



DEVELOPMENT SERVICES DEPARTMENT  
 ENVIRONMENTAL COORDINATOR  
 450 110<sup>th</sup> Ave NE  
 BELLEVUE, WA 98009-9012

**DETERMINATION OF NON-SIGNIFICANCE**

**PROPONENT:** Mike Foster, The Watershed Company

**LOCATION OF PROPOSAL:** 12112 SE 26<sup>th</sup> St.

**DESCRIPTION OF PROPOSAL:** Management of vegetation and replanting on a steep slope critical area to restore unpermitted vegetation removal.

**FILE NUMBERS:** 15-122066-LO      **PLANNER:** Reilly Pittman

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on \_\_\_\_\_.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on **12/3/2015**
- This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on \_\_\_\_\_. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5:00 p.m. on \_\_\_\_\_.

This DNS may be withdrawn at any time if the proposal is modified so as to have significant adverse environmental impacts; if there is significant new information indicating a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.

*Christa Heller*  
 Environmental Coordinator

11/19/2015  
 Date

**OTHERS TO RECEIVE THIS DOCUMENT:**

- State Department of Fish and Wildlife / [Stewart.Reinbold@dfw.gov](mailto:Stewart.Reinbold@dfw.gov); [Christa.Heller@dfw.wa.gov](mailto:Christa.Heller@dfw.wa.gov);
- State Department of Ecology, Shoreline Planner N.W. Region / [Jobu461@ecy.wa.gov](mailto:Jobu461@ecy.wa.gov); [sepaunit@ecy.wa.gov](mailto:sepaunit@ecy.wa.gov)
- Army Corps of Engineers [Susan.M.Powell@nws02.usace.army.mil](mailto:Susan.M.Powell@nws02.usace.army.mil)
- Attorney General [ecyolyef@atg.wa.gov](mailto:ecyolyef@atg.wa.gov)
- Muckleshoot Indian Tribe [Karen.Walter@muckleshoot.nsn.us](mailto:Karen.Walter@muckleshoot.nsn.us); [Fisheries.fileroom@muckleshoot.nsn.us](mailto:Fisheries.fileroom@muckleshoot.nsn.us)



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

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**Proposal Name:** Cheng Vegetation Management Plan

**Proposal Address:** 12112 SE 26<sup>th</sup> St.

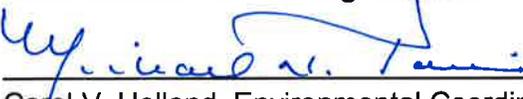
**Proposal Description:** The applicant requests a Critical Areas Land Use Permit for vegetation management in a steep slope critical area to restore an area of unpermitted tree removal with native plants.

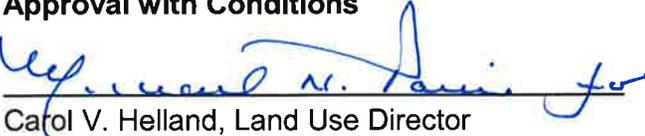
**File Number:** 15-122066-LO

**Applicant:** Mike Foster, The Watershed Company

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

**Planner:** Reilly Pittman, Associate Planner

**State Environmental Policy Act Threshold Determination:** **Determination of Non-Significance**  
  
Carol V. Helland, Environmental Coordinator  
Development Services Department

**Director's Decision:** **Approval with Conditions**  
  
Carol V. Helland, Land Use Director  
Development Services Department

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Application Date: August 21, 2015  
Notice of Application Publication Date: September 24, 2015  
Decision Publication Date: November 19, 2015  
Project/SEPA Appeal Deadline: December 3, 2015

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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.

**I. Proposal Description and Context**

The applicant is proposing to manage vegetation within a steep slope critical area on their property located at 12112 SE 26<sup>th</sup> Street, in the Richards Valley subarea. The vegetation management plan will likely replace the habitat values lost by the unpermitted tree cutting which occurred and prevent erosion on the slope. See figure 1 below for proposal.

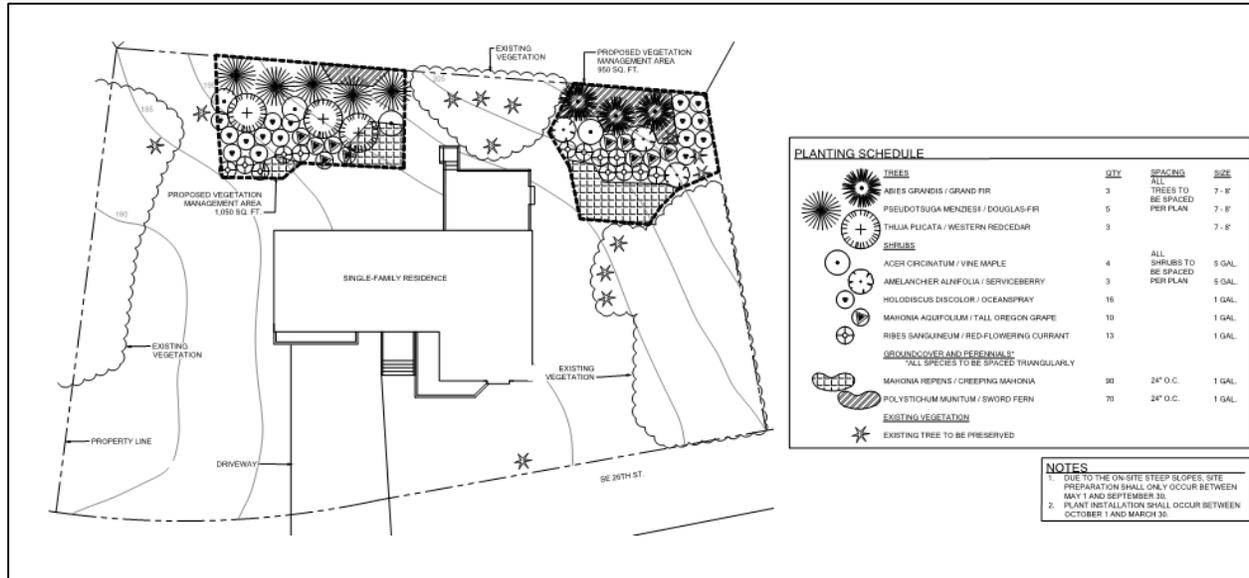


Figure 1

**II. Vegetation Management Plan Performance Standards  
 LUC 20.25H.055.C.3.v.i**

(A) Is the Vegetation Management Plan prepared by a qualified professional?

Yes  or No

**Describe:** The applicant contracted with The Watershed Company to prepare a vegetation management plan.

(B) Does the Vegetation Management Plan include the following?

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

Yes  or No

**Describe:** The submitted material describes the site conditions, including the slope and six trees, totaling 143 diameter inches that were removed within a steep slope critical area. The species of the trees removed includes, Douglas-fir, Western red cedar, and Big leaf maple. Fifteen trees were removed from the site in total but only six are on the slope. The plan discusses the slopes, soils, potential habitat, and stability provided by vegetation on the slope.

(2) A site history;

Yes  or No

**Describe:** The plan describes the vegetation removal that occurred and nature of the steep slope.

(3) A discussion of the plan objectives;

Yes  or No

**Describe:** The objectives of the plan are to replace the removed trees and restore the lost function over time. The plan proposes replanting twelve native conifer trees with shrubs and ground covers on the steep slope areas of the property. The plan objectives are to restore canopy and reduce and remove the presence of non-native and invasive vegetation.

(4) A description of all sensitive features;

Yes  or No

**Describe:** The steep slope is the only sensitive feature and is described in the plan.

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

Yes  or No

**Describe:** The plan identifies the existing vegetation, soils, and the stability of the slope. The area is highly developed and the steep slope graded as part of the construction of the plat.

(6) Allowed work windows;

Yes  or No

**Describe:** No work window is required but plant installation is proposed to occur between October 15<sup>th</sup> and March 30<sup>th</sup>. No impact to the steep slope is anticipated to occur.

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

Yes  or No

**Describe:** The vegetation management plan includes a detailed site and planting plan that will be implemented to restore vegetation to the slope.

(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.

Yes  or No

**Describe:** See discussion above under Item 3 above. Five years of maintenance and

monitoring is required per the maintenance and monitoring plan in the submitted vegetation management plan. In addition the plan proposes to achieve 85 percent survival of all trees and shrubs by the fifth year of monitoring and to have no more than 10 percent coverage by invasive species.

(C) Would any proposed tree removal result in a significant impact to habitat associated with species of local importance?

Yes  or **No**

**Describe:** The area is developed and trees remain in vicinity. There is no connection to any habitat corridors and remaining trees preserve opportunity to provide habitat. No species of local importance were documented on the site.

If yes, can the impacted function be replaced elsewhere within the management area subject to the plan?

Yes  or **No**

**Describe:** Not applicable

In no event may a tree or vegetation which is an active nest site for a species of local importance be removed pursuant to this subsection.

(D) Is the area under application subject to any applicable neighborhood restrictive covenants that address view preservation or vegetation management? The existence of and provisions of neighborhood restrictive covenants shall not be entitled to any more or less weight than other reports and materials in the record.

Yes  or **No**

If yes, describe: No covenants have been submitted or stated to exist.

### III. Public Notice and Comment

Application Date:	August 21, 2015
Public Notice (500 feet):	September 24, 2015
Minimum Comment Period:	October 8, 2015

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin and Seattle Times on September 24, 2015. It was mailed to property owners within 500 feet of the project site. No comments have been received from the public during the notice period.

### IV. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The attached Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate

potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

**V. Critical Areas Land Use Permit Decision Criteria  
LUC 20.30P.140**

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

- A. The proposal obtains all other permits required by the Land Use Code; and  
**Yes**  or No   
**Describe:** The applicant is required to obtain a Clearing and Grading in Critical Areas (GJ) permit to perform the proposed vegetation management.
- B. 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; and  
**Yes**  or No   
**Describe:** The proposed vegetation management plan was developed by a qualified professional and describes the best available techniques for planting native trees and shrubs and sustaining a native landscape.
- C. The proposal incorporates the performance standards of Part 20.25H LUC to the maximum extent applicable; and  
**Yes**  or No   
**Describe:** As discussed in Section I above, the applicant has complied with the performance standards for vegetation management within a steep slope and buffer.
- D. The proposal will be served by adequate public facilities including streets, fire protection, and utilities; and  
**Yes**  or No   
**Describe:** The site is currently within the City of Bellevue and is served by adequate public facilities. Nothing in the proposal will increase the need for public services at the property.
- E. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC 20.25H.210; except that a proposal to modify or remove vegetation pursuant to an approved Vegetation Management Plan under LUC 20.25H.055.C.3.i shall not require a mitigation or restoration plan; and  
**Yes**  or No   
**Describe:** The proposal includes a plan to remove invasive vegetation and plant native vegetation. A cost estimate to monitor the planting has been submitted. A surety in the amount of 150 percent of the cost of monitoring or \$1350 is required to be posted prior

to issuance of the clearing and grading permit. This maintenance surety is required to be held for the five year monitoring period. A final inspection of the planting is required to release the surety. All planting must meet the standards in the vegetation management plan. **See Conditions of Approval in Section VII of this report.**

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

Yes  or No

**Describe:** The applicant has complied with the code by requesting Critical Areas Land Use Permit approval. The applicant shall also apply for and obtain a clearing and grading permit to carry out the proposed vegetation management.

## VI. 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 the Development Services Department does hereby **approve with conditions** the vegetation management plan within the steep slope critical area at 12112 SE 26<sup>th</sup> St.

**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.

## VII. 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	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-4350

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

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

**1. Clearing and Grading Permit Required:** Approval of this Critical Areas Land Use Permit

does not constitute an approval of a grading, building, or utility permit. To ensure execution of the required performance standards and required mitigation planting within the critical area buffer the Applicant shall apply for a clearing and grading permit in critical areas, type GJ, to install required mitigation and monitor performance.

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

- 2. Maintenance and Monitoring:** Maintenance and monitoring of the vegetation management plan is required for five years per the submitted schedule. Annual monitoring reports must to be submitted to the City of Bellevue's Land Use Division for five years at the end of each growing season. Photos from designated photo points suggested by the applicant and approved by the City shall be included in the monitoring reports to document continued success. The monitoring may be discontinued after three years if, in the opinion of the Department, the long-term success of the mitigation is assured.

The reports can be sent to Reilly Pittman at [rpittman@bellevuewa.gov](mailto:rpittman@bellevuewa.gov) or to the address below:

Environmental Planning Manager  
Development Services Department  
City of Bellevue  
PO Box 90012  
Bellevue, WA 98009-9012

Authority: Land Use Code 20.25H.220.D  
Reviewer: Reilly Pittman, Development Services Department

- 3. Maintenance Surety:** A maintenance surety is required to be created in the amount of \$1350 to ensure that the installed plants are maintained and monitored. The maintenance surety is required to be submitted prior to issuance of the clearing and grading permit. The maintenance surety can be released by inspection of Land Use staff after three years if the long term success of the mitigation planting determined to be assured and the plants are established.

Authority: Land Use Code 20.40.490  
Reviewer: Reilly Pittman, Development Services Department

- 4. Temporary Irrigation Required:** The mitigation and restoration plan shall include provision for temporary irrigation sufficient to guarantee establishment success of all mitigation and restoration areas.

Authority: Land Use Code 20.25H.220

Reviewer: Reilly Pittman, Development Services Department

5. **Land Use Inspection Required:** Inspection of the required mitigation planting must be completed by the land use planner as part of the final inspection of the clearing and grading permit. Inspection is also required to release the maintenance surety. See how to request an inspection at: [http://www.bellevuewa.gov/schedule\\_an\\_inspection.htm](http://www.bellevuewa.gov/schedule_an_inspection.htm)

Authority: Land Use Code 20.25H.210

Reviewer: Reilly Pittman, Development Services Department

6. **Noise related to construction:** Noise from 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 at least one week prior to the date the specific exemption is required.

Authority: Bellevue City Code 9.18

Reviewer: Reilly Pittman, Development Services Department

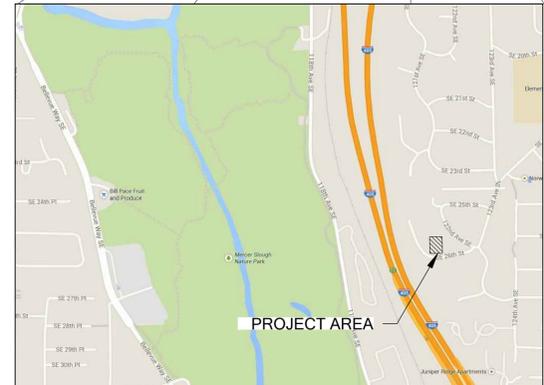
# CHENG RESIDENCE



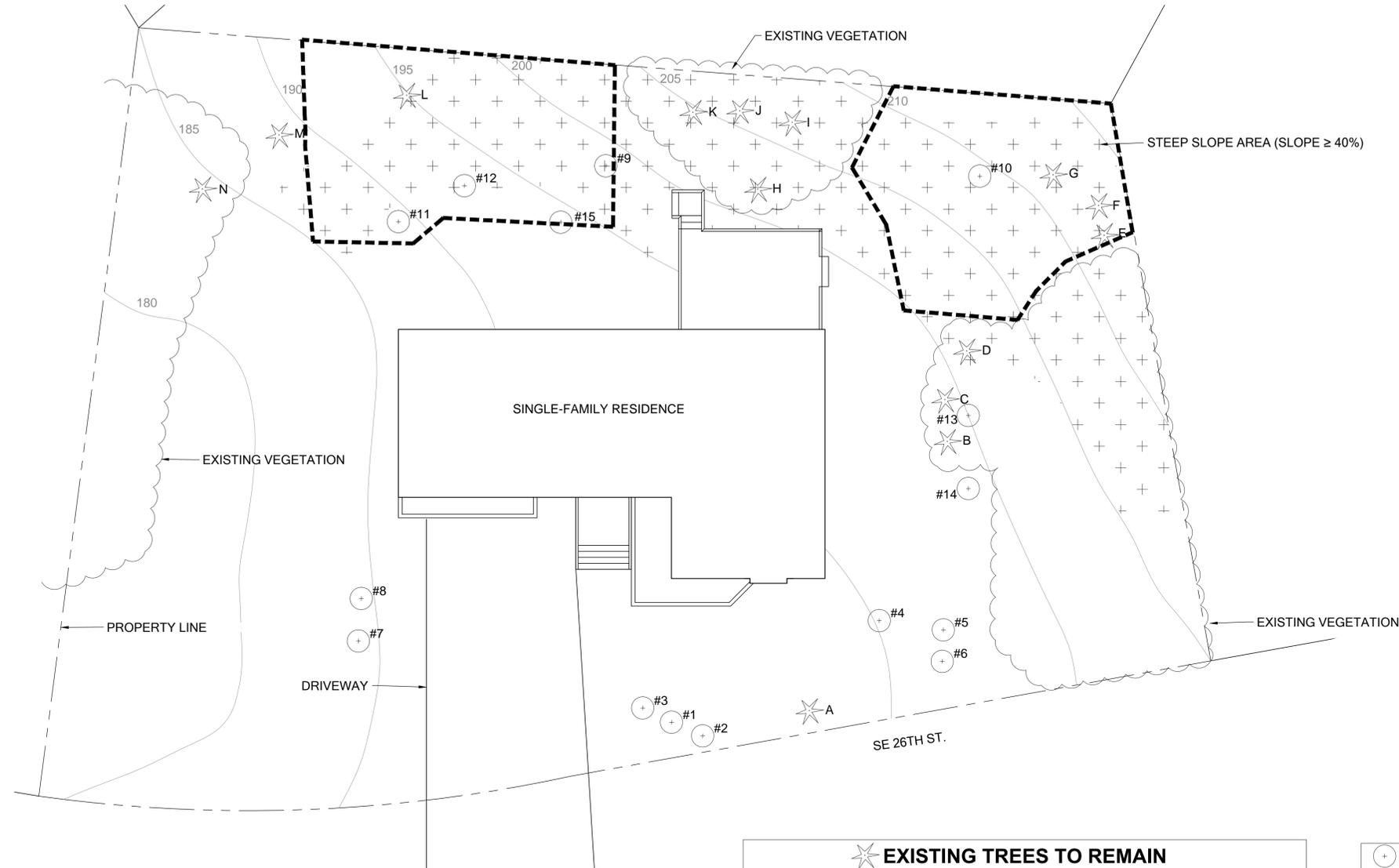
750 Sixth Street South  
Kirkland WA 98033

p 425.822.5242  
www.watershedco.com

Science & Design



VICINITY MAPS



**PROJECT INFORMATION:**

CLIENT: KAI CHENG  
ADDRESS: 12112 SE 26TH ST.  
BELLEVUE, WA 98005  
CLIENT: KAI\_CH@YAHOO.COM

**PROJECT CONSULTANT:**

THE WATERSHED COMPANY  
ADDRESS: 750 6TH ST SOUTH  
KIRKLAND, WA 98033  
CONTACT: MIKE FOSTER  
PARCEL: (425) 822-5242

**SHEET INDEX**

- W1 EXISTING CONDITIONS
- W2 TESC AND DEMOLITION PLAN
- W3 PLANTING AND MITIGATION PLAN
- W4 PLANT INSTALLATION DETAILS, NOTES, AND SPECIFICATIONS
- W5 MITIGATION AND MONITORING NOTES

**NOTES**

1. HOUSE AND OTHER FEATURE LOCATIONS ARE APPROXIMATE. FEATURES HAVE NOT BEEN SURVEYED. FEATURES DRAWN FROM FILE PROVIDED BY OTHERS.
2. STEEP SLOPE AREA AND CONTOURS WERE PROVIDED FROM ARCHITECT.

**CHENG RESIDENCE**  
**VEGETATION MANAGEMENT PLAN**  
**PREPARED FOR: KAI CHANG**  
PARCELS: 6205500580  
SITE ADDRESS: 12112 SE 26TH ST.  
BELLEVUE, WA 98008

SUBMITTALS & REVISIONS	
NO.	DESCRIPTION
1	2015-06-18 DRAFT PLAN
2	2015-07-16 REDUCED SCOPE

**SHEET SIZE:**  
ORIGINAL PLAN IS 22" x 34".  
SCALE ACCORDINGLY.

PROJECT MANAGER: MF  
DESIGNED: LV/MF  
DRAFTED: LV  
CHECKED: MF/AR  
JOB NUMBER: 150412

SHEET NUMBER: 150412

**W1 OF 5**

**LEGEND**

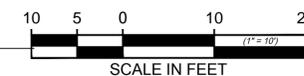
- + STEEP SLOPE AREA (SLOPE ≥ 40%)
- PARCEL BOUNDARY
- - - PROPOSED VEGETATION MANAGEMENT AREA (VMA)
- ★ EXISTING TREE TO REMAIN
- ⊕ EXISTING PREVIOUSLY CUT STUMP

**★ EXISTING TREES TO REMAIN**

TREE LETTER	TREE SPECIES	DBH (IN.)
A	CEDRUS DEODARA	18
B	CORYLUS CORNUTA	MULTISTEMMED, <1"
C	ARBUTUS MENZIESII	1
D	SEQUOIA SEMPERVIRENS	5
E	PSEUDOTSUGA MENZIESII	6
F	ARBUTUS MENZIESII	7
G	CORYLUS CORNUTA	MULTISTEMMED, 4 AVERAGE
H	CORYLUS CORNUTAS	MULTISTEMMED, 4 AVERAGE
I	MAGNOLIA STELLATA	3
J	PSEUDOTSUGA MENZIESII	14
K	CORYLUS CORNUTA	MULTISTEMMED, 5 AVERAGE, TOPPED
L	CORYLUS CORNUTA	MULTISTEMMED, 3 AVERAGE
M	CORYLUS CORNUTA	MULTISTEMMED, 4 AVERAGE
N	SEQUOIA SEMPERVIRENS	12

**⊕ EXISTING PREVIOUSLY CUT STUMPS**

STUMP NUMBER	TREE SPECIES	DBH (IN.)
#1	PSEUDOTSUGA MENZIESII	20
#2	PSEUDOTSUGA MENZIESII	9
#3	PSEUDOTSUGA MENZIESII	10
#4	PSEUDOTSUGA MENZIESII	38
#5	PSEUDOTSUGA MENZIESII	12
#6	PSEUDOTSUGA MENZIESII	14
#7	PSEUDOTSUGA MENZIESII	20
#8	THUJA PLICATA	15
#9	PSEUDOTSUGA MENZIESII	42
#10	THUJA PLICATA	19
#11	PSEUDOTSUGA MENZIESII	26
#12	PSEUDOTSUGA MENZIESII	20
#13	PSEUDOTSUGA MENZIESII	26
#14	PSEUDOTSUGA MENZIESII	36
#15	ACER MACROPHYLLUM	10

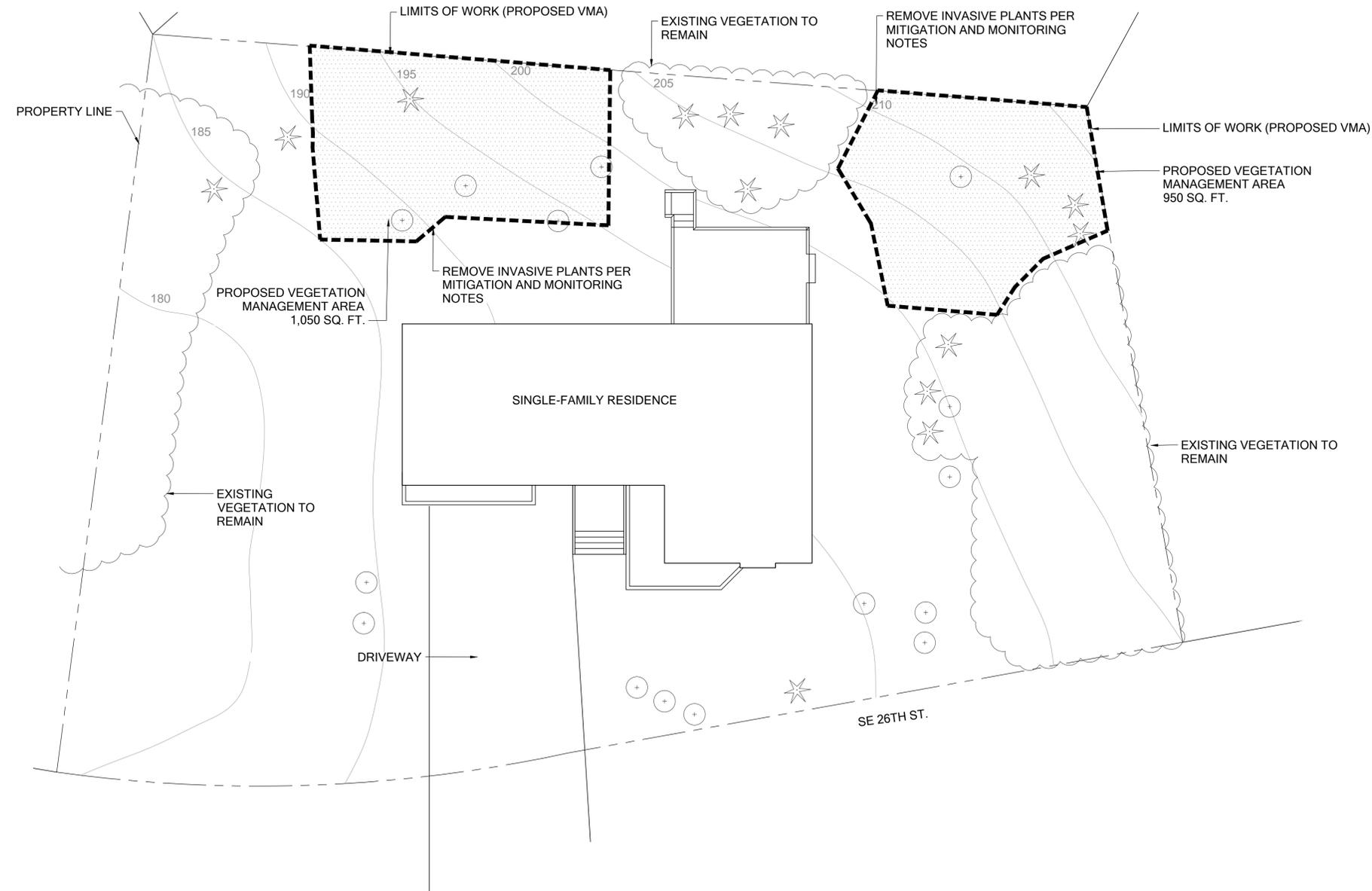


**EXISTING CONDITIONS**

SCALE 1"=10'

**DRAFT**  
NOT FOR  
CONSTRUCTION

**CHENG RESIDENCE**  
**VEGETATION MANAGEMENT PLAN**  
**PREPARED FOR: KAI CHANG**  
PARCELS: 6205500580  
SITE ADDRESS: 12112 SE 26TH ST.  
BELLEVUE, WA 98008



**NOTES**  
1. DUE TO THE ON-SITE STEEP SLOPES, SITE PREPARATION SHALL ONLY OCCUR BETWEEN MAY 1 AND SEPTEMBER 30.

**LEGEND**

- LIMIT OF WORK BOUNDARY FOR INVASIVE PLANT REMOVAL (PROPOSED VEGETATION MANAGEMENT AREA)
- EXISTING VEGETATION TO REMAIN, APPROX
- EXISTING TREE TO REMAIN
- EXISTING PREVIOUSLY CUT STUMP

**SUBMITTALS & REVISIONS**

NO.	DATE	DESCRIPTION	BY
1	2015-06-18	DRAFT PLAN	LV
2	2015-07-16	REDUCED SCOPE	LV

**SHEET SIZE:**  
ORIGINAL PLAN IS 22" x 34".  
SCALE ACCORDINGLY.

**PROJECT MANAGER:** MF  
**DESIGNED:** LV/MF  
**DRAFTED:** LV  
**CHECKED:** MF/AR  
**JOB NUMBER:** 150412  
**SHEET NUMBER:** W2 OF 5

**TESC AND DEMOLITION PLAN**  
SCALE 1"=10'



**DRAFT**  
NOT FOR  
CONSTRUCTION





VEGETATION MANAGEMENT PLAN AND FIVE YEAR MANAGEMENT PROGRAM

1. VEGETATION MANAGEMENT PLAN

THE OBJECTIVE OF THE PROPOSED VMP IS TO REPLACE FUNCTIONS AND VALUES PROVIDED BY THE 2,000 SQUARE FEET OF LOST CANOPY IN THE CRITICAL AREA STEEP SLOPE. THE VMP SHOWN IN THIS ON SHEET 1 OF 5 IS LOCATED IN AREAS THAT 1) LOST CANOPY COVER FROM THE CLEARING VIOLATION, 2) ARE IN REGULATORY STEEP SLOPE AREAS, AND 3) DO NOT CURRENTLY CONTAIN NATIVE WOODY VEGETATION. A SMALL MARGIN AROUND THE DECK MEETS THESE CRITERIA, BUT WILL NOT BE INCLUDED IN THE VMP IN ORDER TO ALLOW FOR MAINTENANCE AND ACCESS.

TWO POLYGONS TOTALING 2,000 SQUARE FEET IN THE BACK YARD STEEP SLOPE AREA MAKE UP THE VMP. THE PLAN CALLS FOR REMOVAL OF HIMALAYAN BLACKBERRY AND ENGLISH IVY MONOCULTURES WITHIN THE POLYGONS, DENSE PLANTING WITH NATIVE TREES AND SHRUBS, AND MULCHING. FURTHER, THE FIVE YEAR MAINTENANCE AND MONITORING PERIOD WILL ENSURE THE PLANTINGS ESTABLISH AND THRIVE. EVENTUALLY THE PLANTED CONIFERS WILL FORM A CANOPY.

GROUND DISTURBANCE WILL BE LIMITED TO THE REMOVAL OF INVASIVE ROOTS AND PLANTING PITS FOR NEW TREES AND SHRUBS. IMPACTS TO THE STABILITY OF THE STEEP SLOPE ARE NOT EXPECTED TO OCCUR. ADDITIONALLY, ALL SITE-PREP WORK WILL OCCUR BETWEEN AUGUST 1 AND OCTOBER 15 TO MINIMIZE RISK TO THE SLOPE TO THE GREATEST EXTENT FEASIBLE; PLANT INSTALLATION WILL OCCUR BETWEEN OCTOBER 15 AND MARCH 30.

1.1 PROPOSED VEGETATION

A MIX OF TREE, SHRUB AND GROUND COVER SELECTED FROM THE CITY OF BELLEVUE'S CRITICAL AREA HANDBOOK, WITH SLIGHT MODIFICATIONS, IS PROPOSED FOR THE VMP. THE PLAN INCLUDES 12 NATIVE CONIFERS (DOUGLAS-FIR, WESTERN RED CEDAR AND GRAND FIR), THAT WILL EVENTUALLY RESTORE THE IMPORTANT CANOPY AND NETWORK OF STABILIZING ROOTS IN THE STEEP SLOPE AREA. A VARIETY OF DROUGHT-TOLERANT SHRUBS AND GROUND COVER ADD WILDLIFE AND SLOPE STABILIZATION FUNCTION.

TABLE 4. NATIVE PLANTS PROPOSED WITHIN THE VEGETATION MANAGEMENT AREA BY STRATA

Stratum	Species Name	Botanic Name	Value Provided
<b>Tree</b>	Douglas-fir	<i>Pseudotsuga menziesii</i>	Slope stabilization, bird habitat
	Western Redcedar	<i>Thuja plicata</i>	Relatively easy to establish
	Grand fir	<i>Abies grandis</i>	Slow growing beautiful evergreen
	Vine Maple	<i>Acer circinatum</i>	Bright red fall color, attracts bees
<b>Shrub</b>	Oceanspray	<i>Holodiscus discolor</i>	Attracts hummingbirds and butterflies
	Serviceberry	<i>Amelanchier alnifolia</i>	Edible berries, fragrant flowers
	Snowberry	<i>Symphoricarpos albus</i>	Attracts birds, slope stabilization
	Tall Oregon grape	<i>Mahonia aquifolium</i>	Wildlife food source
<b>Groundcover</b>	Red flowering currant	<i>Ribes sanguineum</i>	Large blossom, berries
	Sword fern	<i>Polystichum munitum</i>	Evergreen, hardy
	Low Oregon Grape	<i>Mahonia nervosa</i>	Drought tolerant, spreading

1.2 ECOLOGICAL FUNCTION

FUNCTIONS LOST AS A RESULT OF THE UNPERMITTED TREE REMOVAL INCLUDE A LOSS OF HABITAT FOR WILDLIFE SPECIES, AND SLOPE STABILIZATION. THE PROPOSED PLANT SPECIES FOR THE VMP WILL BEGIN TO REPLACE LOST FUNCTIONS, INCLUDING SLOPE STABILIZATION, WILDLIFE FUNCTION, AND HYDROLOGIC FUNCTION.

1.2.1 STEEP SLOPES

STEEP SLOPES AND CRITICAL AREA BUFFERS IN THE VEGETATION MANAGEMENT AREA, CURRENTLY DOMINATED BY HIMALAYAN BLACKBERRY AND ENGLISH IVY, WILL BE IMPROVED WITH THE INSTALLATION OF NATIVE TREES, SHRUBS, AND GROUNDCOVERS. INCREASING VEGETATIVE SPECIES RICHNESS, VEGETATIVE STRUCTURE, AND HABITAT INTERSPERSION WILL IMPROVE THE HABITAT FUNCTIONS OF THIS AREA. NATIVE SPECIES WILL PROVIDE VALUABLE FOOD AND COVER OPPORTUNITIES FOR WILDLIFE. THE INSTALLATION OF NATIVE TREES, SHRUBS, AND HERBACEOUS PLANTS WILL IMPROVE HYDROLOGIC FUNCTIONS OF THE MANAGEMENT AREA THROUGH CANOPY INTERCEPTION AND TRANSPIRATION. IN ADDITION, THE NATIVE PLANTS INCLUDED IN THE PLAN HAVE BEEN SELECTED TO IMPROVE SLOPE STABILITY BASED ON RECOMMENDATIONS FROM THE CITY OF BELLEVUE'S CRITICAL AREAS HANDBOOK.

1.3 SHORT TERM OBJECTIVES

1. REDUCE INVASIVE WEED COVER, SPECIFICALLY REMOVE OR REDUCE THE PRESENCE OF NON-NATIVE HIMALAYAN BLACKBERRY AND ENGLISH IVY.
2. REINTRODUCE A NATIVE PLANT COMMUNITY ON THE STEEP SLOPE AREA WHERE CANOPY WAS LOST (SEE APPENDIX A).
3. PROPERLY MULCH AND IRRIGATE INSTALLED PLANTS TO HELP THEM BECOME ESTABLISHED (SEE APPENDIX A).
4. 100 PERCENT SURVIVAL OF ALL INSTALLED PLANTS IN THE FIRST YEAR.

1.4 LONG-TERM OBJECTIVES

1. REMOVE HIMALAYAN BLACKBERRY AND ENGLISH IVY IN THE VMP AS SHOWN IN SHEET 2 OF 5 OF APPENDIX A. (BETWEEN JULY 1 AND OCTOBER 15)
2. SHEET MULCH THE PLANTING AREAS SUCH THAT THERE IS A 3-INCH BLANKET OF WSDOT SPECIFICATION WOOD CHIP MULCH COVERING THE VMP AREAS. THIS IS TO PREVENT EROSION BEFORE A NETWORK OF ROOTS HAS DEVELOPED, TO SUPPRESS WEED THE GERMINATION AND ESTABLISHMENT.
3. INSTALL THE PLANTING PLAN PER THE PLANTING NOTES (SEE APPENDIX A). DUE TO THE ON-SITE STEEP SLOPES, SITE PREPARATION SHALL ONLY OCCUR BETWEEN MAY 1 AND SEPTEMBER 30; PLANT INSTALLATION SHALL OCCUR BETWEEN OCTOBER 1 AND MARCH 30.
4. ENSURE THAT EACH PLANT HAS AN ADEQUATE MULCH RING AS SHOWN IN APPENDIX A. IF NOT ENOUGH MULCH IS AVAILABLE (SEE STEP 2 ABOVE), THE APPLICANT IS REQUIRED TO SUPPLEMENT WITH ADDITIONAL WOOD CHIP MATERIAL TO PROVIDE AN ADEQUATE MULCH RING.
5. PROVIDE AS-BUILT DOCUMENTATION TO THE CITY OF BELLEVUE.

2. FIVE YEAR MANAGEMENT PROGRAM

2.1 PROJECT INITIATION

1. REMOVE HIMALAYAN BLACKBERRY AND ENGLISH IVY IN THE VMP AS SHOWN IN SHEET 2 OF 5 OF APPENDIX A. (BETWEEN JULY 1 AND OCTOBER 15)
2. SHEET MULCH THE PLANTING AREAS SUCH THAT THERE IS A 3-INCH BLANKET OF WSDOT SPECIFICATION WOOD CHIP MULCH COVERING THE VMP AREAS. THIS IS TO PREVENT EROSION BEFORE A NETWORK OF ROOTS HAS DEVELOPED, TO SUPPRESS WEED THE GERMINATION AND ESTABLISHMENT.
3. INSTALL THE PLANTING PLAN PER THE PLANTING NOTES (SEE APPENDIX A). DUE TO THE ON-SITE STEEP SLOPES, SITE PREPARATION SHALL ONLY OCCUR BETWEEN MAY 1 AND SEPTEMBER 30; PLANT INSTALLATION SHALL OCCUR BETWEEN OCTOBER 1 AND MARCH 30.
4. ENSURE THAT EACH PLANT HAS AN ADEQUATE MULCH RING AS SHOWN IN APPENDIX A. IF NOT ENOUGH MULCH IS AVAILABLE (SEE STEP 2 ABOVE), THE APPLICANT IS REQUIRED TO SUPPLEMENT WITH ADDITIONAL WOOD CHIP MATERIAL TO PROVIDE AN ADEQUATE MULCH RING.
5. PROVIDE AS-BUILT DOCUMENTATION TO THE CITY OF BELLEVUE.

2.2 YEAR ONE

1. IRRIGATE BY HAND OR OTHER MEANS REGULARLY THROUGHOUT THE DRY SEASON (JUNE 1 TO SEPTEMBER 30). IF USING AUTOMATIC IRRIGATION, CHECK THE IRRIGATION SYSTEM IN THE LATE SPRING TO ENSURE PROPER OPERATION OVER THE DRY SEASON.
2. REMOVE ANY SPROUTING WEEDS IN THE EARLY SPRING TO REDUCE WEED COMPETITION GOING INTO THE GROWING SEASON AND KEEP WEED COVER BELOW 10 PERCENT.
3. IF NECESSARY, IN LATE SUMMER TO LATE FALL (SEPTEMBER 1 TO NOVEMBER 30), TREAT ANY NEW HIMALAYAN BLACKBERRY GROWTH WITH A GLYPHOSATE-FORMULA HERBICIDE THAT IS CERTIFIED FOR WETLAND USE. APPLY HERBICIDE ACCORDING TO MANUFACTURER INSTRUCTIONS.
4. CONDUCT A SURVIVAL PLANT COUNT IN THE LATE SUMMER/EARLY FALL AND REPLACE ANY DEAD PLANTS TO ACHIEVE 100 PERCENT SURVIVAL.
5. REPLENISH WOOD CHIP MULCH AS NEEDED.

2.3 YEARS TWO THROUGH FIVE

1. IRRIGATE BY HAND OR OTHER MEANS REGULARLY THROUGHOUT THE DRY SEASON (JUNE 1 TO SEPTEMBER 30). IF USING AUTOMATIC IRRIGATION, CHECK THE IRRIGATION SYSTEM IN THE LATE SPRING TO ENSURE PROPER OPERATION OVER THE DRY SEASON.
2. REMOVE, BY HAND, ANY SPROUTING WEEDS IN THE EARLY SPRING TO REDUCE WEED COMPETITION GOING INTO THE GROWING SEASON AND KEEP WEED COVER BELOW 10 PERCENT.
3. APPLY A SLOW-RELEASE GRANULAR FERTILIZER TO THE DRIP-LINE OF PLANTS.
4. CONDUCT A SURVIVAL PLANT COUNT IN THE LATE SUMMER/EARLY FALL TO ENSURE THAT THE MANAGEMENT AREA IS ON-TRACK TO ACHIEVE A MINIMUM OF 85 PERCENT SURVIVAL BY YEAR FIVE. REPLACE DEAD PLANTS AS NEEDED.
5. REPLENISH WOOD CHIP MULCH TO MAINTAIN A 3-INCH DEEP MULCH RING AROUND EACH INSTALLED PLANT.



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Science & Design

**CHENG RESIDENCE**  
**VEGETATION MANAGEMENT PLAN**  
**PREPARED FOR: KAI CHANG**  
 PARCELS: 6205500580  
 SITE ADDRESS: 12112 SE 26TH ST.  
 BELLEVUE, WA 98008

SUBMITTALS & REVISIONS		BY	DATE	DESCRIPTION
1	2015-06-18	LV	2015-06-18	DRAFT PLAN
2	2015-07-16	LV	2015-07-16	REDUCED SCOPE

**SHEET SIZE:**  
ORIGINAL PLAN IS 22" x 34".  
SCALE ACCORDINGLY.

PROJECT MANAGER: MF  
DESIGNED: LV/MF  
DRAFTED: LV  
CHECKED: MF/AR

JOB NUMBER:  
150412

SHEET NUMBER:  
**W5 OF 5**

DRAFT

NOT FOR  
CONSTRUCTION

MITIGATION AND MONITORING NOTES

# VEGETATION MANAGEMENT PLAN

---

## Cheng Property

Prepared for:

Kai Cheng  
12112 SE 26<sup>th</sup> St  
Bellevue, WA 98005

Prepared by:



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August 2015

**The Watershed Company Reference Number:**

150412

**The Watershed Company Contact Person:**

**Mike Foster**, Certified Arborist

**Lucas Vannice**, Landscape Designer

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Vegetation Management Plan.

# TABLE OF CONTENTS

---

	Page #
<b>1 Introduction.....</b>	<b>1</b>
<b>2 Project Site Description .....</b>	<b>1</b>
2.1 Vegetation .....	3
2.2 Steep slopes.....	5
2.3 Soils.....	5
2.4 Habitat .....	5
2.4.1 Species of Local Importance.....	6
<b>3 Photographs and Figures .....</b>	<b>8</b>
<b>4 Vegetation Management Plan.....</b>	<b>12</b>
4.1 Proposed Vegetation .....	12
4.2 Ecological Functions.....	13
4.2.1 Steep slopes .....	13
4.3 Short-term Objectives .....	13
4.4 Long-term Objectives .....	14
<b>5 Five Year Management Program.....</b>	<b>14</b>
5.1 Project Initiation.....	14
5.2 Year One.....	15
5.3 Years Two through Five .....	15
<b>6 Cost Estimate.....</b>	<b>15</b>
<b>7 Summary .....</b>	<b>16</b>

# LIST OF FIGURES

---

Figure 1 - Overview showing the vicinity of the subject parcel. (King County iMap).....	2
Figure 2 - Neighborhood view showing the subject parcel. (King County iMap, 2015)....	2
Figure 3 - Aerial photograph with critical steep slope overlay shown. The subject property is outlined in yellow. Two steep slope areas are located within or partially within the subject property. Only the larger of the two, located in the back and east side yards, meets the LUC steep slope definition. ....	8
Figure 4 - Google street view image from September 2014 showing the subject property from SE 26th Street prior to tree removal. ....	8
Figure 6 - View of the subject property after tree removal from SE 26th Street. A co-dominant Deodar cedar was retained near the SE 26 <sup>th</sup> Street ROW. (4/28/2015).....	9
Figure 5 – A 2012 aerial photograph showing the approximate extent of canopy loss as a result of the recent tree removal. ....	9

Figure 7 - A panorama from the deck overlooks the backyard steep slope area. Himalayan blackberry dominates the slope above the two visible Douglas-fir stumps; a star magnolia and beaked hazelnut are visible in the center right of the photo, but are overrun with Himalayan blackberry and English ivy. .... 10

Figure 8 – The stump of tree number 14, a 36-inch Douglas-fir, is shown in this photograph of the side yard, with the steep slope area in the background. The understory is a mix of creeping St. Johnswort, English ivy, Oregon grape and Pacific dewberry. A large cherry laurel shrub is growing along the east parcel boundary. The small Pacific madrone and coastal redwood on the slope in the background will remain. .... 10

Figure 9 - A view from the northeast corner looking southwest shows an existing coastal redwood, western red cedar, and beaked hazelnut with an understory of primarily English ivy. .... 11

Figure 10 – A line of western red cedar and one coastal redwood remain along the west parcel boundary. A beaked hazelnut and a thicket of Himalayan blackberry characterize the steep slope area on the right side of the photo..... 11

## **LIST OF TABLES**

---

Table 1. Ornamental and native plants observed within the vegetation management area by strata. .... 4

Table 2. Invasive weeds identified and the noxious weed management status (King County). .... 4

Table 3. Species of Local Importance as defined in LUC 20.25H.150.A. .... 6

## **APPENDICES**

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Appendix A: Vegetation Management Plans

Appendix B: Bond Quantity Worksheet

# VEGETATION MANAGEMENT PLAN

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## CHENG PROPERTY

## 1 INTRODUCTION

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This Vegetation Management Plan (VMP) was prepared to bring the Cheng property into compliance after several medium- to large-diameter trees were cut and removed from a critical steep slope on the subject property (Case Number 15-107253). The Cheng property, located at 12112 SE 26<sup>th</sup> Street in the Norwood Village neighborhood of the City of Bellevue, is a 0.32-acre residential lot east of Interstate 405 (parcel number (620550-0580)). The property lies on a west-facing slope characterized by areas of 30 to 50 percent grade, which is regulated as a critical area by the City of Bellevue. No other critical areas (streams or wetlands) are located on or within 200 feet of the property.

City of Bellevue Land Use Code (LUC) 20.25H.055.C.3.i.vi allows for the replacement of vegetation within steep slopes and critical area buffers pursuant to a VMP. The dual intent of this VMP is (1) to retroactively permit the removal of the on-site trees and (2) to detail how, when combined with proposed restoration plantings, there will be no significant diminishment in the functions and values of the steep slope and its buffer.

## 2 PROJECT SITE DESCRIPTION

---

The subject property, shown in Figures 1 and 2, is located in the Mercer Slough sub basin in the Cedar-Sammamish Water Resource Inventory Area (WRIA-8; NW ¼ of Section 09, Township 24N, Range 05E). A small unnamed tributary to Mercer Slough flows west in a topographic ravine south of SE 26<sup>th</sup> Street approximately 300 feet south of the subject property. The site is zoned R-3.5 and is situated in a residential neighborhood with similar-sized lots and houses.

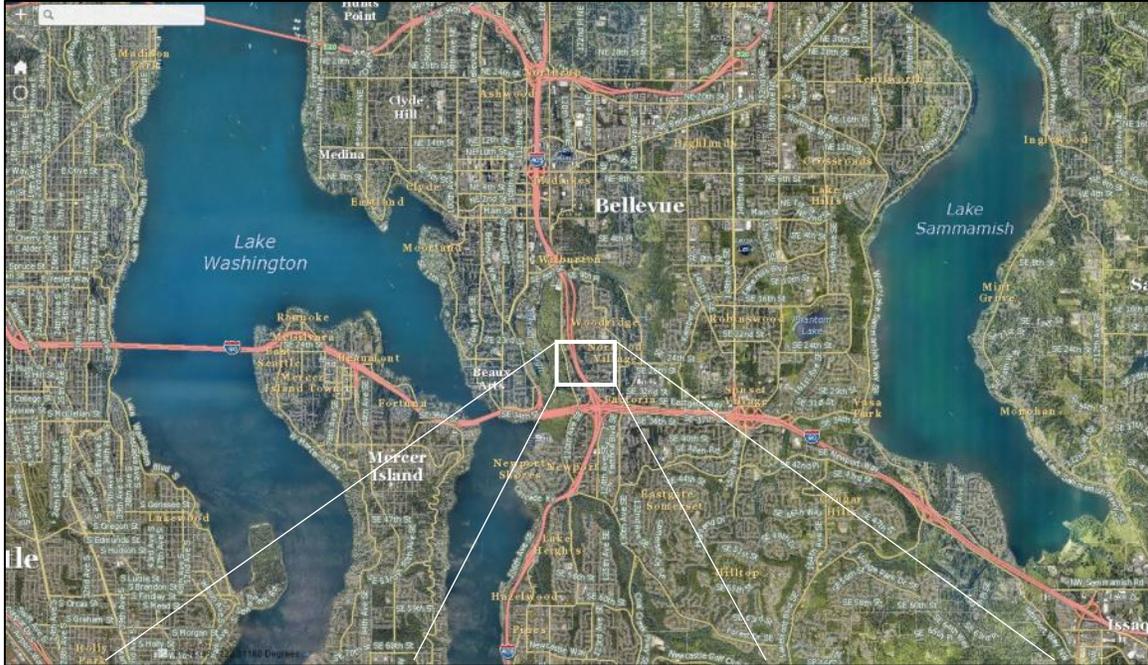


Figure 1 - Overview showing the vicinity of the subject parcel. (King County iMap)

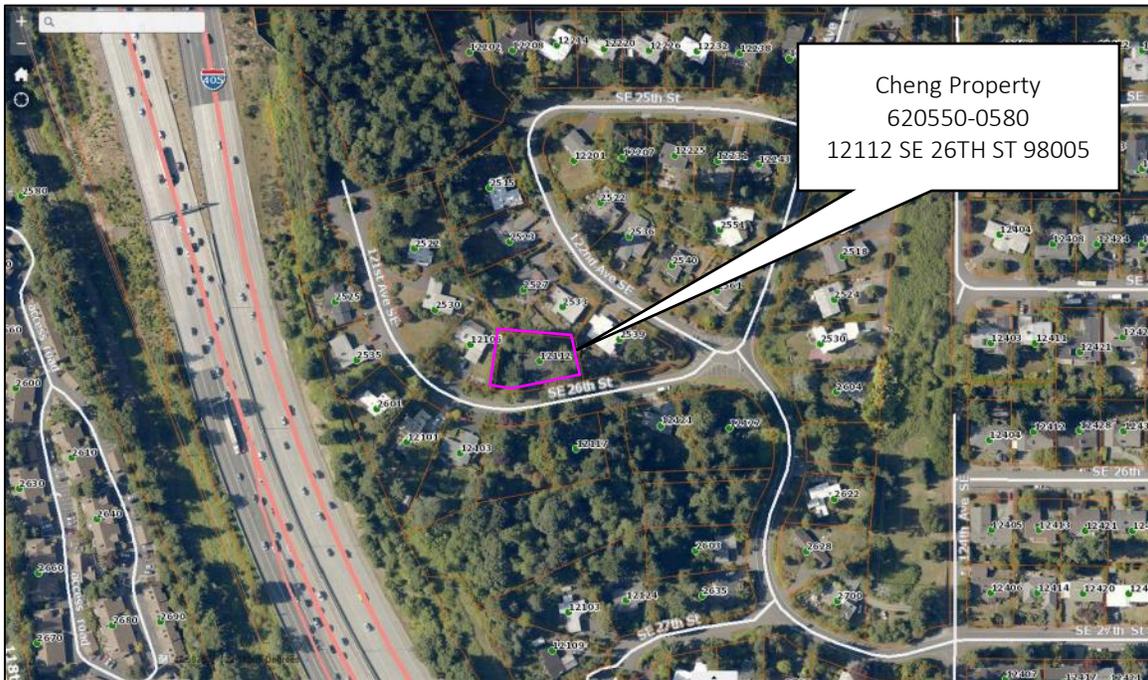


Figure 2 - Neighborhood view showing the subject parcel. (King County iMap, 2015)

The on-site home was constructed in 1978. The developed parcel was purchased by the applicant in 2014. Mr. Cheng then had 15 trees removed from the property in the early part of 2015. Six of the removed trees were located within or rooted near/provided canopy coverage over the regulated steep slope areas as shown in Figure 3 below. The VMP area is based on the canopy area of these six trees.

A code compliance officer, Robin Zambrowsky, visited the site on March 13, 2015 and issued a violation (#15-107253) for the unpermitted removal of significant trees in the steep slope area citing the City of Bellevue Land Use Code (LUC 20.10-20.50). Mr. Cheng, in an effort to comply the terms of the violation, hired the services of a separate Arborist who documented the conditions of the site and made recommendations for replanting, but provided neither a VMP nor permitting per the requirements of Bellevue Code. The Watershed Company was retained in April of 2015 to help retroactively permit the clearing and provide the required VMP.

## 2.1 Vegetation

### *Prior to tree removal*

The fourteen medium- to large-diameter Douglas-fir (*Pseudotsuga menziesii*) and western red cedar (*Thuja plicata*) trees formed a patchy canopy on the Cheng property (see Figure 4 and Figure 5). Estimated to have been between 110 and 150 feet tall, the conifer trees had raised canopies presumably to open the view for the upslope neighbors. Removed and existing trees are tallied on Sheet 1 of 5 of the attached plan set (see Appendix A).

As stated above, six of the removed trees were rooted in and next to the regulated critical steep slope.

### *Current Conditions*

Fifteen significant trees were removed from the site. Six trees were lost on or near the regulated slope, making up 143 diameter inches. Table 1 summarizes these six subject trees.

Table 1 – Removed significant trees with trunk, dripline or roots within the regulated steep slope.

Tree Number	Species Name	Trunk Diameter (inches)
9	Douglas-fir	42
10	Western red cedar	19
11	Douglas-fir	26
12	Douglas-fir	20
13	Douglas-fir	26
15	Big leaf maple	10
		<b>TOTAL = 143</b>

As a result of the tree removal, approximately three quarters of the evergreen canopy on the subject property was lost (see Figures 5 and 6). Perimeter vegetation remains, including a line of western red cedar and one coastal

redwood (*Sequoia sempervirens*). One sparse Deodar cedar (*Cedrus deodara*) was retained near the SE 26<sup>th</sup> Street right of way. A small coastal redwood, Douglas-fir and two Pacific madrone (*Arbutus menziesii*) trees remain in the steep slope portion of the eastern side yard but are not yet large enough to contribute significantly to canopy coverage. Some large shrubs and small trees remain on site as well, including several beaked hazelnut (*Corylus cornuta*) trees and a star magnolia (*Magnolia stellata*) in the steep slope of the back yard (see Figure 7).

The remaining understory is dominated by a mix of invasive weeds and some native and naturalized plants. A Himalayan blackberry (*Rubus armeniacus*) thicket dominates the northwest corner of the property and portions of the neighboring property's steep slope (see Figure 7). English ivy (*Hedera helix*) and creeping St. Johnswort (*Hypericum calycinum*) carpet the northeast corner of the back yard and east side yard slope. (Note: A related but different species of St. Johnswort [*H. perforatum*] is considered a Class C noxious weed in King County. This species is not considered invasive). A large cherry laurel (*Prunus laurocerasus*) hedge lines the western parcel boundary. Oregon grape (*Mahonia nervosa*) and Pacific dewberry (*Rubus ursinus*) are intermittently growing in the dense patch of St. Johnswort and English ivy in the side yard.

Table 1. Ornamental and native plants observed within the vegetation management area by strata.

Stratum	Species Name	Native	Ornamental
Tree	Douglas-fir	X	
Tree	Coastal redwood		X
Tree	Pacific madrone	X	
Small tree / shrub	Beaked hazelnut	X	
Small tree / shrub	Star magnolia		X
Groundcover	Oregon grape	X	
Groundcover	Pacific dewberry	X	
Groundcover	Creeping St. Johnswort		X

Table 2. Invasive weeds identified and the noxious weed management status (King County).

Common Name	Botanical Name	Noxious Weed Status	Recommended action
English ivy	<i>Hedera helix</i>	non-regulated noxious weed	Control recommended but not required in King County
Himalayan blackberry	<i>Rubus armeniacus</i>	non-regulated noxious weed	Control recommended but not required in King County
Cherry laurel	<i>Prunus laurocerasus</i>	King County weed of concern	Control recommended where possible; new plantings discouraged

## 2.2 Steep slopes

Slopes of 40 percent or greater that have a rise of at least 10 feet and exceed 1,000 square feet in area are regulated as steep slopes, a geologic hazard area (Land Use Code (LUC) 20.25H.120.2). Steep slopes require a standard buffer of 50 feet from the top-of-slope and a structure setback of 75 feet from the toe-of-slope. As shown in Figure 3, regulated steep slopes encumber approximately 2,700 square feet of the subject parcel, north of the on-site home.

In general, vegetation on the steep slope functions as a source of potential habitat for urban wildlife species (see Habitat discussion in Section 2.4). The presence of trees and shrubs on the slope also provides slope stability and hydrologic functions through the interception of precipitation and transpiration; these plants remove water from the soil that might otherwise flow downslope towards natural and/or human resources.

Two areas of steep slope (greater than 40 percent) have been identified on the subject property (see Figure 3). A small area west of the house was determined to not meet the criteria as the rise was less than ten feet.

Using a 2012 aerial photograph of the subject site, paired with the steep slope overlay, it is estimated that approximately 2,000 square feet of canopy cover was lost on the regulated slopes.

## 2.3 Soils

According to Natural Resources Conservation Service (NRCS) soil maps, the vegetation management area contains Alderwood (AmC) series soil. Soil textures present in typical profiles for these soil types include gravelly sandy loam. These are moderately well-drained soil types. Soils observed on-site are generally characterized as gravelly sandy loam.

The VMP area has not recently been graded or grubbed. Existing soil in the VMP area are non-compacted and contain moderate amounts of duff and organic matter in the upper layers.

Erosion potential is fairly low in the steep slope areas. The existing trunks and

## 2.4 Habitat

The former tall Douglas-fir trees likely provided perch for Peregrine falcon, bald eagle, osprey and red tailed hawks, species with breeding habitat within one mile of the subject site (PHS on the Web). Pileated woodpeckers typically forage for insects on large, sometimes live, coniferous trees; however, they are more commonly found on dead and dying snags. None of the trees removed would have provided significant Pileated woodpecker habitat in their live state.

The patchy canopy formerly provided by the trees was somewhat continuous with the forest canopy exhibited by the nearby ravine south of SE 26<sup>th</sup> Street. However, the habitat provided by the onsite trees was somewhat limited as the corridors and connections are bisected by residential areas and frequently-used paved roads.

Overall, the lost canopy provided some perching and foraging habitat for a variety of native birds and possibly some smaller mammals.

Currently, the remaining blackberry and beaked hazelnut retains some habitat value as a food source for birds; however, blackberry is generally not a preferred habitat type as it prevents higher-quality habitat-providing native plants from establishing.

### 2.4.1 Species of Local Importance

The City of Bellevue designates habitat associated with species of local importance as a critical area (LUC 20.25H.150.B). Species of local importance (LUC 20.25H.150.A) are listed in Table 3 below. A review of Washington State Department of Fish and Wildlife’s Priority Habitats and Species (PHS on the Web) data does not indicate the presence of any species of local importance on or near the subject property.

Table 3. Species of Local Importance as defined in LUC 20.25H.150.A.

Common name	Scientific name
Bald eagle	<i>Haliaeetus leucocephalus</i>
Peregrine falcon	<i>Falco peregrinus</i>
Common loon	<i>Gavia immer</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Vaux’s swift	<i>Chaetura vauxi</i>
Merlin	<i>Falco columbarius</i>
Purple martin	<i>Progne subis</i>
Western grebe	<i>Aechmophorus occidentalis</i>
Great blue heron	<i>Ardea herodias</i>
Osprey	<i>Pandion haliaetus</i>
Green heron	<i>Butorides striatus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Western big-eared bat	<i>Plecotus townsendii</i>
Keen’s myotis	<i>Myotis keenii</i>
Long-legged myotis	<i>Myotis volans</i>
Long-eared myotis	<i>Myotis evotis</i>
Oregon spotted frog	<i>Rana pretiosa</i>
Western toad	<i>Bufo boreas</i>
Western pond turtle	<i>Clemmys marmorata</i>
Chinook salmon	<i>Oncorhynchus tshawytscha</i>
Bull trout	<i>Salvelinus confluentus</i>

Coho salmon	<i>Oncorhynchus kisutch</i>
River lamprey	<i>Lampetra ayresi</i>

During the site visit, no species of local importance were detected. However, given on-site conditions and landscape position, the study area and adjacent forest has the potential to provide perching and foraging habitat for the following species of local importance: pileated woodpecker, red-tailed hawk, osprey, and bald eagle.

There are several known bald eagle nests in Bellevue, and eagles commonly forage over Lake Sammamish and Lake Washington. The nearest documented nest site is located approximately one mile away, west of the Mercer Slough.

Similarly, ospreys forage over open water and can be seen near Lake Washington and the Mercer Slough. While it is possible that they use trees on-site for perching, no nests were observed on or near the property.

Red-tailed hawks are found in a variety of habitats that contain open areas interspersed with patches of trees or other perches. They are ubiquitous in western Washington and may occasionally perch on trees in or fly over the property. Preferred foraging areas have large open spaces or road right-of-ways; on-site habitat lacks substantial open areas.

Pileated woodpeckers have become habituated to developed areas and may use snags on-site for foraging. Trees on the property were not likely used for nesting; nest sites are normally located in larger forest stands with less surrounding development.

### 3 PHOTOGRAPHS AND FIGURES



Figure 3 - Aerial photograph with critical steep slope overlay shown. The subject property is outlined in yellow. Two steep slope areas are located within or partially within the subject property. Only the larger of the two, located in the back and east side yards, meets the LUC steep slope definition.



Figure 4 - Google street view image from September 2014 showing the subject property from SE 26th Street prior to tree removal.



Figure 5 - View of the subject property after tree removal from SE 26th Street. A co-dominant Deodar cedar was retained near the SE 26<sup>th</sup> Street ROW. (4/28/2015)



Figure 6 – A 2012 aerial photograph showing the approximate extent of canopy loss as a result of the recent tree removal.



Figure 7 - A panorama from the deck overlooks the backyard steep slope area. Himalayan blackberry dominates the slope above the two visible Douglas-fir stumps; a star magnolia and beaked hazelnut are visible in the center right of the photo, but are overrun with Himalayan blackberry and English ivy.



Figure 8 – The stump of tree number 14, a 36-inch Douglas-fir, is shown in this photograph of the side yard, with the steep slope area in the background. The understory is a mix of creeping St. Johnswort, English ivy, Oregon grape and Pacific dewberry. A large cherry laurel shrub is growing along the east parcel boundary. The small Pacific madrone and coastal redwood on the slope in the background will remain.



Figure 9 - A view from the northeast corner looking southwest shows an existing coastal redwood, western red cedar, and beaked hazelnut with an understory of primarily English ivy.



Figure 10 – A line of western red cedar and one coastal redwood remain along the west parcel boundary. A beaked hazelnut and a thicket of Himalayan blackberry characterize the steep slope area on the right side of the photo.

## 4 VEGETATION MANAGEMENT PLAN

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The objective of the proposed VMP is to replace functions and values provided by the 2,000 square feet of lost canopy in the steep slope portion of the yard. The VMP shown on Sheet 1 of 5 in Appendix A is located in areas that 1) lost canopy cover from the clearing violation, 2) are in regulatory steep slope areas, and 3) do not currently contain native woody vegetation. A small margin of area that is adjacent to the backyard deck meets these criteria, but will not be included in the VMP in order to allow for a pathway around the deck and for deck maintenance without impacts to the VMP.

Two polygons totaling 2,000 square feet in the back yard steep slope area make up the VMP. The plan calls for removal of Himalayan blackberry and English ivy monocultures within the polygons, dense planting with native trees and shrubs, and mulching. Further, the five year maintenance and monitoring period will ensure the plantings establish and thrive.

Ground disturbance will be limited to the removal of invasive roots and planting pits for new trees and shrubs. Impacts to the stability of the steep slope are not expected to occur. Additionally, all site-prep work will occur between August 1 and October 15 to minimize risk to the slope to the greatest extent feasible; plant installation will occur between October 15 and March 30.

### 4.1 Proposed Vegetation

A mix of tree, shrub and groundcover selected from the City of Bellevue's *Critical Area Handbook*, with slight modifications, is proposed for the VMP. The plan includes 12 native conifers (Douglas-fir, western red cedar and grand fir), that will eventually restore the important canopy and network of stabilizing roots in the steep slope area. A variety of drought-tolerant shrubs and groundcover add wildlife and slope stabilization function.

Table 4. Native plants proposed within the vegetation management area by strata.

Stratum	Species Name	Botanic Name	Value Provided
<b>Tree</b>	Douglas-fir	<i>Pseudotsuga menziesii</i>	Slope stabilization, bird habitat
	Western Redcedar	<i>Thuja plicata</i>	Slope stabilization, bird habitat
	Grand Fir	<i>Abies grandis</i>	Slope stabilization, bird habitat
<b>Shrub</b>	Oceanspray	<i>Holodiscus discolor</i>	Attracts hummingbirds and butterflies
	Serviceberry	<i>Amelanchier alnifolia</i>	Edible berries, fragrant flowers
	Tall Oregon grape	<i>Mahonia aquifolium</i>	Early blossoms, attracts bees, evgrn.
	Vine Maple	<i>Acer circinatum</i>	Attracts bees, birds, attractive foliage
	Red flowering currant	<i>Ribes sanguineum</i>	Early blossoms, berries
<b>Groundcover</b>	Sword fern	<i>Polystichum munitum</i>	Evergreen, hardy
	Creeping mahonia	<i>Mahonia repens</i>	Drought tolerant, spreading

## 4.2 Ecological Functions

Functions lost as a result of the unpermitted tree removal generally include a loss of habitat for wildlife species that may have used the trees for perching and foraging. The proposed plant species for the VMP will begin to replace lost functions, including slope stabilization, wildlife function, and hydrologic function. Further, if not for this proposal to restore the slope, slope stability would also be impacted as the conifer slowly stop providing stabilization function as they decompose.

### 4.2.1 Steep slopes

Steep slopes and critical area buffers in the vegetation management area, currently dominated by Himalayan blackberry and English ivy, will be improved with the installation of native trees, shrubs, and groundcovers. Increasing vegetative species richness, vegetative structure, and habitat interspersion will improve the habitat functions of this area. Native species will provide valuable food and cover opportunities for wildlife. The installation of native trees, shrubs, and herbaceous plants will improve hydrologic functions of the management area through canopy interception and transpiration. In addition, the native plants included in the plan have been selected to improve slope stability based on recommendations from the City of Bellevue's *Critical Areas Handbook*.

## 4.3 Short-term Objectives

1. Reduce invasive weed cover, specifically remove or reduce the presence of non-native Himalayan blackberry and English Ivy.
2. Reintroduce a native plant community on the steep slope area where canopy was lost (see Appendix A).

3. Properly mulch and irrigate installed plants to help them become established (see Appendix A).
4. 100 percent survival of all installed plants in the first year.

#### **4.4 Long-term Objectives**

Establish native trees and shrubs along the steep slope to help maintain stability and enhance the steep slope critical area. Long-term, the planting plan and general maintenance practices are intended to improve the ecologic services provided by the management area.

The long-term objectives should be substantially achieved when the following performance standards are met:

1. At least 85 percent survival of installed trees and shrubs by year five.
2. Invasive weed cover (including Himalayan blackberry and English ivy) in the VMP does not exceed 10 percent.

## **5 FIVE YEAR MANAGEMENT PROGRAM**

---

### **5.1 Project Initiation**

1. Remove Himalayan blackberry and English ivy in the VMP as shown in Sheet 2 of 5 of Appendix A. (Between July 1 and October 15)
2. Sheet mulch the planting areas such that there is a 3-inch blanket of WSDOT specification wood chip mulch covering the VMP areas. This is to prevent erosion before a network of roots has developed, to suppress weed the germination and establishment.
3. Install the planting plan per the planting notes (see Appendix A). Due to the on-site steep slopes, site preparation shall only occur between May 1 and September 30; plant installation shall occur between October 1 and March 30.
4. Ensure that each plant has an adequate mulch ring as shown in Appendix A. If not enough mulch is available (see step 2 above), the applicant is required to supplement with additional wood chip material to provide an adequate mulch ring.
5. Provide as-built documentation to the City of Bellevue.

## 5.2 Year One

1. Irrigate by hand or other means regularly throughout the dry season (June 1 to September 30). If using automatic irrigation, check the irrigation system in the late spring to ensure proper operation over the dry season.
2. Remove any sprouting weeds in the early spring to reduce weed competition going into the growing season and keep weed cover below 10 percent.
3. If necessary, in late summer to late fall (September 1 to November 30), treat any new Himalayan blackberry growth with a glyphosate-formula herbicide that is certified for wetland use. Apply herbicide according to manufacturer instructions.
4. Conduct a survival plant count in the late summer/early fall and replace any dead plants to achieve 100 percent survival.
5. Replenish wood chip mulch as needed.

## 5.3 Years Two through Five

1. Irrigate by hand or other means regularly throughout the dry season (June 1 to September 30). If using automatic irrigation, check the irrigation system in the late spring to ensure proper operation over the dry season.
2. Remove, by hand, any sprouting weeds in the early spring to reduce weed competition going into the growing season and keep weed cover below 10 percent.
3. Apply a slow-release granular fertilizer to the drip-line of plants.
4. Conduct a survival plant count in the late summer/early fall to ensure that the management area is on-track to achieve a minimum of 85 percent survival by year five. Replace dead plants as needed.
5. Replenish wood chip mulch to maintain a 3-inch deep mulch ring around each installed plant.

# 6 COST ESTIMATE

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See Appendix B

## 7 SUMMARY

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The proposed vegetation management plan will compensate for tree removal and ensure successful establishment of the proposed restoration area. Overall, the plan will establish species that will enhance and eventually replace lost values of the on-site critical area.

**APPENDIX A**

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# Vegetation Management Plans







**APPENDIX B**

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Bond Quantity Worksheet



