

ATTACHMENT A

EXHIBIT 1

Underlined text are additions; ~~strikethrough~~ text are deletions

UPMC Title 17 -- Critical Areas

GEOLOGICALLY HAZARDOUS AREAS

17.15.055 Regulation.

A. Department Approval. The development proposal may be approved, approved with conditions, or denied based on the Department's evaluation of the geotechnical report, including, but not limited to:

1. The ability of the proposed mitigation or engineering measures to reduce risks to the proposed structure and risks to the erosion or landslide hazard area; and adjacent property; and

2. The proposed development's conformance with the following performance standards.

a. Location and extent of development:

1. Development shall be located to minimize disturbance and removal of vegetation; and

2. Structures shall be clustered where possible to reduce disturbance and maintain natural topographic character; and

3. Structures shall conform to the natural contours of the slope and foundations should be tiered where possible to conform to existing topography of the site.

b. Design of development:

1. All development proposals shall be designed to minimize the building footprint and other disturbed areas; and

2. All development shall be designed to minimize impervious lot coverage; and

3. Roads, walkways and parking areas shall be designed to parallel the natural contours; and

4. Access shall be in the least sensitive area of the site, as feasible.

B. Buffer Requirement. A buffer, consisting of undisturbed natural vegetation and measured (as shown in Figure 15-1) in a perpendicular direction from all landslide and erosion hazard areas, shall be required. The buffer shall be required from the top of slope and toe of slope of all landslide or erosion hazard areas that measure 10 feet or more in vertical elevation change from top to toe of slope. The minimum buffer distance requirements from the top of slope and toe of slope of landslide or erosion hazard areas shall be the same as for setbacks from slopes as identified in the ~~Uniform~~ International Building Code, as amended from time to time. Regulated uses/activities that occur outside the buffer required by this subsection, the setback required by

subsection (C), and any potential landslide run-out do not require a geotechnical report. The other provisions of this chapter shall apply.

C. Building Setback and Construction Adjacent to Buffer. Eight-foot minimum setback lines (as shown in Figure 15-2) shall be required from the buffer area required in this section for construction of any impervious surface(s) greater than 120 square feet of base coverage. Clearing, grading, and filling within the eight foot setback shall only be allowed when the applicant can demonstrate that vegetation within the buffer will not be damaged. The setback is required in addition to the buffer regardless of buffer width, except as provided in subsection (D) below.

D. Modifications and Flexibility. to Buffer Width. Alteration of a geologically hazardous area or an associated buffer or buffer setback may occur where:

1. A geotechnical report has been submitted showing, to the satisfaction of the City, that the proposal will have no adverse impact on the stability or erosion susceptibility of the adjacent hazardous slope area. ~~When the geotechnical report demonstrates that a lesser or eliminated buffer and/or setback, together with design and engineering solutions, will meet the intent of this chapter, such reduced or eliminated buffer and/or setback and design and engineering solutions may be permitted. A modified slope, a~~ Reduced or eliminated buffer, and/or a reduced or eliminated setback width shall not be permitted unless the proposed design, engineering and mitigation measures provisions pertaining to any modifications within a landslide or erosion hazard area adequately reduce risk to proposed structures, and to or from landslide and erosion hazard areas, and to adjacent areas. Should the geotechnical report indicate that a greater buffer than that required by this section is needed to meet the intent of this chapter, the greater buffer shall be required;

2. The impacted area of disturbance totals no more than 20 percent of the project site;

3. The modification will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;

4. The activity will not adversely impact other critical areas as regulated in UPMC Title 17 or shorelands as regulated in UPMC Title 18;

5. The development will not decrease slope stability on adjacent properties;

6. Stormwater runoff from any new impervious surface is managed and accommodated through LID design to the extent practicable. Where LID design will not fully manage and accommodate this stormwater, at the discretion of the City it shall be directed to the City's storm drainage system or collected in a detention system and directed to an enclosed drainage system; and

7. For slopes of 40 percent or greater, the following conditions also apply:

a. The disturbed area is not connected to or associated with a larger ravine system, the Puget Sound shoreline or Chambers Creek Canyon bluffs; and

b. The slope is the result of human-caused activities, including regrading through mining, excavation and or filling.

E. Buffer protection. To increase the functional attributes of the buffer, the department may require that the buffer be enhanced through planting of indigenous species. The edge of the buffer area shall be clearly staked, flagged, and/or fenced prior to any site clearing or construction. The buffer boundary markers shall be clearly visible, durable, and permanently affixed to the ground. Site clearing shall not commence until the applicant has submitted written notice to the department that buffer requirements of this chapter are met. Field marking shall remain until all construction and clearing phases are completed, and the department has granted final project approval. Prior to final approval for subdivisions, short subdivisions binding site plans, planned development districts and commercial developments the buffer and slope shall be placed in a separate critical area tract or tracts, protective easement, public or private land trust dedication, or similarly preserved through an appropriate permanent protective mechanism as determined by the department. All protected areas identified above shall remain undeveloped in perpetuity, except as they may be altered pursuant to this title.

F. Temporary erosion and sedimentation control plan. Temporary erosion and sedimentation control plans shall be required for all regulated activities in landslide and erosion hazard areas. The temporary erosion and sedimentation control plan shall be consistent with the City's Public Works Standards and must be implemented prior to the start of development activity on-site.

UPMC Title 17 -- Critical Areas

WETLANDS

17.10.010 Acronyms.

“BMP” means best management practices.

“~~ECY~~DOE” means Department of Ecology.

“EIA” means Environmental Impact Assessment.

“EIS” means Environmental Impact Statement.

“ESA” means Endangered Species Act.

“FEIS” means Final Environmental Impact Statement.

“SEPA” means State Environmental Policy Act.

“TPCHD” means Tacoma Pierce County Health Department.

“UPMC” means University Place Municipal Code.

“WDF&W” means Washington Department of Fish and Wildlife.

17.35.020 Wetland categories.

Wetland categories shall be determined based upon the *Washington State Wetland Rating System for Western Washington*, current edition. Wetlands shall be generally categorized as follows:

A. Category I wetlands are:

1. Relatively undisturbed estuarine wetlands larger than one acre;
2. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR as ~~high-quality wetlands~~;
3. Bogs;
4. Mature and old-growth forested wetlands larger than one acre;
5. Wetlands in coastal lagoons; and
6. Wetlands that perform many functions well (scoring ~~2370~~ points or more).

These wetlands:

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

B. Category II wetlands are:

1. Estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; or
- ~~2. Interdunal wetlands larger than one acre; or~~
- ~~23.~~ Wetlands with a moderately high level of functions (scoring between ~~2054~~ and ~~2269~~ points).

C. Category III wetlands are:

1. Wetlands with a moderate level of functions (scoring between ~~1630~~ and ~~1950~~ points); or
- ~~2. Wetlands that often can be adequately replaced with a well-planned mitigation project.~~ and
- ~~2. Interdunal wetlands between 0.1 and one acre.~~

Wetlands scoring between ~~1630~~ and ~~1950~~ points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

D. Category IV wetlands have the lowest levels of functions (scoring less than ~~1630~~ points) and are often heavily disturbed. These are wetlands that should be able to be replaced, or in some

cases to be improved upon. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.

17.35.025 Delineation and wetland analysis requirements.

Regulated activities shall comply with the following requirements:

A. The Department may require a delineation report ~~per-prepared in accordance with the approved federal wetland delineation manual and applicable regional supplements *Washington State Wetland Identification & Delineation Manual*, latest edition,~~ to determine if a regulated wetland is present on the site or to determine if the proposed activity is within 200 feet of a wetland. All areas within the City meeting the wetland designation criteria in this procedure are hereby designated critical areas and are subject to the provisions of this chapter. A wetland delineation report shall be prepared by a qualified wetland specialist. The delineation report shall indicate wetland and/or buffer boundaries that may extend onto the site. While the delineation report shall discuss all wetland areas within 200 feet of the site, only those boundaries within the site property lines need be marked in the field. A preliminary site inspection may be required by the Department to determine whether a delineation report is needed.

B. If, on the basis of a delineation report, the Department determines that a regulated wetland is on the site, or within 200 feet of the site so that a wetland buffer boundary may extend onto the site, then the Department shall require a wetland analysis report. A wetland analysis report must be prepared by a qualified wetland specialist. A wetland analysis report shall include the following:

1. Vicinity map;
2. When available, a copy of a National Wetland Inventory Map (U.S. Fish and Wildlife Service) and/or a City wetland inventory map identifying the wetlands on or adjacent to the site;
3. A site map setting forth all of the following:
 - a. Surveyed wetland boundaries based upon a delineation by a wetland specialist;
 - b. Site boundary property lines and roads;
 - c. Internal property lines, rights-of-way, easements, etc.;
 - d. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;
 - e. Contours at the smallest readily available intervals, preferably at two-foot intervals;
 - f. Hydrologic mapping showing patterns of surface water movement and known subsurface water movement into, through, and out of the site area;
 - g. Location of all test holes and vegetation sample sites, numbered to correspond with flagging in the field and field data sheets;

h. The Department may require an air photo with overlays displaying the site boundaries and wetland delineation;

4. A report that includes the following:

a. Location information (legal description, parcel number and address);

b. Delineation report. The wetland boundaries on the site established by the delineation shall be staked and flagged in the field. If the wetland extends outside the site, the delineation report shall discuss all wetland areas within 200 feet of the site, but need only delineate those wetland boundaries within the site;

c. General site conditions including topography, acreage, and surface areas of all wetlands identified in the City wetland atlas and water bodies within one-quarter mile of the subject wetland(s);

d. Hydrological analysis, including topography, of existing surface and known significant subsurface flows into and out of the subject wetland(s);

e. Analysis of functional values of existing wetlands, including vegetative, faunal, and hydrologic conditions;

5. A summary of proposed activity and potential impacts to the wetland(s);

6. Recommended wetland category, including rationale for the recommendation;

7. Recommended buffer boundaries, including rationale for boundary locations;

8. Proposed on-site residential density transfer from wetlands and/or buffers to upland areas;

9. Site plan of proposed activity, including location of all parcels, tracts, easements, roads, structures, and other modifications to the existing site. The location of all wetlands and buffers shall be identified on the site plan.

C. The Department shall review and approve the wetland analysis report to determine the appropriate wetland category and buffer, and shall include the wetland in the City wetland maps and inventory if not already included. The Department shall approve the report's findings and proposals unless specific, written reasons are provided which justify not doing so.

17.35.035 Establishing buffers.

A. ~~Buffers shall be measured perpendicularly to the wetland edge.~~ Buffer widths shall be determined according to Table 3 and the provisions of this section.

Table 3—Wetland Buffer Widths

| | Category I | Category II | Category III | Category IV |
|----------------------|-------------------|--------------------|---------------------|--------------------|
| High Impact Land Use | 200' Buffer | 150' Buffer | 75' Buffer | 50' Buffer |
| Low Impact Land Use | 150' Buffer | 100' Buffer | 50' Buffer | 35' Buffer |

The standard buffer widths in Table 3 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington state wetland rating system for western Washington.

1. The use of the standard buffer widths requires the implementation of the measures in Table 4, where applicable, to minimize the impacts of the adjacent land uses.
2. If an applicant chooses not to apply the mitigation measures in Table 4, then a 33% increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.
3. The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is un-vegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.
4. Additional buffer widths are added to the standard buffer widths. For example, a Category I wetland scoring 9 points for habitat function would require a buffer of 225 feet (75 + 150).

Table 3 -- Wetland Buffer Requirements

| | <u>Buffer Width (in feet) Based on Habitat Score</u> | | | |
|---|---|-----------------|-------------------|-------------------|
| <u>Wetland Category</u> | <u>3-4</u> | <u>5</u> | <u>6-7</u> | <u>8-9</u> |
| <u>Category I:</u> <u>Based on total score</u> | <u>75</u> | <u>105</u> | <u>165</u> | <u>225</u> |
| <u>Category I:</u> <u>Bogs and Wetlands of</u> <u>High Conservation Value</u> | <u>190</u> | | | <u>225</u> |
| <u>Category I:</u> <u>Coastal Lagoons</u> | <u>150</u> | | <u>165</u> | <u>225</u> |
| <u>Category I:</u> <u>Forested</u> | <u>75</u> | <u>105</u> | <u>165</u> | <u>225</u> |
| <u>Category I:</u> <u>Estuarine</u> | <u>150</u> <u>(buffer width not based on habitat scores)</u> | | | |
| <u>Category II:</u> <u>Based on score</u> | <u>75</u> | <u>105</u> | <u>165</u> | <u>225</u> |
| <u>Category III (all)</u> | <u>60</u> | <u>105</u> | <u>165</u> | <u>225</u> |
| <u>Category IV (all)</u> | <u>40 ft</u> | | | |

Table 4 -- Required Measures to Minimize Impacts to Wetlands

| <u>Disturbance</u> | <u>Required Measures to Minimize Impacts</u> |
|---|---|
| <u>Lights</u> | <ul style="list-style-type: none"> • <u>Direct lights away from wetland</u> |
| <u>Noise</u> | <ul style="list-style-type: none"> • <u>Locate activity that generates noise away from wetland</u> • <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source</u> • <u>For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer</u> |
| <u>Toxic runoff</u> | <ul style="list-style-type: none"> • <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</u> • <u>Establish covenants limiting use of pesticides within 150 ft of wetland</u> • <u>Apply integrated pest management</u> |
| <u>Stormwater runoff</u> | <ul style="list-style-type: none"> • <u>Retrofit stormwater detention and treatment for roads and existing adjacent development</u> • <u>Prevent channelized flow from lawns that directly enters the buffer</u> • <u>Use Low Intensity Development techniques (per the <i>Low Impact Development Technical Guidance Manual for Puget Sound</i>, prepared by the Washington State University Extension and Puget Sound</u> |
| <u>Change in water regime</u> | <ul style="list-style-type: none"> • <u>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns</u> |
| <u>Pets and human disturbance</u> | <ul style="list-style-type: none"> • <u>Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion</u> • <u>Place wetland and its buffer in a separate tract or protect with a conservation easement</u> |
| <u>Dust</u> | <ul style="list-style-type: none"> • <u>Use best management practices to control dust</u> |
| <u>Disruption of corridors or connections</u> | <ul style="list-style-type: none"> • <u>Maintain connections to offsite areas that are undisturbed</u> • <u>Restore corridors or connections to offsite habitats by replanting</u> |

B. Buffer averaging to improve wetland protection may be permitted when all of the following conditions are met:

1. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower-rated area.

2. The buffer is increased adjacent to the higher-functioning area of habitat or more-sensitive portion of the wetland and decreased adjacent to the lower-functioning or less-sensitive portion as demonstrated by a critical areas report from a qualified wetland professional.

3. The total area of the buffer after averaging is equal to the area required without averaging.

4. The buffer at its narrowest point is never less than either 75% of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater. See Figure 35-1.

C. Buffer averaging to allow reasonable use of a parcel may be permitted when all of the following are met:

1. There are no feasible alternatives to the site design that could be accomplished without buffer averaging.

2. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a critical areas report from a qualified wetland professional.

3. The total buffer area after averaging is equal to the area required without averaging.

4. The buffer at its narrowest point is never less than either 75% of the required width or 75 feet for Category I and II, 50 feet for Category III and 25 feet for Category IV, whichever is greater. See Figure 35-1.

~~B. The Director shall determine that a use is either high impact or low impact based upon the following performance standards. A proposed use must satisfy five of the following seven criteria to be considered low impact. All other uses shall be considered high impact.~~

~~1. No more than 30 percent of the site may be covered with impervious surfacing.~~

~~2. Pier, piling or pin foundation systems or other measures that reduce on-site soil compaction shall be used where appropriate.~~

~~3. A minimum of 60 percent of the site shall be retained in an undisturbed naturally vegetated state.~~

~~4. Permeable paving systems shall be implemented where appropriate.~~

~~5. Measures shall be taken to ensure that use of pesticides, herbicides and fertilizers incompatible with wetland functions does not occur.~~

~~6. Bio-retention features shall be employed. Examples include rain gardens, roof gardens, tree filter boxes and similar vegetated systems.~~

~~7. Roads, driveways and parking areas shall be minimized. Roads and driveways shall primarily run perpendicular to the wetland edge. Parking areas shall be located the maximum distance feasible from the buffer edge.~~

~~C. An applicant may propose an alternative plan for achieving low impact development. The Director and the City wetland specialist shall review the plan. If the alternative plan is~~

determined to provide greater than or equal benefit to wetland functions than could be achieved by following the provisions of subsection (B) of this section, development activity implemented subject to such plan shall be considered low impact and a low impact buffer, per Table 3, shall be permitted.

D. Buffer widths may be modified by averaging or reducing. Buffer averaging and buffer reduction shall not be applied to the same wetland.

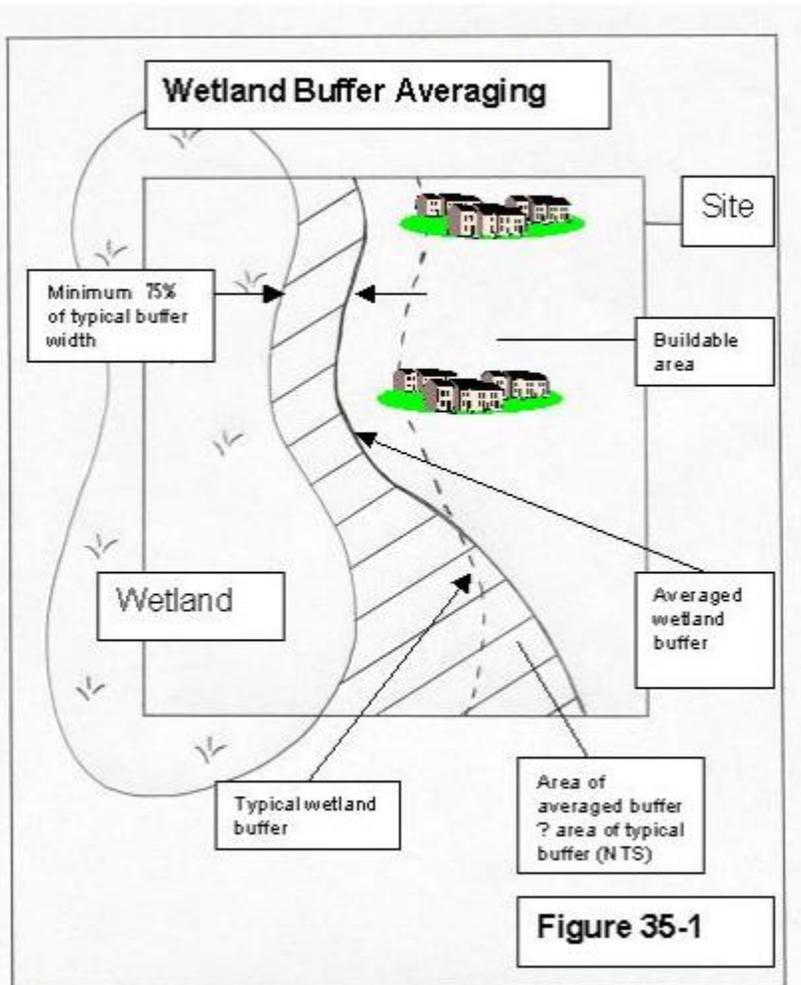
1. Buffer width averaging may be allowed only where the applicant demonstrates the following:

a. The wetland contains variations in sensitivity due to existing physical characteristics; and

b. Width averaging will not adversely impact the wetland; and

c. The total buffer area after averaging is no less than the buffer area prior to averaging; and

d. The minimum buffer width will not be less than 75 percent of the width established in subsection (A) of this section. See Figure 35-1.

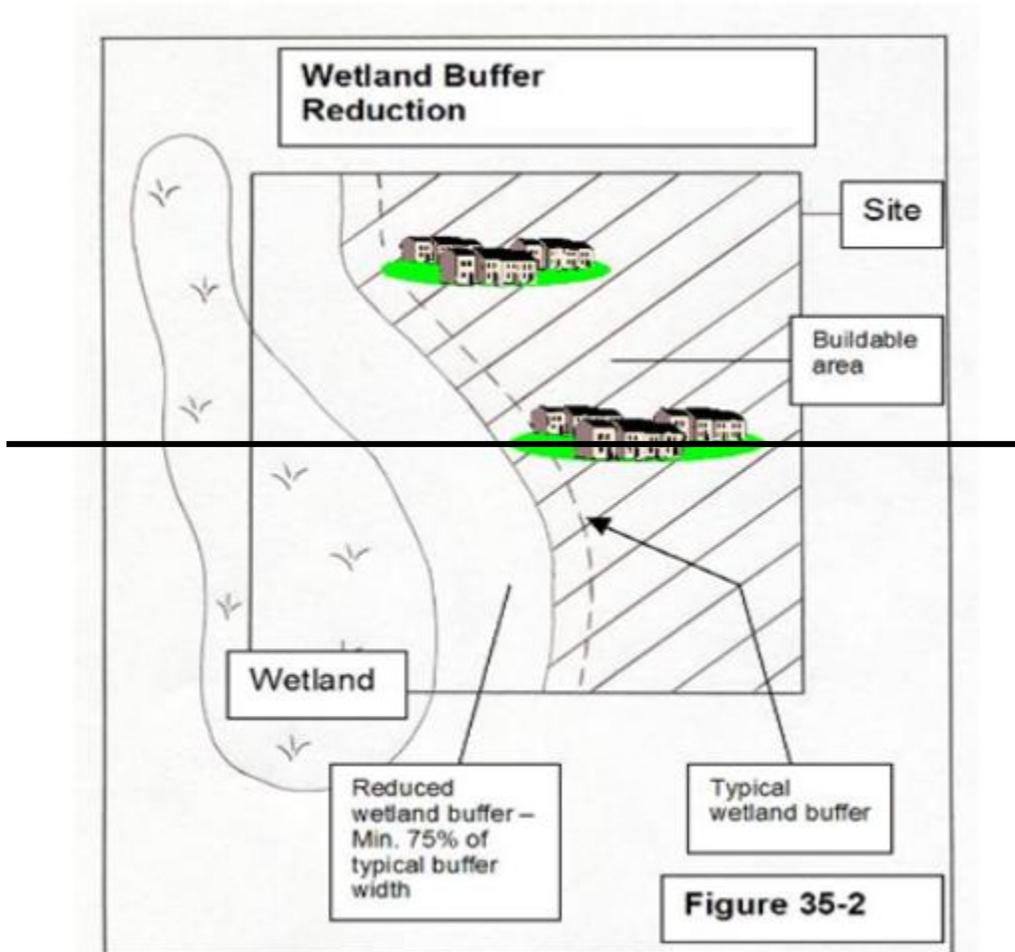


2. Buffer width reduction may be allowed only where the applicant demonstrates the following circumstances. Such reduction shall not result in greater than a 25 percent reduction in the buffer width established in subsection (A) of this section. See Figure 35-2.

a. The proposed buffer area is extensively vegetated and has less than 15 percent slopes, and the reduction will not result in adverse impacts to the wetland; or

b. The project includes a buffer enhancement plan, as part of the mitigation required by UPMC 17.35.045. The buffer enhancement plan shall use plant species which are indigenous to the project area, and shall substantiate that an enhanced buffer will improve the functional attributes of the buffer to provide additional protection for wetland functional values; or

c. The acreage included in the buffer would substantially exceed the size of the wetland and the reduction will not result in adverse impacts to the wetland or the project includes a buffer enhancement plan that ensures the reduction will not result in adverse impacts to the wetland.



DE. The Department may require increased buffer width on a case-by-case basis when a larger buffer is necessary to protect wetland functions and values based on local conditions. This determination shall be supported by appropriate documentation showing that it is reasonably

related to protection of the functions and values of the regulated wetland. Such determination shall demonstrate that:

~~1. A larger buffer is necessary to maintain viable populations of existing species; or~~

12. The wetland is used by a plant or animal species listed by the Federal government or the State as endangered, ~~or~~ threatened, candidate, sensitive, monitored or documentary priority species or habitats, or essential or outstanding habitat for those species or has unusual nesting or resting sites ~~potential sites~~ such as heron rookeries or raptor nesting ~~trees~~ areas; or

23. The adjacent land is susceptible to severe erosion, and erosion control measures will not effectively prevent adverse wetland impacts; or

34. The adjacent land has minimal vegetative cover or slopes greater than ~~30~~5 percent.

E. To facilitate long-range planning using a landscape approach, the Department may identify and pre-assess wetlands using the rating system and establish appropriate wetland buffer widths for such wetlands. The Department will prepare maps of wetlands that have been pre-assessed in this manner.

F. Measurement of Wetland Buffers. All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland. Only fully vegetated buffers will be considered. Lawns, walkways, driveways, and other mowed or paved areas will not be considered buffers or included in buffer area calculations.

G. Buffers on Mitigation Sites. All mitigation sites shall have buffers consistent with the buffer requirements of this Chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.

H. Buffer Maintenance. Except as otherwise specified or allowed in accordance with this Chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive non-native weeds is required for the duration of the financial guarantee required in UPMC 17.35.045.

I. Overlapping Critical Area Buffers. If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.

17.35.045 Mitigation.

Regulated activities within wetlands and buffers shall be mitigated pursuant to this chapter. Where SEPA environmental review is required, a threshold determination may not be made prior to Department review of the mitigation plan.

A. All activities in wetlands and/or buffers shall be mitigated according to this section and the Department of Ecology manual: *Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance* (Version 1, Publication No. 06-06-011a, March 2006) and *Wetland Mitigation in Washington State, Part 2: Developing Mitigation Plans* (Version 1, Publication

No. 06-06-011b, March 2006). Except as specifically exempted, regulated activities shall not be permitted within wetlands and/or buffers unless an applicant demonstrates that all reasonable attempts have been made to avoid impacts to the wetland and/or buffer. Mitigation is considered in order of preference as noted below with (1) being most preferable and (5) being the least preferable. Applicants must establish that mitigation has been considered in order of preference prior to permit issuance. There may be circumstances when an alternative mitigation strategy is preferable.

1. Avoiding the impact altogether by not taking a certain action or parts of actions within the wetland and/or buffer;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
5. Compensating for the impact by replacing, enhancing or providing substitute resources or environments;
6. Monitoring the required compensation and taking remedial or corrective measures when necessary.

Mitigation for individual actions may include a combination of the above measures. Monitoring may be a part of one or more of the above measures.

B. Regulated activities which occur in buffers, and which will not eliminate wetland habitat, shall be mitigated according to a mitigation plan approved by the Department. A mitigation plan for regulated activities in buffers shall contain the following components:

1. General goals of the mitigation plan;
2. Approximated site topography before and after alteration;
3. Location of proposed mitigation area;
4. General hydrologic patterns on the site before and after construction;
5. General plant selection and justification, planting instructions, and approximate planting sequencing and schedule;
6. A maintenance plan;
7. A monitoring and contingency plan;
8. A financial guarantee to ensure maintenance and/or implementation of the contingency plan. The financial guarantee must be equal to or greater than 20 percent of the estimated cost of the mitigation work, but in no case shall be less than is necessary to implement the contingency plan.

C. Compensatory mitigation shall be required for filling wetlands and for other regulated activities in wetlands. Compensatory mitigation shall be accomplished per the Department of Ecology manual: *Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals*, current edition. The above-referenced document was developed jointly by six agencies including the Washington State Department of Ecology and Department of Fish and Wildlife, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency and the U.S. Fish and Wildlife Service. These agencies, together with the City, have regulatory authority over wetland filling and related mitigation. Consistency with the above-referenced document will ensure that submitted plans are adequately detailed for review by all responsible agencies. Replacement ratios for compensatory mitigation shall be pursuant to the subsection below.

1. When regulated activities occur in wetlands, the applicant shall preserve, restore, create, or enhance equivalent areas of wetlands. Equivalent areas shall be determined according to acreage, functional value, type, location, time factors, and projected success. No overall net losses shall occur in wetland acreage, functions and/or values, and any restored, created, or enhanced wetland shall be as persistent as the wetland it replaces. Buffers pursuant to UPMC 17.35.035 shall be provided for created, restored or enhanced wetlands.

2. When an applicant proposes to alter or eliminate wetland, the applicant shall replace, restore and/or enhance acreage at the following ratios:

Table 54 – Wetland Mitigation Replacement Ratios*

| Category and Type of Wetland | Creation or Re-establishment | Rehabilitation | Enhancement | Preservation |
|--|-------------------------------------|-----------------------|--------------------|---------------------|
| Category I: Bog, Natural Heritage site | Not considered possible | 6:1 | Case by case | 10:1 |
| Category I: Mature Forested | 6:1 | 12:1 | 24:1 | 24:1 |
| Category I: Based on functions | 4:1 | 8:1 | 16:1 | 20:1 |
| Category II | 3:1 | 6:1 | 12:1 | 20:1 |
| Category III | 2:1 | 4:1 | 8:1 | 15:1 |
| Category IV | 1.5:1 | 3:1 | 6:1 | 10:1 |

*Ratios read as follows: Acreage replaced: Acreage lost

3. Ratios provided are for proposed projects with in-kind replacement that occurs prior to regulated activities on the site. Replaced, restored or enhanced wetlands must be located within

the same drainage basin as the filled wetland, but are not required to be located on the same property. The Department may increase the ratios under the following circumstances:

- a. Uncertainty as to the probable success of the proposed restoration, enhancement or creation; or
- b. Significant period of time between destruction and replication of wetland functions; or
- c. Projected losses in wetland functional value; or
- d. Out-of-kind compensation.

4. The Department may allow the minimum acreage replacement ratio to be decreased if the applicant provides findings of special studies coordinated with agencies with expertise, which demonstrate that no net loss of wetland function or value results from the decreased ratio. In no case shall the Department approve a ratio less than 1:1.

5. In-kind compensation shall be provided except where the applicant demonstrates that:

- a. Greater functional and habitat values can be achieved through out-of-kind mitigation; or
- b. The wetland system is already significantly degraded; or
- c. Problems such as the presence of exotic vegetation and changes in watershed hydrology make implementation of in-kind compensation infeasible; or
- d. Out-of-kind replacement will best meet identified regional goals (e.g., replacement of historically diminished wetland types).

D. Credit/Debit Method. To more fully protect functions and values, and as an alternative to the mitigation ratios found in the joint guidance “Wetland Mitigation in Washington State Parts I and II” (Ecology Publication No. 06-06-011a-b, Olympia, WA, March, 2006), the Department Administrator may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft,” (Ecology Publication No. 10-06-011, Olympia, WA, February 2011, or as revised).

E. Financial Guarantees. Mitigation shall be accomplished prior to the start of any regulated activity that impacts wetland area.

1. If development permits are issued prior to completion of mitigation work, financial guarantees shall be required to ensure mitigation is completed. Financial guarantees shall be 125 percent of the estimated cost of implementation of the mitigation plan.

2. Appropriate financial guarantees shall be in place to ensure that maintenance, monitoring and/or contingency plans shall be accomplished. Financial guarantees for contingency plans should be 20 percent of the cost of implementation of the mitigation plan.

F. Wetland mitigation banking may be permitted as a flexible alternative to standard compensatory mitigation. Wetland mitigation banking shall be conducted per the requirements of Chapter 173-700 WAC.

1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

a. The bank is certified under State rules;

b. The Department Administrator determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and

c. The proposed use of credits is consistent with the terms and conditions of the bank's certification.

2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

G. In-Lieu Fee. To aid in the implementation of off-site mitigation, the City may develop a program which prioritizes wetland areas for use as mitigation and/or allows payment in lieu of providing mitigation on a development site. This program shall be developed and approved through a public process and be consistent with State and Federal rules. The program should address:

1. The identification of sites within the City that are suitable for use as off-site mitigation. Site suitability shall take into account wetland functions, potential for wetland degradation, and potential for urban growth and service expansion; and

2. The use of fees for mitigation on available sites that have been identified as suitable and prioritized.

H. Advance Mitigation. Mitigation for projects with pre-identified impacts to wetlands may be constructed in advance of the impacts if the mitigation is implemented according to State and Federal rules.

I. Alternative Mitigation Plans. The Department Administrator may approve alternative critical areas mitigation plans that are based on best available science, such as priority restoration plans that achieve restoration goals identified in the SMP. Alternative mitigation proposals must provide an equivalent or better level of protection of critical area functions and values than would be provided by the strict application of this chapter.

The Department Administrator shall consider the following for approval of an alternative mitigation proposal:

1. The proposal uses a watershed approach consistent with Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology Publication No. 09-06-32, Olympia, WA, December 2009);

2. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas;
3. Mitigation according to subsection (E) of this section is not feasible due to site constraints such as parcel size, stream type, wetland category, or geologic hazards;
4. There is clear potential for success of the proposed mitigation at the proposed mitigation site;
5. The plan shall contain clear and measurable standards for achieving compliance with the specific provisions of the plan. A monitoring plan shall, at a minimum, meet the provisions in subsection (J) of this section;
6. The plan shall be reviewed and approved as part of overall approval of the proposed use, Wetlands Guidance for Small Cities Western Washington Version Page A-23;
7. A wetland of a different type is justified based on regional needs or functions and values; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative;
8. Mitigation guarantees shall meet the minimum requirements as outlined in subsection (B)(8) of this section;
9. Qualified professionals in each of the critical areas addressed shall prepare the plan;
10. The City may consult with agencies with expertise and jurisdiction over the resources during the review to assist with analysis and identification of appropriate performance measures that adequately safeguard critical areas.

J. Monitoring Program and Contingency Plan.

1. If the wetland mitigation plan includes compensatory mitigation, a monitoring program shall be implemented to determine the success of the compensatory mitigation project.
2. Specific criteria shall be provided for evaluating the mitigation proposal relative to the goals and objectives of the project and for beginning remedial action or contingency measures. Such criteria may include water quality standards, survival rates of planted vegetation, species abundance and diversity targets, habitat diversity indices, or other ecological, geological or hydrological criteria.
3. A contingency plan shall be established for compensation in the event that the mitigation project is inadequate or fails.
4. Requirements of the monitoring program and contingency plan are as follows:
 - a. During monitoring, use scientific procedures for establishing the success or failure of the project;
 - b. For vegetation determinations, permanent sampling points shall be established;
 - c. Vegetative success equals 80 percent per year survival of planted trees and shrubs and 80 percent per year cover of desirable understory or emergent species;

d. Submit monitoring reports of the current status of the mitigation project to the Department Administrator. The reports are to be prepared by a qualified wetland specialist and shall include monitoring information on wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, and shall be produced on the following schedule:

- (1) At time of construction;
- (2) Thirty days after planting;
- (3) Early in the growing season of the first year;
- (4) End of the growing season of first year;
- (5) Twice the second year;
- (6) Annually;

e. Monitor a minimum of three and up to 10 growing seasons, depending on the complexity of the wetland system. The time period will be determined and specified in writing prior to the implementation of the site plan;

f. If necessary, correct for failures in the mitigation project;

g. Replace dead or undesirable vegetation with appropriate plantings;

h. Repair damages caused by erosion, settling, or other geomorphological processes;

i. Redesign mitigation project (if necessary) and implement the new design;

j. Correction procedures shall be approved by a qualified wetland specialist and the City's environmental official.