

CITY OF BLACK DIAMOND

January 8, 2009 Workstudy Agenda 25510 Lawson St., Black Diamond, Washington

Workstudies are meetings for Council to review upcoming and pertinent business of the City. Public testimony is only accepted at the discretion of the Council.

6:00 P.M. – CALL TO ORDER, ROLL CALL

- 1.) Proposed Sensitive Areas Ordinance Mr. Nix
- 2.) Adjournment



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TECHNICAL MEMORANDUM

Date: January 5, 2009

To: Black Diamond City Council

Aaron Nix, City of Black Diamond Parks/Natural Resources Director

From: David Sherrard, Project Manager, Parametrix

Chrissy Bailey, Parametrix, Wetland Scientist

Christopher Collins, Wildlife Biologist

Subject: Sensitive Areas Ordinance

Supplement to Best Available Science Record

Rock Creek North Bank between Roberts Street and SR 169

Project Number: 217-3043-004

Project Name: City of Black Diamond, Sensitive Areas Ordinance

INTRODUCTION

This technical memorandum supplements the following elements of the Best Available Science (BAS) record prepared for the Sensitive Areas Ordinance.

- Summary and Recommendations, September 2008
- Technical Appendix A, Introduction, Overview and Landscape Analysis, September 2008
- Technical Appendix B, Fish and Aquatic Habitat, Terrestrial Wildlife Habitat, Wetlands, Frequently Flooded Areas, September 2008

Study Purpose

The purpose of this study is to investigate whether the north side of the Rock Creek system has a distinguishable level of ecological functions that warrants a different approach from other portions of the core ecological system.

Previous Conclusions

Previous finding presented in BAS reports included:

- The City of Black Diamond and its Urban Growth Area (UGA) include most of the Lake Sawyer watershed.
- Lake Sawyer is a particularly sensitive and fragile lake because of its large area and relatively small watershed. In the past, the lake has been adversely impacted by nutrient loading. The lake is vulnerable to degradation as a result of urbanization.
- A landscape analysis of a variety of factors affecting ecological functions has identified the large stream wetland complexes of the Rock Creek, Jones Lake/Jones Creek and Black Diamond Lake/Black Diamond Creek as the areas within the UGA with the most intensive concentration of ecological processes that positively contribute to water quality of Lake Sawyer.
- Other streams and wetlands play an important part in ecological processes, but since most of them flow into the Rock Creek, Jones Lake/Jones Creek and Black Diamond Lake/Black Diamond Creek, their role is subsidiary.
- The Rock Creek, Jones Lake/Jones Creek and Black Diamond Lake/Black Diamond Creek area also provides the most productive aquatic and terrestrial wildlife habitats in the UGA with the most intensive concentration of ecological processes that positively contribute to water quality of Lake Sawyer.

Landscape Analysis

The landscape analysis in Technical Appendix A, Introduction, Overview and Landscape Analysis reviewed the following key processes

- Hydrology
- Vegetation
- Land Use
- Sediment Supply
- Water Quality
- Organic Matter and LWD Inputs
- Aquatic Resources

For the purpose of this analysis, the focus is on processes that are likely to be most affected by existing conditions on the north side of Rock Creek: Vegetation and Land Use.

Vegetation

The plant cover over a landscape or on a site influences the interaction of water and surficial geology. Plants perform a number of important functions, including:

- Intercepting precipitation, which decreases water's available energy for sediment transport;
- Recirculating water through transpiration, which may, in turn, influence local climatic conditions;
- Providing shade, which moderates temperatures and humidity near the ground's surface;
- Stabilizing soil structure with their roots;
- Providing organic input, nutrient enrichment, and

• Providing habitat structure.

Land Use

Land use acts as a stressor on natural processes disrupting the:

- Interception and uptake of precipitation and nutrients;
- Microclimate:
- Type and amount of nutrient and pollutant inputs;
- Infiltration and recharge; and
- Proportion of water distributed via surface and subsurface flows
- Habitat functions
- Direct disturbance to aquatic and terrestrial wildlife.

Buffer function

In the context of wetlands and aquatic resources, buffers can be visualized as providing the following related functions:

- Providing for continued hydrological processes, including hydrologic recharge from the precipitation that falls within the buffer, infiltrates, and may travel laterally to the wetland.
- Maintaining natural functions related to water quality, including removing sediment generated by natural processes and removing nutrients such as phosphorous and nitrogen (these inputs, however, can increase dramatically with adjacent human use).
- Maintaining the microclimate in upland areas, including both the influence of large wetlands on upland areas, and the influence of shade and other features of the uplands on the wetland.
- Maintaining adjacent habitat and wetland functions that are critical to certain stages of populations (such as the need for amphibians to spend part of their life cycle in water).
- Maintaining an area sufficient for populations to be maintained.
- Providing an area in which the effects of adjacent human use are reduced or ameliorated. This may include maintaining natural functions that reduce (to acceptable levels) contribution of the following as a result of adjacent human use:

A summary of functions provided by buffers in found in Table B3-10. This table refers specifically to wetland functions, but is generally applicable to the functions provided by wetlands for aquatic species.

Table 1 (B3-10) Generalization of Functions of Various Wetland Buffer Widths

	Range of Buffer Widths							
Buffer Functions Provided	25–50 ft	50–100 ft	100–150 ft	150–200 ft	200–250 ft	250–300 ft		
Habitat ¹	L	L/M	М	M/H	M/H	Н		
Habitat Connectivity								
<u>Amphibians</u>								
Sensitive	L	L	L	L	L	L		
Urban	L/M	L/M	М	М	M/H	Н		
Birds								

Buffer Functions Provided	Range of Buffer Widths								
	25–50 ft	50–100 ft	100–150 ft	150–200 ft	200–250 ft	250–300 ft			
Waterfowl	L	L	М	M/H	M/H	M/H			
Urban adapted	Н	Н	M/H	M/L	L	L			
Edge spp.	M/H	M/H	M/H	M/H	M/H	М			
Interior ²	L	L	L	L	L	L			
<u>Mammals</u>									
Small	L	L/M	М	М	M/H	M/H			
Large	L	L	L	L	L/M	М			
Removing Sediment	60% to 90% effectiveness								
Slope of less than 5%, grassed	M/H	Н	Н	Н	Н	Н			
Slope of 5%-25% grassed	L/M	Н	Н	Н	Н	Н			
Steep slope	L	L	L/M	M/H	Н	Н			
Particle Size									
Sands	Н	Н	Н	Н	Н	Н			
Silts	М	M/H	Н	Н	Н	Н			
Clay	L	L	L	L	L	L			
Removing Excess Nutrients					,				
60% removal	Н	Н	Н	Н	Н	Н			
80% removal	L/M	Н	Н	Н	Н	Н			
Bacterial	L	L/M	Н	Н	Н	Н			
Microclimate	?	?	?	?	?	?			
Screening									
Wildlife	L	L	М	M/H	Н	Н			
Sounds	L	L	L	М	М	М			
Lighting	L	L	L	М	М	M/H			
Human Activity									
Low intensity	L	М	M/H	Н	Н	Н			
High intensity	L	L/M	М	M/H	Н	Н			

Characteristics of the resource

Wetlands associated with Rock Creek are mapped as scrub/shrub and forested wetlands. This wetland complex was given a preliminary Category I rating under the Ecology wetland rating system (City of Black Diamond 2008).

Category I wetlands are those that:

- Represent a unique or rare wetland type; or
- Are more sensitive to disturbance than most wetlands; or
- Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or
- Provide a high level of functions.

Creeks and streams and their associated buffers function as wildlife corridors in urban areas.

In addition, Lake Sawyer is the principal receiving water for Rock Creek. As such, the Rock Creek wetlands perform critical functions for maintaining the quality of water feeding into this system.

Rock Creek wetlands meet all these characteristics.

Unique or rare wetlands include Jones Lake and Black Diamond Lake. Jones Lake is a dystrophic lake, characterized by relatively high concentrations of acidic organic materials in solution. Such lakes generally form in conjunction with associated wetlands, particularly bogs and peat deposits that provide a unique ecological environment in which the acidity of the water retards the processes of bacterial breakdown that would otherwise recycle nutrients. This results in a departure from the normal eutrophic life cycle of lakes and wetlands. Black Diamond Lake and its associated bog are unique and outstanding. The Black Diamond Lake bog has been extensively researched by the Nature Conservancy. The wetlands associated with Black Diamond Lake contain special habitat features, including the largest sized and greatest abundance of snags, downed logs, large fallen dead limbs and stumps, and prominent edge habitats. These landscape elements have unique value to wildlife, including but not limited to feeding, roosting, and/or nesting sites; cover, foraging, and resting areas; and a mix of cover and feeding opportunities.

Habitat corridors are an approach that land managers and regulatory agencies have implemented to address impacts on wildlife habitats and species within human-influenced environments. Habitat corridors are contiguous, vegetated conduits that connect habitat patches to other patches or larger landscape habitat components and prevent isolation of habitat. Corridor establishment attempts to mimic in a managed landscape some of the biologic processes that occur in animal movement in natural landscapes.

The functions of corridors may be as conduits to provide movement or may provide habitat functions, if wide enough and vegetated. The functions generally provided by corridors include:

- Providing a conduit for animals to move between one habitat patch and another on a daily or seasonal basis, without providing substantial habitat functions. Such habitats may be relatively narrower than habitat patches.
- Reducing species extinction rates by ensuring that populations or individuals are not isolated from others in the landscape, as well as reducing detrimental genetic effects of isolated populations, such as inbreeding and random genetic drift.
- Providing increased foraging habitat for a variety of species, if large enough.
- Providing an avenue for vegetative communities to maintain reproduction viability and colonize new areas.

Comparison of the north and south sides of Rock Creek

To provide a relatively straightforward comparison of the character of the north and south sides of Rock Creek, the following matrix is used with features that generally characterize the contribution of the buffer area to aquatic and terrestrial habitat.

The features are readily observable from parcel maps and aerial photos. They provide a perspective on the following contributions of adjacent lands to wetland, aquatic and terrestrial habitat functions.

- Maintaining adjacent habitat that are critical to certain stages of populations (such as the need for amphibians to spend part of their life cycle in water).
- Maintaining an area sufficient for populations to be maintained.
- Providing an area in which the effects of adjacent human use are reduced or ameliorated, including discharge of chemicals, noise, light, disturbance from pets, and predation.

• Providing a conduit for animals to move between one habitat patch and another on a daily or seasonal basis, without providing substantial habitat functions. Such habitats may be relatively narrower than habitat patches.

Table 2. Generalization comparison of functions, north and south side of Rock Creek

	Characteristics of the area within 300 feet							
	Undisturbed buffer > 200 feet	Density of buffer vegetation	Buffer vegetation Complexity	Managed vegetation	Streets	Structures	Sources of light	Unimpeded animal movement
Rock Creek North Side								
Roberts Rd to Ginder Cr	10 %	Med to High	Med	60%		17	17	Low
Ginder Cr to SR 169	20%	Med to High	Med	60%				Low
Rock Creek SouthSide								
Roberts Rd to Black Dia Lake	95 %	High	High	5 %	0	1	1	High'
Black Dia Lake to SR 169	95%	High	High	10%		2	2	High'

Generally speaking, the following characteristics can be observed in the two areas:

Rock Creek South Side, Roberts Road to SR 169.

The margins of the wetland complex on the south side of Rock Creek (excluding the Black Diamond Lake system) is almost entirely intact native vegetation. Only about 500 linear feet of the 1.5 mile corridor is altered for adjacent residential use. (An additional 600 linear feet is altered for abandoned sewer lagoons.) This area can be expected to provide very high levels of almost every wetland related habitat function as well as unimpeded movement corridors for terrestrial species and substantial habitat to sustain relatively large populations.

Rock Creek North Side, Roberts Road to SR 169.

This summary relies on the wetland mapping in Figures 1 and 2 which is based primarily on aerial photos rather than field delineation and therefore may be inaccurate.

From the bridge to the east the wetlands complex extends approximately 150 feet with an additional 150 feet of vegetated buffer to the closest residence and cleared area. Morgan Drive in the former site of Morganville is located about 550 feet east of the wetland complex and about 60 residences. The edge of the wetland complex has a buffer that is generally less than 100 feet for about 1,000 feet east until lots within the townsite encroach on the wetland area. Some of the lots within the Morganville townsite include disturbance within the wetland and generally have little or no wetland buffer. This area extends for about 600 feet. East of Morganville an undeveloped lot provides a buffer area of 200 feet or more between wetlands and adjacent cleared land. To the east the subdivision, the Ridge at Black Diamond, provides buffers between 0 and 100 feet within an open space tract.

East of Ginder Creek, long narrow lots along Merino Street are partially covered by wetland and provide vegetated buffers between the wetland edge and lawn and ornamental vegetation of between 20 feet and 100 feet. The area extending to SR 169 between Railroad Avenue and Lake Jones may have vegetated buffers of up to 100 feet in some areas. The location of the wetland edge in this area is unknown. The maps below presume the wetland extends north to the edge of the road fill in some areas. Whatever the boundary between wetland and upland in this area, the road is an effective boundary for ecological functions.

Along the entire 1.4 mile Rock Creek corridor from Roberts Drive to SR 169, excluding Ginder Creek, about two thirds of the corridor has vegetated buffer areas less than 50 feet in depth, with about a third of the buffers between 50 and 100 feet.

Ginder Creek extends north about 1,500 feet from Rock Creek to Morgan Street. (This does not include the overlap between wetlands adjacent to Rock Creek.) The wetland complex generally has buffers of native vegetation less than 50 feet in width on the west side, largely adjacent to Abrams Avenue. Buffers to residences to the east are between 100 to 200 feet over about half the distance and less than 100 feet over half.

Generally speaking, the stream and wetland complex on the north side of Rock Creek (including Ginder Creek south of Morgan Street) is effectively buffered to provide a range of functions over only about twenty percent of its margin and has little or no buffer over about half of its margin. These buffer areas of varying width are scattered along the corridor and are separated from one another.

The results of this range of buffer conditions is to produce a wide range of biological functions in different areas. There is considerable uncertainly as to the exact location of the wetland boundary and the resulting buffer because of the lack of field delineation throughout this area, but the general trends are apparent.

- The lack of a continuous vegetated corridor outside the wetland substantially reduced the effectiveness of the area as a corridor for movement of terrestrial wildlife along the corridor. There no doubt is some movement, but with availability of the south side of the Rock Creek corridor and its currently forested condition with few barriers from human occupation, the majority of wildlife movement is likely in that area.
- Functions for small localized populations of species dependent upon wetlands for a portion of their lifecycle and uplands for other lifecycle functions are likely to be reasonable productive in areas with wider buffers, but these populations are likely to be isolated from other populations and subject to depredation from pets and subject to population collapse from drought or other adverse conditions. These areas are likely to be recolonized because of the continuous adjacent wetland system but at any given time would be fragile and must be considered less productive.
- Basic water quality functions are provided only marginally in those areas with buffers of less than 50 feet.

An additional important perspective is the amount of land in large undeveloped parcels along the corridor that are likely to be subject to potential future development. This constitutes about half the linear distance of the wetland edge. These areas also tend to have the largest existing buffers. Providing a reasonable buffer area for these areas is important to maintaining the areas that currently enjoy moderate ecological productivity.

It is presumed that most existing parcels will be subject to the provisions in the proposed Sensitive Areas code that relates buffer requirements to lot depth outside the wetland. In most cases, this is likely to result in buffers of less than 50 feet on existing lots. This will enhance water quality

functions of the buffers, but in most case will not provide much effective habitat for wetland dependent species.

Conclusion

It is reasonable to conclude that the level of ecological functions provided by existing buffers on the north side of the Rock Creek steam and wetland complex are less than the substantially undeveloped south side.

A substantial portion of the margins of the wetland is currently in large lots with the potential for redevelopment. These areas need to preserve a buffer area consistent with preserving the existing functions provided.

Generally, a buffer in the range of 185 feet is reasonable to protect existing buffer functions in large parcels subject to redevelopment.

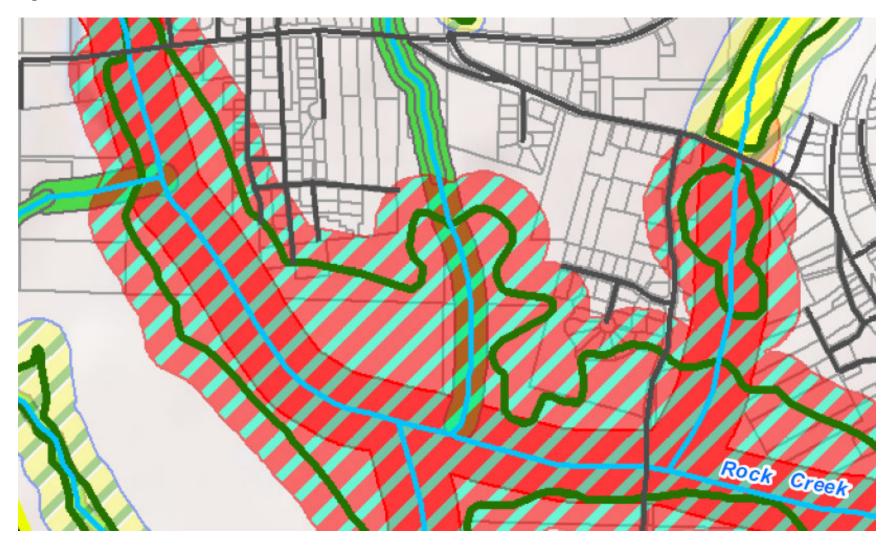


Figure 1 North side of Rock Creek Corridor Roberts Drive to Ginder Creek

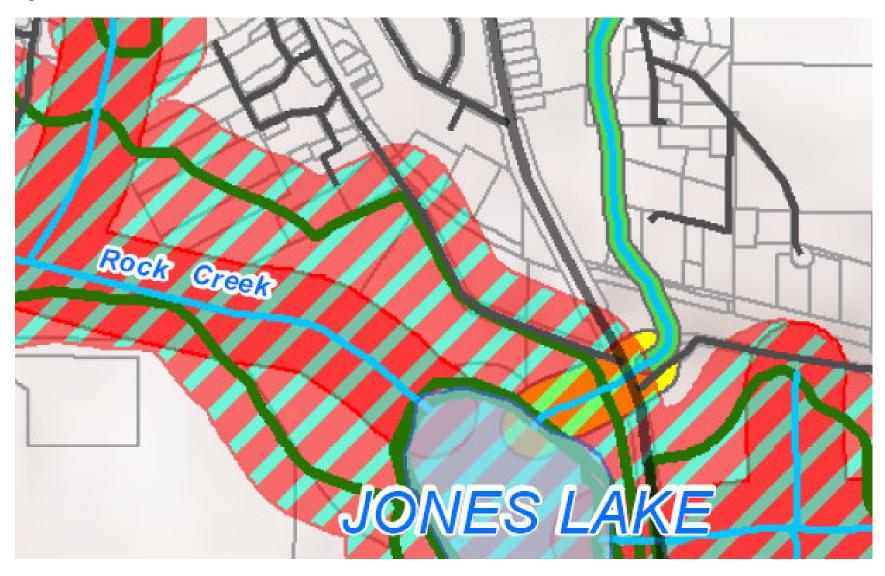


Figure 2 North side of Rock Creek Corridor Ginder Creek to SR 169



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TECHNICAL MEMORANDUM

Date: January 5, 2009

To: Black Diamond City Council

From: David Sherrard, Project Manager, Parametrix

Aaron Nix, City of Black Diamond Parks/Natural Resources Director

Subject: Sensitive Areas Ordinance

Recommended Revisions

Project Number: 217-3043-004

Project Name: City of Black Diamond, Sensitive Areas Ordinance

INTRODUCTION

This memorandum recommends specific changes in the Sensitive Areas Ordinance, including the following:

- A. Changes to the Core Wetland and Steam Complex buffer dimensions on the north side of the Rock Creek Corridor between Roberts Road and State Route 169 based on the supplement to the Best Available Science record contained in a January 5 Technical Memorandum.
- B. Changes to Section 19.10.170 Non-conforming Development, Subsection D. Buffer adjustment based on existing lot depth, to revise the percentage of lot depth.
- C. Provisions for allowing detention facilities in buffer areas.
- D. Provisions for small isolated wetlands.
- E. Provisions for buffers allowing retention of existing primary structures with substantial redevelopment of sites.

Proposed code revisions are indicated in <u>underline</u> and format below.

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A. Changes to the Core Wetland and Steam Complex buffer were addressed in a Technical Memorandum dated January 5, 2008. Conclusion are:

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- It is reasonable to conclude that the level of ecological functions provided by existing buffers on the north side of the Rock Creek steam and wetland complex are less than the substantially undeveloped south side.
- A substantial portion of the margins of the wetland is currently in large lots with the potential for redevelopment. These areas need to preserve a buffer area consistent with preserving the existing functions provided.
- 3. Generally, a buffer in the range of 185 feet is reasonable to protect existing buffer functions in large parcels subject to redevelopment.

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Proposed code revisions are indicated in underline and format below.

19.10.230 WETLAND BUFFERS

- A. Wetland buffers. Buffer requirements contained in this section shall apply to all wetlands designated in this chapter and all proposed mitigation sites. Except as otherwise provided for in this chapter, all wetland buffers shall be maintained in an undisturbed or enhanced condition.
- B. Core Wetland Complex buffers shall be a minimum of 225 feet for all wetlands within the core area, except for the north side of the Rock Creek complex between Roberts Road and State Route 169, where the buffer shall be a minimum 185 feet, provided that

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19.10.325 Fish and wildlife habitat conservation areas – Water bodies – Buffers

The city administrator and/or his/her designee shall have the authority to require buffers from the edges of all streams in accordance with the following:

- A. Buffers shall be established for activities adjacent to habitat areas as necessary to protect the integrity, functions and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat and the type and intensity of the adjacent human use or activity.
- B. **Buffers.** The buffer widths required by this section are based on scientific studies of the conditions necessary to sustain ecological functions and values to support anadromous and resident fish and presume the existence of a dense native vegetation community in the buffer zone adequate to protect the stream functions and values at the time of the proposed activity. Buffers of undisturbed native vegetation shall be required along all streams as provided below. The buffer shall extend landward from the top of the bank.
- B. Core Stream and Wetland Complex buffers shall be a minimum of 225 feet for all streams within the core area, except for the north side of the Rock Creek complex between Roberts Road and State Route 169, where the buffer shall be a minimum 185 feet, provided that the buffer may be extended further if:
- B. Changes to Section 19.10.170 Non-conforming Development, Subsection D. Buffer adjustment based on existing lot depth, to revise the percentage of lot depth.

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Additional evaluation of this provision has led to the recommendation below to adjust slightly the percentage of buffer applicable to deeper lots. This is not based on Best Available Science criteria, but is

based on providing an appropriate balance between protection of resources and recognition of existing lot constraints.

D. **Buffer adjustment based on existing lot depth.** The city administrator and/or his/her designee may vary buffer dimensions on existing lots under contiguous ownership may to take into consideration the existing depth of lots, measured perpendicular from the boundary of the wetland or stream or other sensitive area. Buffers on such lots may be adjusted up to the following, provided that this shall not apply to a geological hazard area unless all applicable design and other standards are met.

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Lot depth less than 100 feet – buffers may be adjusted to utilize no more 40% of
lot depth, or as necessary to provide a buildable area outside the buffer no less
than 40 feet deep, provided that a minimum buffer is not less than 25 feet or 50%
of the distance between an existing primary building and the edge of the wetland
or stream or other sensitive area.

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- 2. Lot depth 100 feet to 150 feet buffers may be adjusted to utilize more than 50% of lot depth or 50% of the distance between an existing primary building and the edge of the wetland or stream or other sensitive area.
- 3. Lot depth 150 to 200 feet buffers may be adjusted to utilize no more than 60% of lot depth or 60% of the distance between an existing primary building and the edge of the wetland or stream or other sensitive area.
- Lot depth 200 feet to 250 feet buffers may be adjusted to no more than 65% of lot depth or 65% of the distance between an existing primary building and the edge of the wetland or stream or other sensitive area.
- 4. Lot depth 250 feet to 300 feet buffers may be adjusted to utilize no more than 70% of lot depth or 70% of the distance between an existing primary building and the edge of the wetland or stream or other sensitive area.
- All other provisions for design and management of buffer areas and adjacent land shall apply, provided that allowed uses in buffer areas may be restricted to reduce impacts on ecological functions and values.

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C. Provisions for allowing detention facilities in buffer areas.

Two options are proposed for consideration:

- 1. Completely eliminating provisions for retention/detention facilities in wetland and water body buffers, which was the initial recommendation of Parametrix.
- 2. Allow, but provide additional criteria, including the following:

Storm water conveyance, or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted in a buffer if the criteria, a through e below, are met.

Detention/retention facilities may be permitted only within the outer 25% of a wetland buffer, and only if all the following criteria are met.

f. Retention/detention facilities may be allowed only in outer 25% of a buffer and only when:

(ii) Construction of the facility will not displace native trees larger than 6 inches in diameter.

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Deleted: the buffer of a wetland in the Core Complex, or the buffer of a Headwaters Wetland, basis if the following are met: a. Due to topographic or other physical constraints, there

- (ii) The facility includes no retaining walls or other structures.
- (iii) All cut and fill slopes are no more than 1 vertical to 3 horizontal
- (iv) All areas outside the high water level are planted with native vegetation as provided in Section 19.10.230.D Vegetation Management

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D. Provisions for small isolated wetlands.

This would restore the text originally recommended by Parametrix that allows additional flexibility in dealing with small isolated wetlands. This approach has been endorsed by Ecology.

19.10.235 Provisions for Small Isolated Wetlands

- A. All wetlands shall be regulated regardless of size, provided that the city administrator and/or his/her designee shall assure that preservation of isolated wetlands and associated buffers of less than ten thousand (10,000) square feet of combined wetland and buffer shall maintain effective wetland functions, or be mitigated as provided below.
- B. Wetlands and associated buffers of less than one thousand (1,000) square feet may be displaced when the wetland meets all of the following criteria, as documented in a wetland sensitive area study.
 - 1. The wetland is not associated with a riparian corridor,
 - 2. The wetland is not part of a wetland mosaic and
 - 3. The wetland does not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife.
 - 4. Impacts of displaced wetlands are mitigated pursuant to Section 19.10.240.
- C. Category 3 and 4 wetlands between 1,000 and 4,000 square feet may be displaced without meeting the provisions of Section 19.10.240 regarding avoidance, minimization, rectification, and reducing and eliminating the impact over time, provided that the criteria in B, above are met and the wetland does not score 20 points or greater for habitat in the 2004 Western Washington Rating System
- D. Preservation of isolated wetlands with a total area of the combined wetland and buffer of 10,000 square feet or less shall meet the following provisions, or if the said provisions cannot be demonstrated, as specified by the city administrator and/or his/her designee, they may be displaced and shall be mitigated as specified in Section 19.10.240.
 - Depressional wetlands recharged only by precipitation, interflow or groundwater shall be assured a source of recharge to maintain its hydrologic character through stormwater infiltration, or other means.
 - 2. Wetlands that have a potential to reduce flooding or erosion or has the potential and opportunity to maintain or improve water quality as evidenced by a score of at least 10 points on the applicable criteria of the Wetland Rating Form for Western Washington shall maintain a hydraulic connection to surface water that maintains effective wetland function for flood or erosion reduction or water quality and does not substantially alter the existing hydroperiod of the wetland.
 - 3. Wetlands that achieve a score of at least 20 points on the Habitat Functions criteria of the Wetland Rating Form for Western Washington shall maintain a connection to a linear corridor maintained as a stream buffer, a buffer associated with a geological hazard or other designated open space buffer sufficient to allow

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movement of terrestrial wildlife to and from the wetland and buffer complex without interruption by roads, paved areas or buildings within 50 feet.

E. Provisions for buffers allowing retention of existing primary structures with substantial redevelopment of sites.

This would add text to Section 19.10.230 Wetland Buffers and 19.10.325 Fish and wildlife habitat conservation areas – Water bodies – Buffers, subsections J. and L., respectively, to add additional flexibility for existing primary structures.

- 3. Substantial Redevelopment
 - a. Buffer dimension
 - b. Vegetation enhancement, 100% of buffer standard provided that if the standard buffer dimension exceeds the existing setback as measured from the edge of the primary building, the buffer may be reduced to 90% of the existing setback from the primary building to the edge of the sensitive area as defined in section 19.10.320E.

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