetlands that are protected through local government regulations, in addition to any state or federal regulations.

Wetlands, Locally Significant (LSW) – Wetlands determined to be locally significant in compliance with Oregon Administrative Rules (OAR), which meet the Oregon Freshwater Assessment Methodology criteria for LSW; and which have been adopted on the Local Wetlands Inventory as being locally significant. Locally Significant Wetlands are identified on the Local Wetland Inventory Map.

Wetlands, Proximate: “Jurisdictional wetlands, but not limited to locally significant wetlands, within or adjacent to a Riparian Corridor. These enhance riparian function and are provided protection as part of a Riparian-Related Area.

Wetlands Regulation – The Department of State Lands regulates wetland in Oregon under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (Corps) through Section 404 of the Clean Water Act. In addition, the City of Corvallis regulates Locally Protected Locally Significant Wetlands and wetlands located with Riparian Corridors and the 100-year Flood plain for their riparian and flood plain functions.

Yard – Open space unobstructed from the ground upward except as otherwise provided in this Code. In the case of a corner lot, the front, rear, and side yards that were determined at the time of original construction of structure(s) on the lot may be used for the purposes of remodeling, rebuilding, and/or constructing additions, accessory structures, etc.

Yard, Exterior Side - Yard extending from the front yard to the rear lot line on the street side of a corner lot.

ATTACHMENT F

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. Additional staff-recommended changes are indicated with the italic version of those same fonts. The City Council adopted this Chapter with the additional modifications included at the end of this attachment.

CHAPTER 4.0 IMPROVEMENTS REQUIRED WITH DEVELOPMENT (Amended ~~7/1/03~~ 12-20-04)

Section 4.0.10 - PURPOSES

This chapter provides general information regarding improvements required with residential, commercial, and industrial development. It is intended to clarify timing, extent, and standards for improvements required in conjunction with development. In addition to the standards in this chapter, additional standards for specific situations are contained in other chapters within Article IV.

Section 4.0.20 - EXCEPTIONS

- a. Single family residential development on existing lots are exempt from this chapter, with the exception of Section 4.0.40 - Pedestrian Requirements.

Section 4.0.30 - TIMING OF IMPROVEMENTS

- a. All improvements required by the standards in this chapter shall be installed concurrently with development, as follows:
 1. Where a land division is proposed, each proposed lot shall have required public and franchise utility improvements installed or secured in accordance with the provisions of 2.4.40.09 prior to approval of the final plat.
 2. Where a land division is not proposed, the site shall have required public and franchise utility improvements installed or secured in accordance with the provisions of 2.4.40.09 prior to occupancy of structures.
- b. Where specific approval for a phasing plan has been granted for a planned development and/or subdivision, improvements may similarly be phased in accordance with that plan.

Section 4.0.40 - PEDESTRIAN REQUIREMENTS

- a. Sidewalks shall be required along both sides of all arterial, collector, and local streets, as follows:
 1. Sidewalks shall be a minimum of 5 ft wide on local through streets and a minimum of 4 ft wide on cul-de-sacs. The sidewalks shall be separated from curbs by a tree planting area that provides at least 6 ft of separation between sidewalk and curb, except that this separated tree planting area shall not be provided adjacent to sidewalks where they are allowed to be located within natural resource areas governed by Chapter 4.12 - Significant Vegetation and 4.13 - Riparian Corridors and Locally Protected Wetlands; and shall not be provided adjacent to sidewalks where they are

allowed to be located within drainageway areas governed by regulations in Chapter 4.5 - Natural Hazards and Hillside.

2. Sidewalks along arterial and collector streets shall be separated from curbs with a planted area. The planted area shall be a minimum of 12 ft wide and landscaped with trees and plant materials approved by the City. The sidewalks shall be a minimum of 56 ft wide. An exception to these provisions is that this separated tree planting area shall not be provided adjacent to sidewalks where they are allowed to be located within natural resource areas governed by Chapter 4.12 - Significant Vegetation and 4.13 - Riparian Corridors and Locally Protected Wetlands; and shall not be provided adjacent to sidewalks where they are allowed to be located within drainageway areas governed by regulations in Chapter 4.5 - Natural Hazards and Hillside.

3. The timing of the installation of sidewalks shall be as follows:

- (a) Sidewalks and planted areas along arterial and collector streets shall be installed with street improvements.
- (b) Sidewalks along local streets shall be installed in conjunction with development of the site, generally with building permits, except as noted in (c) below.
- (c) Where sidewalks on local streets abut common areas, drainageways, or other publicly owned areas, the sidewalks and planted areas shall be installed with street improvements.

- b. Safe and convenient pedestrian facilities that strive to minimize travel distance to the greatest extent practicable shall be provided in conjunction with new development within and between new subdivisions, planned developments, commercial developments, industrial areas, residential areas, transit stops, and neighborhood activity centers such as schools and parks, as follows:

1. For the purposes of this section, "safe and convenient" means pedestrian facilities that: are reasonably free from hazards which would interfere with or discourage pedestrian travel for short trips; provide a direct route of travel between destinations; and meet the travel needs of pedestrians considering destination and length of trip.
2. To meet the intent of "b" above, pedestrian rights-of-way connecting cul-de-sacs or passing through unusually long or oddly shaped blocks shall be a minimum of 15 ft wide. When these connections are less than 220 ft long (measuring both the on-site and the off-site portions of the path) and they directly serve 10 or fewer on-site dwellings, the paved improvement shall be no less than 5 ft wide. Connections that are either longer than 220 ft or serving more than 10 on-site dwellings shall have wider paving widths as specified in Section 4.0.50.c.
3. Internal pedestrian circulation shall be encouraged in new developments by clustering buildings, constructing convenient pedestrian ways, and/or constructing skywalks where appropriate. Pedestrian walkways shall be provided in accordance with the following standards:

- (a) The on-site pedestrian circulation system shall connect the sidewalk on each abutting street to the main entrance of the primary structure on the site to minimize out-of-direction pedestrian travel.
 - (b) Walkways shall be provided to connect the on-site pedestrian circulation system with existing or planned pedestrian facilities which abut the site but are not adjacent to the streets abutting the site.
 - (c) Walkways shall be as direct as possible and avoid unnecessary meandering.
 - (d) Walkway/driveway crossings shall be minimized, and internal parking lot circulation design shall maintain ease of access for pedestrians from abutting streets, pedestrian facilities, and transit stops.
 - (e) With the exception of walkway/driveway crossings, walkways shall be separated from vehicle parking or maneuvering areas by grade, different paving material, or landscaping. They shall be constructed in accordance with the sidewalk standards adopted by the City Engineer. (This provision does not require a separated walkway system to collect drivers and passengers from cars that have parked on site unless an unusual parking lot hazard exists).
- c. Where a development site is traversed by or adjacent to a future trail linkage identified within either the Corvallis Transportation Plan or the Trails Master Plan, improvement of the trail linkage shall occur concurrent with development. Dedication of the trail to the City shall be provided in accordance with Section 4.0.110.d.
 - d. To provide for orderly development of an effective pedestrian network, pedestrian facilities installed concurrent with development of a site shall be extended through the site to the edge of adjacent property(ies).
 - e. To ensure improved access between a development site and an existing developed facility such as a commercial center, school, park, or trail system, the Planning Commission or Director may require off-site pedestrian facility improvements concurrent with development.
 - f. Natural Hazards and Hillside, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.50 - BICYCLE REQUIREMENTS

- a. On-street bikelanes shall be required on all arterial and collector streets and constructed at the time of street improvements.

- b. Safe and convenient bicycle facilities that strive to minimize travel distance to the greatest extent practicable shall be provided in conjunction with new development within and between new subdivisions, planned developments, commercial developments, industrial areas, residential areas, transit stops, and neighborhood activity centers such as schools and parks.
 - 1. For the purposes of this section, "safe and convenient" means bicycle facilities which: are reasonably free from hazards which would interfere with or discourage bicycle travel for short trips; provide a direct route of travel between destinations; and meet the travel needs of bicyclists considering destination and length of trip.
 - 2. Bicycle/pedestrian rights-of-way connecting cul-de-sacs or passing through unusually long or oddly shaped blocks shall be a minimum of 15 ft wide.
- c. Adequate widths for pedestrian/bicycle facilities shall be provided in accordance with the following standards:
 - 1. 8 ft bikepaths should be used where long term bicycle and pedestrian usage is expected to be relatively low (a neighborhood facility rather than a community-wide facility) and with proper alignment to ensure adequate sight distance.
 - 2. 10 ft shall be used as a standard width for two-way bikepaths.
 - 3. 12 ft bikepaths shall be provided in areas with high bicycle volumes or multiple use by bicyclists, pedestrians and joggers.
- d. To provide for orderly development of an effective bicycle network, bicycle facilities installed concurrent with development of a site shall be extended through the site to the edge of adjacent property(ies).
- e. Natural Hazards and Hillsides, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.60 - TRANSIT REQUIREMENTS

- a. Development sites located along existing or planned transit routes shall, where appropriate, incorporate bus pull-outs and shelters into the site design. These improvements shall be installed in accordance with the guidelines and standards of the Corvallis Transit System (*i.e.*, bus pull-outs are typically spaced at 1500 ft apart).
- b. New developments at or near existing or planned transit stops shall design development sites to provide safe, convenient access to the transit system, as follows:

1. All commercial and civic use developments shall provide a prominent entrance oriented towards arterial and collector streets, with front setbacks reduced as much as possible to provide access for pedestrians, bicycles and transit.
2. All developments shall provide safe, convenient pedestrian walkways between the buildings and the transit stop, in accordance with the provisions of Section 4.0.40.b.

c. Natural Hazards and Hillides, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.70 - STREET REQUIREMENTS

- a. Traffic evaluations shall be required of all development proposals in accordance with the following:
 1. A proposal establishing the scope of the traffic evaluation shall be submitted for review to the City Engineer. The evaluation requirements shall reflect the magnitude of the project in accordance with accepted traffic engineering practices. Large projects should assess all nearby key intersections. Once the scope of the traffic evaluation has been approved, the applicant shall present the results with an overall site development proposal. If required by the City Engineer, such evaluations shall be signed by a Licensed Professional Civil Engineer or Licensed Professional Traffic Engineer.
 2. If the traffic evaluation identifies level-of-service conditions less than the minimum standard established in the Corvallis Transportation Plan, improvements and funding strategies mitigating the problem shall be considered concurrent with a development proposal.
- b. Location of new arterial streets shall conform to the Corvallis Transportation Plan in accordance with the following:
 1. Arterial streets should generally be spaced in one-mile intervals.
 2. Traffic signals should generally not be spaced closer than 1500 ft for reasonable traffic progression.
- c. Local streets shall be designed to discourage through traffic. *NOTE: For the purposes of this section, "through traffic" means the traffic traveling through an area that does not have a local origination or destination.* To discourage through traffic the following street designs shall be considered, as well as other designs intended to discourage traffic:
 1. Straight segments of local streets should be kept to less than a quarter mile in length, and include design features such as curves and "T" intersections.

2. Local streets should typically intersect in "T" configurations rather than 4-way intersections to minimize conflicts and discourage through traffic. Adjacent "T" intersections shall maintain a minimum of 125 ft between the nearest edges of the 2 rights-of-way.
 3. Cul-de-sacs should not exceed 600 ft nor serve more than 18 dwelling units.
- d. Development sites shall be provided with access from a public street improved to City standards in accordance with the following:
1. Where a development site abuts an existing public street not improved to City standards, the abutting street shall be improved to City standards along the full frontage of the property concurrent with development.
 2. Half-street improvements, as opposed to full-width street improvements, are generally not acceptable. However, these may be approved by the Planning Commission or Director where essential to the reasonable development of the property. Approval for half-street improvements may be allowed when other standards required for street improvements are met and when the Planning Commission or the Director finds that it will be possible to obtain the dedication and/or improvement of the remainder of the street when property on the other side of the half-street is developed.
 3. To ensure improved access to a development site consistent with policies on orderly urbanization and extension of public facilities the Planning Commission or Director may require off-site street improvements concurrent with development.
- e. To provide for orderly development of adjacent properties, public streets installed concurrent with development of a site shall be extended through the site to the edge of the adjacent property(ies) in accordance with the following:
1. Temporary dead-ends created by this requirement to extend street improvements to the edge of adjacent properties may be installed without turn-arounds, subject to the approval of the Fire Marshal.
 2. In order to assure the eventual continuation or completion of the street, reserve strips may be required in accordance with 2.4.40.04.
 3. Drainage facilities shall be provided to properly manage storm water run-off from temporary dead-ends.
- f. Where required by the Planning Commission or Director, public street improvements may be required through a development site to provide for the logical extension of an existing street network or to connect a site with a nearby neighborhood activity center, such as a school or park. Where this creates a land division incidental to the development, a land partition shall be completed in accordance with Chapter 2.14 concurrent with the development.

- g. Except for extensions of existing streets, no street names shall be used that will duplicate or be confused with names of existing streets. Street names and numbers shall conform to the established pattern in the surrounding area and be subject to approval of the Director.
- h. To provide off-street loading and/or access to parking areas, alleys shall be provided in commercial and industrial districts to serve abutting properties unless other permanent provisions are approved by the Planning Commission or Director.
- i. Location, grades, alignment, and widths for all public streets shall be considered in their relation to existing and planned streets, topographical conditions, public convenience and safety, and proposed land use. Where topographical conditions present special circumstances, exceptions to these standards may be granted by the City Engineer provided the safety and capacity of the street network is not adversely effected. The following standards shall apply:
1. Location of streets in a development shall not preclude development of adjacent properties. Streets shall conform to planned street extensions identified in the Corvallis Transportation Plan and/or provide for continuation of the existing street network in the surrounding area.
 2. Grades shall not exceed 6 percent on arterial streets, 10 percent on collector streets, and 15 percent on local streets.
 3. As far as practical, arterial streets and collector streets shall be extended in alignment with existing streets by continuation of the street centerline. When staggered street alignments resulting in "T" intersections are unavoidable, they shall leave a minimum of 200 ft between the nearest edges of the two rights-of-way.
 4. Centerline radii of curves shall not be less than 500 ft on arterial streets, 300 ft on collector streets, and 100 ft on local streets.
 5. Streets shall be designed to intersect at angles as near as practicable to right angles and shall comply with the following:
 - (a) The intersection of an arterial or collector street with another arterial or collector street shall have a minimum of 100 ft of straight (tangent) alignment perpendicular to the intersection.
 - (b) The intersection of a local street with another street shall have a minimum of 50 ft of straight (tangent) alignment perpendicular to the intersection.
 - (c) Where right angle intersections are not possible, exceptions can be granted by the City Engineer provided that intersections not at right angles have a minimum corner radius of 20 ft along the right-of-way lines of the acute angle.
 - (d) All intersections with arterial streets shall have a minimum curb corner radius of 20 ft. ~~All other intersections shall have a minimum curb corner radius of 10 ft.~~
 6. Right-of-way and improvement widths shall be as specified in ~~the~~ table 4.0-1, below.

7. Where streets must cross protected natural features, street widths shall be minimized by providing no on-street parking and no planting strips between the curb and the sidewalk on either side of the street. Parking bays may be allowed, provided they do not exceed one space per dwelling unit and provided they do not cause the development to exceed the amount of development allowed by the provisions of Chapters 4.5, 4.11, 4.12, and 4.13 of this Code.

FACILITY	FEATURE	WIDTH (ft)	NUMBER	FEATURE WIDTH (ft)	ROW WIDTH	
Local Street	Travel Lanes	14	— 1	14		
	Parking	7	— 2	14		
	Total Curb-to-Curb Width →					28
	Park Strip	6	— 2	12		
	Sidewalks	5	— 2	10		
	Total Width →					50
Cul-de-sac Bulb	Bulb Radius	38	— ---	38		
	Park Strip	6	— ---	6		
	Sidewalks	4	— ---	4		
	Total Radius →					48
2 Lane Collector	Travel Lanes	12	— 2	24		
	Bikelanes	6	— 2	12		
	Total Curb-to-Curb Width →					36
	Park Strip	12	— 2	24		
	Sidewalks	5	— 2	10		
	Total Width →					70
3 Lane Collector	Travel Lanes	10	— 2	20		
	Left Turn Lane	12	— 1	12		
	Bikelanes	6	— 2	12		
	Total Curb-to-Curb Width →					44
	Park Strip	12	— 2	24		
	Sidewalks	5	— 2	10		
	Total Width →					78
2 Lane Arterial	Travel Lanes	12	— 2	24		
	Bikelanes	6	— 2	12		
	Total Curb-to-Curb Width →					36
	Park Strip	12	— 2	24		
	Sidewalks	5	— 2	10		
	Total Width →					70

FACILITY	FEATURE	WIDTH (ft)	NUMBER	FEATURE WIDTH (ft)	ROW WIDTH
3 Lane Arterial	Same as 2 Lane Arterial, but with one additional 12 ft wide lane				82
	Total Curb-to-Curb Width →			48	
	Total Width →			82	
4 Lane Arterial	Same as 2 Lane Arterial, but with two additional 12 ft wide lanes				94
	Total Width →			94	
5 Lane Arterial	Same as 2 Lane Arterial, but with three additional 12 ft wide lanes				106
	Total Width →			106	

Table 4.0-1- Street Functional Classification System¹

	<u>Arterial Highway</u>	<u>Arterial</u>	<u>Collector</u>	<u>Neighborhood Collector</u>	<u>Local Connector</u>	<u>Local</u>
<u>Auto amenities (lane widths)²</u>	<u>2-5 Lanes (11 - 14 ft.)</u>	<u>2-5 Lanes (12 ft.)</u>	<u>2-3 Lanes (11 ft.)</u>	<u>2 Lanes (10 ft.)</u>	<u>2 Lanes (10 ft.)</u>	<u>Shared Surface</u>
<u>Bike amenities³</u>	<u>2 Lanes (6 ft.)</u>	<u>2 Lanes (6 ft.)</u>	<u>2 Lanes (6 ft.)</u>	<u>2 Lanes (6 ft.)</u>	<u>Shared Surface</u>	<u>Shared Surface</u>
<u>Pedestrian amenities</u>	<u>2 Sidewalks (6 ft.)</u> <u>Ped. Islands</u>	<u>2 Sidewalks (5 ft.)</u> <u>Ped. Islands</u>	<u>2 Sidewalks (5 ft.)</u>	<u>2 Sidewalks (5 ft.)</u>	<u>2 Sidewalks</u>	<u>2 Sidewalks</u>
<u>Transit</u>	<u>Typical</u>	<u>Typical</u>	<u>Typical</u>	<u>Typical</u>	<u>Permissible/ not typical</u>	<u>Permissible/ not typical</u>
<u>Managed speed⁴</u>	<u>20 mph - 55 mph</u>	<u>25 mph - 45 mph</u>	<u>25 mph - 35 mph</u>	<u>25 mph</u>	<u>25 mph</u>	<u>15-20 mph</u>
<u>Curb-to-curb width⁵ (two way)</u>						
<u>No on-street parking⁶</u>	<u>34 ft - 84 ft.*</u>	<u>34 ft.-72 ft.</u>	<u>34 ft.-45 ft.</u>	<u>32 ft.</u>	<u>20 ft.*</u>	<u>20 ft.*</u>
<u>Parking one side</u>	<u>42 ft. - 84 ft.</u>	<u>NA</u>	<u>NA</u>	<u>40 ft.</u>	<u>28 ft.</u>	<u>25 ft.*</u>
<u>Parking both sides</u>	<u>50 ft. - 84 ft.</u>	<u>NA</u>	<u>NA</u>	<u>48 ft.</u>	<u>28-34 ft.</u>	<u>28 ft.</u>
<u>Traffic calming⁶</u>		<u>No</u>	<u>Permissible/ not typical</u>	<u>Typical</u>	<u>Permissible</u>	<u>Permissible</u>
<u>Preferred adjacent land use</u>	<u>High Intensity</u>	<u>High Intensity</u>	<u>Med. to High Intensity</u>	<u>Medium Intensity</u>	<u>Med. to Low Intensity</u>	<u>Low Intensity</u>
<u>Access control</u>	<u>Yes</u>	<u>Yes</u>	<u>Some</u>	<u>No</u>	<u>No</u>	<u>No</u>
<u>Turn lanes</u>		<u>Continuous and/or medians w/ ped. islands</u>	<u>Typical at intersections with arterials or collectors</u>	<u>Not typical</u>	<u>Not typical</u>	<u>Not typical</u>
<u>Planting strips⁷</u>	<u>Two - 12 ft.</u> <u>(Except across areas of Natural Features)</u>	<u>Two - 12 ft.</u> <u>(Except across areas of Natural Features)</u>	<u>Two - 12 ft.</u> <u>(Except across areas of Natural Features)</u>	<u>Two - 12 ft.</u> <u>(Except across areas of Natural Features)</u>	<u>Two - 6 ft.</u> <u>(Except across areas of Natural Features)</u>	<u>Two - 6 ft.</u> <u>(Except across areas of Natural Features)⁸</u>
<u>Through-traffic connectivity</u>		<u>Primary function</u>	<u>Typical function</u>	<u>Typical function</u>	<u>Permissible function</u>	<u>Permissible function</u>

1. These standards do not preclude the flexibility currently allowed through the Planned Development Review Process.
2. Lane widths shown are the preferred construction standards that apply to existing routes adjacent to areas of new development, and to newly constructed routes. On arterial and collector roadways, an absolute minimum for safety concerns is 10 ft. Such minimums are expected to occur only in locations where existing development along an established sub-standard route or other severe physical constraints preclude construction of the preferred facility width.
3. An absolute minimum width for safety concerns is 5 ft., which is expected to occur only in locations where existing development along an established sub-standard route or other severe physical constraints preclude construction of the preferred facility width. Parallel multi-use paths in lieu of bike lanes are not appropriate along the arterial-collector system due to the multiple conflicts created for bicycles at driveway and sidewalk intersections. In rare instances, separated (but not adjacent) facilities may provide a proper function.
4. Arterial Highway speeds in the central business or other commercial districts in urban areas may be 20-25 mph. Traffic calming techniques, signal timing, and other efforts will be used to keep traffic within the desired managed speed ranges. Design of a corridor's vertical and horizontal alignment will focus on providing an enhanced degree of safety for the managed speed.
5. Street design for each development shall provide for emergency and fire vehicle access. Street widths of less than 28 ft. shall be applied as a development condition through the subdivision and/or Planned Development process. The condition may require the developer to choose between improving the street to the 28-ft. standard or constructing the narrower streets with parking bays placed intermittently along the street length. The condition may require fire-suppressive sprinkler systems for any dwelling unit more than 150 ft. from a secondary access point. * To be applied in RS-9 and lesser zones.
6. Traffic calming includes such measures as bulb ed intersections, speed humps, raised planted medians, mid-block curb extensions, traffic circles, signage, and varied paving materials and is addressed in the Transportation Plan.
7. Through the Planned Development Review Process, the planting strip along local streets and around the bulbs of cut-de-sacs may be reduced or eliminated.
8. Where streets must cross protected natural features, street widths shall be minimized by providing no on-street parking and no planting strips between the curb and the sidewalk on either side of the street.

- j. Where standards do not exist to address unusual situations, the Planning Commission or Director may require as conditions of development approval of special design standards recommended by the City Engineer.
- k. Private streets, though discouraged in conjunction with land divisions, may be considered within a development site provided all the following conditions are met:
1. Extension of a public street through the development site is not needed for continuation of the existing street network or for future service to adjacent properties;
 2. The development site remains in one ownership, or adequate mechanisms are established (such as a homeowners' association invested with the authority to enforce payment) to ensure that a private street installed with a land division will be adequately maintained; and
 3. Where a private street is installed in conjunction with a land division, paving standards consistent with City standards for public streets shall be utilized to protect the interests of future homeowners.
- l. Development shall include underground electric services, light standards, wiring and lamps for streetlights according to the specifications and standards of the City Engineer. The developer shall be responsible for installation of underground conduit for street lighting along all public streets improved in conjunction with such development in accordance with the following:
1. The developer shall coordinate with the City Engineer to determine the location of future street light poles.
 2. The streetlight plan shall be designed to provide illumination meeting standards set by the City Engineer.
 3. The standard street light installation is a wood pole.

The developer shall install such facilities and make the necessary arrangements with the serving electric utility for the City-owned and operated street lighting system to be served at the lowest applicable rate available to the City. Upon City's acceptance of such development improvements, the street lighting system, exclusive of utility-owned service lines, shall be and become the property of the City.

- m. Natural Hazards and Hillside, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.80 - PUBLIC UTILITY EXTENSIONS

- a. All development sites shall be provided with public water, sanitary sewer, storm drainage, and street lights.
- b. Where necessary to serve property as specified in "a" above, required public utility installations shall be constructed concurrent with development.
- c. Off-site public utility extensions necessary to fully serve a development site and adjacent properties shall be constructed concurrent with development.
- d. To provide for orderly development of adjacent properties, public utilities installed concurrent with development of a site shall be extended through the site to the edge of adjacent property(ies).
- e. All public utility installations required with development shall conform to the City's adopted facilities master plans.
- f. Private on-site sanitary sewer and storm drainage facilities may be considered provided all the following conditions exist:
 1. Extension of a public facility through the site is not necessary for the future orderly development of adjacent properties;
 2. The development site remains in one ownership and land division does not occur (with the exception of land divisions that may occur under the provisions of 4.0.70.f above);
 3. The facilities are designed and constructed in accordance with the Uniform Plumbing Code and other applicable codes, and permits are obtained from the Development Assistance Center prior to commencement of work.
- g. Natural Hazards and Hillides, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.90 - PUBLIC IMPROVEMENT PROCEDURES

It is in the best interests of the community to ensure public improvements installed in conjunction with development are constructed in accordance with all applicable City policies, standards, procedures, and ordinances. Therefore, prior to commencement of installation of public water, sanitary sewer, storm drainage, streetlights, street, bicycle, or pedestrian improvements for any development site, developers shall contact the City Engineer to receive information regarding adopted procedures governing plan submittal, plan review and approval, permit requirements, inspection and testing requirements, progress of the work, and provision of

easements, dedications, and as-built drawings for installation of public improvements. All work shall proceed in accordance with those adopted procedures, and all applicable City policies, standards, and ordinances.

Whenever any work is being done contrary to the provisions of this Code, the Director may order the work stopped by notice in writing served on the persons engaged in performing the work or causing the work to be performed. The work shall stop until authorized by the Director to proceed with the work or with corrective action to remedy substandard work already completed.

Section 4.0.100 - FRANCHISE UTILITY INSTALLATIONS

These standards are intended to supplement, not replace or supersede, requirements contained within individual franchise agreements the City has with providers of electrical power, telecommunication, cable television, and natural gas services (hereafter referred to as "franchise utilities").

- a. Where a land division is proposed, the developer shall provide franchise utilities to the development site. Each lot created with a subdivision shall have an individual service available or secured in accordance with provisions of Section 2.4.40 prior to approval of the final plat.
- b. Where necessary, in the judgement of the Director, to provide for orderly development of adjacent properties, franchise utilities shall be extended through the site to the edge of adjacent property(ies), whether or not the development involves a land division.
- c. The developer shall have the option of choosing whether or not to provide natural gas or cable television service to the development site, providing all of the following conditions exist:
 1. Extension of franchise utilities through the site is not necessary for the future orderly development of adjacent property(ies);
 2. The development site remains in one ownership and land division does not occur (with the exception of land divisions that may occur under the provisions of Section 4.0.70.f. above); and
 3. The development is non-residential.
- d. Where a land division is not proposed, the site shall have franchise utilities required by this section provided in accordance with the provisions of Section 2.4.40 prior to occupancy of structures.
- e. All franchise utility distribution facilities installed to serve new development shall be placed underground except as provided below. The following facilities may be installed above-ground:
 1. Poles for traffic signals, pedestals for police and fire system communications and alarms, pad mounted transformers, pedestals, pedestal mounted terminal boxes and meter cabinets, concealed ducts, substations, or facilities used to carry voltage higher than 35,000 volts;

2. Overhead utility distribution lines may be permitted upon approval of the City Engineer when unusual terrain, soil, or other conditions make underground installation impracticable. Location of such overhead utilities shall follow rear or side lot lines wherever feasible.
- f. The developer shall be responsible for making necessary arrangements with franchise utility providers for provision of plans, timing of installation, and payment for services installed. Plans for franchise utility installations shall be submitted concurrent with plan submittal for public improvements to facilitate review by the City Engineer.
- g. Natural Hazards and Hillside, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.110 - LAND FOR PUBLIC PURPOSES

- a. Easements for public sanitary sewer, water, storm drain, streetlight, pedestrian and bicycle facilities shall be provided whenever these facilities are located outside a public right-of-way in accordance with the following:
 1. When located between adjacent lots, easements shall be provided on one side of a lot line.
 2. The minimum easement width for a single utility is 15 ft. The minimum easement width for two adjacent utilities is 20 ft. The easement width shall be centered on the utility to the greatest extent practicable. Wider easements may be required for unusually deep facilities.
- b. Public utility easements with a minimum width of 7 ft shall be provided adjacent to all street rights-of-way for franchise utility installations.
- c. Where a development site is traversed by a drainageway or water course, drainageway improvements shall be in accordance with the Corvallis Drainage Master Plan; and the Natural Hazards and Hillside, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands provisions as outlined in Chapters 4.5, 4.12, and 4.13, respectively. ~~a drainageway dedication in accordance with the requirements of Chapter 4.5 shall be provided to the City.~~
- d. Where a development site is traversed by, or adjacent to, a future trail linkage identified within either the Corvallis Transportation Plan or the Trails Master Plan, dedications of suitable width to accommodate the trail linkage shall be provided. This width shall be determined by the City Engineer, considering the type of trail facility involved.
- e. Where existing rights-of-way and/or easements within or adjacent to development sites are nonexistent or of insufficient width, dedications may be required. The need for and widths of those dedications shall be determined by the City Engineer.

- f. Where easement or dedications are required in conjunction with land divisions, they shall be recorded on the plat. Where a development does not include a land division, easements and/or dedications shall be recorded on standard document forms provided by the City Engineer.
- g. If the City has an interest in acquiring any portion of a proposed subdivision or planned development site for a public purpose, other than for those purposes listed above, or if the City has been advised of such interest by a school district or other public agency, and there is a reasonable assurance that steps will be taken to acquire the land, the Planning Commission may require those portions of the land be reserved for public acquisition for a period not to exceed 2 years.
- h. Environmental assessments shall be provided by the developer for all lands to be dedicated to the public or City. An environmental assessment shall include information necessary for the City to evaluate potential liability for environmental hazards, contamination, or required waste cleanups related to the dedicated land. An environmental assessment shall be completed prior to the acceptance of dedicated lands in accordance with the following:
1. The initial environmental assessment shall detail the history of ownership and general use of the land by past owners. Upon review of the information provided by the grantor, as well as any site investigation by the City, the Director will determine if the risks of potential contamination warrant further investigation. When further site investigation is warranted, a Level I Environmental Assessment shall be provided by the grantor.
 2. Level I Environmental Assessments shall include data collection, site reconnaissance, and report preparation. Data collection shall include review of Oregon Department of Environmental Quality records, City and County fire department records, interviews with agency personnel regarding citations or enforcement actions issued for the site or surrounding sites that may impact the site, review of available historic aerial photographs and maps, interviews with current and available past owners of the site, and other data as appropriate. Site reconnaissance shall include a walking reconnaissance of the site checking for physical evidence of potentially hazardous materials that may impact the site. Report preparation shall summarize data collection and site reconnaissance, assess existing and future potential for contamination of the site with hazardous materials, and recommend additional testing if there are indications of potential site contamination. Level I Environmental Assessment reports shall be signed by a registered professional engineer.
 3. If a Level I Environmental Assessment concludes that additional environmental studies or site remediation are needed, no construction permits shall be issued until those studies are submitted and any required remediation is completed by the developer and/or owner. Additional environmental studies and/or required remediation shall be at the sole expense of the developer and/or owner. The City reserves the right to refuse acceptance of land identified for dedication to public purposes if risk of liability from previous contamination is found.

- i. Natural Hazards and Hillsides, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.5, 4.12, and 4.13, respectively.

Section 4.0.120 - MAIL DELIVERY FACILITIES

- a. In establishing placement of mail delivery facilities locations of sidewalks, bikeways, intersections, existing or future driveways, existing or future utilities, right-of-way and street width, and vehicle, bicycle and pedestrian movements shall be considered. The final location of these facilities shall meet the approval of the City Engineer and the Post Office. Where mail delivery facilities are being installed in conjunction with a land division, placement shall be indicated on the plat and meet the approval of the City Engineer and the Post Office prior to final plat approval.
- b. Where mail delivery facilities are proposed to be installed in areas with an existing or future curbside sidewalk, a sidewalk transition shall be provided that maintains the required design width of the sidewalk around the mail delivery facility. If the right-of-way width will not accommodate the sidewalk transition, a sidewalk easement shall be provided adjacent to the right-of-way.
- c. Mail delivery facilities and the associated sidewalk transition (if necessary) around these facilities shall conform with the City's standard construction specifications. Actual mailbox units shall conform with the Post Office standards for mail delivery facilities.
- d. Installation of mail delivery facilities is the obligation of the developer. These facilities shall be installed concurrently with the public improvements. Where development of a site does not require public improvements, mail delivery facilities shall be installed concurrently with private site improvements.

Section 4.0.130 - PONDING AREAS AND FLOOD HAZARDS

- a. Areas subject to ponding of surface water or flooding shall not be developed until necessary measures have been taken to mitigate the situation. Such measures may be required by the Planning Commission or Director as conditions of development approval.
- b. The developer shall submit proposed mitigation measures to the City Engineer for review. The City Engineer shall report to the Planning Commission or the Director on the adequacy of the proposed mitigation measures.
- c. Existence of a ponding area or flood hazard may be cause for revision of the development proposal or denial of the requested development.

Section 4.0.140 - STORMWATER MANAGEMENT MEASURES

- a. To reduce the risk of causing downstream properties to become flooded and to help maintain or restore the properly functioning conditions of receiving waters, new development, expansions to existing development, or redevelopment shall be required to provide stormwater detention and retention in accordance with “b” of this section.
- b. When detention and/or retention are required:
1. New development projects that create impervious surfaces (roads, driveways, parking lots, walks, patios, and roofs) in excess of 25,000 square feet are required to implement stormwater detention and/or retention measures as specified in the Corvallis Design Criteria Manual. Detention facilities shall be designed to maximize stormwater infiltration. Detention or retention facilities shall be located outside the 10-year floodplain or the riparian easement area, whichever is greater. The riparian easement area is identified in Section 4.13.70, and this standard shall apply regardless of whether or not an easement has been granted.
 2. Expansion to existing development or redevelopment that adds at least 10,000 square feet of impervious surface area to a site, and which results in at least 25,000 square feet of impervious surfaces on the site, shall implement stormwater detention and/or retention measures as specified in the Corvallis Design Criteria Manual. Detention facilities shall be designed to maximize stormwater infiltration.
 3. Exemptions to Stormwater Detention Requirements. Properties east of the Marys River and south of Highway 20/34 are exempt from detention requirements because of their proximity to the Marys River and the need for quick dispersion of storm water.
 4. Stormwater facilities south of Goodnight Avenue shall be constructed in accordance with the requirements of the South Corvallis Drainage Master Plan.
- c. Use of bioswales is allowed consistent with the Corvallis Design Criteria Manual. Bioswales within the regulated Riparian Corridor shall be located no closer than 50 feet from the top-of-bank, and shall be re-vegetated with trees consistent with 4.13.50.d.1 & 2 and with understory plantings needed for water quality treatment.
- d. Use of infiltration systems is allowed consistent with the Corvallis Design Criteria Manual.

Presented below are the Council-directed changes to Draft Chapter 4.0 of the Land Development Code that were developed during Council deliberations. These are excerpts from an existing Code Chapter. Changes to the existing chapter that were reflected in Attachment E of the October 21, 2004, staff report to the City Council are indicated by redline/double underline and strike-out fonts. Additional City Council-recommended changes are indicated with the italic version of those same fonts.

Chapter 4.0:

4.0.140 - STORMWATER MANAGEMENT MEASURES

b. When detention and/or retention are required:

1. New development projects that create impervious surfaces (roads, driveways, parking lots, walks, patios, and roofs) in excess of 25,000 square feet are required to implement stormwater detention and/or retention measures as specified in the Corvallis Design Criteria Manual. Detention facilities shall be designed to maximize stormwater infiltration. Detention or retention facilities shall be located outside the 10-year floodplain or the riparian easement area, whichever is greater. The riparian easement area is identified in Section 4.13.70, and this standard shall apply regardless of whether or not an easement has been granted.
2. ~~Expansion to existing development or redevelopment that adds at least 10,000 square feet of impervious surface area to a site, and which results in at least 25,000 square feet of impervious surfaces on the site, shall implement stormwater detention and/or retention measures as specified in the Corvallis Design Criteria Manual. Detention facilities shall be designed to maximize stormwater infiltration.~~

Expansion and Redevelopment -

- a) *Development projects that create new or redeveloped impervious area totaling at least 10,000 sq ft and resulting in at least 25,000 sq-ft of post-development impervious area are required to implement stormwater detention and/or retention measures for the new and redeveloped impervious area as specified in the Corvallis Design Criteria Manual. Redeveloped impervious area consists of roof area and replaced impervious area, minus any reduction in overall impervious area, associated with substantial improvement or replacement of structures.*
- b) *Detention facilities shall be designed to maximize stormwater infiltration. Detention or retention facilities shall be located outside the 10-year floodplain or the riparian easement area, whichever is greater. The riparian easement area is identified in Section 4.13.70 and this standard shall apply regardless of whether or not an easement has been granted.*

c) Pre-developed runoff conditions for redeveloped impervious area shall assume a runoff pattern based on good condition grass and the corresponding native hydrologic soil group for the site. Detention shall not be required beyond the point at which gravity flow to the existing abutting storm drainage system cannot be feasibly maintained, as determined during development plan review.

3. Exemptions to Stormwater Detention Requirements. Properties east of the Marys River and south of Highway 20/34 are exempt from detention requirements because of their proximity to the Marys River and the need for quick dispersion of storm water.

Exemptions to Stormwater Detention Requirements -

a) Properties east of the Marys River and south of Highway 20/34 are exempt from detention requirements because of their proximity to the Marys River and the need for quick dispersion of storm water.

b) Properties subject to 4.0.140.b.2 above may subtract the square footage of underground parking or of each level of structured parking from the square footage subject to detention requirements.

4. Stormwater facilities south of Goodnight Avenue shall be constructed in accordance with the requirements of the South Corvallis Drainage Master Plan.

c. Use of bioswales is allowed water quality features shall be consistent with the Corvallis Design Criteria Manual. Bioswales-Water quality features within the regulated Riparian Corridor shall be located outside of the applicable riparian easement area. The riparian easement shall be re-vegetated consistent with Section 4.13.50.d, subsections "1" and "2." no closer than 50 feet from the top-of-bank, and shall be re-vegetated with trees consistent with 4.13.50.d.1 & 2 and with understory plantings needed for water quality treatment.

ATTACHMENT G

This is a new Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter with the additional modifications included at the end of this attachment.

CHAPTER 4.11 - MINIMUM ASSURED DEVELOPMENT AREA (MADA)

Section 4.11.10 - PURPOSES

Procedures and standards for determination of Minimum Assured Development Area (MADA) 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.

Section 4.11.20 - GREATER RESTRICTIONS

This chapter of the Code is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, these provisions do provide relief from other ordinances to assure a minimum development area.

Section 4.11.30 - PROCEDURES

Compliance with the provisions of this chapter shall be determined through the development review processes identified in Chapter 1.2 - Legal Framework (Section 1.2.110) or through the building permit or construction permit review processes.

Presented below is the Council-directed change to new Chapter 4.11 of the Land Development Code that were developed during Council deliberations.

- i. Section 4.11.40.03.a Table 4.11-1 – Change the Base MADA/Acre for the RS-1 District from 9,500 sq. ft. to 10,000 sq. ft.

ATTACHMENT H

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts.

Additional staff-recommended changes are indicated with the italic version of those same fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.5 PLANNED DEVELOPMENT (amended 12-02-0220-04)

Section 2.5.10 - BACKGROUND

Development regulations with pre-stated requirements often frustrate innovation and use of new techniques of project and architectural design that are in the public interest, but were not contemplated when requirements were adopted. It is the intent of this chapter to establish those procedures necessary to permit flexibility in the land development process.

The Planned Development process is established to allow for the review and approval of Conceptual and Detailed Development Plans. to provide the mechanism for achieving greater flexibility and improved design where the scope of proposed modifications to pre-stated standards exceeds that permitted through a Lot Development Option. A Lot Development Option process allows modifications to required specification standards on an individual lot of record where the objectives of this Code can be met. The procedures for Lot Development Options are identified in Chapter 2.12.

Although the Conceptual and Detailed Development Plan process permits modifications to the site development standards of the underlying district, it does not permit an expansion of uses specified by the underlying district. Additionally, approval of a Detailed Development Plan for a residentially designated site must provide a clear and objective set of standards (through the approved plan and related conditions of approval) for development to follow.

On Residentially Designated Properties - Upon approval of a Conceptual Development Plan on residentially designated land, a Residential Planned Development District Overlay designation is placed on the site and shown on the Land Development Code District Map for as long as the property owner desires to keep the Conceptual Development Plan active, up to the expiration period defined in Section 2.5.40.09. Upon approval of a Detailed Development Plan on residentially designated land, a Residential Planned Development District Overlay is placed on the site and shown on the Land Development Code District Map for as long as the Detailed Development Plan remains active (as defined in Section 2.5.50.07). In cases where an approved Conceptual and/or Detailed Development Plan is no longer active, the associated

Residential Planned Development Overlay is automatically removed from the Land Development Code District Map.

On Nonresidentially Designated Properties - Upon approval of a Conceptual Development Plan on nonresidentially designated land, a Nonresidential Planned Development District Overlay designation is placed on the site and shown on the Land Development Code District Map for as long as the Conceptual Development Plan remains active (unexpired). Upon approval of a Detailed Development Plan on nonresidentially designated land, a Nonresidential Planned Development District Overlay is placed on the site and shown on the Land Development Code District Map for as long as the Detailed Development Plan remains active (as defined in Section 2.5.50.07). In cases where an approved Conceptual and/or Detailed Development Plan is no longer active, the associated Nonresidential Planned Development Overlay is automatically removed from the Land Development Code District Map.

A Nonresidential or Residential Planned Development district Overlay that can also be applied, without approval of a Conceptual and/or Detailed Development Plan through the use of in conjunction with any other district designation in accordance with the provisions of in Chapters 3.32 and 3.33, respectively. Although this overlay designation permits modifications to the site development standards of the underlying district standards, it does not permit changes in uses specified by the underlying district.

The procedures of this chapter are applicable when:

- a. A property owner requests a Conceptual and/or Detailed Development Plan Planned Development concurrent with a specific project review; or
- b. On sites where a A Nonresidential or Residential Planned Development Overlay PD designation, established in accordance with the provisions of Chapter 3.32 or 3.33, respectively, exists on the site and is shown on the City's Land Official Development Code District Map.

A Planned Development project proposal is referred to as either a "Conceptual Development Plan" or a "Detailed Development Plan." and, upon Upon Planning Commission approval of a Detailed Development Plan, building and construction permits may be issued, provided they are issued consistent with that plan.

Section 2.5.20 - PURPOSES

Planned Development review procedures are established in this chapter for the following purposes:

- a. Promote flexibility in design and permit diversification in location of structures;
- b. Promote efficient use of land and energy and facilitate a more economical arrangement of buildings, circulation systems, land uses, and utilities;

- c. Preserve to the greatest extent possible existing landscape features and amenities, and utilize such features in a harmonious fashion;
- d. Provide for more usable and suitably located recreation facilities and other public and common facilities than would otherwise be provided under conventional land development procedures;
- e. Combine and coordinate architectural styles, building forms and building relationships within the Planned Development;
- f. Provide the applicant with reasonable assurance of ultimate approval before expenditure of complete design monies, while providing the City with assurances that the project will retain the character envisioned at the time of approval;
- g. Promote and encourage energy conservation; and
- h. Provide greater compatibility with surrounding land uses than what may occur with a conventional project.

Section 2.5.30 - GENERAL PROVISIONS

Planned Development is an alternative development process that is permitted as Conditional Development. The following procedure allows for Planning Commission review of a Conceptual Development Plan and/or Detailed Development Plan. The applicant may either select to process the development proposal under a Detailed Development Plan where sufficient information has been submitted, in accordance with Section 2.5.50, or may request only approval of a Conceptual Development Plan in accordance with Section 2.5.40 and later apply for a Detailed Development Plan. However, prior to issuing any building or construction permits a Detailed Development Plan must be approved by the Planning Commission.

~~Where a Planned Development project has been approved without a Planned Development District designation, the Official Development District Map shall be amended with a Planned Development overlay designation for the subject development site.~~

Section 2.5.40 - CONCEPTUAL DEVELOPMENT PLAN REVIEW PROCEDURES

An application filed for a Conceptual Development Plan shall be reviewed in accordance with the following procedures.

2.5.40.01 - Application Requirements

(l) Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.

The Director may waive any of the above requirements when determined the information required by this section is unnecessary to properly evaluate the proposed Planned Development. The Director may also require additional information to evaluate the proposal.

b. Narrative Requirements

A written statement shall include the following information:

1. Statement of planning objectives to be achieved by the Planned Development. This statement should indicate a description of the character of the proposed development, rationale behind the assumptions and choices made, and a discussion indicating how the application meets the review criteria in 2.5.40.04 below.
2. Statement of intentions with regard to future selling or leasing of all or portions of the Planned Development;
3. Quantitative data for the following where appropriate:
 - ▶ Total number and type of dwelling units;
 - ▶ Parcel size;
 - ▶ Proposed lot coverage of buildings and structures where known;
 - ▶ Gross densities per acre;
 - ▶ Total amount of open space (lands not designated for buildings or vehicle parking and maneuvering areas);
 - ▶ Total amount of nonresidential construction; and
 - ▶ Economic feasibility studies or market analysis where necessary;
4. General statement of intentions concerning timing, responsibilities, and assurances for all public and non-public improvements, such as irrigation, private roads and drives, landscape, and maintenance;
5. For residential development, a statement or map describing existing and proposed buildings with protected solar access consistent with Chapter 4.4 - Land Division Standards; and
6. Statement describing project phasing, if proposed. Phases shall be:
 - (a) Substantially and functionally self-contained and self-sustaining with regard to access, parking, utilities, open spaces, and similar physical features; capable of substantial occupancy, operation, and maintenance upon completion of construction and development;

- (b) Arranged to avoid conflicts between higher and lower density development;
- (c) Properly related to other services of the community as a whole and to those facilities and services yet to be provided; and
- (d) Provided with such temporary or permanent transitional features, buffers, or protective areas as may be required to prevent damage or detriment to any completed phases and to adjoining properties not in the Planned Development.

7. Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.

2.5.40.02 - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.
- b. After accepting a complete application the Director shall schedule a public hearing to be held by the Planning Commission. Notice of the hearing shall be provided in accordance with Chapter 2.0 - Public Hearings.
- c. After the application is accepted as complete, any revisions to it shall be regarded as a new application, requiring additional filing fees and rescheduling of the required public hearing.

2.5.40.03 - Staff Evaluation

The Director shall prepare a report that evaluates whether the Conceptual Development Plan complies with the review criteria below. The report shall also include a recommendation for approval or denial and, if needed, a list of conditions for the Planning Commission to consider if an approval is granted.

2.5.40.04 - Review Criteria

Requests for approval of a Conceptual Development Plan shall be reviewed to assure consistency with the purposes of this chapter, policies and density requirements of the Comprehensive Plan, and any other applicable policies and standards adopted by the City Council. In addition, the following compatibility factors in "a" below shall be considered and the following Natural Resource and Natural Hazard criteria in "b" below shall be met:

a. Compatibility Factors:

- ▶1. Basic site design (the organization of uses on a site);
- ▶2. Visual elements (scale, structural design and form, materials, and so forth);
- ▶3. Noise attenuation;

- ▶4. Noxious odors;
- ▶5. Lighting;
- ▶6. Signage;
- ▶7. Landscaping for buffering and screening;
- ▶8. Traffic;
- ▶9. Effects on off-site parking; *and*
- ▶10. Effects on air and water quality.

b. Natural Resources and Natural Hazards Factors:

1. Any proposed variation from a standard within Chapter 4.5 - Natural Hazards and Hillsides, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, or Chapter 4.13 - Riparian Corridors and Wetlands shall provide protections equal to or better than the specific standard requested for variation; and
2. Any proposed variation from a standard within Chapter 4.5 - Natural Hazards and Hillsides, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, or Chapter 4.13 - Riparian Corridors and Wetlands shall involve an alternative located on the same development site where the specific standard applies.

2.5.40.05 - Action by Planning Commission

The Planning Commission shall conduct a public hearing in accordance with Chapter 2.0 - Public Hearings. Following the close of the hearing the Planning Commission shall either approve, conditionally approve, or deny the Conceptual Development Plan. The Commission's decision shall include findings that specify how the application has or has not complied with the above review criteria.

2.5.40.06 - Notice of Disposition

The Director shall provide the applicant with a notice of disposition in accordance with Chapter 2.0 - Public Hearings, that includes a written statement of the Planning Commission's decision, a reference to findings leading to it, any conditions of approval, and appeal period deadline. A notice of disposition shall also be mailed to persons who presented testimony orally or in writing at the public hearing.

2.5.40.07 - Appeals

The decision of the Planning Commission may be appealed in accordance with the provisions of Chapter 2.19 - Appeals.

2.5.40.08 - Effective Date

The decision of the Planning Commission shall become effective 12 days from when the Notice of Disposition is signed unless an appeal is filed.

2.5.40.09 - Effective Period of Conceptual Development Plan Approval

Approval of a Conceptual Development Plan shall be valid for a 3-year period from the date of approval. If the applicant has not submitted a Detailed Development Plan for the Planned Development or phases thereof before the 3-year effective period expires, the approval shall expire. If the Conceptual Development Plan pertains to residentially designated property, was established at the request of the property owner, and there is no active Detailed Development Plan on any portion of the site, the property owner may request and be granted nullification of the Conceptual Development Plan in accordance with Section 2.5.80.

For Conceptual Development Plans on Nonresidentially Designated Property - Where the Planning Commission finds that conditions have not changed, at its discretion and without a public hearing, the Commission may extend the effective period one time for a period not to exceed 2 additional years.

For Conceptual Development Plans on Residentially Designated Property - Where the Planning Commission finds that conditions have not changed, at the property owner's request and at its discretion and without a public hearing, the Commission may extend the period one time for a period not to exceed 2 additional years.

2.5.40.10 - Modification of a Conceptual Development Plan

- a. An applicant may petition for review of previously approved plans for purposes of modifying such plans, stating the reasons.
- b. The Planning Commission, upon finding that the petition is reasonable and valid, may consider redesign in whole or in part of the original Conceptual Development Plan.
- c. In reviewing a modification request, the Commission shall follow the procedures required for a Conceptual Development Plan submittal. The Commission's decision must be consistent with the review criteria in 2.5.40.04 above.

Section 2.5.50 - DETAILED DEVELOPMENT PLAN REVIEW PROCEDURES

2.5.50.01 - Application Requirements

An application filed for a Detailed Development Plan shall follow the requirements specified for a Conceptual Development Plan in Section 2.5.40 above and include the following:

a. Graphic Requirements

In addition to the graphic requirements specified for a Conceptual Development Plan in 2.5.40.01, a Detailed Development Plan shall include:

1. Topographic contours at 2-ft intervals for slopes under 20 percent and at 5-ft intervals for slopes at or greater than 20 percent. Where the grade exceeds 10 percent or where the development site abuts existing developed lots, the Director may require a grading

2. Detailed statement outlining timing, responsibilities, and assurances for all public and non-public improvements such as irrigation, private roads and drives, landscape, and maintenance;
3. Proposed methods of energy conservation;
4. Statement addressing compatibility of proposed development to adjacent land uses relating to such items as architectural character, building type, and height of proposed structures;

c. Tentative Plat

If a Planned Development is to be subdivided, a tentative plat may also be submitted in accordance with Chapter 2.4 - Subdivisions and Major Replats to permit simultaneous review.

2.5.50.02 - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.
- b. After accepting a complete application the Director shall schedule a public hearing to be held by the Planning Commission. Notice of the hearing shall be provided in accordance with Chapter 2.0 - Public Hearings.
- c. After the application is accepted as complete, any revisions to it shall be regarded as a new application, requiring additional filing fees and rescheduling of the required public hearing.

2.5.50.03 - Staff Evaluation

The Director shall prepare a report that evaluates whether the Detailed Development Plan complies with the review criteria below. The report should include a recommendation for approval or denial and, if needed, a list of conditions for the Planning Commission to consider if an approval is granted.

2.5.50.04 - Review Criteria for Determining Compliance with Conceptual Development Plan

Request for approval of a Detailed Development Plan shall be reviewed to determine whether it is in substantial compliance with the Conceptual Development Plan. The Detailed Development Plan shall be deemed to be in substantial conformance with the Conceptual Development Plan and may be approved provided it is consistent with the review criteria in 2.5.40.04 above, provides a clear and objective set of development standards for residential Detailed Development Plans (considering the Detailed Development Plan proposal, required adherence to the Land Development Code, and conditions of approval), and does not involve any of the following factors that constitute a major change in the Planned Development [see 2.5.50.06 - Major Modification(s) of a Detailed Development Plan].

- a. Land use;
- b. Increase in dwelling unit density;

- c. Ratio of number of different types of dwelling units;
- d. Type of commercial or industrial structures;
- e. Type and location of accessways and parking areas where off-site traffic would be affected;
- f. Increase in the floor area proposed for nonresidential use by more than 10 percent from what was previously specified;
- g. Reduction of more than 10 percent of the area reserved for common open space and/or usable open space from what was previously specified;
- h. Increase in the total ground area proposed to be covered by structures by more than 5 percent from what was previously specified;
- i. Reduction of specific setback requirements by more than 25 percent where previously specified;
- j. Reduction of project amenities provided such as recreational facilities, screening, and/or landscaping provisions by more than 10 percent from what was previously specified; and
- k. Change to any aspects of the plan involving Natural Resources and/or Natural Hazards governed by Chapter 4.5 - Natural Hazards and Hillsides, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, and Chapter 4.13 - Riparian Corridors and Wetlands;
- k/. Any other modification to specific requirements established at the time of Conceptual Development Plan approval.

2.5.50.05 - Action by the Planning Commission

- a. The Planning Commission shall conduct a public hearing in accordance with Chapter 2.0 - Public Hearings. Following the close of the hearing the Planning Commission shall either approve, conditionally approve, or deny the Detailed Development Plan. The Commission's decision shall include findings that specify how the application has or has not complied with the above review criteria.
- b. If a Conceptual Development Plan was previously approved, the Planning Commission shall limit its review of the Detailed Development Plan to the additional requirements in 2.5.50.01 above, and to the review criteria in 2.5.40.04, but only for those aspects of the development not previously reviewed.

2.5.50.06 - Effective Date

The decision of the Planning Commission shall become effective - 12 days from when the Notice of Disposition is signed unless an appeal is filed.

2.5.50.07 - Effective Period of Detailed Development Plan Approval

- a. Approval of a Detailed Development Plan shall be valid for a 35-year period from the date of approval. If the applicant has not begun construction within this time frame, all approvals shall expire. ~~At its discretion and without a public hearing, the Commission may extend the approval one time for a period not to exceed 2 additional years.~~
- b. The Planning Commission may permit implementation of the Detailed Development Plan in phases. Such phases shall be during the established time period discussed in "a" above.
- c. An active Detailed Development Plan is define as one which has:
 1. Not expired or been nullified;
 2. Not had a final Subdivision or Land Partition plat filed and recorded;
 3. Not had a Lot Line Adjustment filed;
 4. Not had any building or construction permits issued; and
 5. Not had any activities associated with development as defined in Chapter 1.6;

Section 2.5.60 - PLANNED DEVELOPMENT MODIFICATION

This section identifies the processes by which an approved Conceptual or Detailed Development Plan may be modified. In general, such plans may be modified in three ways, depending upon the degree of modification proposed. These include the Lot Development Option process described in chapter 2.12 of this Code, and the Minor and Major Planned Development Modification processes described below. Within the Conceptual or Detailed Development Plan, the Lot Development Option process may only be used for modification of a specific standard at a specific location where no deviation from standards has already been approved.

2.5.60.01 - Purposes of a Planned Development Modification

- a. Provide a limited amount of flexibility with regard to site planning and architectural design for approved Conceptual or Detailed Development Plans; and
- b. Provide elements within the development site that compensate for requested variations from approved Conceptual or Detailed Development Plans such that the intent of the original approvals is still met.

2.5.60.02 - Thresholds that Separate a Minor Planned Development Modification from a Major Planned Development Modification

- a. The factors identified here describe the thresholds that separate a Minor Planned Development Modification from a Major Planned Development Modification:
1. Change in use type, with the exception that for a valid (still active) Planned Development that existed or was approved before December 31, 2000, a modification request shall be considered as follows:
 - (a) A request to add uses permitted by the underlying zone to up to 25 percent of the total acreage within the Planned Development site shall be considered a Minor Planned Development Modification; and
 - (b) A request to add uses permitted by the underlying zone to greater than 25 percent of the total acreage within the Planned Development site shall be considered a Major Planned Development Modification;
 2. Change in dwelling unit density of 5 percent, except as noted in "3" below;
 3. Decrease in dwelling unit density by more than three units for development sites 1 acre or smaller in size, or decrease in dwelling unit density by more than five units or by more than 5 percent, whichever is less, for development sites larger than 1 acre;
 4. Change in the ratio of the different types of dwelling units;
 5. Change in the type or location of commercial or industrial structures that would result in a less pedestrian-friendly environment (e.g., a pedestrian walk is eliminated, a parking lot is placed to separate, or further separate, a building from pedestrian facilities, etc.);
 6. Change in the type and location of accessways and parking areas where offsite traffic would be affected or which results in a less pedestrian-friendly environment;
 7. Increase in the number of parking spaces where such increase adversely affects significant natural features or pedestrian amenities or is inconsistent with a condition of approval or an applicable development standard (e.g., required open space);
 8. Increase in the floor area proposed for nonresidential use by more than 10 percent;
 9. Decrease in the common and/or usable open space by more than 10 percent;
 10. Increase in the total ground area proposed to be covered by structures by more than 10 percent;
 11. Change in specific setback requirements by more than 25 percent or by 15 percent for setback requirements previously reduced;

12. Decrease in project amenities for pedestrians or bicycles, recreational facilities, screening, and/or landscaping provisions by more than 10 percent;
13. Modification of architectural building elevations where any of the following occurs:
 - (a) Percentage of window coverage per elevation is decreased by more than 20 percent (may affect the number and/or shape of windows); or windows are installed on a previously specified blank wall on the perimeter of the site;
 - (b) Building materials for the main walls of the facades are changed;
 - (c) Any architectural feature is reduced by more than 20 percent. Architectural features include such items as the number of windows with trim, the number of dormers, the number of columns, the number of shutters, the square footage of porches, the number of window boxes, the linear footage of porch or deck railings, and/or the linear footage and/or height of parapets, reveals, and/or cornices, etc.;
 - (d) Roof pitch is reduced by 20 percent or more;
 - (e) Building offsets or recesses are reduced by more than 20 percent; or
 - (f) Garages or carports are eliminated.

14. *Change to any aspects of the plan involving Natural Resources and/or Natural Hazards governed by Chapter 4.5 - Natural Hazards and Hillsides, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, and Chapter 4.13 - Riparian Corridors and Wetlands.*

- b. A modification that equals or exceeds the thresholds identified in section 2.5.60.02.a shall be processed as major modification.
- c. A modification that falls below the thresholds identified in section 2.5.60.02.a or that decreases the amount of variation from a standard that was previously approved shall be processed as a minor modification.
- d. In addition, only three such minor modifications may be processed within one calendar year for any approved Conceptual or Detailed Development Plan. If more than three such modifications are proposed within a calendar year, the modifications, or any single such modification proposed following the third, shall be processed as a Major Planned Development Modification and shall follow the procedures contained in section 2.5.70.
- e. A modification to specific requirements established at the time of Planned Development approval, including conditions of approval, Code requirements, and all aspects of the Planned Development proposal, may be considered as a Minor Planned Development Modification only if it falls within the definition of a Minor Modification described in section 2.5.60.02.c.

Section 2.5.80 - PLANNED DEVELOPMENT NULLIFICATION

- a. Conceptual Development Plan Nullification for Residentially Designated Property:
1. Property owner(s) or their authorized agents may apply to nullify an established active (unexpired) Conceptual Development Plan ~~Planned Development designation~~ on residentially designated property by filing an application form provided by the Director and shall include the following:
 - a) Description of the land (address, lot, block, or similar description);
 - b) Map of the Site, Comprehensive Plan Map Designation, underlying District Map Designation, and Narrative addressing how the application meets the review criteria in Section 2.5.80.a.3 below;
 - c) Maps, drawings, and such other information as may be needed for an adequate review of the application;
 - d) Copies of any applicable Notices of Disposition and/or other documents that explain the background regarding the approval of the Conceptual Development Plan on the site and the status of any other land use approvals on the site, including whether or not there is an active Detailed Development Plan on any portion of the Conceptual Development Plan site; and
 - e) If a proposed Nullification is to include land in more than one ownership, the application must be submitted jointly by all of the owners or their authorized agents.
 2. Acceptance of Application - The Director shall review the Conceptual Development Plan Nullification application for compliance with the application requirements in Section 2.5.80.a.1 above. If the application is incomplete, the Director shall notify the applicant within 10 days and state what information is needed to make the application complete. The applicant shall have 10 days in which to submit additional materials.
 3. Review Criterion - The single review criterion for approval of a Conceptual Development Plan Nullification request on residentially designated property is that there is no active Detailed Development Plan for any portion of the Conceptual Development Plan (active Detailed Development Plan is defined in Section 2.5.50.07). The Director shall evaluate the proposal to ensure that it complies with this criterion.
 4. Action on Application - On the basis of the review criteria in Section 2.5.80.a.3 above, the Director shall either approve or deny the application within 21 days of the completion of the application submittal. The Director's decision shall include findings that specify how the proposal has or has not complied with the above review criterion.
 5. Notice of Disposition - The Director shall provide the following parties with a notice of disposition:

- a) Applicant;
- b) Owners of record of property on the most recent property tax assessment roll where such property is located within 100 feet of the property that is subject of the notice; and
- c) Any neighborhood or community organization recognized by the governing body and whose boundaries include the site.

6. The notice of disposition shall include the following information:

- a) Nature of the application and the proposed use or uses which could be authorized;
- b) Street address or other easily understood geographical reference to the subject property;
- c) Name and phone number of staff contact person; and
- d) Statement that a copy of the application, all documents and evidence submitted by or on behalf of the applicant and applicable criteria are available for inspection at no cost and copies can be provided at reasonable cost.

7. Appeals - The decision of the Director may be appealed to the City Council in accordance with Chapter 2.19 - Appeals.

8. Effective Date - The decision of the Director shall become effective 12 days from when the notice of disposition is signed, unless an appeal has been filed. Once the decision is effective, the Conceptual Development Plan shall be considered nullified, and the associated Residential Planned Development Overlay designation shall be removed from the Land Development Code District Map.

b. Conceptual Development Plan Nullification for Nonresidentially Designated Property and Detailed Development Plan Nullification for Both Residentially and Nonresidentially Designated Property:

a.1. Property owner(s) or their authorized agents may apply to nullify an established Conceptual Development Plan for nonresidentially designated property or a Detailed Development Plan for either residentially or nonresidentially designated property Planned Development designation by filing an application form provided by the Director and shall include the following information:

- a) Information required by Section 2.5.80.a.1; and
- b) Narrative information and supporting documents sufficient to address the review criteria in Section 2.5.80.b.3 below.

2. The Planning Commission shall conduct a public hearing, and provide notice of the hearing and of the decision shall be in accordance with Chapter 2.0 - Public Hearings.

b-3. Review Criteria - The burden of proof is placed on the applicant to justify nullification of the Conceptual Development Plan for nonresidentially designated property or a Detailed Development Plan for either residentially or nonresidentially designated property Planned Development designation, by giving substantial evidence that:

- 1a) Developing the property under conventional district standards and regulations will not create nonconforming development.
- 2b) Special circumstances such as building relationships, drainageways, public improvements, topography, and so forth that were to be responded to specifically through the Planned Development process can be dealt with as effectively with conventional standards.
- 3c) Conditions attached to the approved Planned Development by the hearing authority can be met or are no longer necessary.
- 4d) No prior commitments involving the property were made that would adversely affect the subject property, other related properties, or the City, as in the case of density transfer, public improvements and activities, building relationships, recreational facilities, open space, or phasing of development.

c-4. If the Conceptual Development Plan for nonresidentially designated property or Detailed Development Plan for either residentially or nonresidentially designated property Planned Development is nullified, the PD overlay designation shall be removed from the Land Official Development Code District Map after the appeal period has expired.

ATTACHMENT I

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.2 DEVELOPMENT DISTRICT CHANGES (amended 12-02-0220-04)

Section 2.2.10 - BACKGROUND

The Development District Map is consistent with the adopted Comprehensive Plan, as amended, and as such it is a reflection of the City's land use planning goals. The Map has also been adopted as part of the Land Development Code. Frequent and piecemeal amendments to the Development District Map can threaten the integrity of the Comprehensive Plan and the likelihood of its successful implementation. Nevertheless, it may be necessary to amend the Development District Map from time to time to correct errors or to respond to changing conditions or unforeseen circumstances, or to provide an incentive for the protection of natural resources.

When a development district is amended there often must be a corresponding change to the Comprehensive Plan map. There are, however, instances where more than one district matches the Comprehensive Plan designation. In these situations, the district can be amended without a Plan map change. The table below illustrates the relationship between the Comprehensive Plan and the District map designations in the City.

Development district changes are classified as legislative or quasi-judicial, depending on the number of properties involved. While only the City Council makes legislative decisions regarding district changes, quasi-judicial decisions may be made by the Community Development Director (in the case of Administrative District Changes only), Planning Commission, Land Development Hearings Board, or upon appeal by the City Council, depending on the nature of proposed change. When a development district application is being reviewed along with a Comprehensive Plan map amendment or other land use application, the Planning Commission approves or denies the request. However, when no other request is under consideration, the district change request is reviewed and approved or denied by the Land Development Hearings Board, except in cases where the placement of a Conservation - Open Space District on lands that already have a Natural Resource or Natural Hazards Overlay, or the State-mandated removal of a residential Planned Development overlay, is requested. In those cases, the request is reviewed and approved by the Community Development Director.

Section 2.2.20 - PURPOSES

This chapter sets forth review criteria and procedural requirements for quasi-judicial and legislative district map amendments to accomplish the following:

- a. Maintain sound, stable, and desirable development within the City;
- b. Permit changes in development district boundaries where appropriate;
- c. Ensure district changes are consistent with the community's land use policies and goals; and
- d. Lessen the influence of private economic interests in the land use decision-making process.

COMPREHENSIVE PLAN & CORRESPONDING DISTRICT MAP DESIGNATIONS ¹

IF THE COMPREHENSIVE PLAN DESIGNATION IS:	DISTRICT MAP DESIGNATION SHALL BE
RESIDENTIAL	RESIDENTIAL
Low Density <u>(0.5 - 2 units/acre for RS-1 only)</u> <u>(2-6 units/acre for RS-3.5, RS-5, & RS-6)</u>	<u>RS-1</u> <u>Extra -Low</u> RS-3.5 Low RS-5 Low RS-6 Low <u>C-OS</u> <u>Conservation - Open Space</u>
Medium Density (6-12 units/acre)	RS-9 Medium RS-9(U) <u>Medium</u> <u>C-OS</u> <u>Conservation - Open Space</u>
Medium High Density (12-20 units/acre)	RS-12 Medium High RS-12(U) <u>Medium High</u> <u>C-OS</u> <u>Conservation - Open Space</u>
High Density (over 20 units/acre)	RS-20 High <u>C-OS</u> <u>Conservation - Open Space</u>
<u>Mixed Use Residential</u>	<u>RS-12</u> <u>Medium-High</u> <u>RS-12(U)</u> <u>Medium High</u> <u>RS-20</u> <u>High</u> <u>C-OS</u> <u>Conservation - Open Space</u>
OFFICE/COMMERCIAL	COMMERCIAL
Professional Offices	P-AO Professional and Administrative Office <u>C-OS</u> <u>Conservation - Open Space</u>
Shopping Area <u>Mixed Use Commercial</u>	SA Shopping Area SA-(U) Shopping Area-University SSD Special Shopping District CS Community Shopping <u>LC</u> <u>Linear Commercial</u> <u>MUC</u> <u>Mixed Use Commercial</u> <u>C-OS</u> <u>Conservation - Open Space</u>
Linear Commercial	Linear Commercial (LC)

¹ Does not include district overlays.

IF THE COMPREHENSIVE PLAN DESIGNATION IS:	DISTRICT MAP DESIGNATION SHALL BE
Central Business District	CB Central Business District CBF Central Business Fringe C-OS Conservation - Open Space
Regional Shopping Center	Regional Shopping Center (RSC)
INDUSTRIAL	INDUSTRIAL
Limited	<u>RTC</u> <u>Research Technology Center</u> LI <u>Limited Industrial</u> C-OS <u>Conservation - Open Space</u>
<u>Limited Industrial - Office</u>	<u>RTC</u> <u>Research Technology Center</u> <u>MUE</u> <u>Mixed Use Employment</u> <u>GI</u> <u>General Industrial</u> C-OS <u>Conservation - Open Space</u>
<u>Mixed Use Employment</u>	<u>MUE</u> <u>Mixed Use Employment</u> C-OS <u>Conservation - Open Space</u>
General	<u>RTC</u> <u>Research Technology Center</u> GI <u>General</u> C-OS <u>Conservation - Open Space</u>
<u>General Industrial - Office</u>	<u>RTC</u> <u>Research Technology Center</u> <u>MUE</u> <u>Mixed Use Employment</u> <u>GI</u> <u>General Industrial</u> <u>II</u> <u>Intensive Industrial</u> C-OS <u>Conservation - Open Space</u>
<u>Mixed Use Transitional</u>	<u>RTC</u> <u>Research Technology Center</u> <u>GI</u> <u>General</u> <u>II</u> <u>Intensive Industrial</u> <u>MUE</u> <u>Mixed Use Employment</u> C-OS <u>Conservation - Open Space</u>
Intensive	II <u>Intensive</u> C-OS <u>Conservation - Open Space</u>
Research Technology Center	<u>RTC</u> <u>Research Technology Center</u>
OTHERS	OTHERS
Public-Institutional	OSU <u>Oregon State University</u> C-OS <u>Conservation - Open Space</u> And in any other district for government and public facility uses.
Open Space - Agriculture/Conservation	AG-OS <u>Agriculture - Open Space</u> C-OS <u>Conservation - Open Space</u>
Open Space - Conservation	C-OS <u>Conservation - Open Space</u>
<u>Natural Hazards Overlay</u>	<u>Any District</u>
<u>Natural Resource Overlay</u>	<u>Any District</u>

Section 2.2.30 - LEGISLATIVE CHANGE PROCEDURES

A district change is considered a legislative act if the change applies uniformly to all properties in the City or to a sufficiently large number of properties as determined by contemporary legal principles.

2.2.30.01 - Initiation

- a. A district change that is legislative in nature may be initiated by either a majority vote of the City Council or Planning Commission upon a finding that there is sufficient cause to initiate a change.
- b. Property owners may petition the Planning Commission to initiate a hearing through the following procedure:
 1. A petition shall only be considered if it represents a majority (over 50 percent) of property owners within the area of the proposed district change.
 2. A petition shall include a description and map of the area to be affected and information as may be necessary for an adequate review.
 3. If the Planning Commission makes a determination that there is sufficient cause, it shall initiate the district change in accordance with Chapter 2 - Public Hearings.
- c. Where a motion by either the City Council or Planning Commission involves a Planned Development designation, the motion by either body need not include a conceptual or detailed development plan. However, residential Planned Development Overlays may not be unilaterally initiated by the City Council or the Planning Commission (see Chapter 3.33 - Residential Planned Development Overlays for further details).

2.2.30.02 - Staff Evaluation

A report shall be prepared by staff that evaluates whether the proposal complies with the review criteria below. The report should include a recommendation for approval or denial.

2.2.30.03 - Review Criteria

Legislative district changes shall be reviewed to determine the effects on City facilities and services and to assure consistency with the purposes of this chapter, policies of the Comprehensive Plan, and any other applicable policies and standards adopted by the City Council.

2.2.30.04 - Action by the Planning Commission

The Planning Commission shall conduct a public hearing in accordance with the provisions of Chapter 2.0 - Public Hearings. Following the close of the public hearing, the Commission shall make a recommendation to the City Council concerning the proposed district change. The Commission's recommendation shall include findings that specify how the proposal has or has not complied with the above review criteria.

2.2.30.05 - Action by City Council

Upon receipt of the Planning Commission's recommendation the matter shall be set for a public hearing before the City Council in accordance with Chapter 2.0 - Public Hearings. Following the close of the public hearing, the City Council shall either deny the petition or adopt an ordinance approving the proposed district change or a modification thereof. The City Council's decision shall include findings that specify how the proposal has or has not complied with the above review criteria.

2.2.30.06 - Notice of Disposition

A Notice of Disposition shall be mailed in accordance with Chapter 2.0 - Public Hearings to persons who presented testimony orally or in writing at the public hearing.

Section 2.2.40 - QUASI-JUDICIAL CHANGE PROCEDURES FOR DISTRICT CHANGES SUBJECT TO A PUBLIC HEARING

All district changes not deemed legislative shall be quasi-judicial. Administrative District Changes are quasi-judicial District Changes that are not subject to a public hearing and are defined by and subject to the provisions of Section 2.2.50. All other quasi-judicial District Changes are subject to a public hearing and the provisions below.

2.2.40.01 - Initiation

- a. Initiation of a district change that is quasi-judicial in nature may be accomplished by one of the following ways:
 1. Filing of an application by the owner(s) of the subject property(ies); or
 2. A majority vote of the City Council or Planning Commission following the same procedures used for legislative amendments discussed above.
- b. Where a motion by either the City Council or Planning Commission involves a Planned Development designation, the motion need not include a conceptual or detailed development plan. However, residential Planned Development Overlays may not be unilaterally initiated by the City Council or the Planning Commission (see Chapter 3.33 - Residential Planned Development Overlays for further details).

2.2.40.02 - Application Requirements

An application for a district change that requires a quasi-judicial hearing shall be made on forms provided by the Director and shall include the following where applicable:

- a. Description of the land (address, lot, block, or similar description);
- b. Narrative addressing how the application meets the review criteria in 2.2.40.05 below;
- c. Maps, drawings, and such other information as may be needed for an adequate review of the application.

If a proposed district change is to include land in more than one ownership, the application must be submitted jointly by all of the owners or authorized agents.

2.2.40.03 - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.
- b. After accepting a complete application, the Director shall schedule a public hearing. The public hearing will be conducted by the Planning Commission if the district change is requested in conjunction with an amendment to the Comprehensive Plan. If no Comprehensive Plan amendment is required to approve the district change, the hearing shall be conducted by the Land Development Hearing Board.

2.2.40.04 - Staff Evaluation

The Director shall prepare a report that evaluates whether the proposal complies with the review criteria below. The report shall also include a recommendation for approval or denial.

2.2.40.05 - Review Criteria

Quasi-judicial district changes shall be reviewed to determine the effects on City facilities and services and to assure consistency with the purposes of this chapter, policies of the Comprehensive Plan, and any other applicable policies and standards adopted by the City Council. In addition, the following compatibility factors shall be considered:

- a. Compatibility factors:
 - a1. Visual elements (scale, structural design and form, materials, and so forth);
 - b2. Noise attenuation;
 - c3. Noxious odors;
 - d4. Lighting;
 - e5. Signage;

- f6. Landscaping for buffering and screening;
- g7. Traffic;
- h8. Effects on off-street parking;
- i9. Effects on air and water quality.

b. Buildable Land Supply Factor:

For District Change requests to a Conservation - Open Space (C-OS) District designation on lands that are **not** located on lands already designated with a Natural Resource and/or Natural Hazard Overlay, the applicant shall demonstrate the following:

1. That the area requested for the District Change to C-OS is part of a larger development site;
2. What the development potential is for the proposed C-OS land. This development potential shall be calculated using the same development per acre calculations specified in Tables 4.11-1 and 4.11-2 of Chapter 4.11 - Minimum Assured Development Area; and
3. That the development potential associated with the proposed C-OS land is transferred to other land that will not be districted as C-OS, that is located on the same development site, and that is proposed for development concurrent with the District Change request so that it can be verified that the transfer of development potential is feasible.

2.2.40.06 - Action by the Hearing Authority

The hearing authority shall conduct a public hearing in accordance with the provisions of Chapter 2.0 - Public Hearings. Following the close of the public hearing, the hearing authority shall by motion either approve the proposed district change or a modification thereof, or deny the petition. The hearing authority's decision shall include findings that specify how the application has or has not complied with the above review criteria.

2.2.40.07 - Notice of Disposition

The Director shall provide the applicant with a notice of disposition in accordance with Chapter 2.0 - Public Hearings that includes a written statement of the hearing authority's decision, a reference to findings leading to it, and appeal period deadline. A notice of disposition shall also be mailed to persons who presented testimony orally or in writing at the public hearing.

2.2.40.08 - Appeals

The decision of the Land Development Hearings Board or Planning Commission may be appealed in accordance with Chapter 2.19 - Appeals.

2.2.40.09 - Effective Date

The decision of the Land Development Hearing Board shall become effective 12 days from when the notice

of disposition is signed unless an appeal has been filed.

The decision of the Planning Commission made in conjunction with a Comprehensive Plan amendment shall become final 12 days from when the notice of disposition is signed unless an appeal has been filed. The district changes will not take effect, however, until and unless the necessary Comprehensive Plan amendment has been implemented by the City Council.

Section 2.2.50 - QUASI-JUDICIAL CHANGE PROCEDURES FOR ADMINISTRATIVE DISTRICT CHANGES

As stated in the introduction to Section 2.2.40, all district changes not deemed legislative shall be quasi-judicial. Administrative District Changes are quasi-judicial District Changes that are not subject to a public hearing and are defined by and subject to the provisions below. All other quasi-judicial District Changes are subject to a public hearing and the provisions of Section 2.2.40.

Section 2.2.50.01 - Administrative District Change Defined

A District Change is considered an Administrative District Change if the change:

- a. Applies to properties with a Natural Hazard Overlay or Natural Resource Overlay designation and the requested District Change is to establish a Conservation-Open Space District designation; and/or
- b. Applies to residential properties with a Planned Development Overlay designation and an underlying District designation of RS-1, RS-3.5, RS-5, RS-6, RS-9, RS-9U, RS-12, RS-12U, or RS-20. The request is limited to removal of the Planned Development Overlay designation, and may only be accomplished as an Administrative District Change if there is no active Detailed Development Plan on the site.

2.2.50.02 - Initiation

- a. An Administrative District Change may be initiated by the filing of an application by the owner(s) of the subject property(ies).

2.2.50.03 - Application Requirements

An application for an Administrative District Change shall be made on forms provided by the Director and shall include the following:

- a. Description of the land (address, lot, block, or similar description);
- b. Map of the Site, Comprehensive Plan Map Designation, existing and proposed District Map Designation, and Narrative addressing how the application meets the review criteria in 2.2.50.06 below;
- c. Maps, drawings, and such other information as may be needed for an adequate review of the application;

- d. For requests to remove a residential Planned Development Overlay, copies of any applicable Notices of Disposition and documents that explain the background regarding the establishment of the Planned Development Overlay on the site and the status of any land use approvals on the site; and
- e. If a proposed Administrative District Change is to include land in more than one ownership, the application must be submitted jointly by all of the owners or authorized agents.

2.2.50.04 - Acceptance of Application

The Director shall review the Administrative District Change application for compliance with the application requirements in Section 2.2.50.03 above. If the application is incomplete, the Director shall notify the applicant within 10 days and state what information is needed to make the application complete. The applicant shall have 10 days in which to submit additional materials.

2.2.50.05 - Staff Evaluation

The Director shall evaluate whether the proposal complies with the review criteria in Section 2.2.50.06 below.

2.2.50.06 - Review Criteria

- a. To designate a property as Conservation-Open Space:
 - 1. The areas requested to be designated with the Conservation-Open Space District must already be designated as Open Space - Conservation on the Comprehensive Plan Map; or
 - 2. The areas requested to be designated with the Conservation-Open Space District must already be designated with a Natural Hazard or Natural Resource Overlay area on the Comprehensive Plan Map or Land Development Code District Map.
- b. To remove a residential Planned Development Overlay designation through the Administrative District Change process:
 - 1. The underlying District designation must be RS-1, RS-3.5, RS-5, RS-6, RS-9, RS-9U, RS-12, RS-12U, or RS-20;
 - 2. The request must be limited to removal of the Planned Development Overlay designation; and
 - 3. There must be no active Detailed Development Plan on any part of the site. An active Detailed Development Plan includes one which has:
 - a) Not expired or been nullified;
 - b) Not had a final Subdivision or Land Partition plat filed and recorded;
 - c) Not had a Lot Line Adjustment filed;

- d) Not had any building or construction permits issued; and
- e) Not had any activities associated with development as defined in Chapter 1.6;

2.2.50.07 - Action on Application

On the basis of the review criteria above the Director shall review the proposed Administrative District Change and either approve or deny the application within 21 days of the completion of the application submittal. The Director's decision shall include findings that specify how the proposal has or has not complied with the above review criteria.

2.2.50.08 - Notice of Disposition

a. The Director shall provide the following parties with a notice of disposition:

- 1. Applicant;
- 2. Owners of record of property on the most recent property tax assessment roll where such property is located within 100 feet of the property that is subject of the notice; and
- 3. Any neighborhood or community organization recognized by the governing body and whose boundaries include the site.

b. The notice of disposition shall include the following information:

- 1. Nature of the application and the proposed use or uses which could be authorized;
- 2. Street address or other easily understood geographical reference to the subject property;
- 3. Name and phone number of staff contact person; and
- 4. State that a copy of the application, all documents and evidence submitted by or on behalf of the applicant and applicable criteria are available for inspection at no cost and copies can be provided at reasonable cost.

2.2.50.0 - Appeals

The decision of the Director may be appealed to the City Council in accordance with Chapter 2.19 - Appeals.

2.2.50.100 - Effective Date

The decision of the Director shall become effective 12 days from when the notice of disposition is signed, unless an appeal has been filed. Once the decision is effective, the Planned Development Overlay designation shall be removed from the Land Development Code District Map.

ATTACHMENT J

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.3 CONDITIONAL DEVELOPMENT (amended ~~12-02-02~~12-20-04)

Section 2.3.10 - BACKGROUND

Certain use types listed in each district require a public hearing to determine what their effects may be to the surrounding properties, neighborhood, and community as a whole. The Conditional Development review process provides an opportunity to allow a use when potential adverse effects can be mitigated or deny a use if concerns cannot be resolved to the satisfaction of the hearing authority.

Section 2.3.20 - PURPOSES

It is the intent of this chapter to permit Conditional Development where it is consistent with the Comprehensive Plan, subject to procedures and criteria intended to mitigate potentially negative impacts. Procedures and review criteria for Conditional Development are established for the following purposes:

- a. Permit certain types of public and private development that provide a community service in locations related to their service areas;
- b. Permit commercial development in locations related to its service area;
- c. Ensure that Conditional Development is compatible with its immediate area and the affected part of the community;
- d. Permit flexibility in the implementation of Special District plans; and
- e. Permit a mixture of residential development types.

Section 2.3.30 - PROCEDURES

An application filed for Conditional Development shall comply with the following:

2.3.30.01 - Application Requirements

- ▶ Building coverage;
 - ▶ Amount of site to be landscaped;
 - ▶ Number of parking spaces provided;
 - ▶ Building materials to be used;
 - ▶ Specifications as to type, color, and texture of exterior surfaces of proposed structures.
- i. Vicinity map showing the site in relation to local and collector streets; plus any other features in the nearby area;
- j. Any additional information that may be required by the Director to properly evaluate the proposed site plan. Such additional information shall only be required where its need can be justified on the basis of special and/or unforeseen circumstances.
- k. Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.
- kl. The Director may waive any of the requirements above where determined that the information required is unnecessary to properly evaluate the proposal. The Director may also require additional information needed to properly evaluate the Conditional Development.

The applicant shall provide 4 sets of plans, not to exceed 24 in. by 36 in. and one set of plans reduced to 8½ in. by 11 in. Where necessary, additional detail sheets shall be provided.

2.3.30.02 - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.
- b. After accepting a complete application the Director shall schedule a public hearing to be held by the Planning Commission. Notice of the hearing shall be provided in accordance with Chapter 2.0 - Public Hearings.
- c. After an application is accepted as complete, any revisions to it shall be regarded as a new application, requiring additional filing fees and rescheduling of the required public hearing.

2.3.30.03 - Staff Evaluation

The Director shall prepare a report that evaluates whether the proposal complies with the review criteria below. The report should include a recommendation for approval or denial and if needed a list of conditions for the Planning Commission to consider if an approval is granted.

2.3.30.04 - Review Criteria

Requests for Conditional Developments shall be reviewed to assure consistency with the purposes of this chapter, policies of the Comprehensive Plan, and any other applicable policies and standards adopted by the City Council. In addition, the following compatibility factors shall be considered:

- a. Basic site design (organization of uses on the site);
- b. Visual elements (scale, structural design and form, materials, and so forth);
- c. Noise attenuation;
- d. Noxious odors;
- e. Lighting;
- f. Signage;
- g. Landscaping for buffering and screening;
- h. Traffic;
- i. Effects on off-site parking;
- j. Effects on air and water quality.

Any Conditional Development request on residentially designated property shall also result in a clear and objective set of development standards (between the Conditional Development proposal, required adherence to the Land Development Code, and conditions of approval).

2.3.30.05 - Action by the Planning Commission

The Planning Commission shall conduct a public hearing in accordance with Chapter 2.0 - Public Hearings. Following the close of the public hearing, the Commission shall either approve, conditionally approve, or deny the conditional use. The Commission's decision shall include findings that specify how the application has or has not complied with the above review criteria.

2.3.30.06 - Notice of Disposition

The Director shall provide the applicant with a notice of disposition in accordance with Chapter 2.0 - Public Hearings that includes a written statement of the Planning Commission's decision, a reference to findings leading to it, any conditions of approval, and appeal period deadline. A notice of disposition shall also be mailed to persons who presented testimony orally or in writing at the public hearing.

2.3.30.07 - Appeals

The decision of the Planning Commission may be appealed in accordance with Chapter 2.19 - Appeals.

2.3.30.08 - Effective Date

ATTACHMENT K

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.4 SUBDIVISIONS AND MAJOR REPLATS (amended ~~12-02-02~~ 12-20-04)

Section 2.4.10 - BACKGROUND

The division of land is the initial step towards establishing a community's ultimate development pattern. Land divisions can occur through either a subdivision or partition process. A subdivision procedure is used when 4 or more units (generally referred to as "lots") of land are created in a calendar year. Subdivision applications are reviewed by the Planning Commission and frequently involve creation of an internal street to provide access. Subdivision applications may include requests for Planned Developments to permit greater flexibility in design of developments. Procedural provisions for Planned Developments are addressed in Chapter 2.5.

A partition procedure is used when 3 or fewer units (generally referred to as "parcels") are created in a calendar year and may or may not involve creation of a street. Partitions go through a staff review without a public hearing, except upon appeal. Partitions, in addition to procedures for minor replats and lot line adjustments, are addressed in Chapter 2.14.

This chapter presents the review process and plat requirements for subdivisions. Chapter 4.4 - Land Division Standards discusses lot and street design requirements and therefore must be reviewed in conjunction with this chapter in creating and developing a subdivision.

Section 2.4.20 - PURPOSES

Land division review procedures are established in this chapter for the following purposes:

- a. Ensure building sites are of sufficient size and appropriate design for their intended uses and lots to be created are within density ranges permitted by the Comprehensive Plan;
- b. Minimize negative effects of development upon the natural environment and to incorporate natural features into the proposed development where possible;
- c. Ensure economical, safe, and efficient routes for pedestrians, bicycles, and motor vehicles;
- d. Create residential living environments that foster a sense of neighborhood identity and are protected from the adverse effects of heavy traffic and more intensive land uses; and
- e. Promote energy efficiency.

Section 2.4.30 - TENTATIVE PLAT REVIEW PROCEDURES

Whenever an application is filed for a subdivision, it shall be reviewed in accordance with the following procedures.

2.4.30.01 - Application Requirements

Applications shall be made on forms provided by the Director. The person filing application must be the owner or a person having an interest in the land to be included in the subdivision. If the development is to include land in more than one ownership, the application must be submitted jointly by all of the owners or persons having an interest in each of the separately owned properties to be included.

The application shall be accompanied by the following:

- ▶ One copy of the narrative on 8.5 in. by 11 in. sheets;
 - ▶ Four sets of full-scaled black line drawings of the tentative plat and any other graphic(s), with sheet size not to exceed 24 in. by 36 in. Where necessary, an overall plan with additional detail sheets may be submitted; and
 - ▶ One set of the graphics shall be reduced to fit on 8.5 in. by 11 in. sheets of paper. Graphics and related names/numbers must be legible on this sheet size.
- a. Graphic** - A tentative subdivision plat application shall include the following information where applicable.
1. Public Notice map (typically a street map at 1 in. = 800 ft as per City's public notice format);
 2. District map (typically 1 in = 400 ft with a key that identifies each district within 1000 ft of the site as per City format);
 3. Existing land use map (typically a topographic map that extends at least a 1000 ft beyond the site. The map includes building footprints and makes a distinction between single-family, multi-family, commercial and industrial uses, as well as other significant features such as roads, drainageways, parks and schools);
 4. Tentative subdivision plat and other graphics drawn to scale and containing sheet titles, date, north arrow, and legend placed in the same location on each sheet and containing the following:
 - (a) Name and address of owner(s) of record, applicant, and registered land surveyor who prepared the plat;
 - (b) Sufficient description to define location and boundaries of the development site;
 - (c) Location and use of adjacent structures within 150 ft of the development site;
 - (d) Number of lots and their dimensions including frontage, depth, and area in square feet;
 - (e) General location of existing and proposed structures including building types and gross density per acre and proposed use restrictions. An indication of approximate building envelopes may be required where necessary to evaluate building relationships;

- (r) For residential development, a proposed solar envelope for each lot as necessary for solar access protection consistent with Chapter 4.4 - Land Division Standards.
- (s) Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.

The Director may waive any of the above requirements when determined the information required by this section is unnecessary to properly evaluate the proposed development. The Director may also require additional information, if determined necessary, to adequately evaluate the proposal.

b. Narrative Requirements - A written statement shall include:

1. Proposed uses and development objectives;
2. Statement of improvements to be constructed or installed and date of their anticipated completion including:
 - (a) Provisions for domestic water supply including source, quality, and approximate quantity;
 - (b) Provisions for sewage disposal, storm drainage, and flood control;
 - (c) Provisions for improvements and maintenance of common areas if proposed; and
 - (d) Proposed landscaping.
3. General description of intentions concerning timing, responsibilities, and assurances for all public and non-public improvements, such as irrigation, private roads and drives, landscape, and maintenance;
4. General data not included on the tentative plat such as:
 - (a) Total number and type of dwelling units,
 - (b) Parcel size;
 - (c) Proposed lot coverage of buildings and structures where known;
 - (d) Gross densities per acre;
 - (e) Total amount of open space (lands not designated for buildings or vehicle parking and maneuvering areas); and
 - (f) Total amount of nonresidential construction.
5. Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.

2.4.30.02 - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.

- b. After accepting a complete application the Director shall schedule a public hearing to be held by the Planning Commission. Notice of the hearing shall be provided in accordance with Chapter 2.0 - Public Hearings.
- c. After an application is accepted as complete, any revisions to it shall be regarded as a new application, requiring additional filing fees and rescheduling of the required public hearing.

2.4.30.03 - Staff Evaluation

The Director shall prepare a report that evaluates whether the proposal complies with the review criteria below. The report should include a recommendation for approval or denial and a list of conditions for the Planning Commission to consider if an approval is granted.

2.4.30.04 - Review Criteria

Requests for approval of a tentative subdivision plat shall be reviewed to assure consistency with the purposes of this Code, pertinent development standards of the Code including Chapters 4.0 - Improvements Required with Development; 4.1 - Parking, Loading, and Access Requirements; 4.2 - Landscaping, Buffering, and Screening; 4.4 - Land Division Standards; and 4.5 - Flood Control and Drainage Natural Hazard and Hillside Development Provisions; 4.11 - Minimum Assured Development Area (MADA); 4.12 - Significant Vegetation Provisions; Chapter 4.13 - Riparian Corridor and Locally Protected Wetland Provisions; and density requirements of the Comprehensive Plan.

2.4.30.05 - Action by the Planning Commission

The Planning Commission shall conduct a public hearing in accordance with Chapter 2.0 - Public Hearings. Following the close of the hearing, the Planning Commission shall approve, conditionally approve, or deny the tentative subdivision plat. The Commission's decision shall include findings that specify how the application has or has not complied with the above review criteria.

2.4.30.06 - Notice of Disposition

The Director shall provide the applicant with a notice of disposition in accordance with Chapter 2.0 - Public Hearings that includes a written statement of the Planning Commission's decision, a reference to findings leading to it, any conditions of approval, and appeal period deadline. A notice of disposition shall also be mailed to persons who presented testimony orally or in writing at the public hearing.

2.4.30.07 - Appeals

The decision of the Planning Commission may be appealed in accordance with the provisions of Chapter 2.19 - Appeals.

2.4.30.08 - Effective Date

The decision of the Planning Commission shall become effective 12 days from when the Notice of Disposition is signed unless an appeal is filed.

2.4.30.09 - Effective Period of Tentative Subdivision Plat Approval

ATTACHMENT L

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.6 ANNEXATIONS (last amended 12-20-04)

Section 2.6.10 - BACKGROUND

The process of annexation of land to the City allows for the orderly expansion of the City and adequate provision for public facilities and services. The City Charter requires that, unless mandated by State law, annexation may only be approved by a majority vote among the electorate.

Section 2.6.20 - PURPOSES

The procedures and standards established in this chapter are required for review of proposed annexations in order to:

- a. Allow for simultaneous review and comparative evaluation of annexation proposals;
- b. Provide adequate public information and sufficient time for public review before an annexation election;
- c. Maximize citizen involvement in the annexation review process;
- d. Establish a system for measuring the physical, environmental, and related social effects of proposed annexations; and
- e. Ensure adequate time for staff review.

Section 2.6.30 - PROCEDURES

Whenever an application for annexation is filed, it shall be reviewed in accordance with the following procedures:

~~2.6.30.01 - Determination of Annexation Type~~

~~The Director shall determine whether an application is for a Major or Minor Annexation as follows:~~

- ~~a. **Major Annexation** - An annexation shall be considered major if one or more of the following exist:
 - ~~1. More than one property is involved;~~
 - ~~2. City services do not abut the site;~~
 - ~~3. The land is vacant and the request involves more than one district designation, or,~~
 - ~~4. The land is developed with more than one type of existing land use and more than one district designation is needed or requested.~~~~

~~However, if the Director determines measuring the physical, environmental and related social effects of the proposal will be similar in difficulty to that of a minor annexation, a major annexation can follow the timeline for minor annexation.~~

~~b. **Minor Annexation** - Any annexation not meeting the description provided above for a major annexation is considered a minor annexation. In general an annexation is considered minor if measurement of the physical, environmental and related social effects is easier than with a major annexation.~~

2.6.30.021 - Application Filing Deadlines

~~Annexation elections are scheduled for May and November of each year. Application filing deadlines for Annexations must be filed with the Community Development Department before 5:00 pm on the last working day in September for a ballot election in May, and on the last working day in March for a ballot election in November. are established to permit public hearings by both the Planning Commission and the City Council in time to meet State requirements for submitting ballot information for these election dates. Application deadlines for major and minor annexations are as follows:~~

~~a. **A Major Annexation** must be filed with the Community Development Department before 5:00 p.m. on the last working day in October for a ballot election in May and the last working day in April for a ballot election in November.~~

~~b. **A Minor Annexation** must be filed with the Community Development Department before 5:00 p.m. on the last working day in November for a ballot election in May and the last working day in May for a ballot election in November.~~

2.6.30.032 - Application Requirements

Applications for annexation shall be made on forms provided by the Director and include the following material:

- a. Written consent to the annexation signed by the requisite number of affected property owners, electors, or both, to dispense with an election within the area to be annexed, as provided by state law.
- b. Legal description of the property and associated rights-of-way to be annexed and a boundary survey certified by a registered engineer or surveyor.
- c. Maps of the area to be annexed including adjacent City territory; Maps of the Comprehensive Plan and the Natural Features Overlay designations (including the specific Riparian Corridors and Wetlands Map, Significant Vegetation Map, and the Natural Hazards Map designations).
- d. Statement of availability, capacity, and status of existing water, sewer, drainage, transportation, park, and school facilities.
- e. Statement of increased demand for such facilities to be generated by the proposed development.

- f. Statement of additional facilities required to meet the increased demand and phasing of such facilities in accordance with projected demand.
- g. Statement outlining method and source of financing required to provide additional facilities.
- h. General land use plan indicating types and intensities of proposed development, transportation corridors, watercourses, significant natural features, and adjoining development.
- i. Statement of overall development and/or preservation of natural features concept and methods by which physical and related social environment of the site, surrounding area, and community will be protected and/or enhanced. For properties containing Significant Vegetation Map Overlay areas, the statement shall include a discussion of the applicable provisions of Chapter 4.5 - Natural Hazard and Hillside Development Provisions, Chapter 4.11 - Minimum Assured Development Area (MADA), Chapter 4.12 - Significant Vegetation Provisions, and Chapter 4.13 - Riparian Corridor and Locally Protected Wetland Provisions
- j. Comprehensive narrative of potential negative physical, aesthetic, and related social effects of the proposed development and/or preservation of natural features on the community as a whole and on the smaller subcommunity or neighborhood of which it will become a part; and proposed actions to mitigate such effects.
- k. Narrative demonstrating need for the urban development proposed for the annexation area; need should be demonstrated based upon a factual analysis of the following factors:
 - 1. Availability within the City of undeveloped land designated for proposed urban development.
 - 2. Analysis of immediate, short-term (1 to 5 years) demand for proposed urban development.
 - 3. Probable phasing of proposed urban development consistent with projected demand for period in which the annexation area is expected to be developed.

2.6.30.04~~3~~ - Acceptance of Application

- a. The Director shall review the application in accordance with Chapter 2.0 - Public Hearings.
- b. After accepting a complete application, the Director shall schedule a public hearing to be held by the Planning Commission. Notice of the hearing shall be provided in accordance with Chapter 2.0 - Public Hearings.

2.6.30.04 & 05 - Reserved

2.6.30.06 - Staff Evaluation

The Director shall prepare a report that evaluates whether the proposal complies with the review criteria below. The report should include a recommendation whether or not to submit the annexation to the electorate.

2.6.30.07 - Review Criteria

Annexations shall be reviewed to assure consistency with the purposes of this chapter, policies of the Comprehensive Plan, and other applicable policies and standards adopted by the City Council and State of Oregon. In addition, a finding shall be made that the City is capable of providing services to the subject property(ies) commensurate with the needs of existing and any proposed increases. Finally, if this finding regarding service of the site can be positively made, and annexation of the site will serve to better protect natural features identified in the Natural Features Overlays that are located within the proposed annexation area, findings may be made in support of the Annexation.

2.6.30.08 - Action by the Planning Commission

The Planning Commission shall conduct a public hearing in accordance with Chapter 2.0 - Public Hearings to evaluate the proposed annexation and determine the appropriate development district designation upon annexation. ~~The public hearing shall be conducted as follows:~~

- ~~a. **Major Annexations** - The Planning Commission shall conduct its hearing in the first half of January for applications filed in October and in the first half of July for applications filed in April.~~
- ~~b. **Minor Annexations** - The Planning Commission shall conduct its public hearing in the second half of January for applications filed in November and in the second half of July for applications filed in May.~~

Following the close of the public hearing, the Planning Commission shall establish the appropriate development district(s) upon annexation and forward its recommendation concerning the annexation to the City Council. The Planning Commission's recommendation shall include findings that specify how the proposal has or has not complied with the above review criteria. The Planning Commission shall specify such consideration as findings in support of its decision and recommendation.

2.6.30.09 - Effective Date of District Designation

The decision of the Planning Commission regarding establishment of the district designation shall become effective upon expiration of the appeal period unless an appeal has been filed in accordance with Chapter 2.19 - Appeals.

2.6.30.10 - Action by City Council

Upon receipt of the Planning Commission's recommendation the matter shall be set for a public hearing before the City Council in accordance with Chapter 2.0 - Public Hearings. The Council shall review all proposals prior to the City application deadline for submitting measures to the voters in May or November. The Council shall only set for an election annexations consistent with the above review criteria. The City Council shall specify such considerations as findings in support of its decision to schedule an annexation for an election.

Note: The City Council's decision to submit an annexation to the electorate is the last discretionary decision in the process. Certifying the election after votes are counted is not a discretionary decision.

2.6.30.11 - Public Information

Public information identified above in 2.6.30.07 - Review Criteria for each annexation scheduled for an election shall be reviewed by the Council and published in a newspaper of general circulation in the City. The information shall include positive and negative effects contained in the staff report, as well as the findings upon which the City Council based its decision to schedule the annexation for an election. This information shall be published at least 10 days before the election.

Section 2.6.40 - EXCEPTIONS

The City Council may authorize an exception to any of the requirements of this chapter. An exception shall require a favorable vote of six or more Council members and a statement of findings that indicates the basis for the exception. Exceptions may be granted for reasons including, but not limited to: identified health hazards, limited development potential, or administrative error.

ATTACHMENT M

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 2.12 LOT DEVELOPMENT OPTION (amended ~~12-02-02~~ 12-20-04)

Section 2.12.10 - BACKGROUND

Lot Development Options provide a means to vary the development standards normally applied in a particular district. The option exists for those circumstances where uniform, unvarying rules would prevent a more efficient use of a lot. A typical example is permitting a structure to be located closer to a property boundary than normally allowed by the development district regulations.

Lot Development Options apply only to individual lots and therefore cannot be used by applicants seeking to vary development standards for lots to be created through a subdivision or partition process. Modifications that exceed the scope of a Lot Development Option should be sought through the Planned Development process described in Chapter 2.5.

Unless otherwise stated in the following chapters, Lot Development Options shall not be used to vary from the standards in Chapter 4.5 - Natural Hazards and Hillside, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, and Chapter 4.13 - Riparian Corridors and Wetlands.

Section 2.12.20 - PURPOSES

Procedures and standards for the review of Lot Development Options are established in this chapter for the following purposes:

- a. Permit efficient use of land;
- b. Provide flexibility and innovation in site planning and architectural design on individual lots;
- c. Permit building location and encourage construction techniques that conserve energy; and
- d. Minimize procedural delays and ensure due process in the review of unique development situations.

Section 2.12.30 - PROCEDURES

An application filed for a Lot Development Option shall comply with the following (see table below):

2.12.30.01 - Application Requirements

An application for a Lot Development Option shall be made on forms provided by the Director and include the following, where applicable:

- c. Site plan no larger than 11 in. by 17 in. suitable for photocopy reproduction. The site plan shall be drawn to scale and show:
- ▶ Relationship of the site to adjoining properties, streets, alleys, structures, public utilities, and drainageways;
 - ▶ Lot line dimensions;
 - ▶ Existing and proposed structures;
 - ▶ Structures on adjacent property(ies) affected by the request;
 - ▶ Vehicle and pedestrian access points and accessways;
 - ▶ Drainageways and any other prominent features;
 - ▶ Location of trees and shrubs over 3 ft in height;
 - ▶ Fences and walls;
 - ▶ Off-street parking facilities;
 - ▶ Information required by Chapters 4.5, 4.11, 4.12, and 4.13, as applicable.
 - ▶ Any other information relevant to the proposal.

2.12.30.02 - Acceptance of Application

The Director shall review the Lot Development Option application for compliance with the application requirements above in 2.12.30.01. If the application is incomplete, the Director shall notify the applicant within 5 days and state what information is needed to make the application complete. The applicant shall have 10 days in which to submit additional materials.

2.12.30.03 - Determination of Lot Development Option Type

The Director shall determine whether an application is for a Major or Minor Lot Development Option as listed below. However, unless otherwise stated in the following chapters, Lot Development Options shall not be used to vary from the standards in Chapter 4.5 - Natural Hazards and Hillsides, Chapter 4.11 - Minimum Assured Development Area, Chapter 4.12 - Significant Vegetation, and Chapter 4.13 - Riparian Corridors and Wetlands. follows:

- a. **Major Lot Development** - A Lot Development Option shall be considered major if one or more of the following would result:
1. Reducing any setback in a residential district by more than 40 percent or by more than 20 percent in any nonresidential district;
 2. Increasing the height of a structure by more than 10 percent;
 3. Reducing lot area by more than 5 percent of the required lot area (only for those lots to be created through the land partition or minor replat process described in Chapter 2.14);
 4. Reducing required lot width by more than 5 ft, excluding accessway widths required for flag lots created through the land partition or minor replat process;
 5. Increasing the total ground area proposed to be covered by structure or impervious surfaces by more than 5 percent than what is permitted in the district;
 6. Reducing by more than 10 percent the area reserved for private outdoor space and/or usable open space;

- d. For Major Lot Development Options, the development site shall be posted in conspicuous locations at least 10 days prior to the decision being made. The posting shall contain the applicant's name and address, type of action requested, date by which comments concerning the action shall be received by the Director, date the Director shall render a decision concerning the requested Lot Development Option, deadline for appeals, and address and phone number of the City staff contact person.

2.12.30.05 - Staff Evaluation

The application and any comments that have been received shall be reviewed to assure consistency with the review criteria in 2.12.30.06 below.

2.12.30.06 - Review Criteria

Lot Development Options shall be reviewed to determine if the following have been met:

- a. The proposed development will not be contrary to the purposes of this chapter, policies of the Comprehensive Plan, and any other applicable policies and standards adopted by the City;
- b. The proposed development will not substantially reduce the amount of privacy enjoyed by users of nearby structures if the development were located as specified by this Code;
- c. The proposed development will not adversely affect existing physical systems and natural systems, such as traffic, drainage, dramatic land forms, or parks; the project will not adversely affect the significant natural resources and hazards regulated by Chapters 4.5, 4.11, 4.12, and 4.13; and the potential for abutting properties to use solar energy devices any more than would occur if the development were located as specified in this Code; and
- d. Architectural features of the proposed development will be compatible to the design character of existing structures on adjoining properties and on the proposed development site.

2.12.30.07 - Action on Application

On the basis of the review criteria above and any comments received from affected parties, the Director shall review the proposed development and either approve, conditionally approve, or deny the application at the completion of the 14-day comment period.

2.12.30.08 - Notice of Disposition

The Director shall provide the applicant with a notice of disposition that includes a written statement of the decision, a reference to the findings leading to it any conditions of approval, and appeal period deadline. A notice of disposition shall also be mailed to persons who provided written comment on the mailed notice. A notice of disposition and all applicable information shall be available in the Development Services Division of the Community Development Department.

ATTACHMENT N

This is a new chapter and it incorporates all the Planning Commission-recommended changes. The City Council adopted it as shown.

CHAPTER 3.38 CONSERVATION-OPEN SPACE (C-OS) DISTRICT

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 case, 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. If desired, density may be transferred off property at the time that this District is applied, provided the area receiving the transfer is part of the same development site.

Section 3.38.20 - PERMITTED USES

3.38.20.01 - General Development

a. Primary Uses Permitted Outright

1. Conservation Uses

- a) Preservation and restoration of natural resource and/or natural hazard areas;
- b) Provision of open space areas to protect natural resources and avoid natural hazards;
- c) Preservation and restoration of significant vegetation as identified in Section 4.2.20.d; and

- d) Preservation and restoration of historic resources listed on the Corvallis Register of Historic Landmarks and Districts or the National Register of Historic Places.

2. Civic Uses

- a) Community Recreation - limited to trails and associated viewing stations; picnic areas that do not exceed a ratio of one picnic table per 5 acres; parking areas that do not to exceed a ratio of 5 spaces per acre; and portable restrooms;
- b) Minor Utilities - limited to above-ground stormwater detention ponds and facilities installed underground such as water, sewer, storm, gas, and electrical lines and associated elements, such as underground lift stations, pump stations, or vaults;
- c) Construction of streets, roads, and pedestrian and bicycle facilities that are included in the City of Corvallis Transportation Plan, or in other adopted City Plans; and
- d) Construction of streets, roads, and vehicular and pedestrian and bicycle facilities necessary in order to maintain an acceptable functional classification of roadways adjacent to the property.

3. Prior Established Uses

- a) Uses existing prior to December 31, 2004, and in compliance with the Code on that date¹; and
- b) Uses permitted by the Code at the time of approval of a Conceptual or Detailed Development Plan overlying the subject property

¹ Uses that were in existence and permitted by zoning prior to December 31, 2004, and were redesignated to the C-OS District, shall not be classified as nonconforming uses unless they have been discontinued for a period of at least 18 months, in which case the requirements of section 1.4.40.03 shall apply. Expansions and enlargements shall comply with all other applicable Code requirements.

b. Accessory Uses Permitted Outright

1. Essential Services

3.38.20.02 - Special Development - Uses Allowed Through Discretionary Review

a. Type I- Conditional Development - Subject to review in accordance with Chapter 2.3 - Conditional Development.

1. Civic Use Types

- a) Community Recreation (full uses limited to Willamette Park. Elsewhere, uses limited to interpretive centers)

Section 3.38.30 - PERFORMANCE STANDARDS

- a. Each use, activity, or operation within this zone shall comply with applicable local nuisance and animal control ordinances, State and Federal standards, and other provisions of this Code; and
- b. Uses and improvements shall be designed and constructed to minimize adverse impacts to significant natural resources and hazards, as identified in Chapters 4.2, 4.5, 4.12, and 4.13.

ATTACHMENT O

This is an existing Code Chapter. Planning Commission-recommended changes are indicated by redline/double underline and strike-out fonts. The City Council adopted this Chapter as shown.

CHAPTER 3.26 RTC (RESEARCH TECHNOLOGY CENTER) DISTRICT

Section 3.26.10 - PURPOSE

This district implements the Industrial Use designation of the Comprehensive Plan. It is intended to provide locations for research and technology uses that desire a campus-like setting. The RTC District is designed to accommodate educational, scientific, industrial, and business research, development, planning, testing, and training activities and non-polluting manufacturing activities. ~~with~~ Supporting commercial uses not to exceed 20 percent of the gross floor area; may be located in RTC projects. ~~The RTC district and to~~ establishes standards that address compatibility of the center with surrounding uses.

Section 3.26.20 - GENERAL PROVISIONS

3.26.20.01 Establishment of the RTC District

This district may be requested by a property owner of lands identified on the Comprehensive Plan Map as ~~potential RTC areas~~ Limited Industrial, Limited Industrial-Office, General Industrial, General Industrial-Office, and Mixed Use Transitional areas. Establishment of this district requires a public hearing by the Planning Commission in conjunction with a Planned Development Overlay District Designation and a Planned Development Conceptual Development Plan (Section 2.5.40). ~~At the time this district is designated, the Planning Commission shall also designate the underlying district in conformance with the Comprehensive Plan.~~

The applicant has 3 years from date of approval ~~for the district change and~~ of the Conceptual Development Plan to complete a Plan Compatibility Review and be issued a building permit for a primary use. If no building permit has been issued prior to the expiration date, ~~the district change and~~ Conceptual Development Plan shall expire ~~and the Director shall amend the Official Development District Map to remove the RTC district except as provided in 3.26.20.02 below~~ and a new Conceptual Development Plan approval shall be required prior to the issuance of any building permits.

3.26.20.02 - Time Extension of Conceptual Development Plan Approval

- a. An owner of property with an ~~RTC designation~~ may apply to have that designation approved RTC Conceptual Development Plan may apply to have the Conceptual Development Plan approval extended beyond the 3-year limit, provided that an application, on forms provided by the Director, is properly filed before the expiration of the Conceptual Development Plan designation on forms provided by the Director.

site, it shall also assure that the plan limits the uses specified in 3.26.30.01 under "a.3", to 20 percent or less, when considered separately or in combination, of the gross floor area of the development site.

The purpose of special limitations regarding the uses in 3.26.30.01 under "a.3" is to ensure that the proposed use or uses will serve primarily the shopping and service needs of employees and businesses of the uses in the RTC site. Building permits for these commercial uses shall only be approved when subordinate to other existing RTC development. Permits for these subordinate uses shall only be issued concurrent with or following issuance of permits for the predominant uses and shall not exceed the maximum 20 percent.

3.26.40.01 - Lot Area

Minimum parcel area for a development site shall be 50 acres. Individual lot sizes shall be adequate to fulfill applicable Code requirements and minimum standards of this district.

3.26.40.02 - Setbacks

- a. **Boundary Area** - The setback for the perimeter of a development site shall average 50 ft along the building face for structures 30 ft or less in building height. The minimum setback shall not be less than 30 ft. For a structure over 30 ft in height, an additional setback of 2.5 ft for every ft of height over 30 ft shall be added to the average 50 ft setback.
- b. **Streets** - Setbacks from streets along the perimeter of the development site shall average 60 ft with a minimum of 40 ft.
- c. **Interior Lot Lines** - There are no requirements for separation between buildings or setbacks from any created interior lot lines other than those specified in the Uniform Building Code.

3.26.40.03 - Height of Structure

No structure shall exceed 75 ft in height.

3.26.40.04 - Site Coverage

Building coverage shall not exceed 40 percent; total impervious surface (excluding open space/landscape elements) shall not exceed 60 percent of the entire development site.

3.26.40.05 - Performance Standards

- a. Each use, activity, or operation within this district shall comply with applicable State and Federal standards and shall not create a nuisance because of odor, vibration, noise, dust, smoke, or gas.
- b. Mechanical equipment, outdoor storage areas, trash receptacles, and parking lots shall be screened from view from public places and neighboring properties, to the extent it is practicable, through use of features such as berms, fences, facades, and dense landscaping in accordance with Chapter 4.2.
- c. There shall be a 30-ft wide landscaped area in the boundary area containing trees and shrubs with a fence or a berm. Within the street setback area a 40-ft wide landscaped area shall be provided.
- d. Landscaped areas shall be irrigated with permanent facilities sufficient to maintain the plant materials and covered by living plant material capable of attaining 90 percent ground coverage within 3 years.

- e. Street trees and landscaping provisions not addressed differently in this Chapter are required in accordance with Chapter 4.2.
- f. Long expanses of fence or wall along public streets shall be designed to prevent visual monotony through the use of offsets, landscaping, and change in materials.
- g. Earth sculpturing and other techniques shall be used to reduce building scale along the development site perimeter.
- h. Where structures are set back less than 60 ft along a perimeter street, the building arrangement shall provide for open space linkages in such a way that the required open space extends from the street into the interior of the site.
- i. Parking, loading, and access requirements shall be in accordance with Chapter 4.1.
- j. Access shall be designed to minimize interference with traffic movement on abutting streets. Where the Director determines it is necessary, additional right-of-way shall be dedicated to maintain adequate traffic circulation.
- k. Metal siding and roof surfaces shall be covered and maintained with nonreflective paint.
- l. Artificial lighting shall be arranged and constructed as to not produce direct glare on adjacent residential properties.
- m. Signage shall be designed and oriented in such a way as to primarily serve those within the RTC development. Structures or portions of structures used for commercial purposes shall be designed to primarily serve those within the RTC development.
- n. Minimum Assured Development Area, Landscaping, Natural Hazards and Hillside, Significant Vegetation, and Riparian Corridors and Locally Protected Wetlands shall be addressed as outlined in Chapters 4.11, 4.2, 4.5, 4.12, and 4.13, respectively.

ORDINANCE 3

**AN ORDINANCE RELATING TO LAND USE, AMENDING THE CITY OF CORVALLIS
COMPREHENSIVE PLAN TEXT AND THE CITY OF CORVALLIS COMPREHENSIVE
PLAN MAP, ESTABLISHING FINDINGS, AMENDING ORDINANCE 98-53, AND
STATING AN EFFECTIVE DATE (PORTION OF CPA04-00003)**

ORDINANCE 2004 – (3)

AN ORDINANCE RELATING TO LAND USE, AMENDING THE CITY OF CORVALLIS COMPREHENSIVE PLAN TEXT AND THE CITY OF CORVALLIS COMPREHENSIVE PLAN MAP, ESTABLISHING FINDINGS, AMENDING ORDINANCE 98-53, AND STATING AN EFFECTIVE DATE (PORTION OF CPA04-00003)

WHEREAS, in 1996, the City of Corvallis received notice from the Oregon Department of Land Conservation and Development to begin the "Periodic Review" of its Comprehensive Plan;

WHEREAS, the Oregon Department of Land Conservation and Development approved the City of Corvallis' Periodic Review Work Order that included an update of the Land Development Code to implement the Comprehensive Plan;

WHEREAS, completing the entire Periodic Review Order includes updates of the Comprehensive Plan Text, the Comprehensive Plan Map, the Land Development Code, and the Land Development Code Map in a complex and integrated program that is iterative in nature and requires multiple stages to integrate initial amendments into later-stage amendments in order to fully implement all of the Comprehensive Plan Policies and the revised Comprehensive Plan Map;

WHEREAS, on June 26, 2000 the Oregon Department of Land Conservation and Development acknowledged the Corvallis Comprehensive Plan as being consistent with Work Tasks 1 through 8, while also requiring the City of Corvallis to complete Work Tasks 9 through 13;

WHEREAS, Work Task 2 (and an Addendum to Periodic Review Work Task 2) required evaluation and possibly updating of the Goal 5 inventories, text, and policies;

WHEREAS, Work Task 8 required incorporation of policy and map changes that result from updated facility master plans including the Stormwater Master Plan and steps to provide planning consistency and coordination with on-going projects such as the Natural Features Project and a project to implement provisions that move the City in the direction of complying with NOAA Fisheries Rules relating to the Endangered Species Act listing of salmonids in the Upper Willamette River Basin;

WHEREAS, Work Task 10 required revisions to the Comprehensive Plan Text and the Comprehensive Plan Map to incorporate updated inventories and policies;

WHEREAS, Work Task 13 required completion of the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources;

WHEREAS, Work Task 13 required the City of Corvallis to adopt a Comprehensive Plan policy that includes a schedule for completion of Work Task 13 within four years;

WHEREAS, Comprehensive Plan Policy 3.2.1 states the desired land use pattern within the Corvallis Urban Growth Boundary will emphasize: A. Preservation of significant open space and natural features; B. Efficient use of land; C. Efficient use of energy and other resources; D. Compact Urban Form; E. Efficient provision of transportation and other public services; and F. Neighborhoods with a mix of uses, diversity of housing types, pedestrian scale, a defined center, and shared public areas;

WHEREAS, Comprehensive Plan Policy 4.2.1 directs the City of Corvallis to complete inventories of significant natural features within the Urban Growth Boundary;

WHEREAS, Comprehensive Plan Policy 4.2.3. directs the City of Corvallis to maintain a constraints map;

WHEREAS, Comprehensive Plan Policy 4.6.1 directs the City of Corvallis to update the hillside inventory;

WHEREAS, Comprehensive Plan Policy 4.10.2 directs the City of Corvallis to inventory significant riparian lands;

WHEREAS, Comprehensive Plan Policy 4.11.4 directs the City of Corvallis to inventory wetlands.

WHEREAS, Comprehensive Plan Policy 4.13.1 directs the City of Corvallis to inventory significant habitats for fish and wildlife.

WHEREAS, Comprehensive Plan Policy 8.2.1 directs the City of Corvallis to support a diversity in type, scale, and location of professional, industrial, and commercial activities to maintain a low unemployment rate and to promote diversification of the local economy;

WHEREAS, Comprehensive Plan Policy 8.9.1 directs the City of Corvallis to designate appropriate and sufficient land in a variety of parcel sizes and locations to fulfill the community's industrial needs;

WHEREAS, Comprehensive Plan Policy 8.9.7 directs the City of Corvallis to designate Research-Technology Center (RTC) as a distinct industrial district;

WHEREAS, Comprehensive Plan Policy 9.3.1 directs the City of Corvallis to work together with Benton County to assure that adequate urbanizable land is available to meet housing needs during the planning period and to prevent development patterns that preclude future urbanization;

WHEREAS, Comprehensive Plan Policy 4.2.5, and interim regulations intended to satisfy Oregon Administrative Rule 660-023-100(4) were adopted with Phase II of the Land Development Code Update project;

WHEREAS, as indicated in Comprehensive Plan Policy 4.2.5, completion of this project is to occur by December, 2004;

WHEREAS, the City of Corvallis has completed the Natural Features Inventory, the List of Locally Significant Wetlands (included in the Natural Features Inventory), and the Local Wetlands Inventory Map as directed by Comprehensive Plan Policies 4.2.1, 4.2.5, 4.2.3, 4.2.5, 4.6.1, 4.10.2, 4.11.4, and 4.13.1, therefore the supporting documents for the Natural Features Inventory, the Local Wetland Inventory Map, and the List of Locally Significant Wetlands must be integrated with the Comprehensive Plan;

WHEREAS, the City of Corvallis has completed the requirements associated with the implementation of Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources and in doing so has evaluated and balanced the protection of natural features with conflicting use needs;

WHEREAS, Article 39 of the Comprehensive Plan, created by Ordinance 2004-??, incorporates into the Comprehensive Plan the City of Corvallis Natural Features Project ESEE Analysis (Economic, Social, Environmental, and Energy Analysis);

WHEREAS, the City of Corvallis Natural Features Project ESEE Analysis (Economic, Social, Environmental, and Energy Analysis) and the updated Buildable Lands Inventory information demonstrate the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text and the Comprehensive Plan Map provide an appropriate balance of environmental protections with providing sufficient buildable lands and efficient use of lands within the Urban Growth Boundary and further implement Comprehensive Plan policies 8.2.1, 8.9.1, 8.9.7, and 9.3.1;

WHEREAS, Article 40 of the Comprehensive Plan establishes land use designations that provide a basis for determination of Land Development Code development districts;

WHEREAS, there has been confusion over the application of the Research Technology and Research Technology Center overlays on the Comprehensive Plan map;

WHEREAS, Comprehensive Plan Policy 8.9.7 directs the City of Corvallis to establish a zoning district for a Research Technology zoning district, therefore the Research Technology designation will be implemented through the Land Development Code and not the Comprehensive Plan Map;

WHEREAS, the enactment of this Ordinance (2004-??) is subject to prior or simultaneous enactment of Ordinance 2004-?? pertaining to the adoption of the Natural Features Inventory and Ordinance 2004-?? pertaining to the ESEE Analysis being adopted as Article 39 of the Comprehensive Plan text;

WHEREAS, with the approval of the proposed documents associated with the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Map and Comprehensive Plan Text the City Council will have further completed Work Tasks 2, 8, 10, and 13;

WHEREAS, the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text and Comprehensive Plan Map will not take effect until it is acknowledged by the State Department of Land Conservation and Development and implemented via a final order by the City Council;

WHEREAS, the process of getting the Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text and the Comprehensive Plan Map acknowledged by the State Department of Land Conservation and Development and then implemented via a final order by the City Council will be at least a number of months beyond December 1, 2004;

WHEREAS, the Corvallis Urban Fringe Management Agreement requires joint public hearings between the City of Corvallis and Benton County officials regarding Comprehensive Plan Text and Comprehensive Plan Map amendments for lands within the Urban Fringe;

WHEREAS, the Benton County Planning Commission participated in a joint public hearing with the Corvallis Planning Commission which was conducted, after proper legal notice, on September 9, 2004; the Benton County Planning Commission conducted deliberations on September 14, and 16, 2004; the Corvallis Planning Commission conducted deliberations on September 14, 16, 23, and 30, 2004; and the among the matters considered as part of the public hearing were the Legislative Amendment (portion of CPA04-00003) to the Corvallis Comprehensive Plan Text and the Comprehensive Plan Map and interested persons and the general public were given an opportunity to be heard. The Benton County Planning Commission has reviewed all matters presented and has provided its recommendations to the Benton County Board of Commissioners. The Corvallis Planning Commission has reviewed all matters presented and has provided its recommendations to the Corvallis City Council;

WHEREAS, the Benton County Board of Commissioners participated in a Joint Public Hearing with the Corvallis City Council on November 4, 2004, November 8, 2004, and November 9, 2004, and on November 9 and 30, 2004 voted to approve the Legislative Amendment of the Comprehensive Plan Text and Comprehensive Plan Map (portion of CPA04-00003) with the revisions pertaining to the Urban Fringe that are included in the Corvallis City Council approval and listed in **Section 2** below;

WHEREAS, the City Council conducted, after proper legal notice, a public hearing on November 4, 2004, November 8, 2004 and November 9, 2004, and deliberations on November 9, 2004, November 15, 2004, and November 22, 2004, concerning the proposed changes to the Comprehensive Plan, and interested persons and the general public were given an opportunity to be heard; and

WHEREAS, the complete staff report to the Corvallis City Council, dated October 21, 2004, including exhibits; and the portion of the minutes of the November 4, 2004, November 8, 2004, and November 9, 2004 public hearing and the November 9, 2004, November 15, 2004, and

November 22, 2004 deliberations, containing the staff presentations and deliberations by the Council that demonstrate support for the proposed Legislative Amendment (portion of CPA04-00003) to the Comprehensive Plan Text and the Comprehensive Plan are by reference incorporated herein and are hereby adopted by the Corvallis City Council;

NOW THEREFORE, THE CITY OF CORVALLIS ORDAINS AS FOLLOWS:

Section 1. Exhibit A, a detailed set of findings regarding the Comprehensive Plan Text and Comprehensive Plan Map Amendment (portion of CPA04-00003) is incorporated in and made part of this Ordinance.

Section 2. Exhibit B, the revised Corvallis Comprehensive Plan Map, dated October 20, 2004, is hereby incorporated in and made part of this Ordinance, and is hereby adopted as the Corvallis Comprehensive Plan Map, subject to the further revisions noted below:

- i. Delete the Resource Overlay from the area noted on Exhibit C of this Ordinance (the formerly noted wetland area identified as WC-DIX-W-3 which was relabeled as a potential wetland in the Natural Features Inventory as part of Ordinance 2004-??);
- ii. Add a Resource Overlay to the area noted on Exhibit D of this Ordinance (the portion of the Locally Significant Wetland identified as N-SEQ-M70-1 which is south of Conser Street and outside of the area planned for an affordable housing project);
- iii. Add a note to the map legend which says, "Map Refinements and Corrections to Mapping Errors are Addressed as Outlined in the Land Development Code;"
- iv. Add a note under the title of the map which says "Natural Hazard and Natural Resource Overlays are Approximate;" and
- v. Remove all references in the legend and on the map to Research Technology and Research Technology Center and show a Comprehensive Plan Map designation of General Industrial for those properties affected by this revision, with the exception of the OSU-owned property at the northwest corner of SW 35th Street and SW Western Boulevard which will show a Comprehensive Plan Map designation of Public Institutional.

Section 3. Exhibit E, indicating revisions to the Comprehensive Plan Text, is hereby incorporated in and made part of this Ordinance, and is hereby adopted as revised text to the Comprehensive Plan, subject to the further revision noted below:

i. Add the following new policy to Comprehensive Plan Article 4:

Policy 4.2.6 Periodic review of Potential Mapping Errors – On a periodic basis, decision-makers shall review issues related to potential mapping errors for resources other than Significant Vegetation Areas. In the Urban Fringe, these issues shall be reviewed by the City and County decision-makers, while the City decision-makers shall review those within the City limits. If a mapping error is substantiated by scientific or technical evidence (whichever is applicable), all maps and databases affected by the error shall be corrected and no District Change or Comprehensive Plan Map Amendment shall be required to accomplish the correction.

Section 4. Ordinance 98-53 as amended is hereby amended.

Section 5. The enactment of this Ordinance (2004-??) is subject to prior or simultaneous enactment of Ordinance 2004-?? pertaining to the adoption of the Natural Features Inventory and Ordinance 2004-?? pertaining to the adoption of the ESEE Analysis as Article 39 of the Comprehensive Plan text.

Section 6. The general welfare of the public will be promoted if this Ordinance takes effect following the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period or appeals of the Council's final implementation order decision. The general welfare of the public will also be promoted if the adoption of this final implementation order by the City Council takes place following receipt by the City of acknowledgment of the revised Comprehensive Plan Map and Text by the State of Oregon Department of Land Conservation and Development, and the expiration of any lawful appeal period or appeals of the Department's decision. Therefore, implementation of the revised Comprehensive Plan Map and Text as outlined in this Ordinance shall take effect following: the receipt by the City Community Development Department of written acknowledgment of the Comprehensive Plan Map and Text Amendment (portion of CPA04-00003) by the State Department of Land Conservation and Development and the expiration of any lawful appeal period, or the resolution of lawful appeals pursuant to ORS 197; and the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period or lawful appeals of the Council's final implementation order decision.

PASSED by the Corvallis City Council this ____ day of December, 2004.

APPROVED by the Mayor this ____ day of December, 2004.

EFFECTIVE upon the receipt by the City Community Development Department of written acknowledgment of the Comprehensive Plan Map and Text revisions outlined in this Ordinance by the State Department of Land Conservation and Development and the expiration of any lawful appeal period, and the resolution of lawful appeals pursuant to ORS 197; and upon the adoption of a final implementation order by the City Council, and the expiration of any lawful appeal period of lawful appeals of the Council's final implementation order decision.

Mayor

ATTEST:

City Recorder