An aerial photograph showing a wide river delta flowing into a larger body of water. The river branches out into numerous smaller channels and meanders through a vast, green wetland area. In the foreground, there are several large, rectangular agricultural fields, some of which appear to be harvested. To the right, a dense forest of evergreen trees covers a hillside. A road is visible on the far right edge of the image. The overall scene depicts a complex and ecologically diverse landscape.

# Critical Areas and Shorelines

Chrissy Bailey & Tim Gates

Shorelands and Environmental Assistance Program

Department of Ecology

Southwest Regional Office

I. Introduction

II. Specific Critical Areas

III. Exceptions & Exemptions

# I. Introduction

Context: “No Net Loss”

Legalities: “Transfer” of critical area protections

Options for addressing critical areas

# Context: Updates address all 3 SMA policy objectives

- Plan for **water-dependent uses**
- Promote **public access** to publicly-owned shorelines
- Protect **environmental resources** (“**no net loss** of ecological functions necessary to sustain shoreline natural resources”)



*SMA Policy: RCW 90.58.020*  
*No Net Loss: WAC 173-26-201(2)(c)*

# Several ways to achieve No Net Loss

- Inventory shorelines and update **environment designations** with appropriate use and development standards
- Regulations for **uses** (*commercial, residential, industrial*) and **modification activities** (*bulkheads, piers and docks*)
- Follow **mitigation sequence** (avoid and minimize, compensate for unavoidable impacts)
- **Critical area regulations**

ENVIRONMENT DESIGNATION	URBAN	RURAL	CONSERVANCY	NATURAL
Agriculture	P	P	P	C
Commercial Feedlots	X	C	X	X
Aquaculture				
non-floating	P	P	P	C
floating	C	C	C	C
gravel enhancement projects > 1,000 c.y.	C	C	C	C
Forest Practices	P/X	P	P	C
Commercial				
Water dependent	P	C	C <sup>2</sup>	X <sup>1</sup>
non-water dependent/ with waterfront	C	C	C <sup>2</sup>	X
non-water dependent without waterfront	P	C	C <sup>2</sup>	X



# “Critical areas” = 5 types designated under GMA

**Wetlands**



**Geologic hazards**



**Fish and wildlife  
habitat conservation areas**



**Frequently flooded areas**



**+ Critical aquifer recharge areas**

WAC 173-26-221(2)(a)

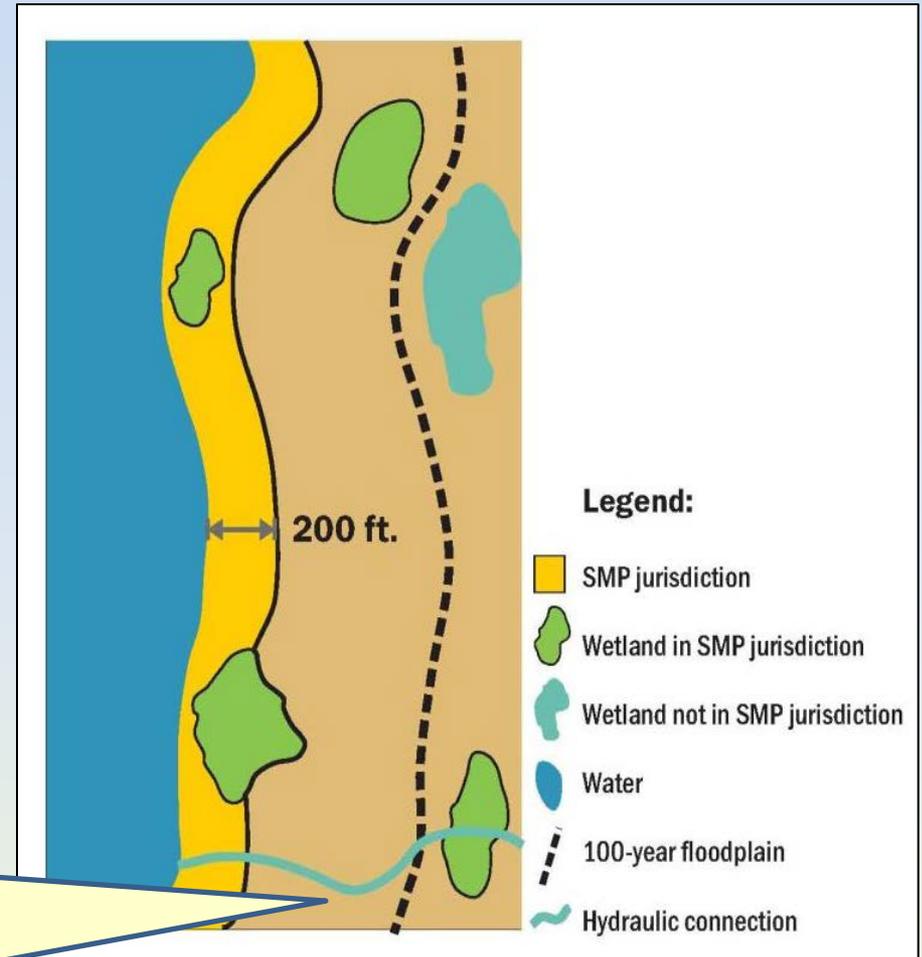
# Areas where the Shoreline Act applies

## Minimum:

- **Marine waters**
- **Lakes** > 20 acres
- **Larger streams** (> 20cfs mean annual flow)
- **“shorelands”** 200’ landward from water’s edge, including 200’ of contiguous floodplain from edge of floodway
- **associated wetlands**, including all wetlands within 100-year floodplain.

## Local option:

- 1) all or portions of the **100-year floodplain**
- 2) **“land necessary for critical area buffers”**



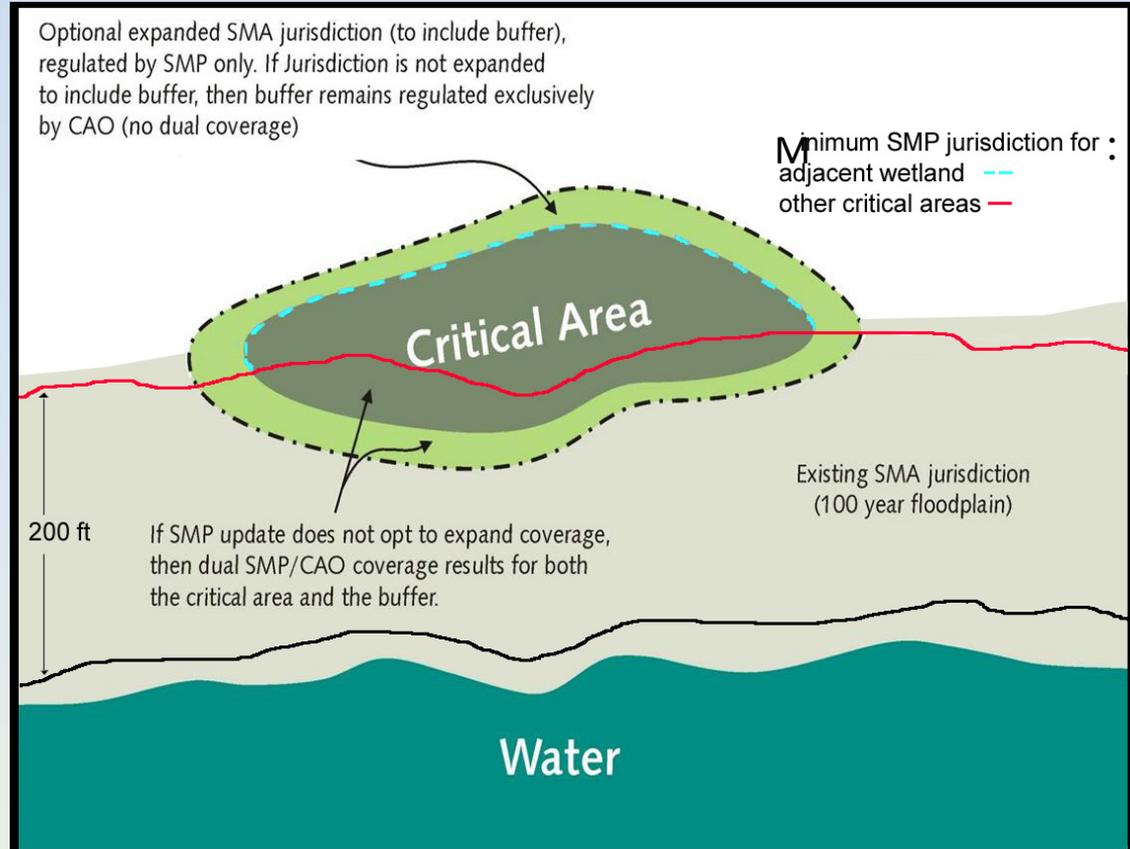
SMA: 90.58.030(2)

GMA: RCW 36.70A.480(6)

# Option to expand shoreline to include buffers

If a new SMP does *not* include the option to expand SMA jurisdiction to include “land necessary for buffers for critical areas,” then the local jurisdiction shall continue to regulate those critical areas and their required buffers under GMA as well as SMP.

This is sometimes referred to as “dual coverage.”



# Critical area protections “transfer” to updated SMPs

**2003 law, clarified by  
Legislature in 2010 :**

Updated SMPs are to provide  
“sole” regulation of critical  
areas in shoreline  
jurisdiction.

Ecology’s test for adequacy  
of critical area regulations is  
whether they achieve “no  
net loss of functions”

CERTIFICATION OF ENROLLMENT  
ENGROSSED HOUSE BILL 1653  
Chapter 107, Laws of 2010  
**EHB 1653** 61st Legislature  
2010 Regular Session  
GROWTH MANAGEMENT ACT--SHORELINE MANAGEMENT ACT  
EFFECTIVE DATE: 03/18/10

Passed by the House February 15, 2010  
Yeas 58 Nays 39  
FRANK CHOPP  
Speaker of the House of Representatives

Passed by the Senate March 2, 2010  
Yeas 35 Nays 10  
BRAD OWEN  
President of the Senate  
Approved March 18, 2010, 2:28 p.m.

CHRISTINE GREGOIRE  
Governor of the State of Washington

CERTIFICATE  
I, Barbara Baker, Chief Clerk of  
the House of Representatives of  
the State of Washington, do hereby  
certify that the attached is  
ENGROSSED HOUSE BILL 1653 as  
passed by the House of  
Representatives and the Senate on  
the dates hereon set forth.

BARBARA BAKER  
Chief Clerk

FILED  
March 18, 2010

Secretary of State  
State of Washington

- *Statute on CAOs/SMPs: RCW 36.70A.480*
- *SMP guidelines: WAC 173-26-191(2)(b), -221(2)*

NOTE: Ignore dated SMA provisions RE: “equal or better”

GMA was more recently updated with clear intent to replace the “at least equal” test.

Look here

### GMA Section 480

Test for level of protection to critical areas is that they assure “no net loss of shoreline ecological functions necessary to sustain shoreline natural resources as defined by Ecology guidelines.”

### SMA Section 090

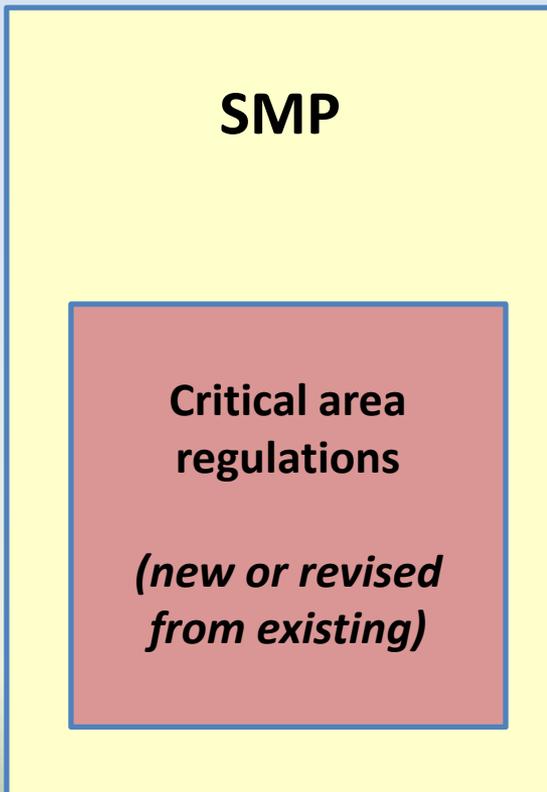
SMP protections for critical areas must be “at least equal to those provided by the CAO”

*GMA: RCW 36.70A.480 (4)*

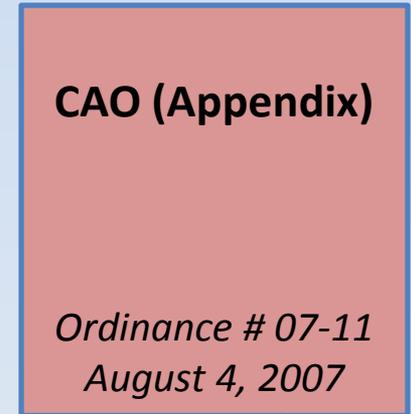
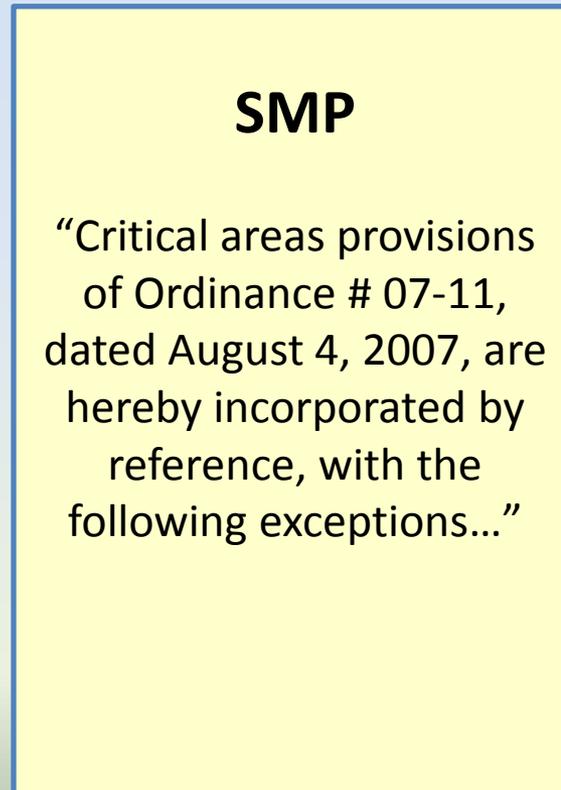
*SMA: RCW 90.58.610 (says GMA governs relationship between SMPs and critical areas)*

# Two options for regulating critical areas in SMPs

1. Integrate critical area provisions into SMP



2. Incorporate specific, dated CAO by reference



# How to integrate CAO: “Applicability” section

1. Subject to the exceptions listed below, the critical areas provisions of Ordinance # 07-11, dated August 4, 2007, are incorporated by reference, *except that*:

- Reasonable Use Exceptions
- Appeal, and
- Enforcement decisions

within shoreline jurisdiction shall be governed by this Program and not the Critical Areas Ordinance.

2. In the event standards in the Critical Areas Ordinance are inconsistent with standards and requirements in this Program, this Program shall govern.

- List sections that don’t apply (*e.g., exemptions for small wetlands*)

Some ***procedures*** must follow SMA requirements. (*e.g., must use Ecology Variance permit to address “reasonable use”*)

Some ***standards*** may need to vary within shorelines (*e.g., to allow for water-dependent uses, or to meet “no net loss” test*)

# Critical areas also under “General Regulations” section

Critical Areas integration often addressed “globally” under Introduction section...

... and more specifically under General Regulations.

<b>Contents</b>	
<b>Chapter 1 Introduction</b> .....	<b>1-1</b>
1.1. Title .....	1-1
1.2. Purpose and Intent .....	1-1
1.3. Adoption Authority .....	1-1
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4.6. Historic, Archeological, Cultural, Scientific and Educational Resources .....	4-4
4.7. Shoreline Use and Site Planning .....	4-5

# Reference in development standards matrix

## WHATCOM COUNTY SHORELINE MANAGEMENT PROGRAM

Shoreline Uses	Shoreline Area Designation								
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic
*Height Limit (a/b)	25' / 35'	25' / 35'	20' / 35'	25' / 35'	20' / 35'	20' / 35'	15' / 25'	10' / 15'	15'
Open Space % (c/d)	30% / 25%	40% / 40%	50% / 60%	30% / 25%	50% / 60%	50% / 60%	60% / 75%	95%	N/A
<b>Residential – Single Family &amp; Duplex</b>									
Shore Setback	Per Whatcom County Critical Areas Ordinance, WCC 16.16								
Side Setback	5'	5'	10'	5'	10'	10'	15'	15'	N/A
*Height Limit (a/b)	30' / 30'	30' / 30'	30' / 35'	30' / 30'	30' / 35'	30' / 35'	30' / 35'	30' / 35'	N/A
<b>Residential – Multifamily (3/6 units)</b>									
Shore Setback	Per Whatcom County Critical Areas Ordinance, WCC 16.16								
Side Setback (e/f)	5' +	5' +	15' +	5' +	15' +	15' +	20'	N/A	N/A
*Height Limit (a/b)	30' / 40'	30' / 40'	30' / 35'	30' / 40'	30' / 35'	30' / 35'	30' / 35'	N/A	N/A
Open Space %	30%	40%	60%	30%	50%	50%	60%	N/A	N/A
<b>Residential – Multifamily (7+ units)</b>									
Shore Setback	Per Whatcom County Critical Areas Ordinance, WCC 16.16								
Side Setback (e/f)	5' +	5' +	15' +	5' +	15' +	15' +	20'	N/A	N/A
*Height Limit (a/b)	30' / 40'	30' / 40'	30' / 35'	30' / 40'	30' / 35'	30' / 35'	30' / 35'	N/A	N/A
Open Space	30%	40%	50%	30%	50%	50%	60%	N/A	N/A
<b>Residential – Decks &amp; Accessory Structures</b>									
Shore Setback	Per Whatcom County Critical Areas Ordinance, WCC 16.16								
Side Setback	5'	5'		5'	10'	10'	15'	N/A	N/A
*Height Limit	15'	15'		15'	15'	15'	15'	N/A	N/A

Whatcom County: Critical area buffers are incorporated into SMP table that spells out height and dimensional standards

# Reference in development standards matrix

## 3.15 Table of Regulations

**Important Note:** Critical area buffers apply to all shorelines regulated by this Program. Refer to Section 5.2 (Critical Areas and Shoreline Vegetation Conservation). Critical areas regulations impose buffer requirements that are established on a case-by-case basis and will require a plan prepared by a qualified professional. The Ordinary High Water Mark (OHWM) setbacks prescribed below apply to water-oriented uses (i.e. water-dependent, water-related and water-enjoyment uses) that may be allowed within the critical area buffer per Section 5.2(B)(13). The purpose of the setback is to ensure that a separation exists between water-oriented uses and the shoreline.

REGULATIONS	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
<b>Agriculture</b>					
OHWM Setback	*	*	*	*	NA
Building height	35'	35'	35'	35'	NA
<b>Aquaculture</b>					
OHWM setback	15'	15'	25'	50'	NA
Building height	35'	35'	35'	35'	10'
<b>Boating Facilities (Boat Launches &amp; Marinas)</b>					
<b>Water-dependent</b>					
OHWM setback	0'	0'	0'	0'	NA
Building height	35'	30'	30'	25'	20'
<b>Water-related</b>					
OHWM setback	15'	15'	15'	25'	NA
Building height	35'	30'	30'	25'	NA
<b>Commercial &amp; industrial Development</b>					
<b>Water-dependent</b>					
OHWM Setback	0'	NA	25'	NA	NA
Building Height	75'	NA	35'	NA	35'
<b>Water-related &amp; enjoyment</b>					
OHWM Setback	15'	NA	50'	NA	NA
Building Height	75'	NA	35'	NA	35'
<b>Non-water-oriented</b>					
OHWM Setback	*	NA	*	NA	NA
Building Height	75'	NA	50'	NA	NA

OHWM = Ordinary high water mark

NA = Not applicable, refer to the appropriate Master Program section for additional standards

1 = Within one hundred (100) feet from the ordinary high water mark (OHWM)

2 = Greater than one hundred (100) feet from the OHWM to the edge of the shoreline jurisdiction

\* = Use must be located outside of the Critical area buffer. See Section 5.2(B)(13) Certain exceptions apply.

City of Tumwater:  
Dimensional standards apply only to uses that are *water oriented* (and therefore allowed within critical area buffers). All other use/development must adhere to the critical area buffers.

## However you decide to address critical areas...

- **Review CAO early.** It may include adequate standards. Use checklist for a “gap analysis.”

*> Review previous Ecology comments on CAOs. If suggestions were not addressed, Ecology may ask again.*

- SMA must address **preferred water-oriented uses** in appropriate designations.

*> e.g., clarify water-dependent uses are allowed in buffers without a variance (following the mitigation sequence).*

- Existing CAO may not be adequate to address “No Net Loss”

*> i.e., SMP provisions ensuring more effective protection mitigation may be needed.*

# Specific critical areas



**1. Wetlands**

**2. Geologically hazardous areas**

**3. Fish and wildlife habitat conservation areas**

**4. Frequently flooded areas**

**5. Critical aquifer recharge areas**

Not addressed in Ecology guidelines at all. No need to vary aquifer protections in shoreline jurisdiction.

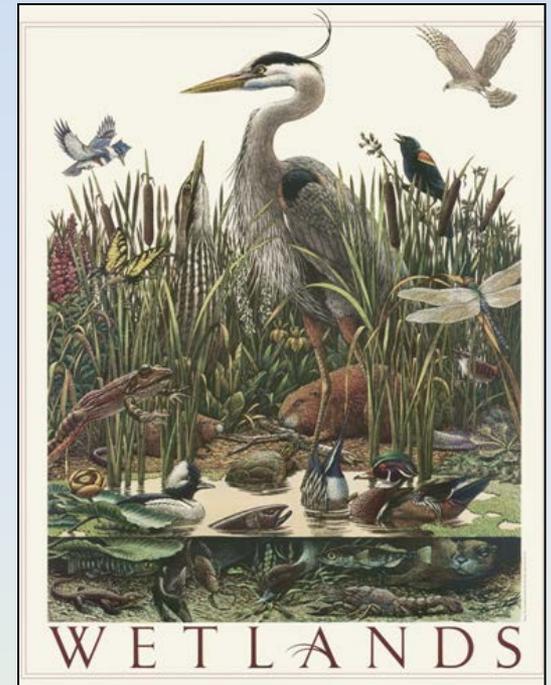
# Specific critical areas

**1. Wetlands**

2. Geologically hazardous areas

3. Fish and wildlife habitat conservation areas

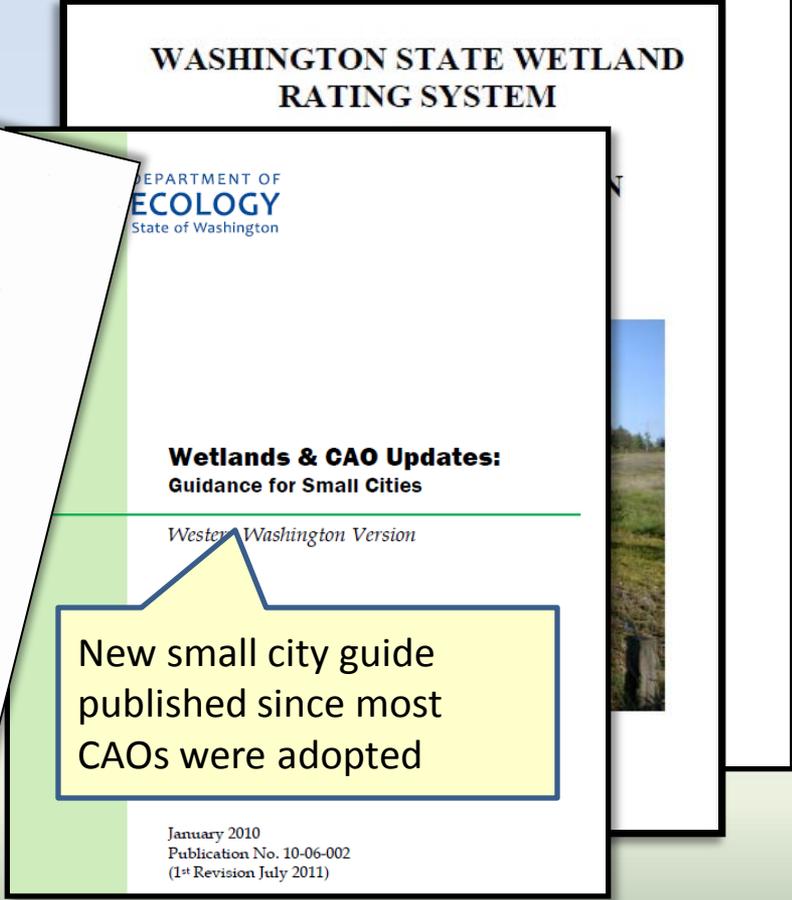
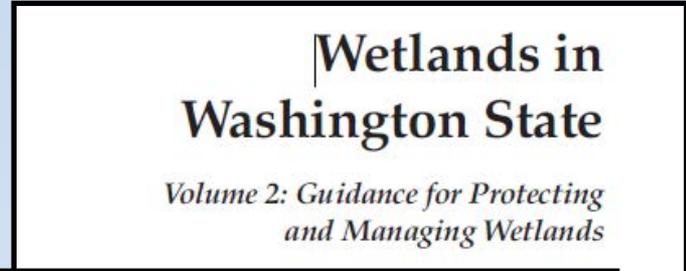
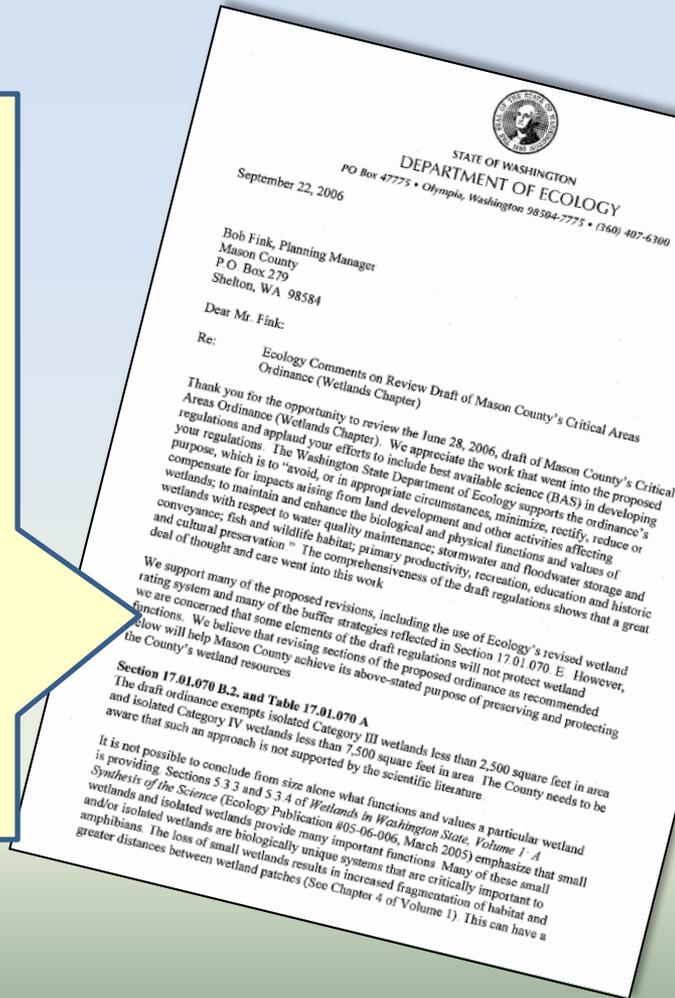
4. Frequently flooded areas



# Wetlands: consult Ecology guidance

“Local governments should consult the department's technical guidance documents on wetlands.”

Look for Ecology comment letters on your draft CAO. These may identify areas that need attention in the SMP.



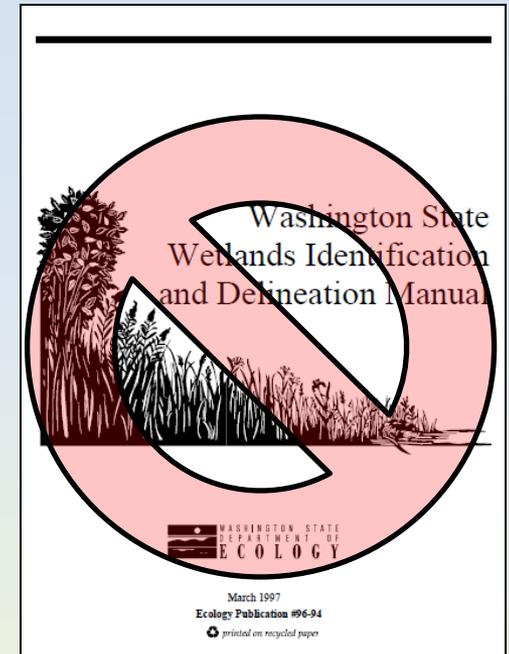
WAC 173-26-221(2)(c)(i)(A)

# Wetlands: definition and delineation (no flexibility)

**Definition:** Use statutory language

**Delineation:**

- Ecology repealed state delineation manual (effective March 14, 2011).
- Use latest Army Corps of Engineers delineation manual with regional supplements.
- Sample text: “Delineations should be done according to the currently approved federal manual and regional supplements.”



*Statutory Wetlands definition: RCW 36.70A.030 (21):  
Ecology delineation rule: WAC 173-22-035*

# Wetlands: regulations should be *comprehensive*

“Regulations shall **address the following uses to achieve**, at a minimum, **no net loss of wetland area and functions**, including lost time when the wetland does not perform the function:

- All activities that require a **shoreline permit** (*dredging, drilling, dumping, filling, construction*)

*and*

- Significant **vegetation removal** (*except for forest practices*);
- Other uses or development that results in an ecological impact to the physical, chemical, or biological characteristics of wetlands; or
- Activities reducing the functions of buffers.

# Wetlands: rating system

Adopt Ecology's 4-tier system, use of field forms

(Category I is high, Category IV is low)

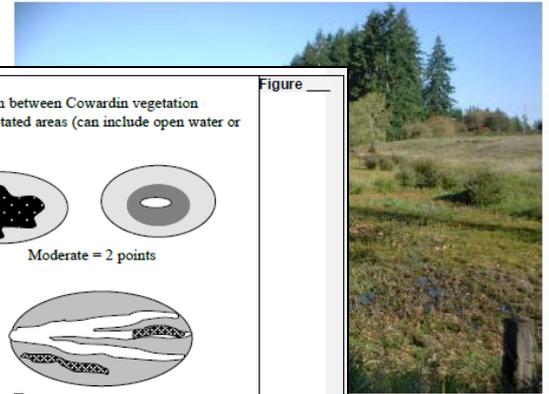
OK to adopt 2004 version "as amended."

## WASHINGTON STATE WETLAND RATING SYSTEM

for  
WESTERN WASHINGTON

Revised

Annotated Version August 2006  
Ecology Publication # 04-06-025



<p><b>H 1.4. Interspersion of habitats</b> (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points      Low = 1 point      Moderate = 2 points</p> <p>High = 3 points      [riparian braided channels]</p> <p>NOTE: If you have four or more classes or three vegetation classes and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	Figure _____
<p><b>H 1.5. Special Habitat Features</b> (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt;4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom &gt; 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt;30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet turned grey/brown)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (structures for egg-laying by amphibians)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	
<p><b>H 1. TOTAL Score</b> - potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	
<p>Comments _____</p>	

# Wetlands: buffers and setbacks

**Buffers** should be based on the wetlands rating system.

Options:

**1. Appendix 8-C** in Ecology *Wetlands in WA Vol 2: Guidance for Protecting and Managing Wetlands*

**2. Small City Guide**

**3. Develop** your own regionally specific, scientifically based method.

**Building setback** from buffer edge

## Wetlands in Washington State

*Volume 2: Guidance for Protecting and Managing Wetlands*



### Appendix 8-C

#### Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System

##### 8C.1 Introduction

This appendix provides guidance on widths of buffers, ratios for compensatory mitigation, and other measures for protecting wetlands that are linked to the *Washington State Wetland Rating System for Western Washington-Revised* (Hruby 2004b). Refer to Appendix 8-D for guidance for eastern Washington. Appendices 8-C through 8-F have been formatted similar to the main text of this volume (i.e., with a numbering system) to help with organization.

The tables below list the recommended widths of buffers for various alternatives, examples of measures to minimize impacts, and ratios for compensatory mitigation.

- **Table 8C-1.** Width of buffers needed to protect wetlands in western Washington if impacts from land use and wetland functions are NOT incorporated (Buffer Alternative 1). [Page 4]
- **Table 8C-2.** Width of buffers based on wetland category and modified by the intensity of the impacts from changes in proposed land use (Buffer Alternative 2). [Page 5]
- **Table 8C-3.** Types of land uses that can result in high, moderate, and low levels of impacts to adjacent wetlands (used in Buffer Alternatives 2 and 3). [Page 5]
- **Table 8C-4.** Width of buffers needed to protect Category IV wetlands in western Washington (Buffer Alternative 3). [Page 6]
- **Table 8C-5.** Width of buffers needed to protect Category III wetlands in western Washington (Buffer Alternative 3). [Page 6]
- **Table 8C-6.** Width of buffers needed to protect Category II wetlands in western Washington (Buffer Alternative 3). [Page 7]
- **Table 8C-7.** Width of buffers needed to protect Category I wetlands in western Washington (Buffer Alternative 3). [Page 8]
- **Table 8C-8.** Examples of measures to minimize impacts to wetlands from different types of activities. [Page 10]

Final



WAC 173-26-221(2)(c)(i)(D)

# Wetlands: buffer “Alternative 3” is most flexible

Example buffers for Category III wetland

## Appendix 8-C:

Most flexible option uses habitat value & land use intensity to assign appropriate buffer

Cat III wetland	Buffer width by land use
<b>Moderate level of habitat function</b> (habitat score of 20 - 28 pts.)	Low: 75'
	Moderate: 110'
	High: 150'
<b>Low level of habitat function</b> (habitat score less than 20 pts.)	Low: 40'
	Moderate: 60'
	High: 80'

# Wetlands: mitigation standards

Use **mitigation ratios** from Ecology guidance

Ratios can be **increased** (e.g., when creating lower category wetlands) or **decreased** (e.g., when creating higher category wetland)

Allow **off-site** Compensatory Mitigation (e.g., when on-site conditions inadequate to establish wetland vegetation, soil or hydrology)

Require annual **monitoring reports** for 5 to 10 years

Category	Creation	Rehabilitation	Enhancement
IV	1.5: 1	3: 1	6:1
III	2:1	4:1	8:1
II	3:1	8:1	12:1
I	4:1	8:1	16:1
I (Forested)	6:1	12:1	24:1

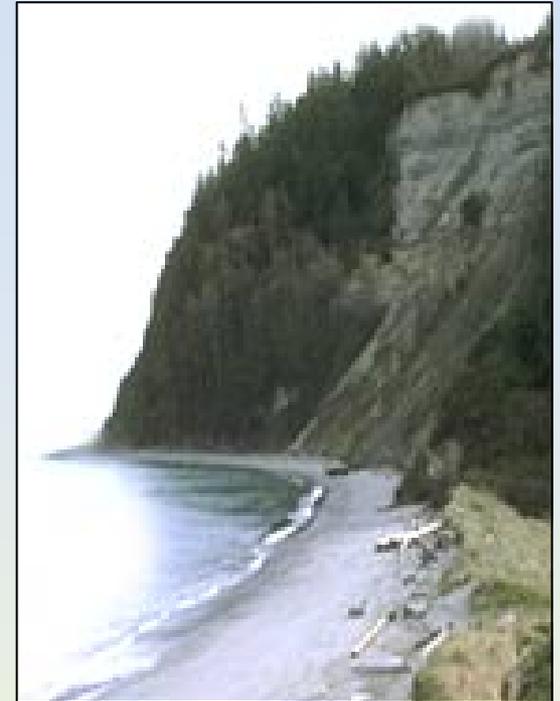
# Specific critical areas

1. Wetlands

**2. Geologically hazardous areas**

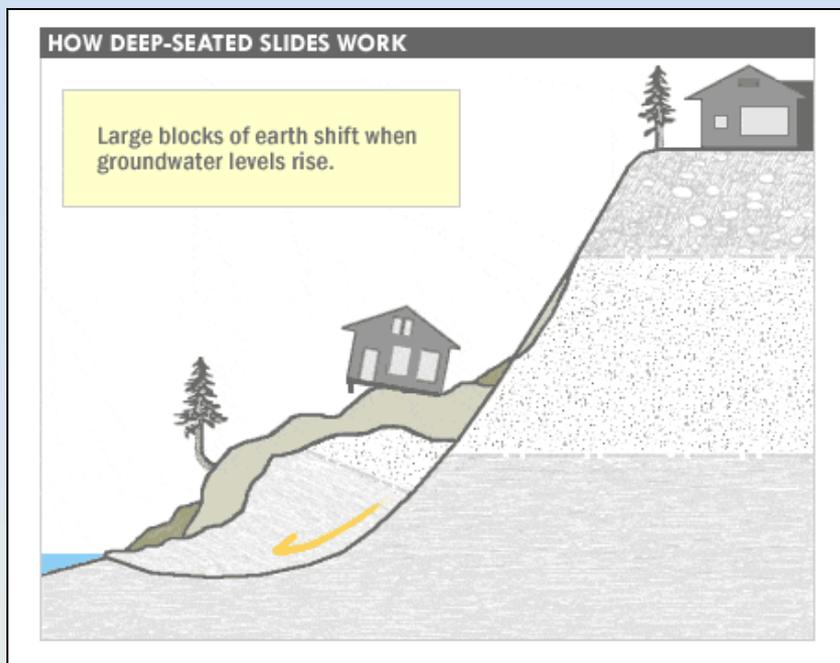
3. Fish and wildlife habitat conservation areas

4. Frequently flooded areas

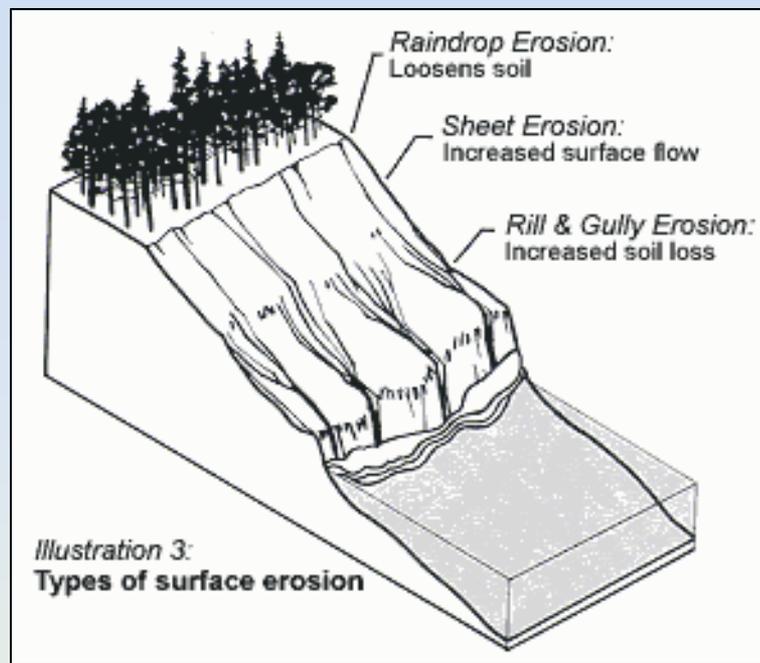


# Geologically hazardous areas: two main relevant types

## Landslide hazard areas



## Erosion hazard areas

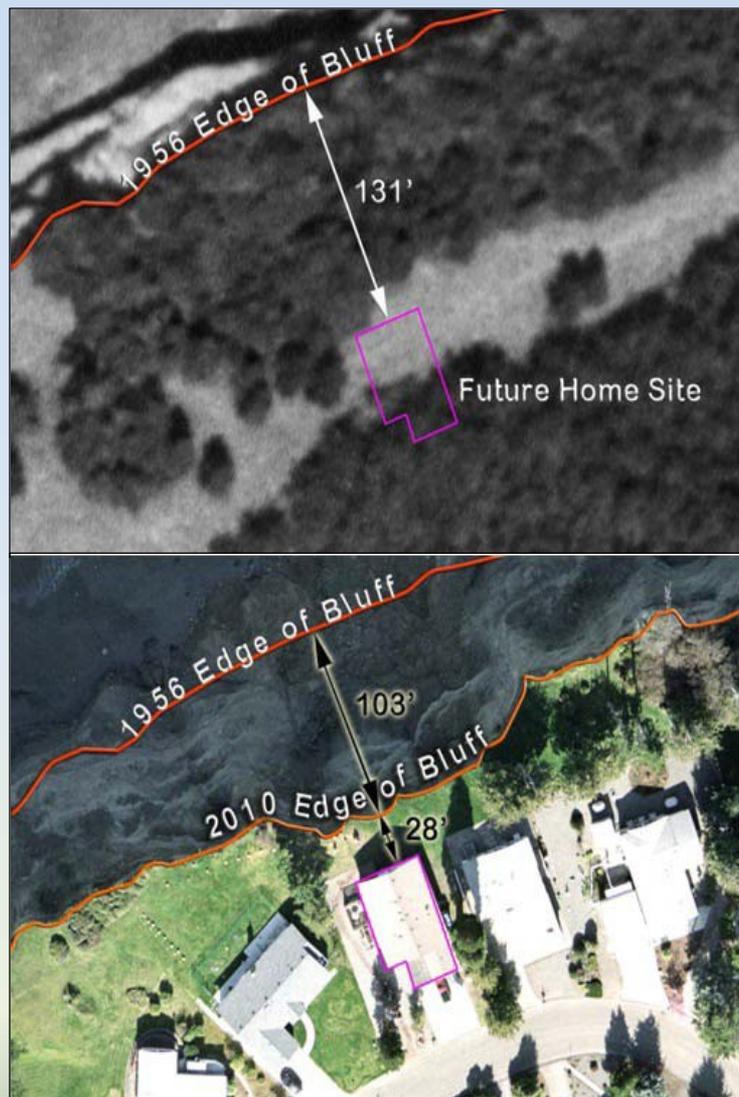


Ecology guidelines are not specific to other geological hazards addressed under GMA (*seismic, mine and volcanic hazards*)

# Geologically hazardous areas: key principle

“Do not allow **new development or the creation of new lots** that would cause foreseeable risk from geological conditions to people or improvements during the life of the development.”

“Do not allow **new development** that would require structural shoreline stabilization over the life of the development.”



# Geo-hazards: Typical CAO approaches can be adequate

## Setbacks from edge of hazard areas

Requiring projects within 300' of a hazard to include **geotechnical report**, to demonstrate how hazards are to be avoided

For erosion-prone areas, require **Soil Erosion and Sediment Control Plan**



Photo by Len Palmer

(d) Recommended buffers from the landslide hazard areas shoreline bluffs and the tops of other slopes on the property.  
Located on page(s) 7, Figure 2

(e) Recommended setbacks from the landslide hazard areas shoreline bluffs and the tops of other slopes on the property.  
Located on page(s) 7, Figure 2

(8) Recommendations for the preparation of a detailed clearing and grading plan which specifically identifies vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal.  
Located on page(s) 7, 8, 9

(9) Recommendations for the preparation of a detailed temporary erosion control plan which identifies the specific mitigating measures to be implemented during construction to protect the slope from erosion, landslides and harmful construction methods.  
Located on page(s) 7, 8, 9

(10) An analysis of both on-site and off-site impacts of the proposed development.  
Located on page(s) 7, 8

(11) Specifications of final development conditions such as, vegetative management, drainage, erosion control, and buffer widths.  
Located on page(s) 7

(12) Recommendations for the preparation of structural mitigation or details of other proposed mitigation.  
Located on page(s) 8, 9

(13) A site map drawn to scale showing the property boundaries, scale, north arrow, and the location and nature of existing and proposed development on the site.  
Located on Map(s) Fig. 2

I, Erno Rannearum hereby certify under penalty of perjury that I am a civil engineer licensed in the State of Washington with specialized knowledge of geotechnical/geological engineering or a geologist or engineering geologist licensed in the State of Washington with special knowledge of the local conditions. I also certify that the Geotechnical Report, dated 12/23/09, and entitled Geotechnical Report

Parcel #'s 12105-42-00140 and 12105-46-00052 meets all the requirements of the Mason County Resource Ordinance, Landslide Hazard Section, is complete and true, that the assessment demonstrates conclusively that the risks posed by the landslide hazard can be mitigated through the included geotechnical design recommendations, and that all hazards are mitigated in such a manner as to prevent harm to property and public health and safety. (Signature and Stamp)

Common practice: Require Report from licensed civil engineer or engineering geologist.

# Geologically hazardous areas: exceptions allowed when...

“Exceptions may be made for the limited instances where stabilization is necessary **to protect allowed uses where no alternative locations are available** and no net loss of ecological functions will result.”

“Stabilization structures or measures **to protect existing primary residential structures** may be allowed where no alternative exists and if no net loss of ecological functions will result.”

Use of “No Net Loss” = require mitigation for unavoidable impacts...



*WAC 173-26-221(2)(c)(ii)(C) and (D)*

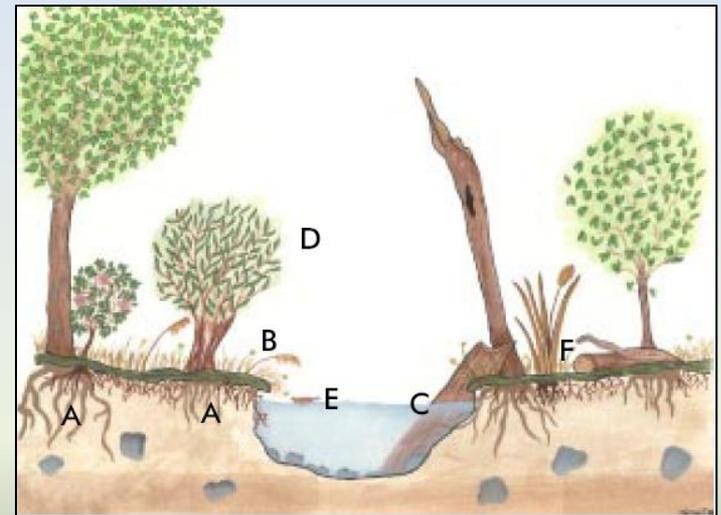
# Specific critical areas

1. Wetlands

2. Geologically hazardous areas

3. Fish and wildlife habitat conservation areas

4. Frequently flooded areas



WAC 173-26-221(2)(c)(iii) & (iv)

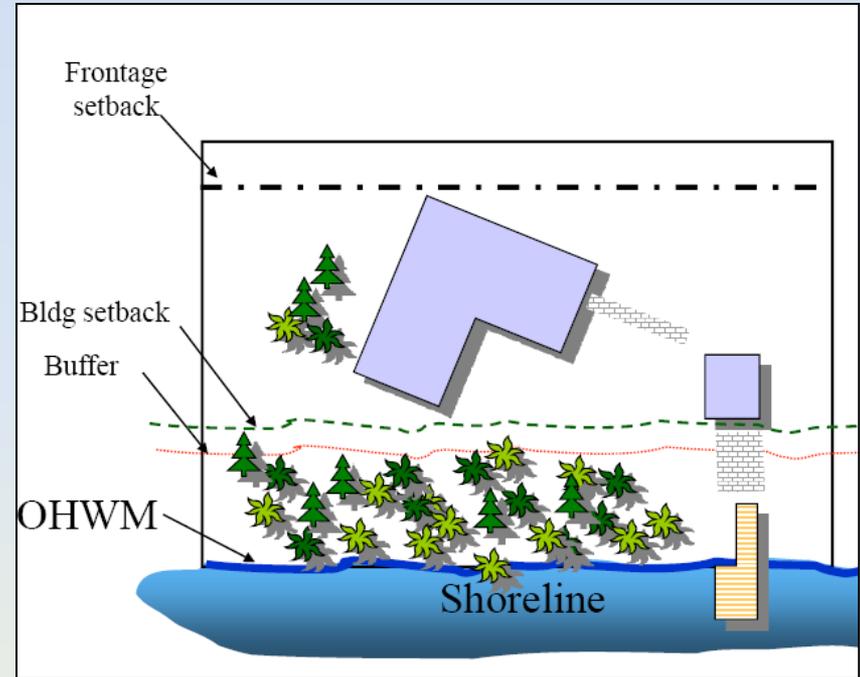
# Fish and wildlife habitat conservation areas

Ecology guidelines separate these:

- **Saltwater** habitats
- **Freshwater** habitats

No net loss is the standard. Buffers and development standards for over and in water structures are common provisions.

Ecology is looking for a minimum below which a variance is required.



# “Literature-based” fish and wildlife buffers

County SMPs have typically incorporated CAOs with “literature-based” buffers that define an area or zone(s).

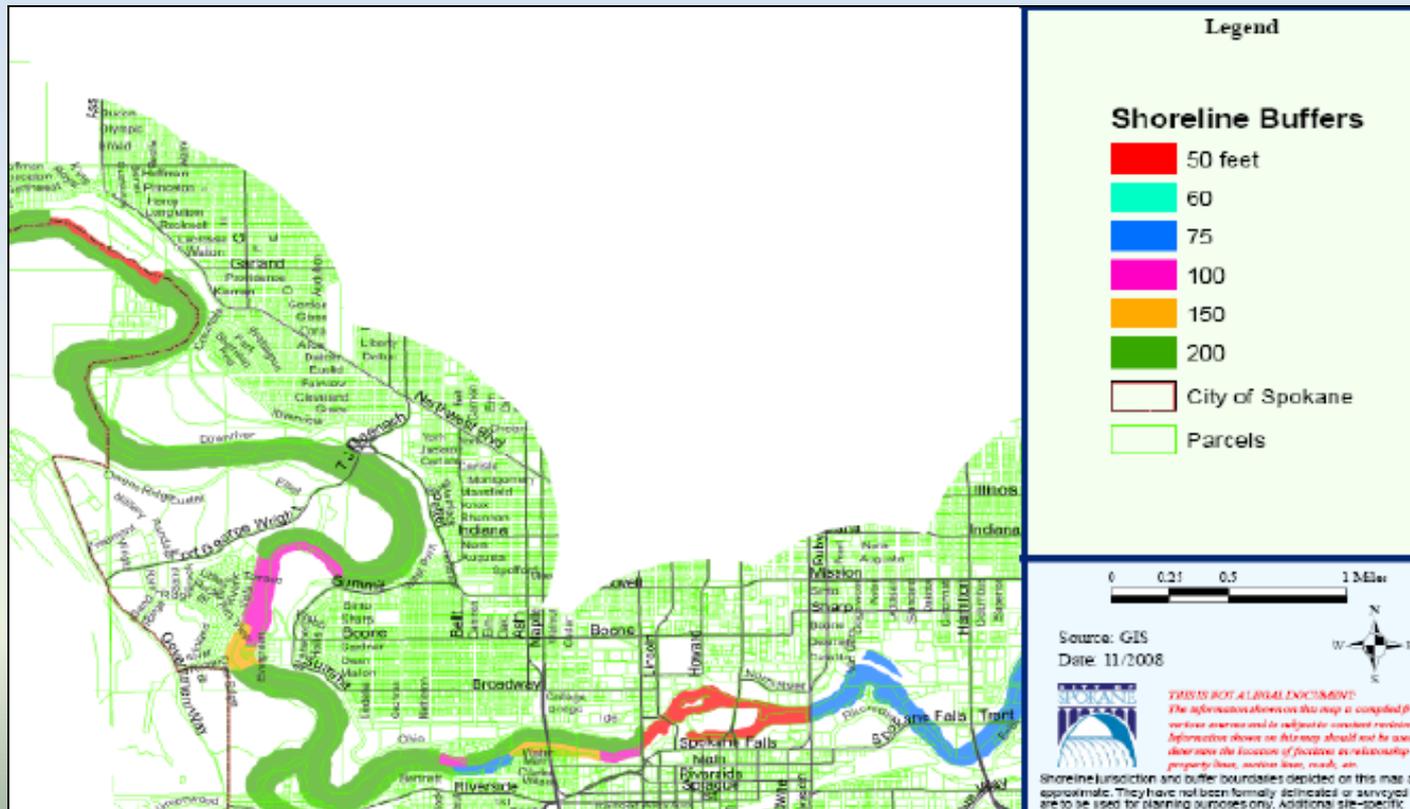
Typically buffers are required to be retained in their natural condition, except as provided specifically (may require “Habitat Management Plans”).



Habitat Type	Buffer
Rivers (DNR Type S Stream)	150 feet
Marine Shoreline	150 feet
Lake Shoreline	100 feet

# “Inventory-based” fish and wildlife habitat buffers

- Tailored buffers based on existing conditions and future anticipated development in shoreline jurisdiction (*show your work*)
- Can use environment designations and/or use regulations to vary buffers
- Option for areas with constrained lots: percentage of parcel depth (*examples at end of slideshow*)



# Specific critical areas

1. Wetlands

2. Geologically hazardous areas

3. Fish and wildlife habitat conservation areas

**4. Frequently flooded areas**



# Frequently flooded areas

Most local CAOs use FEMA regulations that focus on **construction practices**.

Ecology guidelines recognize flooding and channel migration as natural processes that can be a safety threat.

Regulations emphasize limiting development that will need **structural** flood hazard measures (e.g., levees) in the future.



When new structures are needed, must meet No Net Loss standard.

*WAC 173-26-221(3)(b)*

# Frequently flooded areas: flood hazard reduction



Use existing  
Comprehensive Flood  
Management Plans, etc.

Development in  
floodplains should not  
significantly or  
cumulatively increase flood  
hazards.

Limit uses to necessities  
like bridges; encourage  
more natural hydrologic  
conditions.

*WAC 173-26-221(3)(b) & (c)*

# Frequently flooded areas: channel migration zones

Does your CAO address Channel Migration Zones (CMZs)?

Ecology requires that your SMP address CMZs.

The Guidelines provide basic parameters that can be used to establish the general extent of CMZs for SMP management purposes.



*\*CMZs do not extend SMA jurisdiction automatically*

# Frequently flooded areas: channel migration zones

Example of use of CMZ data:

Ecology denied a last-minute change to Spokane SMP that reduced buffers in an area subject to migration.

Growth Hearings Board upheld Ecology on appeal, based on evidence in the record supporting the extent of the channel migration zone.

BEFORE THE GROWTH MANAGEMENT HEARINGS BOARD EASTERN WASHINGTON REGION STATE OF WASHINGTON	
JOHN R. PILCHER, an individual, and JRP LAND, LLC., a Washington limited liability corporation,  v.  CITY OF SPOKANE, a Washington municipal corporation, and WASHINGTON STATE DEPARTMENT OF ECOLOGY, a Washington state agency,	<b>Case No. 10-1-0012</b>  <b>FINAL DECISION AND ORDER</b>  <b>Pilcher v. Spokane</b>
Petitioners,	Respondents.

**I. SYNOPSIS**

Petitioners challenged certain amendments to the City of Spokane Shoreline Master Program including the adoption of a 200 foot wide shoreline buffer and certain Environment Designations affecting Petitioners' property. The Board determined that the City of Spokane Shoreline Master Program Amendments, as adopted by the City of Spokane and approved by the Department of Ecology, comply with (1) the policies, goals, and provisions of the Shoreline Management Act, including RCW 90.58.020, and (2) the Shoreline Master Program Guidelines in WAC Chapter 173-26.

**II. PROCEDURAL HISTORY**

On September 24, 2010, Petitioners filed their Petition for Review challenging certain amendments to the City of Spokane Shoreline Master Program. On October 4, 2010, Respondent City of Spokane filed its motion to dismiss the Petition for Review alleging that Petitioners failed to name and serve the State of Washington Department of Ecology within the 60-day period for appeal. On October 6, 2010, Petitioners filed their Amended Petition

Final Decision and Order  
Case 10-1-0012  
March 22, 2011  
Page 1

Growth Management Hearings Board  
319 7<sup>th</sup> Avenue SE, Suite 10  
PO Box 4095  
Olympia, WA 98501  
Phone: 360 586-026  
Fax: 360 664-897

# Exceptions & exemptions

- Issues around “exceptions” in CAOs
- Example of buffers tailored to existing conditions

# Some things Ecology looks for in critical area regulations

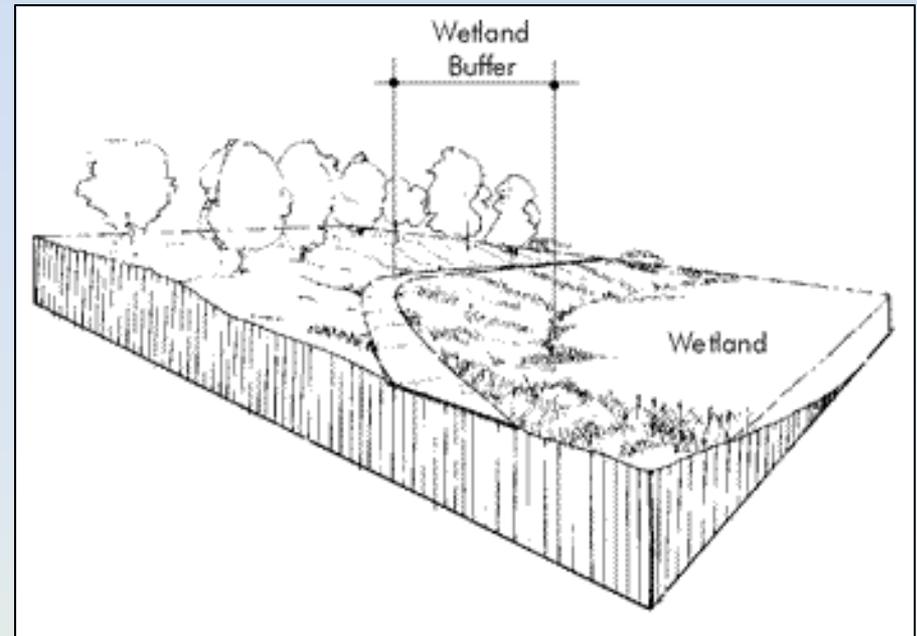
- Inappropriate exceptions in CAOs (*e.g., exemptions that provide no protections for small wetlands*)
- Conflicts between SMP and CAO provisions (e.g., trails providing access to the water)
- How setbacks and buffers mesh/interact (i.e., do you have a setback or a buffer or both? Is there a setback from the edge of the buffer? etc.)
- NOTE: SMP “exemption” is a very specific exemption from **permit requirements** spelled out in laws and rules (see definition of “development” and “substantial development”)

# On regulating uses within critical area buffers

Regulations should limit **permitted uses** in buffers.

Can include reasonable exceptions, e.g.:

- Stormwater bioswales in outer 25%
- Recreational trails in outer 25%
- Selective timber cut in outer 25% of Category I / II, and outer 50% of Category III / IV



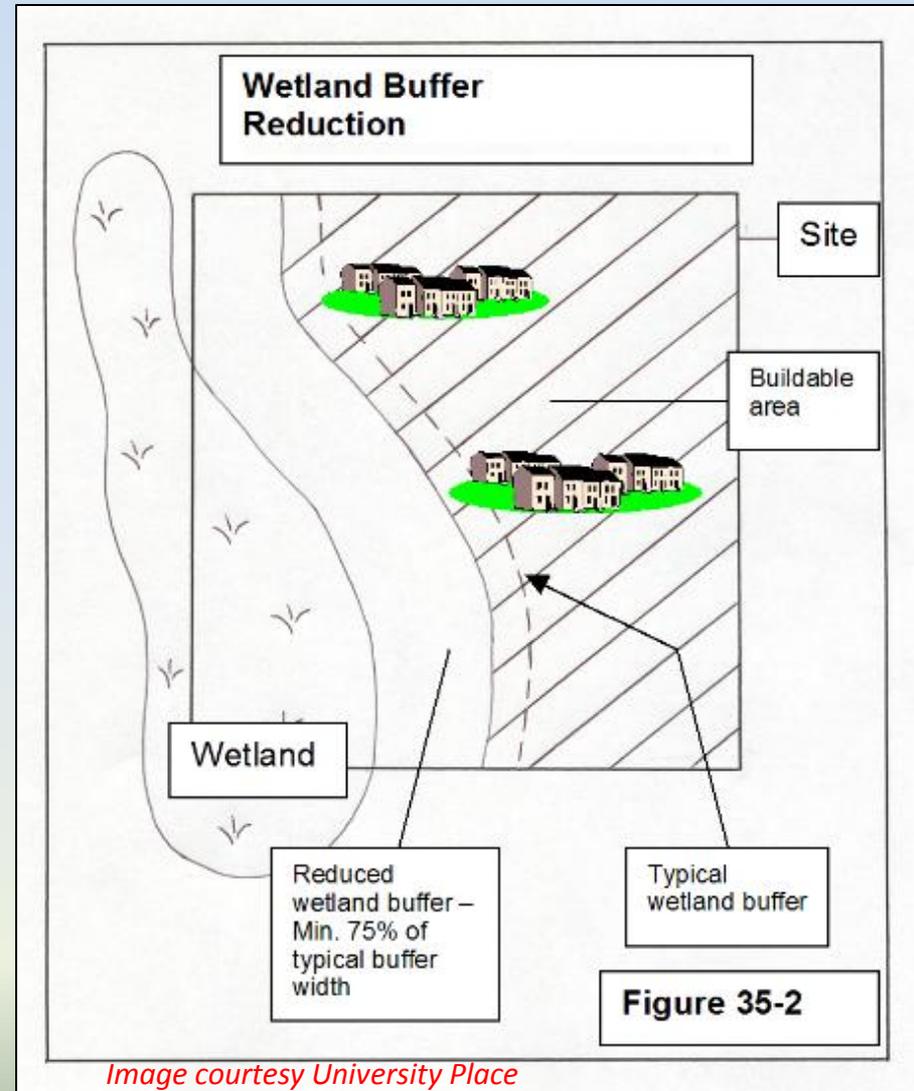
# Buffer averaging and reduction

## Buffer Width Averaging

- Total area of buffer after averaging = area within buffer prior to averaging.

## Buffer Reduction

- No reductions of more than 25% of standard width *without a variance* (also applies to averaging)



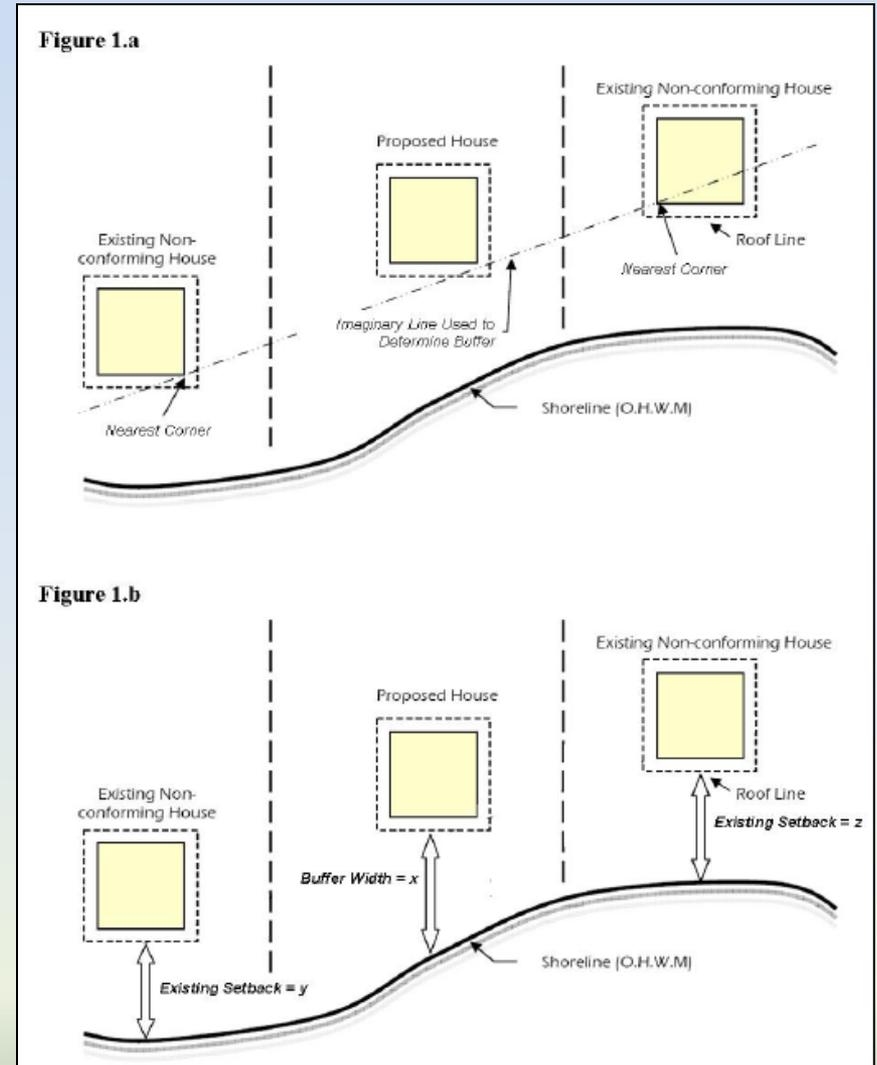
# Exception for single family homes: common line

**View protection** provision for single family residences

*Jefferson Co SMP example:*

On non-conforming lots, authorizes use of **common line setback** to accommodate shore views roughly comparable to adjacent residences.

SMP includes specific criteria for when this option can be used



## *Exception from Variance: single family homes on small lots*

*Jefferson Co example:* To address buildable but very shallow lots (depth of the lot = or < buffer)

### **Regulations – Exceptions to Critical Area and Shoreline Buffer Standards:**

A new single family residence on legal lot that is nonconforming with respect to buffer standards may be allowed *without a shoreline variance* provided:

- “Buildable area” landward of the shoreline buffer <2,500 sf twenty + driveway <1,100 sf.
- Must consolidate lots under common ownership that will alleviate the nonconformity;
- Doesn’t apply to geologic hazard areas
- Must mitigate adverse impacts (e.g., pervious pavement)
- No structures closer than 30' from the ordinary high water mark

SMP defines very specific circumstances where a SFR can be built on a small lot without a Variance permit. Includes requirements to mitigate impacts.

# Agriculture: see Ecology guidelines

Review Critical Areas Ordinance carefully to ensure existing and ongoing agriculture is not affected.

SMA requires that SMPs “shall not require modification of or limit **agricultural activities** occurring **on agricultural lands.**”

Use the broad inclusive statutory definitions of “agricultural activities” and “agricultural lands.”

**New** agricultural activities would need to comply with any required buffers



Many counties taking up the “Voluntary Stewardship” program to address critical areas on agricultural land (WA Conservation Commission)

*Definitions: WAC 173-26-020(3)*

*Agriculture use regulations: WAC 173-26-241(3)(a)*

# Forestry: see Ecology guidelines

SMPs should rely on State Forest Practices Act Rules as adequate management for **commercial forest practices**,

*except for*

**conversions to another use**  
("Class IV - General Forest Practices")



NOTE: The SMA (state law) includes a limitation of harvesting 10% merchantable timber in 10-year period on Shoreline of Statewide Significance (*very large rivers*)

# View corridors

OK to include allowances for **pruning and selective cutting** for view corridors, but don't allow huge loopholes.

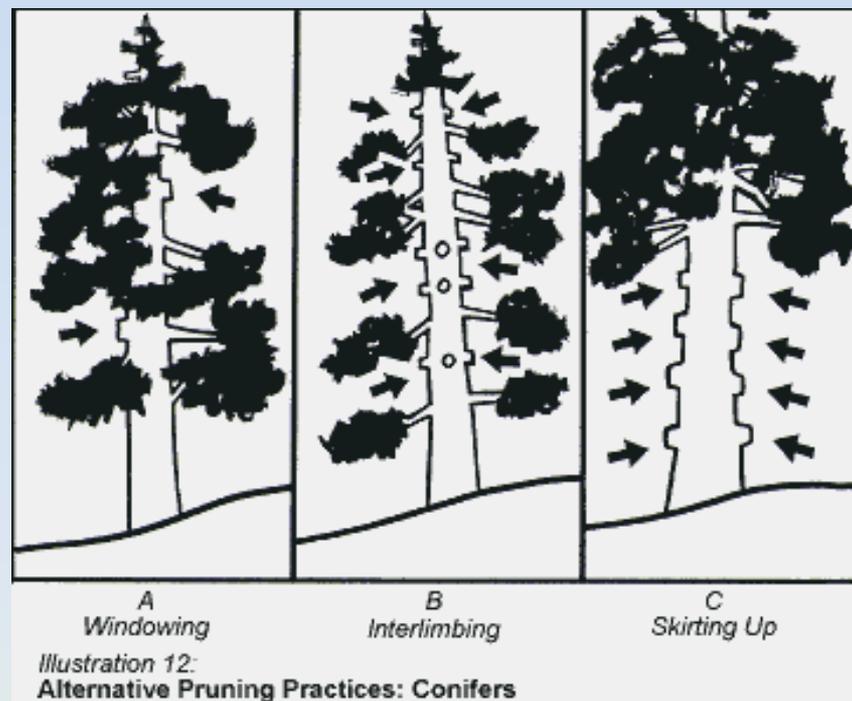
Example approach:

“Alter minimum needed for views, minimize shrub vegetation removal and ground disturbance. “

Can include specific criteria, e.g.,:

**Trees <6” dbh:** Can cut up to 10% of without county authorization.

**Trees > 6” dbh:** Limited to 15 percent of such trees in the buffer. Need county approval, must replace with native trees/shrubs.

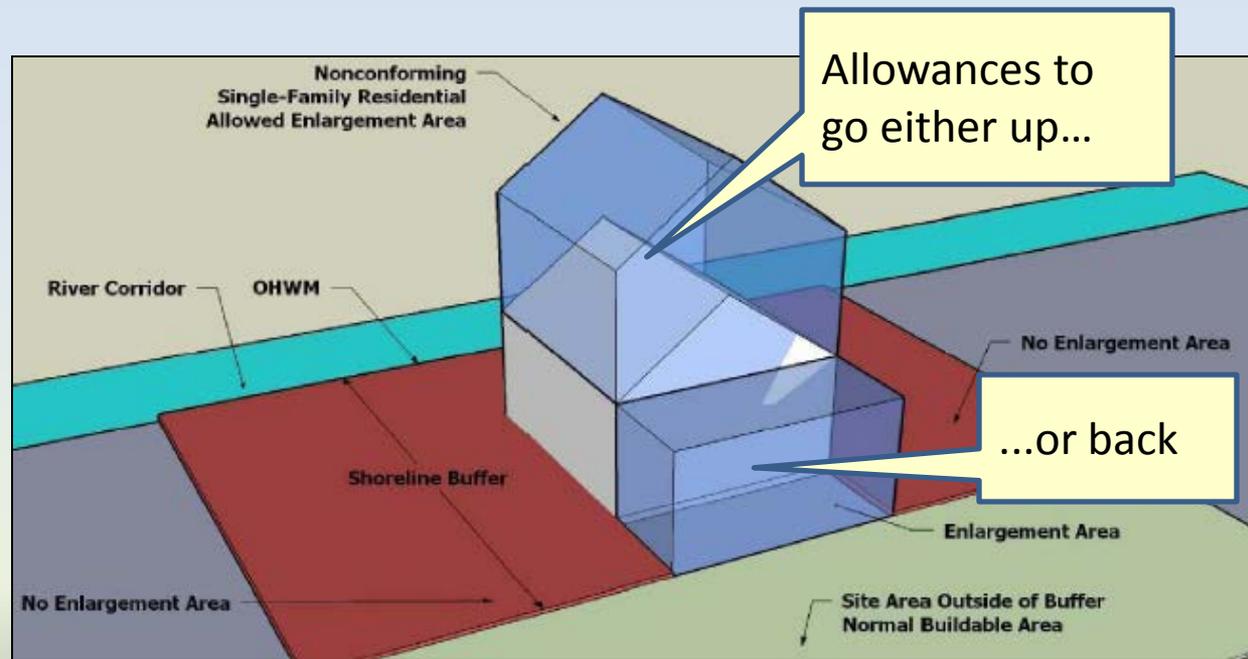


# Remodel/reconstruction (nonconforming structure)

**Allowances for remodels , and reconstruction** of structures destroyed by fire or other natural disaster .

Typically allow reconstruction within existing building footprint.

*Local policy decision:* Some SMPs allow a small or one-time increase if the modification doesn't increase nonconformity (intrusion into a buffer).



*Ecology “default” for non-conforming uses: WAC 173-27-080*

## Other common allowances

Maintaining **existing landscaped areas within buffer**

**Unpaved trails** associated with residential use < 3' wide unless additional width needed for safety in a hazard area.

**Harvesting Wild Crops**

**Noxious weeds and hazard trees**

**Passive recreation** (fishing /hunting)

**Site investigative work**

**Maintaining existing roads/driveways and facilities w/in existing ROW**, e.g. electric; water, sewer lines; natural gas, cable



# Example from Bremerton: designations + parcel depth

<b>DESIGNATION</b>	<b>Minimum Building Setback</b>	<b>Buffer Width Standard</b>
<b>URBAN CONSERVANCY</b>	15 feet beyond buffer	175 feet
<b>SINGLE FAMILY &amp; MULTI FAMILY RESIDENTIAL</b>		
Lot depth less than 125'	5 feet beyond buffer	20% of lot depth
Lot depth 125' to 199'	10 feet beyond buffer	20% of lot depth
Lot depth greater than 200'	15 feet beyond buffer	30% of lot depth (maximum of 100')
<b>RECREATIONAL</b>	15 feet beyond buffer	100 feet
<b>COMMERCIAL / INDUSTRIAL / DOWNTOWN WATERFRONT</b>	15 feet beyond buffer	50 feet

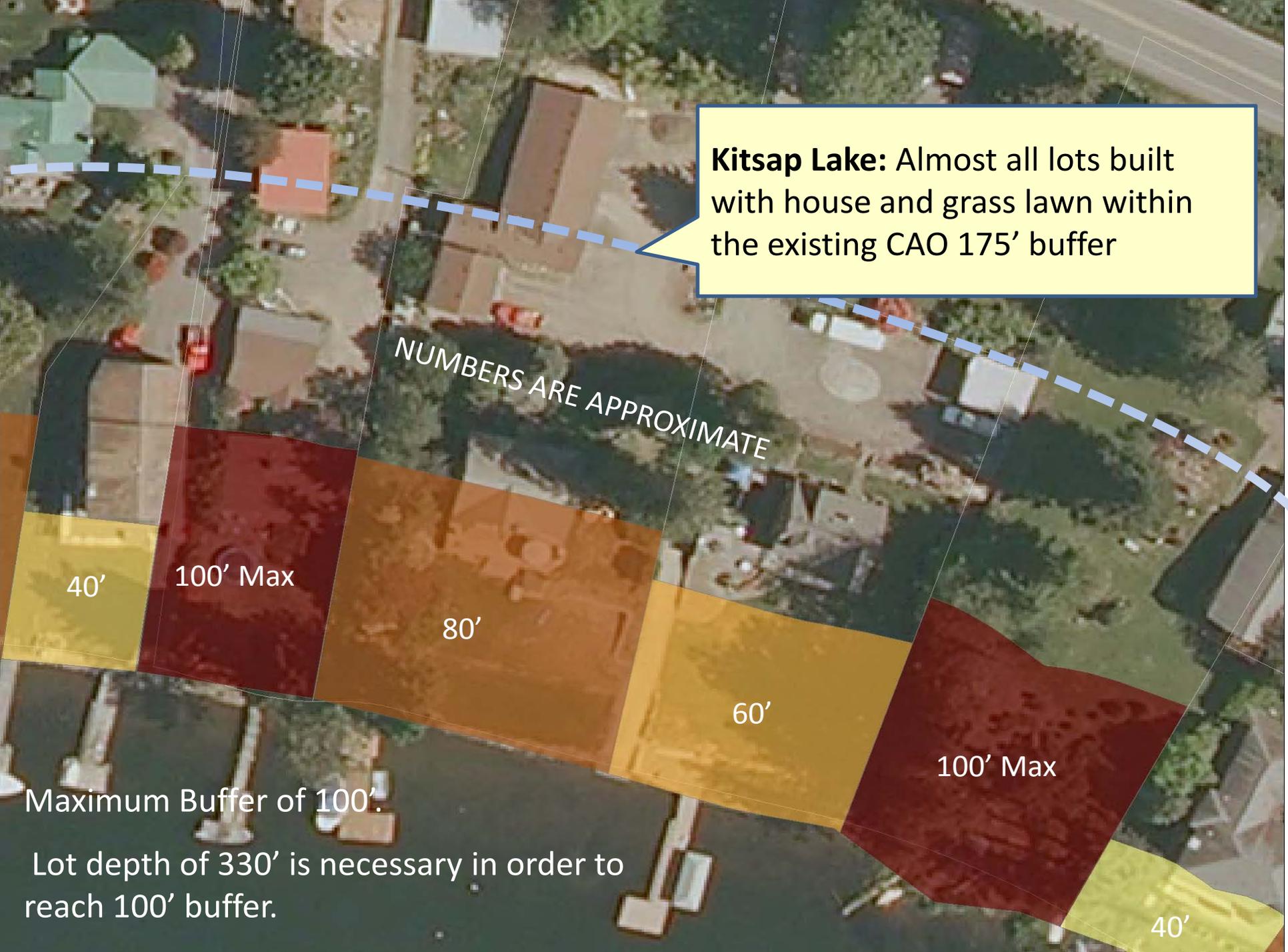
*(1) If lot depth < 150' on Commercial or Recreational lots, buffer reduced to 20% of lot depth.  
 (2) In no case shall a buffer be less than 10' or greater than 100' in the Shoreline Residential Designation.*

# Residential buffers are site-specific to parcels

- Tailored buffers = need high-res data, more analysis up-front
- Residential buffers determined by lot depth (20% - 30%)
- 5' -15' setback
- Small lot = small buffer
- Big lot = big buffer



**Kitsap Lake:** Almost all lots built with house and grass lawn within the existing CAO 175' buffer



NUMBERS ARE APPROXIMATE

Maximum Buffer of 100'.

Lot depth of 330' is necessary in order to reach 100' buffer.

40'

# Shore Drive - 50' Buffer/Setback

Example of how a city came to propose  
20% parcel depth

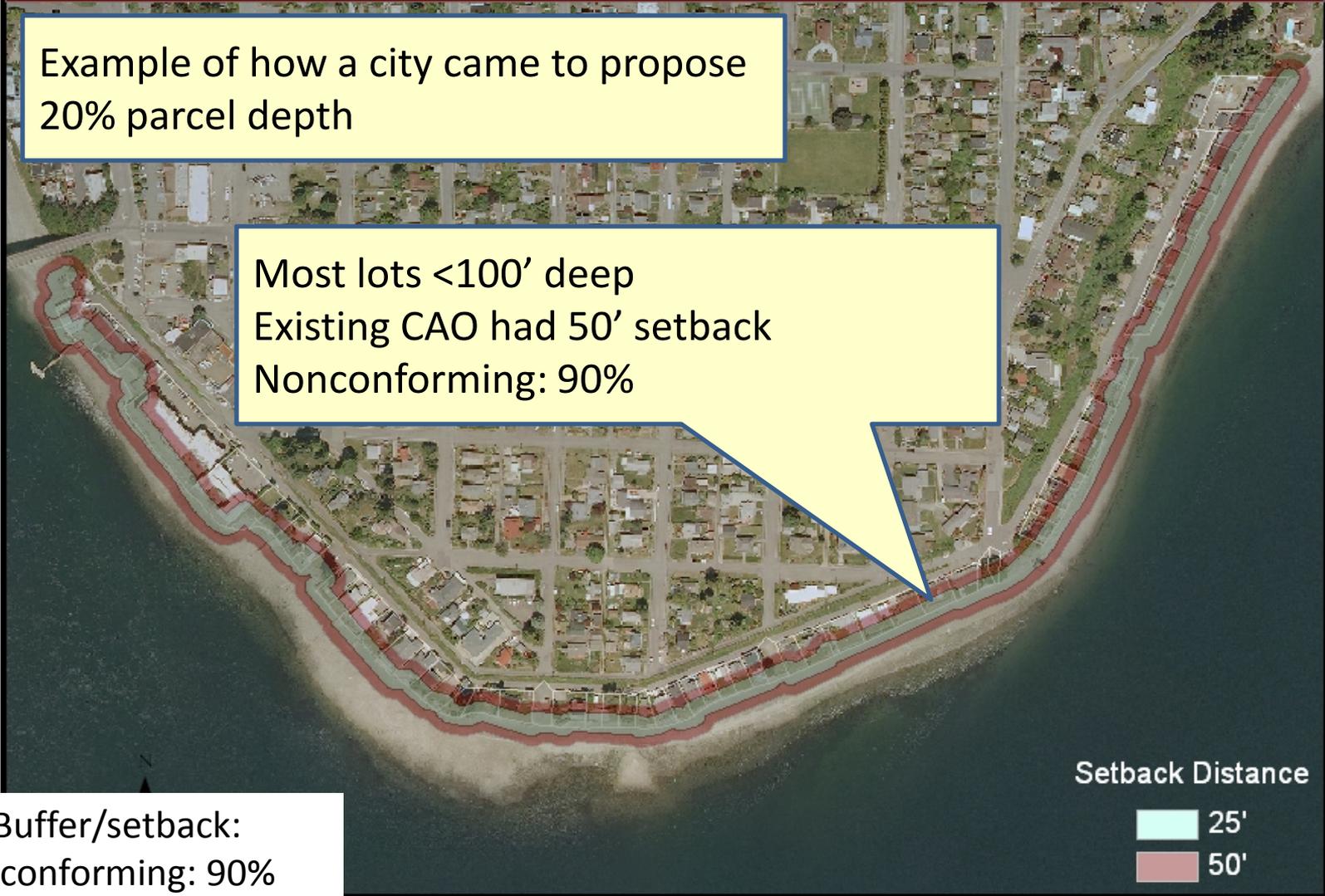
Most lots <100' deep  
Existing CAO had 50' setback  
Nonconforming: 90%

50' Buffer/setback:  
Nonconforming: 90%

Setback Distance

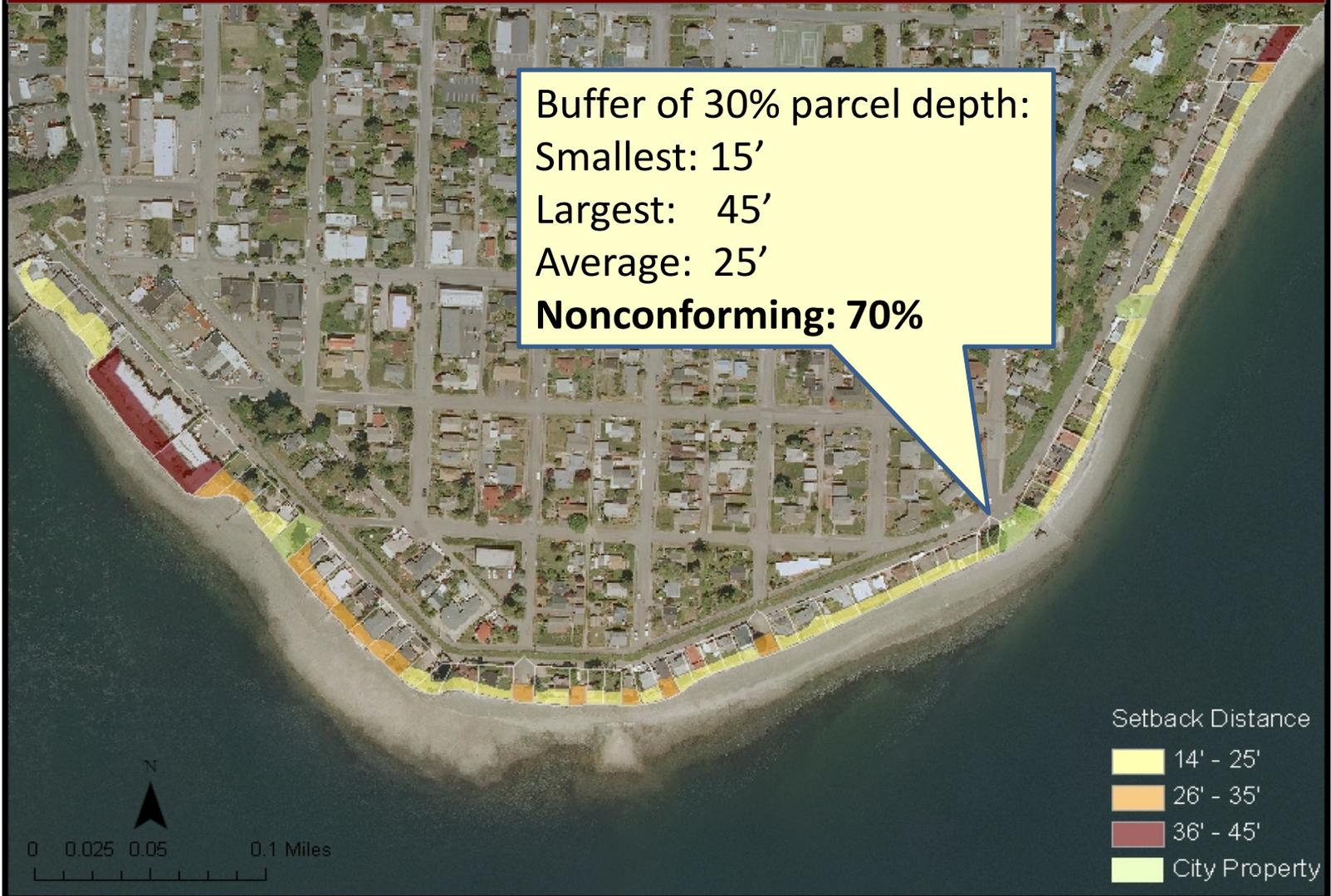
25'

50'



# Shore Drive - 30% Buffer

Buffer of 30% parcel depth:  
Smallest: 15'  
Largest: 45'  
Average: 25'  
**Nonconforming: 70%**



# Shore Drive - 20% Buffer

Buffer of 20% parcel depth:  
Smallest: 15'  
Largest: 40'  
Average: 21'  
**Nonconforming: 50%**

Setback Distance

9' - 15'

16' - 20'

21' - 30'

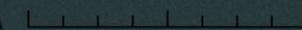
5' Housing Setback

10' Housing Setback

City Property



0 0.025 0.05 0.1 Miles



# Vegetation Conservation requirements for urban areas

## Quality vs. Quantity



In built-out urban areas (few undeveloped lots, extensive mowed areas), even small amounts of enhanced vegetation on existing developed lots can benefit habitat functions.

**City draft SMP approach:** require buffer enhancements if a residence expands by more than 500 sf.

# Good luck!

- Address issue early
- See existing agency comment letters on your CAO
- Work closely with SMP planner

Use the checklist to help evaluate existing regulations

STATE RULE (WAC) REQUIREMENTS	LOCATION	INITIAL REVIEW/COMMENTS
		<i>MCC 17.01.070E.6(c) should be – 070E.3)</i>
Wetlands <b>rating</b> or categorization system is based on rarity, <del>irreplaceability</del> , or sensitivity to disturbance of a wetland and the functions the wetland provides. Use Ecology Rating system or regionally specific, scientifically based method. WAC 173-26-221(2)(c)(i)(B)]	MCC 17.01.070.E. DEVELOPMENT STANDARDS  MCC 17.01.070.E.1 adopts Ecology rating system	Consistent with Ecology recommendations.
<b>Buffer</b> requirements are adequate to ensure wetland functions are protected and maintained in the long-term, taking into account ecological functions of the wetland, characteristics of the buffer, and potential impacts associated with adjacent land uses. WAC 173-26-221(2)(c)(i)(B)	17.01.070.E.2 Wetland Buffers adopts Ecology recommended approach to establishing buffers based on rating system, land use intensity and habitat score.	Closely parallel Ecology recommendations. Wetland buffers found compliant by Growth Management Hearings Board.
Wetland <b>mitigation</b> requirements are consistent with WAC 173-26-201(2)(e) and which are based on the wetland rating. WAC 173-26-	MCC 17.01.070.F MITIGATION FOR WETLAND IMPACTS	Consistent with Ecology recommendations.