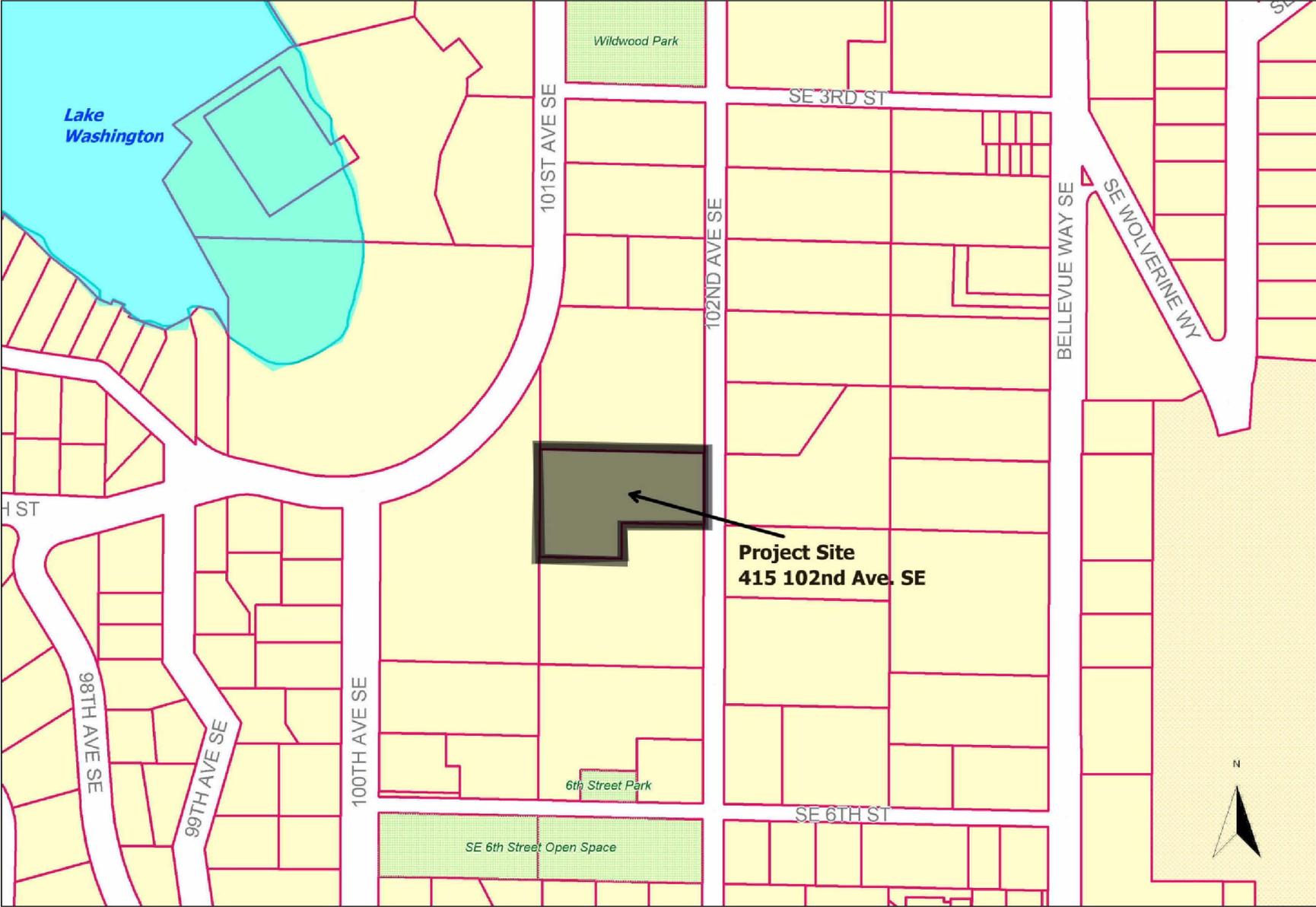


Cacabelos Buffer Restoration
File Number: 11-103262-LO





**City of Bellevue
Development Services Department
Land Use Staff Report**

Proposal Name: Cacabelos Buffer Restoration

Proposal Address: 415 102nd Ave. SE

Proposal Description: Land Use review of a Critical Areas Land Use Permit for restoration of a wetland buffer to remove unpermitted fill material and a Vegetation Management Plan.

File Number: 11-103262-LO

Applicant: Patricia Cacabelos, Property Owner

Decisions Included: Critical Areas Land Use Permit
(Process II. 20.30P)

Planner: Reilly Pittman, Land Use Planner

**State Environmental Policy Act
Threshold Determination:**

Exempt

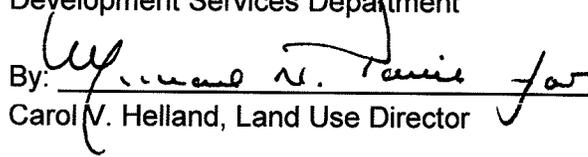


Carol V. Helland, Environmental Coordinator
Development Services Department

Director's Decision: **Approval with Conditions**

Michael A. Brennan, Director

Development Services Department

By: 

Carol V. Helland, Land Use Director

Application Date: January 20, 2011
Notice of Application Publication: January 27, 2011
Decision Publication Date: February 24, 2011
Project/SEPA Appeal Deadline: March 10, 2011

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

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Attachments

1. Restoration Plan prepared by SE Group dated September 14, 2010 – Enclosed
2. Technical Memorandum prepared by SE Group dated January 11, 2011 – Enclosed
3. Wetland and Stream Delineation Study prepared by the Watershed Company dated February 23, 2007. – Enclosed
4. Application Forms and Materials – In File

Creek (Type F Stream) also daylights from a culvert to the south of the property on an adjacent parcel. This stream flows west along the southern most property line and then turns to flow north, along the western property line. See figure 2 for existing site condition and approximate work area for restoration.

Figure 2



B. ZONING

The subject site is zoned R-30, Multi-Family Residential and surrounding properties are multi-family zoned at R-30 or R-20. The proposed activities of restoration and maintenance are allowed in this zone and do not change the use of the property.

C. LAND USE CONTEXT

The property has a Comprehensive Plan Land Use designation of MF-H, Multi-Family High Density.

D. CRITICAL AREAS FUNCTION AND VALUE, REGULATIONS

i. Wetlands

Wetlands provide important functions and values for both the human and biological environment—these functions include flood control, water quality improvement, and nutrient production. These “functions and values” to both the environment and the citizens of Bellevue depend on their size and location within a basin, as well as their diversity and quality. While Bellevue’s wetlands provides various beneficial functions, not all wetlands perform all functions, nor do they perform all functions equally well

(Novitski et al., 1995). However, the combined effect of functional processes of wetlands within basins provides benefits to both natural and human environments. For example, wetlands provide significant stormwater control, even if they are degraded and comprise only a small percentage of area within a basin.

ii. Floodplains

The value of floodplains can be described in terms of both the hydrologic and ecological functions that they provide. Flooding of occurs when either runoff exceeds the capacity of rivers and streams to convey water within their banks, or when engineered stormwater systems become overwhelmed. Studies have linked urbanization with increased peak discharge and channel degradation (Dunne and Leopold 1978; Booth and Jackson 1997; Konrad 2000). Floodplains diminish the effects of urbanization by temporarily storing water and mediating flow to downstream reaches. The capacity of a floodplain to buffer upstream fluctuations in discharge may vary according to valley confinement, gradient, local relief, and flow resistance provided by vegetation. Development within the floodplain can dramatically affect the storage capacity of a floodplain, impact the hydrologic regime of a basin and present a risk to public health and safety and to property and infrastructure.

iii. Critical Areas Overlay District/Critical Area Land Use Permit

A Critical Area Land Use Permit (CALUP) is required for approval of restoration of the wetland buffer and a vegetation management plan.

III. CONSISTENCY WITH LAND USE CODE REQUIREMENTS:

A. ZONING DISTRICT DIMENSIONAL REQUIREMENTS:

The R-30 zoning dimensional requirements found in LUC 20.20.010 do not apply to this project as no structure is proposed to be constructed.

B. CRITICAL AREAS REQUIREMENTS LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area buffer.

The proposed restoration and vegetation management is located within a wetland buffer. The work area is not within the floodplain which is within the wetland and is removing fill material which does not reduce capacity. The performance standards identified in the table below apply:

Critical Area	Performance Standards
Category III Wetland	20.25H.055.C.3.i

i. Consistency With Land Use Code Vegetation Management Performance Standards LUC 20.25H.055.C.3.i:

Restoration and associated vegetation management is an allowed use in a wetland buffer provided a Critical Areas Land Use Permit is approved. The project proposal in question is to remove fill material and restore a portion of wetland buffer and also establishes maintenance practices for the invasive plants and existing vegetation on-site. The submitted restoration plan and vegetation management plan (Technical Memorandum) prepared by SE Group can be found as Attachments 1 and 2 to this report. Vegetation management plans may be approved subject to the following:

1. A description of existing site conditions, including existing critical area functions and values;

See above site description in section II of this report. The site is currently developed with a single-family residence on a site with a category III wetland. The wetland “contains a mixture of emergent and forested components” with reed canary grass, creeping buttercup, soft rush, cattail, red alder, willow, and black cottonwood (SE Group, Pg. 1). Invasive English Ivy and Himalayan blackberry also exists on the site and is impacting vegetation in the buffer.

2. A site history;

Fill material was placed to expand an existing parking area. The fill was placed in the buffer of the wetland on the site. See figure 3 and Attachment 1 for location of fill on-site.



Figure 3

3. A discussion of the plan objectives;

The primary objective of this review is to remove the fill material and restore the area and buffer. The secondary part of this review is to establish a vegetation management on this site for maintenance of invasive species outside of the wetland. In addition, this plan establishes maintenance and monitoring of the proposed restoration area over a three-year period, guaranteed by installation and maintenance sureties.

4. A description of all sensitive features;

The only sensitive feature on this site is the wetland and buffer. Meydenbauer Creek is off-site.

5. Identification of soils, existing vegetation, and habitat associated with species of local importance present on the site;

Soils on the site are sandy and silty loams. The wetland was identified to have emergent and forested vegetation components. The area of work on this site is highly disturbed from use of the residence and invasive species.

6. Allowed work windows;

Rainy season restrictions would apply to any clearing and grading activity however only minimal earth disturbance should be caused by fill removal and restoration.

7. A clear delineation of the area within which clearing and other vegetation management practices are allowed under the plan; and

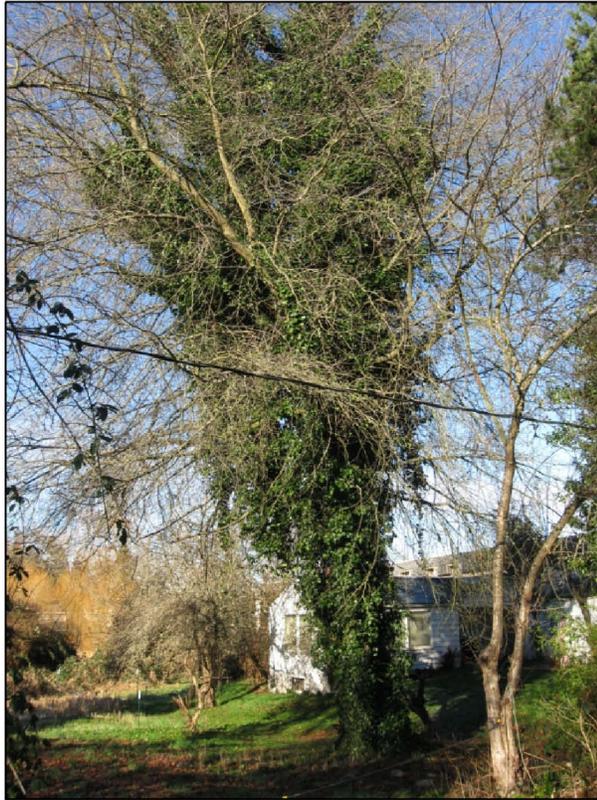
See Attachment 1 for the area of work allowed for removal of fill and restoration. Vegetation management is allowed on the site to maintain existing landscaping and control invasive species. No maintenance is allowed within the wetland under this review. See conditions of approval in Section X of this report regarding allowed scope of work.

8. Short- and long-term management prescriptions, including characterization of trees and vegetation to be removed, and restoration and revegetation plans with native species, including native species with a lower growth habit. Such restoration and revegetation plans shall demonstrate that the proposed Vegetation Management Plan will not significantly diminish the functions and values of the critical area or alter the forest and habitat characteristics of the site over time.

No trees were removed as part of the fill, however one large oak tree has been identified as part of the vegetation management plan as being overgrown with ivy which has damaged the tree. Normal cutting and removal of the ivy will not help

the tree survive as it has also been historically cut due to overhead power lines. The tree will be cut and chipped in order to be disposed off-site. No trees are currently proposed in the restoration therefore as mitigation for removal of a large tree within a wetland buffer 4 trees are required to be planted as part of the restoration. Trees need to be native and can be drawn from the City's Critical Areas Handbook which allows Oregon Ash, Sitka Spruce, Black Cottonwood, Pacific Willow, and Western Red Cedar. Figure 5 below shows the tree to be removed. See conditions of approval in Section X of this report regarding trees required.

Figure 5



Native plants are proposed to be installed in the wetland buffer and the area of fill restored with an erosion seed mix of native grasses. The proposed plant restoration includes Yellowtwig Dogwood, Sitka Willow, Western Spirea and 4 trees as conditioned above.

In addition to the one tree removed the management plan allows for removal of invasive species in the vicinity of house, outside of the wetland is allowed by hand by cutting, digging, or pruning. Ornamental landscaping can be maintained by hand which includes lawn, hedges, and other shrubs and vegetation. Replanting of

exposed areas resulting from invasive removal can be done with native or desirable non-native plants per Appendix C of the City's Critical Areas Handbook. The use of fertilizers, insecticides, and pesticides should be avoided and is only allowed per the City's BMPs on the use of these controls. See conditions of approval in Section X regarding fertilizer, insecticides, and pesticides.

ii. Consistency With LUC 20.25H.100 Performance standards

Development on sites with a wetland or wetland critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

- 1. Lights shall be directed away from the wetland.**

2. Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the wetland, or any noise shall be minimized through use of design and insulation techniques.
3. Toxic runoff from new impervious area shall be routed away from the wetlands.
4. Treated water may be allowed to enter the wetland critical area buffer.
5. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.
6. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.

No development or improvements are proposed on this plan which is only for removal of fill, restoration, and management of vegetation. No new lights, noise generating activities, impervious surfaces are proposed and no existing improvements are changing. The perimeter of the wetland within the buffer adjacent to the area of fill is to be planted with dense buffer plants. The project is already conditioned to follow the City's BMPs for the use of pesticides, insecticides, and fertilizers.

IV. PUBLIC NOTICE AND COMMENT

Application Date:	January 20, 2011
Public Notice (500 feet):	January 27, 2011
Minimum Comment Period:	February 10, 2011

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on January 27, 2011. Notice was also mailed to property owners within 500 feet of the project site. No comments were received.

V. SUMMARY OF TECHNICAL REVIEWS

A. CLEARING AND GRADING

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development.

VI. STATE ENVIRONMENTAL POLICY ACT (SEPA)

The proposed project is exempt from SEPA review as it is outside of any critical areas and does not exceed any of the Categorical Exemptions in WAC 197-11-800.

VII. CHANGES TO PROPOSAL DUE TO STAFF REVIEW

In addition to the proposed restoration staff are requiring four trees be planted to replace the tree which is to be removed. See Section X for related conditions of approval.

VIII. DECISION CRITERIA

A. 20.30P.140 CRITICAL AREA LAND USE PERMIT DECISION CRITERIA

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

i. The proposal obtains all other permits required by the Land Use Code;

Finding: The applicant must obtain a clearing and grading permit before beginning any work. Future modifications beyond the approved activity covered in this report may require a new Critical Areas Land Use Permit. See Conditions of Approval in Section X of this report.

ii. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: The proposed restoration planting and vegetation management will remove an area of fill which has the potential to erode and input sediment into the wetland. The proposed planting will restore a portion of the wetland buffer and the proposed invasive maintenance will reduce the seed source on this site.

iii. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and;

Finding: As discussed in Section III of this report, the applicable performance standards of LUC 20.25H.055.C.3.i and LUC 20.25H.100 are being met.

iv. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: The proposed activity will not affect public services or facilities and removal of invasive species, pruning of the hedge along the road, and removal of the tree will improve pedestrian access along the sidewalk and remove the tree from the overhead power lines.

v. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210;

Finding: The proposed restoration plan is consistent with requirements. This vegetation management plan will restore vegetation to a wetland buffer. A performance surety and maintenance surety will be required based on a cost estimate and will include the cost of the 4 trees required by condition of approval.

The clearing and grading permit will need to provide a cost estimate for plants and materials. The performance surety and maintenance surety will be held for a period of 3 years from the date of inspection to ensure plant survival. See Conditions of Approval in Section X of this report.

vi. The proposal complies with other applicable requirements of this code.

Finding: As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. CONCLUSION AND DECISION

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of Development Services Department does hereby **approve with conditions** the restoration and vegetation management proposed within the wetland buffer on the site located at 415 102nd Ave. SE. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A Clearing and Grading permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Clearing and Grading Permit or other necessary development permits within one year of the effective date of the approval.

X. CONDITIONS OF APPROVAL

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-2973

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

- 1. Clearing/Grading Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a clearing and grading permit. Application for a clearing and grading permit must be submitted and approved prior to work commencing. Plans submitted as part of the clearing and grading permit application must be consistent with the restoration plan as Attachment 1 to this report.

Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

- 2. Code Enforcement Resolution:** The removal of the fill material and restoration planting in the wetland buffer will resolve code enforcement 08-125135-EA.

Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

- 3. Land Use Inspection:** Following installation of planting and removal of fill the applicant shall contact Land Use staff to inspect the planting area as part of the clearing and grading permit process.

Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

- 4. Revised Planting Plan:** As discussed in section III of this report, four trees of either Oregon Ash, Sitka Spruce, Black Cottonwood, Pacific Willow, and/or Western Red Cedar are required as mitigation for the oak tree to be removed. A revised planting plan is required as part of the clearing and grading permit application which shows the four trees.

Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

- 5. Pesticides, Insecticides, and Fertilizers:** The applicant must submit as part of the required clearing and grading permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

Authority: Land Use Code 20.25H.220.H
Reviewer: Planner, Land Use

- 6. Cost Estimate and Performance Surety:** A cost estimate for all restoration, maintenance and monitoring is required as part of the clearing and grading permit application. This cost estimate will be the basis for determining the value needed for a performance surety and maintenance surety that will be held for 3 years. After Land Use inspection of the planting installation the performance surety can be released. At the end of 3 years an inspection by Land Use staff is needed to release the maintenance surety. Staff will need to find that the plants are in a healthy and growing condition for the surety to be released.

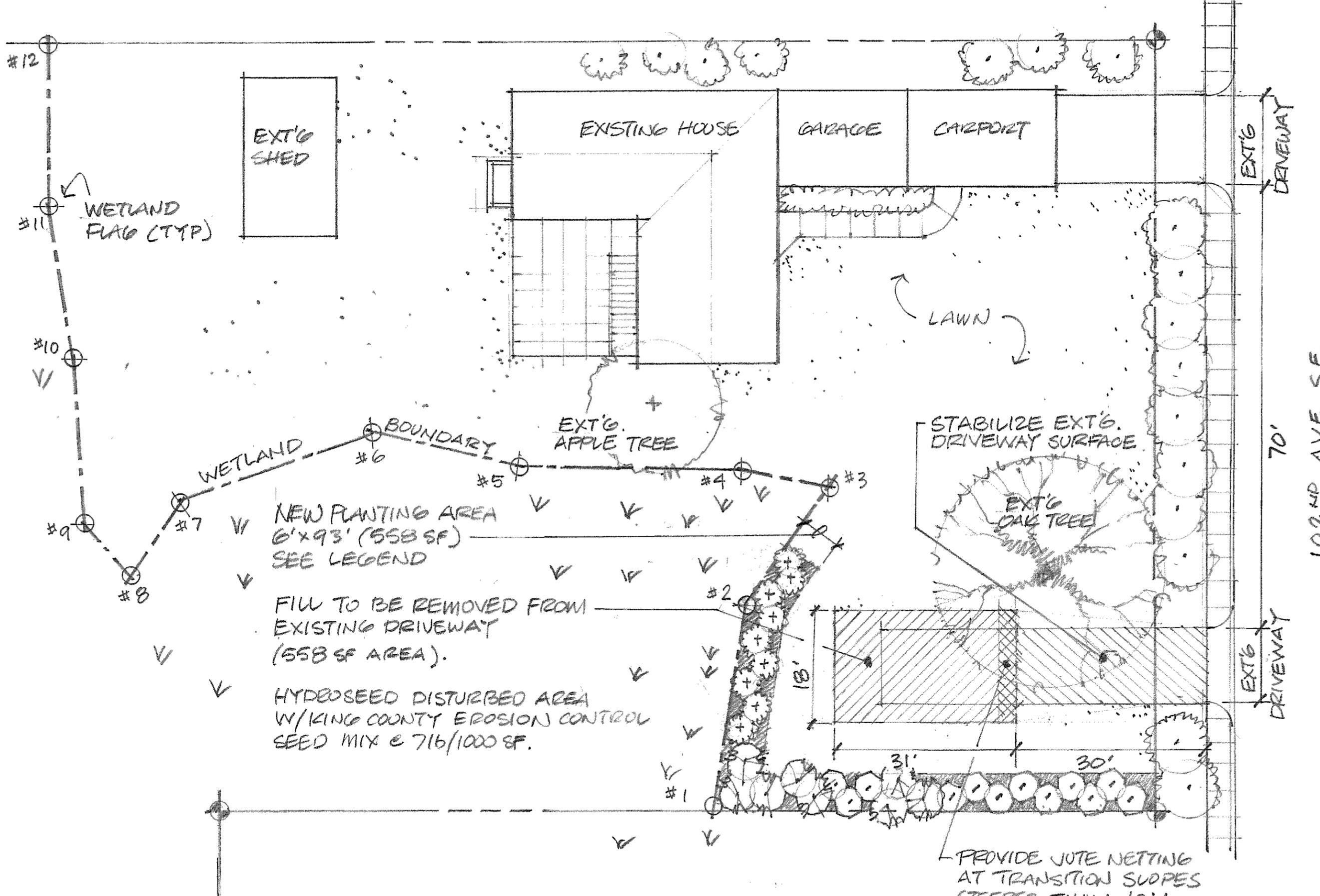
Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

7. **Approved Activity:** The vegetation management plan established under this approval allows the removal and maintenance of invasive species and other vegetation within the wetland buffer and approves restoration planting along a section of buffer. Included is the removal of one oak tree impacted by the ivy. Any vegetation removed is required to be replaced with appropriate species found in Appendix C of the City's Critical Areas Handbook. Future development of structures or impervious surfaces, tree cutting/removal, clearing and/or grading, or other actions that will cause disturbance within the wetland buffer or setback will require additional City permits as they are not considered in this approval. No work is allowed within the wetland identified on attachment 1.

Authority: Land Use Code 20.30P.140
Reviewer: Reilly Pittman, Development Services Department

8. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

Authority: Bellevue City Code 9.18
Reviewer: Reilly Pittman, Development Services Department



EXT'G SHED

EXISTING HOUSE

GARAGE

CARPORT

WETLAND FLAG (TYP)

LAWN

EXT'G APPLE TREE

STABILIZE EXT'G DRIVEWAY SURFACE

EXT'G OAK TREE

NEW PLANTING AREA
6' x 93' (558 SF)
SEE LEGEND

FILL TO BE REMOVED FROM
EXISTING DRIVEWAY
(558 SF AREA).

HYDROSEED DISTURBED AREA
W/ KING COUNTY EROSION CONTROL
SEED MIX @ 716/1000 SF.

EXT'G DRIVEWAY

EXT'G DRIVEWAY

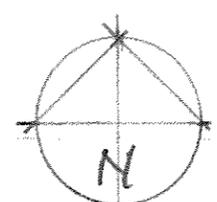
70'
102ND AVE SE

PROVIDE JUTE NETTING
AT TRANSITION SLOPES
STEEPER THAN 10:1.

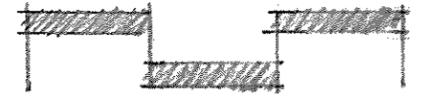
CACABELOS PROPERTY 415 102ND AVE SE / BELLEVUE WA.

PRELIMINARY RESTORATION PLAN (09-125135)

SE GROUP 9/14/10



0' 10' 20' 30'



8/2/2010

Cacabelos Property

Landscape Legend:

SYMBOL	BOTANICAL / COMMON NAME	QUANTITY	SIZE/SPACING	REMARKS
<u>Native Shrubs</u>				
	Cornus stolonifera "Flaviramea" <i>Yellowtwig Dogwood</i>	17	24" min Ht. 5' o.c. staggered spacing	B&B or containers. Healthy, vigorous stock.
	Salix sitchensis <i>Sitka willow</i>	5	36" min Ht. 6' o.c. staggered spacing	B&B or containers. Healthy, vigorous stock.
	Spiraea Douglasii <i>Western Spirea</i>	9	24" min Ht. 5' o.c. staggered spacing	B&B or containers. Healthy, vigorous stock.

General Notes:

- 1 All plant material shall conform to American Standard for Nursery Stock (ANSI Z60.1-2004) for health, vigor, size and proportion
- 2 Excavate plant pits twice the diameter and depth of the root ball. Amend planting backfill with 25% compost by volume
- 3 Mulch entire planting area with 3" depth of well composted mulch. Pacific Topsoil's Pacific Garden Mulch or approved equal

Technical Memorandum

TO:	Trisha Cacabelos
FROM:	Dan Roscoe
CC:	
DATE:	January 11, 2011
RE:	415 102 nd Ave SE Bellevue WA Wetland Buffer Restoration Plan and Vegetation Management Practices

This memorandum summarizes the existing conditions of the property located at 415 102nd Ave SE in Bellevue Washington. As part of the requirements for the code enforcement 09-125135EA, the wetland buffer restoration plan and vegetation management practices for the property are also described.

Existing Site Conditions

The property located at 415 102nd Ave SE in Bellevue WA is a single family residence. Currently improvements on the property include the primary residence and patio, a garage with attached carport, and a shed. The garage is separated from the house by a covered breezeway. The shed is located behind the house and is overgrown by Himalayan blackberry (*Rubus discolor*). A second driveway apron and gravel parking area is located approximately 70 feet south of the primary driveway and carport.

There is a wetland located in the southwest portion of the property that is associated with Meydenbauer Creek (please see the attached Wetland and Stream Delineation Study, TWC Ref# 070214 prepared by The Watershed Company, dated February 23, 2007). The wetland contains a mixture of emergent and forested components with reed canarygrass (*Phalaris arundinacea*), creeping buttercup (*Ranunculus repens*), soft rush (*Juncus effusus*) and cattail (*Typha latifolia*) in its emergent areas, and red alder (*Alnus rubra*), willow (*Salix spp.*), and black cottonwood (*Populus balsamifera*) in a forested area at the west end of the property.

Project History

On September 17, 2009 the City of Bellevue issued a Stop Work notice (case #09-125135EA) for violation of the Critical Area Ordinance, specifically the “clearing and grading within a critical area over 1,000 square feet.” Subsequently, a letter from the City of Bellevue on November 10, 2009 provided a description of the steps necessary for the lifting of the code enforcement action. These steps include the application for a Critical Area Land Use Permit (CALUP), removal of the fill material for the second parking space, and the establishment of vegetation management practices for maintaining the critical area buffer.

Following this direction, SE Group was contracted in June 2010 to prepare a wetland buffer restoration plan and mark the wetland boundary in the field. Over the course of discussions with the City of Bellevue, the following changes in the process were agreed to as indicated in an email from Reilly Pittman dated June 18, 2010:

- All new fill material placed at the end of the parking area is located within the wetland buffer and constituted the code violation. This material would be removed and the buffer restored to its natural condition.

- Since this portion of the buffer was a grass lawn prior to the fill material, it was agreed that better protection for the wetland could be provided by creating a linear planting strip along the wetland boundary to provide improved filtering functions. The additional filled area would be returned to grass and the planting strip would include shrubs to provide additional habitat value and screening for the wetland.
- The vegetation management practices should include both short and long term measures for the property to control invasive species.

Wetland Buffer Restoration

The restoration of the wetland buffer involves the removal of approximately 558 square feet of material that was placed at the west end of the existing parking area, referred to as the project site (see attached plan). The depth of material ranges from approximately 12 inches at the east end, and slopes at approximately 3 percent to existing grade at the west end. In total approximately 10 cubic yards of material will be removed. Removal of the material will be done by an excavator operating from the parking area. Material will be removed from the toe of the fill and progress to the east and away from the wetland. A mulch berm, a minimum of 12 inches high and 12 inches wide, will be placed between the wetland and toe of fill prior to any work beginning. The berm will function as a sediment and flow barrier for water leaving the project site. Following the removal of fill and establishment of grade, the berm will then be spread over exposed soils for stabilization. Additionally, should adverse weather conditions arise, the berm can quickly be spread to cover exposed soils.

The excavator will remove material to a depth of 6 inches below grade. Topsoil will be backfilled and smoothed to match existing grade adjacent the project site and provide a suitable base for the establishment of grass seed. All excavated material will be placed into a dump truck and disposed of by the contractor. Following completion of the excavation, all disturbed soils should be immediately seeded with a King County erosion control mixture at a rate of 7 pounds per 1,000 square feet and covered with mulch. If cold temperatures are forecasted, only mulch will be applied to stabilize the soil. Seeding would then occur during early March, or as temperatures allow.

The parking area that existed prior to the code violation will be stabilized with gravel of crushed rock. If the transition between the parking area and project site is steeper than 10:1, it will be covered with an erosion control blanket or jute-netting and seeded to further stabilize soils.

As an alternative to planting the project site, which would create a pocket of natural buffer within a maintained lawn, this plan proposes creating a linear vegetative strip along the wetland. Approximately 558 square feet of buffer will be revegetated with native shrubs, approximately 31 plants. This strip of vegetation will provide better buffer function than the current lawn. The use of shrubs along the wetland buffer will increase the habitat complexity and provide additional filtering function.

Planting is expected to occur after the removal of fill in early March, as soil temperatures warm and the growing season begins. The attached restoration plan includes native buffer species. Willows (*Salix spp.*) are present within the wetland and can be used as a source of cuttings for the proposed plantings. Additionally, this plan includes yellow-twig dogwood (*Cornus stolonifera*) and Douglas spirea (*Spirea douglasii*) which will increase the species diversity of the buffer. Plants will be placed on 5 foot centers, with staggered spacing. Prior to installation, a qualified professional should check each plant to ensure they are healthy. Diseased or stressed plants should be replaced prior to installation.

In order to promote survival and successful restoration, the following maintenance and monitoring plan will be followed for a maximum of three years.

- All plants will receive a 24 inch diameter mulch ring after installation to minimize competition with invasive species.
- Regular watering will occur during the first year following planting to aid in the establishment of the root system. During the spring and fall, watering should occur as necessary to supplement rainfall. Approximately 1 inch of water per week is sufficient. During the summer, regular watering should occur at a rate of 1-2 inches per week. Water will be provided by connecting a hose and sprinkler to the water supply of the house.
- During all three years, plants should be checked every spring for signs of health and vigor. All dead plants should be replaced each year.
- Invasive species will be removed from the restoration area on an annual basis using hand tools.

Vegetation Management Practices

The City of Bellevue has requested a set of vegetation management practices for the maintenance and control of invasive species on the property. As part of this process, two zones for vegetation management have been established for the property; 1) the wetland and 2) non-wetland area, including the wetland buffer. The wetland boundary has been marked in the field using metal ‘T’ fence posts. This line serves as the separation between zones. No vegetation management is allowed within the wetland zone without authorization from the City of Bellevue.

The following guidelines only apply to vegetation management within the non-wetland zone. For purposes of this plan, short-term practices refer to those actions that should occur immediately. Long-term practices refer to the general care and maintenance of the property that should be conducted on a regular basis or as needed.

Short-term Practices

- All invasive species, e.g., blackberry and ivy, around the house can be removed by hand. Hand removal includes pruning, cutting, and digging out plants at the roots. Walkways and crawl space access should be kept clear of vegetation. All material can be disposed of as yard waste during regular pickups.
- Areas of bare soils within the lawn should be seeded to minimize erosion concerns.
- The landscaping and hedge along 102nd Ave SE can be pruned to allow for greater visibility of the driveway. All vegetation can be cut back off the edge of the sidewalk to allow for clear pedestrian access.
- Currently there is a large oak tree located in the middle of the yard that is overgrown with ivy currently poses a hazard to the house and electrical wires. This tree will be removed in conjunction with the buffer restoration as equipment will be onsite. Limbs and branches will be chipped onsite and use as mulch to stabilize exposed soils.

Long-term Practices

- Mowing the lawn outside wetland stakes with hand operated equipment (e.g., gas-powered mower or trimmers) is allowed for maintaining the lawn.
- Maintenance of the buffer restoration area will follow the protocol described above for the first three years. After which time, maintenance within the restoration area will be the same as the rest of the non-wetland zone.
- Removal of ivy and blackberry by hand around house and yard within the buffer around. Hand removal includes pruning, cutting, and digging out plants at the roots. All material can be disposed of as yard waste during regular pickups.

- Landscaping of the non-wetland zone is allowed using native or desirable non-native vegetation. A list of plant species can be found in Appendix C of the City of Bellevue Critical Area Handbook.
- The use of herbicides for invasive species control is not allowed without approval from the City of Bellevue.

February 23, 2007

Mohammed Ali Heidari
16423 SE 56th Place
Bellevue, WA 98006
Via email: MAH1405@comcast.net

Re: **Wetland and Stream Delineation Study, TWC Ref# 070214**

Dear Mr. Heidari:

On February 16, 2007, I conducted a wetland and stream delineation study on the property located at 415 102nd Avenue SE (parcel 0666000400) in the City of Bellevue. This letter summarizes the findings of this study and details applicable federal, state, and local wetland regulations. The following attachments are included:

- Wetland Delineation Sketch
- Wetland Determination Data Forms
- Wetland Rating Forms

Methods

The subject property was evaluated for wetlands using methodology from the *Washington State Wetlands Identification and Delineation Manual* (Manual) (Washington Department of Ecology [Ecology] 1997). Wetland boundaries were determined on the basis of an examination of vegetation, soils, and hydrology. Areas meeting the criteria set forth in the Manual were determined to be wetland. Soil, vegetation, and hydrologic data were sampled at several locations on the property to make the determination. We recorded data at two of these locations.

The eastern boundary of Wetland A is marked with 8 pink- and black-striped flags. Per City of Bellevue regulations, Wetland A was classified using the *Western Washington Wetland Rating System*.

The ordinary high water mark (OHWM) is generally interpreted as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil destruction on terrestrial vegetation, or the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding area. It is usually marked as the lowest limit of perennial vegetation. The legal definition of the OHWM used by the Department of Fish and Wildlife and defined in WAC (220-110-020(57)) is:

"Ordinary high water line means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland: Provided, That in any area where the ordinary high water line cannot be found the ordinary high water line adjoining saltwater shall be the line of mean higher high water and the ordinary high water line adjoining freshwater shall be the elevation of the mean annual flood."

The right-bank OHWM of the creek was marked with blue- and white-striped flagging. Flags are numbered WM-1A through WM-25A; a second branch of the stream is marked WM-1B through WM-5B.

Findings

Streams

A stream runs in a deep, constructed channel near the southern property boundary, turns north near the western property boundary, and leaves the property in the northwest corner. Banks are very steep, and the channel was clearly constructed where it flows on the property. Several rivulets cross the property in Wetland A (described below), and they contribute water to the stream. Stream overflow to the surrounding wetland does not appear to occur regularly. The stream drains the property in a fork, with one branch entering a culvert and a second flowing in a channel. The Bellevue Sensitive Areas Notebook shows the stream as Meydenbauer Creek.

The stream substrate is primarily sand, and vegetation is sparse immediately adjacent to the stream. Scattered willow, red alder, and black cottonwood overhang the stream. Little to no vegetation is growing within the OHWM. Large woody debris is abundant in the stream. There was low to moderate flow in the stream during our site visit.

The Bellevue Critical Areas Update Stream Inventory describes Meydenbauer Creek as sockeye salmon bearing. Fish habitat on the subject property is poor, but it could be used for migration and non-breeding life stages. The stream drains to Lake Washington less than 1000 feet from the property.

Wetlands

An emergent/forested wetland, Wetland A, covers most of the undeveloped area on the parcel. It extends from the stream east to the existing house and south to the property line. It does not continue off-site to the north or west, but it does extend into the yard of the neighboring property to the southeast. It supports reed canarygrass, creeping buttercup, soft rush and cattail in its emergent areas, and red alder, willow, and black cottonwood in a forested area at the west end of the property. Many areas of pooled water and several rivulets are present. Soils in Wetland A are black (10YR 2/1) mucky loam with redoximorphic features in some areas. The entire wetland was either inundated or saturated at the surface during our site visit.

Habitat quality within the wetland is moderate, with abundant downed woody material and snags and potential amphibian breeding areas. However, the wetland is located in an urban landscape

and surrounded by development. Meydenbauer Creek provides a hydrologic connection to Lake Washington, but the Creek flows beneath a road and through other development before draining to the Lake. The wetland's dense vegetation and its location in a developed landscape allow for moderately high water quality and quantity values.

Uplands

One house is located on the lot. A yard with a grass lawn and ornamental landscaping surrounds the house. Thick Himalayan blackberry covers the remaining non-wetland area in the southeast corner of the property. Soils in the yard area are dark grayish brown (10YR 4/2) sandy loam and were not saturated at the surface when we visited the site.

Local Regulations

The City of Bellevue regulated streams and wetlands under the Bellevue Land Use Code (LUC) Chapter 20.25H. Stream classifications are based the presence of fish or fish habitat and connectivity to other waterways. The reach of Meydenbauer Creek that flows through the study site is rated Type F and requires a 50-foot buffer. A structure setback of an additional 50 feet is also required.

Wetlands are rated under LUC 20.25H.095, using the Washington State Wetland Rating System for Western Washington. Wetland A scores 44 points, including 16 habitat points, making it a Category III wetland. Category III wetlands with habitat scores below 20 points require 60-foot buffers (LUC 20.25H.095C) when the site has not previously been included in a Native Growth Protection Area or Easement. The minimum required structure setback on all Category III wetlands is 15 feet. The wetland buffer appears to completely encompass the stream buffer, although a survey is necessary to ascertain this conclusion.

The existing house and lawn and an overgrown gravel driveway are within the regulatory wetland buffer. According to LUC 20.25H.095.C.1b, when a primary structure is legally established within a buffer or setback prior to August 1, 2006, "the critical area buffer and/or structure setback shall be modified to exclude the footprint of the existing primary structure." The primary structure footprint would include road access.

To develop in the buffer beyond the primary structure footprint, buffers may be modified under two options detailed in LUC 20.25H.095.C.2 and LUC 20.25H.105. First, an applicant may be allowed to modify the buffer using a buffer averaging plan. Buffer averaging may be approved if the applicant demonstrates that buffer functions will be maintained, the buffer is contiguous and the total buffer area is not reduced. Second, the applicant may reduce the buffer if it can be shown that an enhancement plan will improve buffer function overall despite the buffer intrusion. Enhancement may involve removing invasive plant species, planting native vegetation, and/or installing habitat features. An approved enhancement plan would require monitoring and maintenance in accord with LUC 20.25H.210. Buffers modified under either plan must be no less than 75 percent of the require standard buffer (LUC 20.25H.095.C.2). Any plan drafted to reduce buffer widths must be approved by the City of Bellevue through a review process.

State and Federal Regulations

Wetlands and streams are also regulated by the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act. Any filling of Waters of the State, including wetlands (except isolated wetlands), would likely require notification and permits from the Corps. The Corps would not consider Wetland A isolated. Federally permitted actions that could affect endangered species (i.e. salmon or bull trout) may also require a biological assessment study and consultation with the U.S. Department of Fish and Wildlife and/or the National Marine Fisheries Service. Application for Corps permits may also require an individual 401 Water Quality Certification and Coastal Zone Management Consistency determination from Ecology.

Please note that the findings of this letter, including wetland classification and resulting buffer width predictions, are subject to the verification and agreement of local, state and/or federal regulatory authorities.

Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Suzanne Tomassi". The signature is written in black ink and is positioned above the printed name and title.

Suzanne Tomassi
Wetland/Wildlife Biologist

Enclosures



Notes: Locations are approximate and features are not to scale. Ordinary high water mark (WM) is marked with blue- and white-striped flagging; Wetland A is marked with pink- and black-striped flagging; data points (DP) are marked with yellow- and black-striped flagging.

Wetland and Stream Delineation Sketch
 415 102nd Ave. SE, Bellevue, Washington (parcel 0666000400)
 Prepared for Mohammad Ali Heirdari
 02/16/07



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