CITY OF BLACK DIAMOND

November 20, 2008 Workstudy Agenda

25510 Lawson St., Black Diamond, Washington

6:00 P.M. – CALL TO ORDER, ROLL CALL

1.) Department of Ecology Presentation of Sensitive Areas Ordinance — Richard K. Robohm, Department of Ecology

2.) Adjournment

Black Diamond City Council
Critical Areas Ordinance
November 20, 2008

Wetland Ratings, Buffers, and Best Available Science

Richard Robohm
Wetland Specialist
Department of Ecology
Shorelands & Environmental Assistance Program

Washington State Wetland Rating System for Western Washington

Revised

WASHINGTON STATE DEPARTMENT OF ECOLOGY

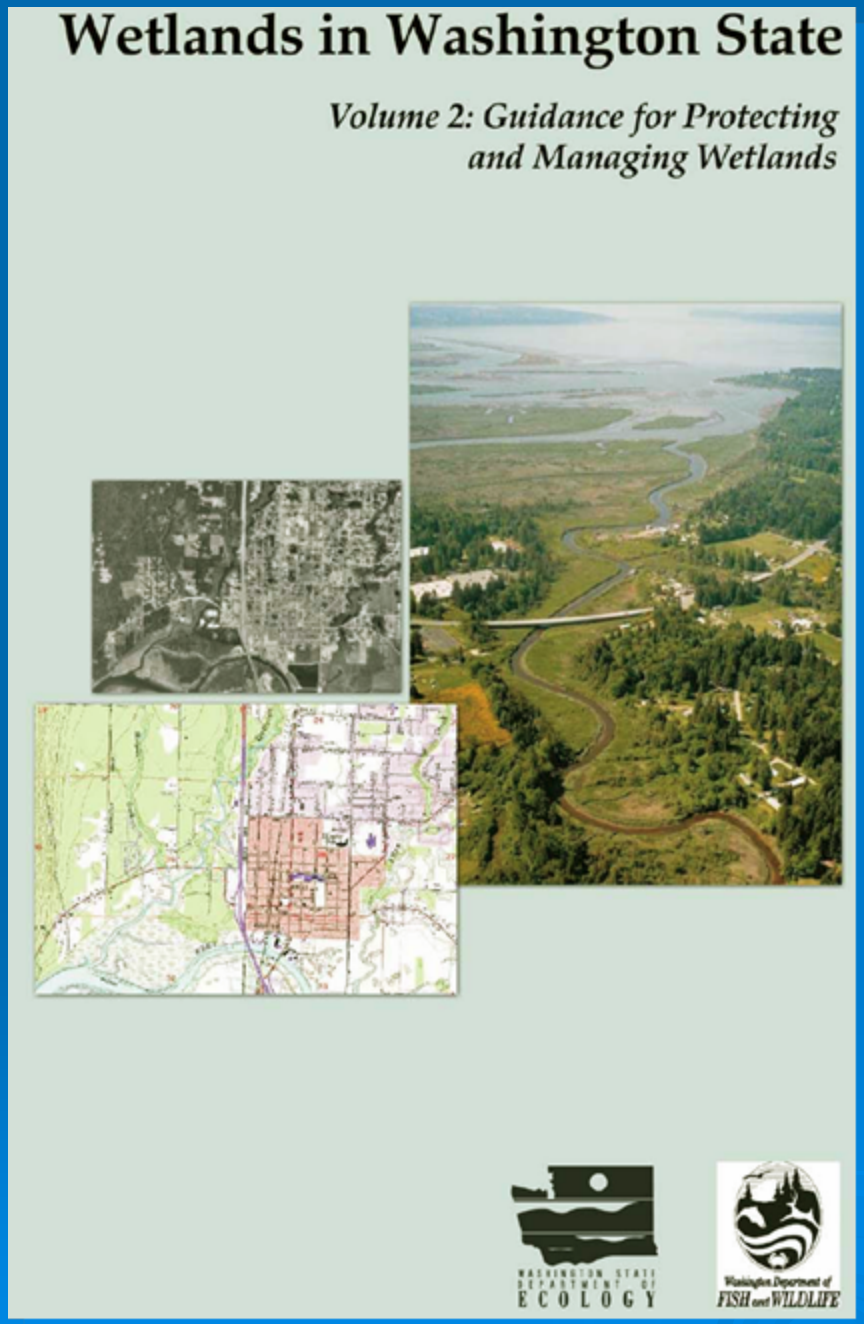
Ecology Publication # 04-06-025

Wetland Rating System

- Developed in early 90s, updated 2004.
- 4 Categories (I to IV) reflecting the level of protection and management needed.
- Used to prescribe criteria for avoidance, buffer widths, and mitigation ratios.
- Qualifies as “best available science.”

Wetland Rating System (cont.)

- **Assesses wetland functions in three main groups:**
  - **Habitat** (for the many wetland-dependent plant and animal species).
  - **Water quality improvement** (removing sediments, nutrients, toxicants).
  - **Hydrologic functions** (reducing flooding & erosion, recharging groundwater, supporting baseflow).



Management Options

- Analyzing wetlands & the landscape
- Characterizing risk
- Managing wetlands
  - ✓ Plans & policies
  - ✓ Nonregulatory tools
  - ✓ Adaptive management
- **Regulatory tools**
  - ✓ Avoiding impacts
  - ✓ Buffers
  - ✓ Mitigation ratios

BAS & Buffers

- **Scientific literature very consistent**
- **Buffers perform many key functions and are critical to maintaining wetlands**
- **Factors that should determine buffer widths:**
  - Wetland type & functions (category)
  - Intensity of impacts from land use
  - Character of buffer (slope, soils, vegetation)

BAS & Buffers

- **Scientific literature reports ranges for different buffer functions:**
  - Removing coarse sediment → 10 – 50 ft.
  - Removing fine sediment → 100 – 300 ft.
  - Removing Nitrogen or Phosphorus → 30 – 200 ft.
  - Screening wildlife → 50 – 150 ft.
  - Habitat for wetland-dependent spp. → 100 – 1200 ft.

- **"Within the range of BAS"**
  - Meaningful only when you ask: For what functions? What level of risk is acceptable?

Regulating Buffers

- **Challenge for local governments is to choose an approach based on:**
  - Reliance on buffers (vs. other means) to protect functions
  - Level of risk
  - Balancing predictability and flexibility

Alternative 1:
Buffers based only on rating

Wetland Category	Buffer Width
IV	50 ft
III	150 ft
II	300 ft
I	300 ft

NOTE: Wider buffers needed for only some wetlands within each rating

Wetlands in Washington State, Volume 2, Appendix 8-C

Impacts of adjacent land use

High	Commercial, industrial, residential >1 unit/acre, High-intensity recreation
Moderate	Residential ≤1 unit/acre Moderate-intensity recreation Paved trails
Low	Forestry Low-intensity recreation

Jurisdiction can use zoning designations & basin conditions to refine land use impacts

Alternative 2:
Buffers based on rating & intensity of impacts

Category of Wetland	Low-Impact Land Use	Moderate-Impact Land Use	High-Impact Land Use
IV	25 ft	40 ft	50 ft
III	75 ft	110 ft	150 ft
II	100 ft	150 ft	300 ft
I	150 ft	225 ft	300 ft

Alternative 3:

Buffers based on rating, intensity of impacts, & wetland functions or sensitivity

- **Offers flexibility & predictability**
- **Includes criteria to increase, decrease & average buffers**
- **Represents moderate risk**
- **Developed with input from guidance group**

Wetlands in Washington State, Volume 2, Appendix 8-C

Alternative 3

Category I & II

	Intensity of Impact		
High habitat score (29-36 pts)	High	-	300 ft
	Mod	-	225 ft
	Low	-	150 ft
Mod habitat score (20-28 pts)	High	-	150 ft
	Mod	-	110 ft
	Low	-	75 ft
Low habitat score (<20 pts)	High	-	100 ft
	Mod	-	75 ft
	Low	-	50 ft

Alternative 3

Category 3 & 4

	Intensity of Impact		
Category 3 Mod habitat score (20-28 pts)	High Mod Low	- - -	150 ft 110 ft 75 ft
Category 3 Low habitat score (< 20 pts)	High Mod Low	- - -	80 ft 60 ft 40 ft
Category 4	High Mod Low	- - -	50 ft 40 ft 25 ft

Alternative 3

Examples of reducing land use impacts

Examples of disturbance	Land uses that cause disturbance	Measures to minimize impacts
Lights	Parking lots, residential, warehouses, commercial	Shield & direct lights away from wetland
Noise	Parking lots, residential, warehouses, commercial	Locate noisy activities away from wetland, build fence or berm
Runoff	Parking lots, residential, warehouses, commercial	Low-impact devlpmt, treat & infiltrate runoff, reduce watering & use of pesticides & fertilizers

Wetlands in Washington State, Volume 2, Appendix 8-C

Runoff from poor erosion control during construction...

Yellow Lake, Klahanie Master Planned Development

bypasses buffers and fouls downstream waters.

Buffers work *in conjunction with* stormwater management & other programs

Summary

- **Baseline: Protect existing functions.**
- **Goal is not to eliminate nonconforming uses, but to avoid increasing them.**
- **Setting buffer widths is an exercise in risk management.**
- **Buffer Alternative 3:**
  - ✓ **Big scary buffers apply only in limited circumstances.**
  - ✓ **Flexible & site specific; developed in collaboration with local governments, planners, and consultants.**