



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 15-122066-LO

Project Name/Address: Cheng Vegetation Management Plan

Planner: Reilly Pittman

Phone Number: 425-452-4350

Minimum Comment Period: October 7, 2015

Materials included in this Notice:

- Blue Bulletin
- Checklist
- Vicinity Map
- Plans
- Other:

OTHERS TO RECEIVE THIS DOCUMENT:

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

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[help\]](#)

1. Name of proposed project, if applicable: **Bellevue Cheng Vegetation Management Plan**
2. Name of applicant: **Kai Cheng**

3. Address and phone number of applicant and contact person:

Applicant/Proponent: Kai Cheng, Owner, 12112 SE 26th Street, Bellevue, WA 98005, (425) 635-8972

Consultant/Contact: Mike Foster, Consulting Arborist/Ecologist, The Watershed Company, 750 6th Street South, Kirkland, WA 98033 (425) 822-5242

4. Date checklist prepared:

August 18, 2015

5. Agency requesting checklist:

City of Bellevue

6. Proposed timing or schedule (including phasing, if applicable):

Tree removal (in violation of city code) has already taken place. Proposed weed removal and mulching to take place between August 1 and October 15, 2015. Proposed planting to take place between October 15, 2015 and March 30, 2016.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No additional work is proposed for the steep slope area subject to the City of Bellevue violation and pursuant proposed vegetation management area.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Vegetation Management Plan including a planting plan, basic TESC plan, maintenance and monitoring requirements, narrative description of the site and proposed mitigation plan.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There were other recent permits for home renovation. They are likely not still pending.

10. List any government approvals or permits that will be needed for your proposal, if known.

City of Bellevue is the only government agency with jurisdiction over this slope. No wetlands or streams are located within 300 feet of the vegetation management area.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to

describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

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 26th 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.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

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 26th 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.

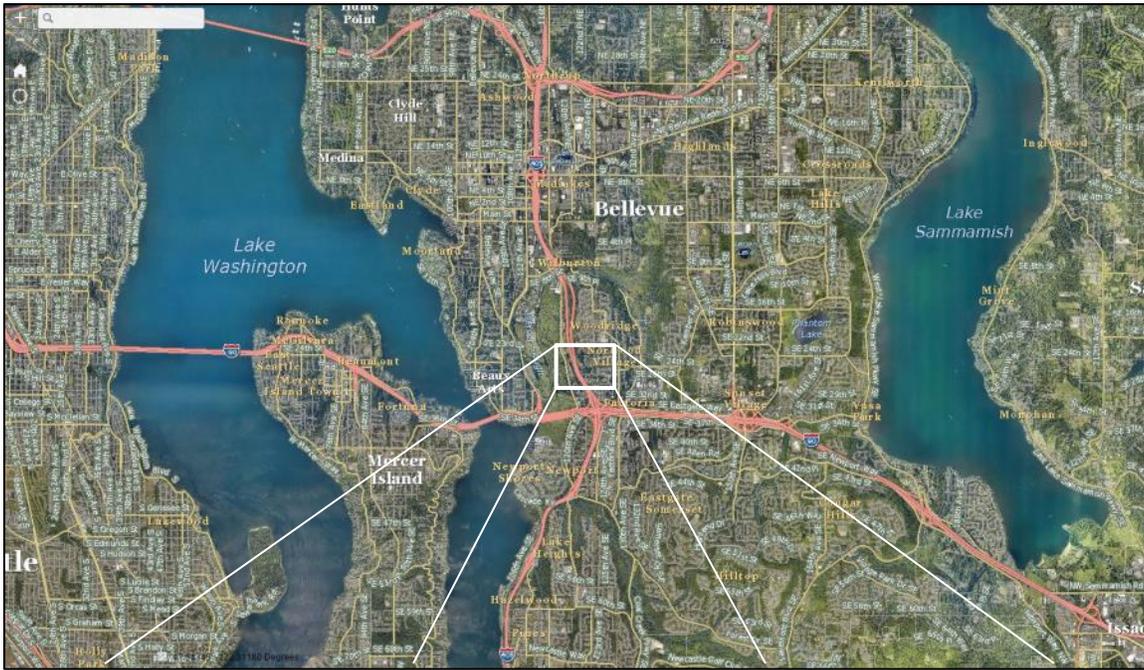


Figure 1 - Overview showing the vicinity of the subject parcel. (King County iMap)

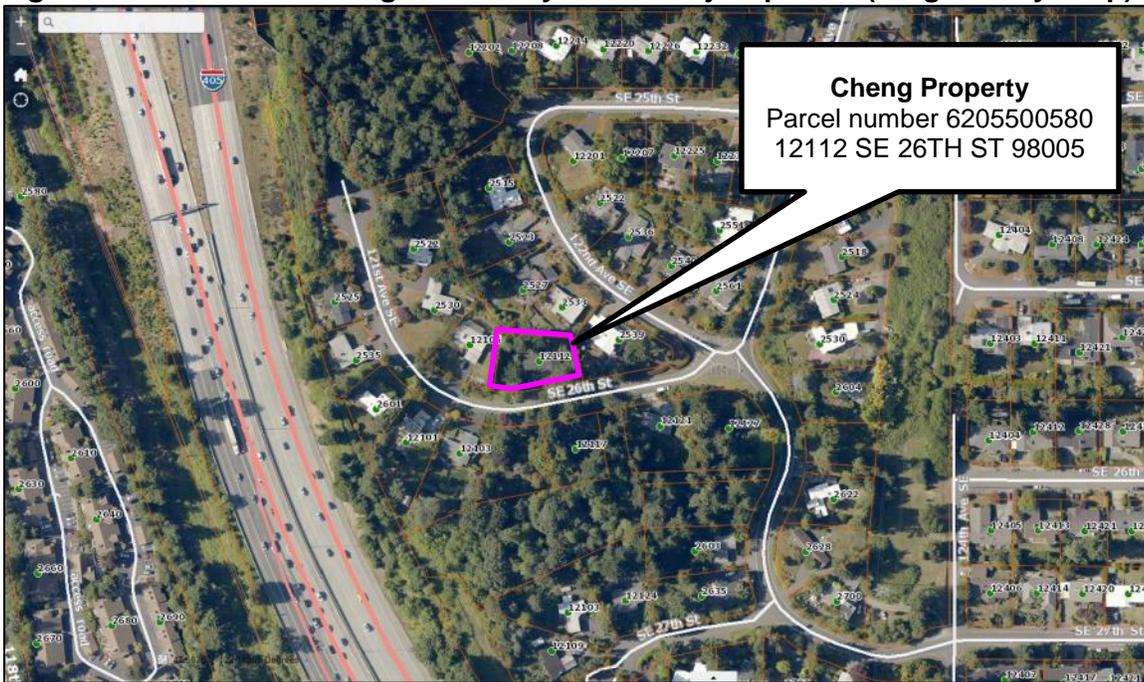


Figure 2 - Neighborhood view showing the subject parcel. (King County iMap, 2015)

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.

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth [\[help\]](#)

a. General description of the site:

(circle one): Flat, rolling, hilly, **steep slopes**, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)? **45%**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these 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.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No known history.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

No grading or filling is proposed. Only minor soil disturbance is proposed through blackberry removal. Root grubbing will affect the top soil layer, but mulch will be laid over loose soil before the rainy season.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes: Vegetation has been modified in the vegetation management area, which exhibits up to 40% slopes, and further weed removal is proposed as part of the mitigation plan. Although the slope remains stabilized by the remaining coniferous tree stumps and roots, the trees were cut down, so the network of roots providing stabilization function will begin to slowly break down. Himalayan blackberry and ivy remain on the slopes. They will be removed during the dry season increasing the chance of surficial erosion from rain and/or wind. However, the VMP calls for mulching with a three-inch layer of coarse wood chip mulch throughout the management area. The layer of woodchip mulch, along with the existing tree roots, will be sufficient erosion control. Over 200 plants will be installed in the management area between October 15 and March 30. The new plants will begin to replace the soil stabilization function of the degrading tree roots over several years.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

In the vegetation management area subject to the proposed action: NONE

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Spread a three-inch layer of coarse wood chip mulch throughout the cleared area. This will be sufficient to prevent soil erosion.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Most of the work can be accomplished by hand. Weed removal is proposed during the dry portion of the summer and early fall. Workers traversing the vegetation management area will kick a small amount of dust into the air. A blower truck may be used to spread mulch, which will kick up dust and blow small wood chip particles into the air. The diesel truck will exhaust from the driveway during the installation process. Other delivery and work trucks will be accessing the driveway. The project is somewhat small and exhaust fumes are not expected to be significantly elevated from other regular activities in the neighborhood such as garbage pickup and delivery trucks.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Wood chip mulch application will prevent wind and water erosion of the cleared slope.

3. Water [\[help\]](#)

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No – the closest regulated stream or wetland is located approximately 300 feet south of any portion of the subject parcel.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

N/A

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

N/A

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

N/A

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

N/A

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

No runoff will be generated. Water will infiltrate in the yard. Wood chip mulch layer will hold and slow surfact water such that it can infiltrate into the ground.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Application of woodchip mulch will hold and slow water.

4. **Plants** [\[help\]](#)

a. Check the types of vegetation found on the site: [\[help\]](#)

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

Orchards, vineyards or other permanent crops.

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Six large Douglis-fir and western red cedar trees have already been removed from the steep slope area on site. The proposal will compensate for the loss of vegetation through a diverse and dense planting plan in the steep slope area. The proposal includes removing an understory of Himalayan blackberry and English ivy from the hillside.

c. List threatened and endangered species known to be on or near the site.

None

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

A vegetation management plan includes a dense native planting plan that includes native trees, shrubs and groundcover. The plan is designed to replace functions lost to evergreen tree removal.

- e. List all noxious weeds and invasive species known to be on or near the site.

Invasive weeds identified by King County and the noxious weed management status

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

5. Animals [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [\[help\]](#)

Examples include:

- birds: hawk, heron, eagle, songbirds, other:
- mammals: deer, bear, elk, beaver, other:
- fish: bass, salmon, trout, herring, shellfish, other _____

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.

Songbirds noted during the site visit were black capped chickadees and dark-eyed juncos.

b. List any threatened and endangered species known to be on or near the site.

The nearest mapped bald eagle nest is over one mile to the west of the subject property.

c. Is the site part of a migration route? If so, explain.

No

d. Proposed measures to preserve or enhance wildlife, if any:

Planting plan will increase species diversity and structural complexity of the slope area over time. Bird habitat will eventually be restored.

e. List any invasive animal species known to be on or near the site.

Not known

6. Energy and Natural Resources [\[help\]](#)

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

N/A

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

N/A

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

N/A

7. Environmental Health [\[help\]](#)

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

N/A

1) Describe any known or possible contamination at the site from present or past uses.

N/A

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

N/A

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

N/A

- 4) Describe special emergency services that might be required.\

N/A

- 5) Proposed measures to reduce or control environmental health hazards, if any:

N/A

b. Noise [\[help\]](#)

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

N/A

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

A mulch blowing truck will be parked in the driveway for approximately one hour with a diesel engine operating. This will likely occur between 8am and 5pm on a weekday or Saturday. The noise should not be substantially greater than that of a neighborhood garbage truck.

**Noise is regulated by
BCC 9.18**

- 3) Proposed measures to reduce or control noise impacts, if any:

None proposed

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Residential. No proposed impact to neighboring properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site.

The parcel contains one single family home built in 1978

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

R-3.5

f. What is the current comprehensive plan designation of the site?

SF-M (Single family medium density)

g. If applicable, what is the current shoreline master program designation of the site?

N/A

i. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes, there is a critical steep slope mapped in the back yard and side yard of subject property as shown in the figure below.



i. Approximately how many people would reside or work in the completed project?

Project will be in the back yard. Single family residence on the parcel will be inhabited.

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposal would bring the site into compliance through the implementation of a planting plan. The planting plan, and associated measures, are in line with the surrounding residential land uses.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

N/A

9. **Housing** [\[help\]](#)

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

N/A

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

N/A

- c. Proposed measures to reduce or control housing impacts, if any:

N/A

10. **Aesthetics** [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

N/A

- b. What views in the immediate vicinity would be altered or obstructed?

The upslope neighbors to the east have territorial views to the west that may be impacted in ten to twenty years once installed conifer trees mature. However, the trees that were removed in violation of the Bellevue City Land Use Code were already partially or wholly obstructing the above mentioned views.

- b. Proposed measures to reduce or control aesthetic impacts, if any:

There are no view protections in the City of Bellevue Land Use Code.

N/A

11. **Light and Glare** [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

N/A

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

N/A

- c. What existing off-site sources of light or glare may affect your proposal?

N/A

- d. Proposed measures to reduce or control light and glare impacts, if any:

N/A

12. **Recreation** [\[help\]](#)

a. What designated and informal recreational opportunities are in the immediate vicinity?

N/A

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

N/A - Project is contained within a private residential parcel

13. **Historic and cultural preservation** [\[help\]](#)

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. **No**

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

None

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

N/A

14. **Transportation** [\[help\]](#)

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

N/A

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

N/A

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

N/A

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

No additional vehicle trips will be added by the complete project.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

h. Proposed measures to reduce or control transportation impacts, if any:

N/A

15. Public Services [\[help\]](#)

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No

b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

N/A

16. **Utilities** [\[help\]](#)

a. Circle utilities currently available at the site: [\[help\]](#)

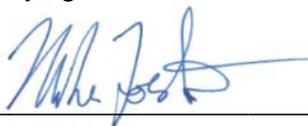
electricity, natural gas, water, refuse service telephone, **sanitary sewer** septic system,
other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [\[help\]](#)

No changes to on-site utilities are proposed under this plan.

C. Signature [\[help\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:  _____

Name of signee **Mike Foster** _____

Position and Agency/Organization **Ecologist and Certified Arborist – The Watershed**

Date Submitted: **August 18, 2015**

D. supplemental sheet for nonproject actions [\[help\]](#)

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

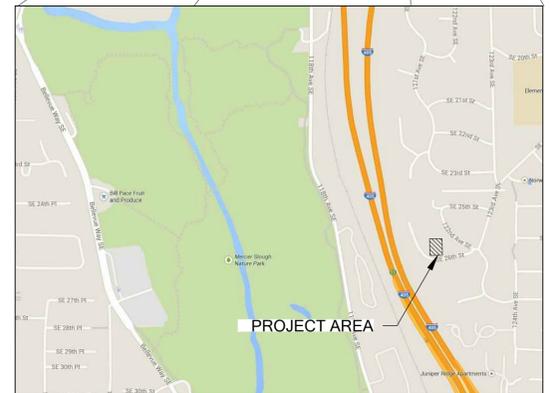
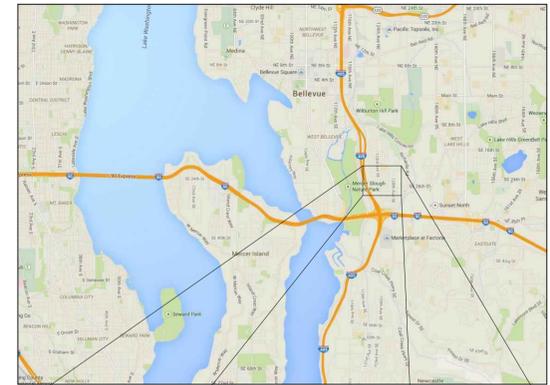
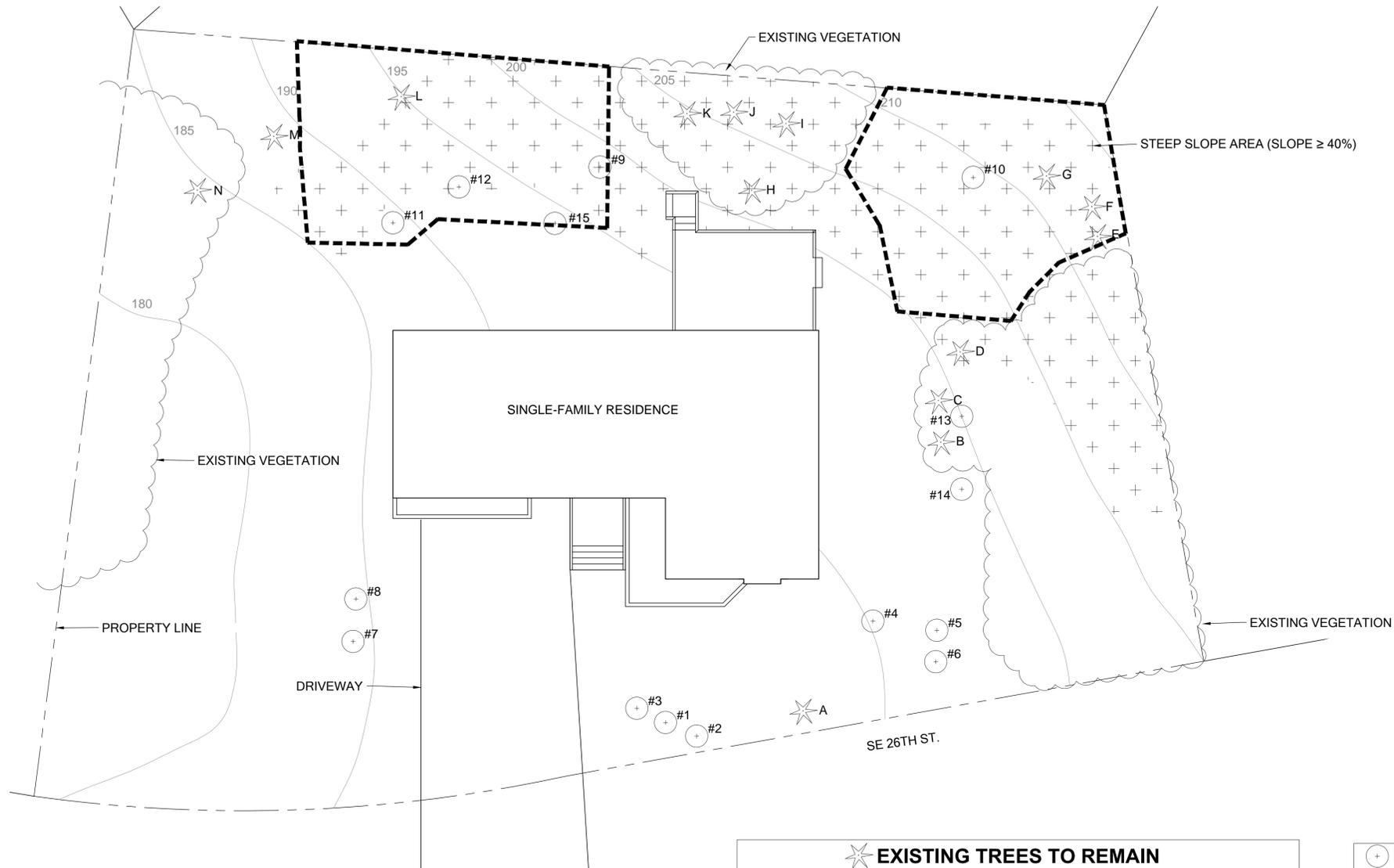
CHENG RESIDENCE



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science & Design



VICINITY MAPS

PROJECT INFORMATION:

CLIENT: KAI CHENG
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KIRKLAND, WA 98033
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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.

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

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:
W1 OF 5

VEGETATION MANAGEMENT PLAN

Cheng Property

Prepared for:

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Prepared by:



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August 2015

The Watershed Company Reference Number:

150412

The Watershed Company Contact Person:

Mike Foster, Certified Arborist

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Cite this document as:

The Watershed Company, August 2015: Cheng Property
Vegetation Management Plan.

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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

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Appendix A: Vegetation Management Plans

Appendix B: Bond Quantity Worksheet

VEGETATION MANAGEMENT PLAN

CHENG PROPERTY

1 INTRODUCTION

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 26th 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 26th 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.

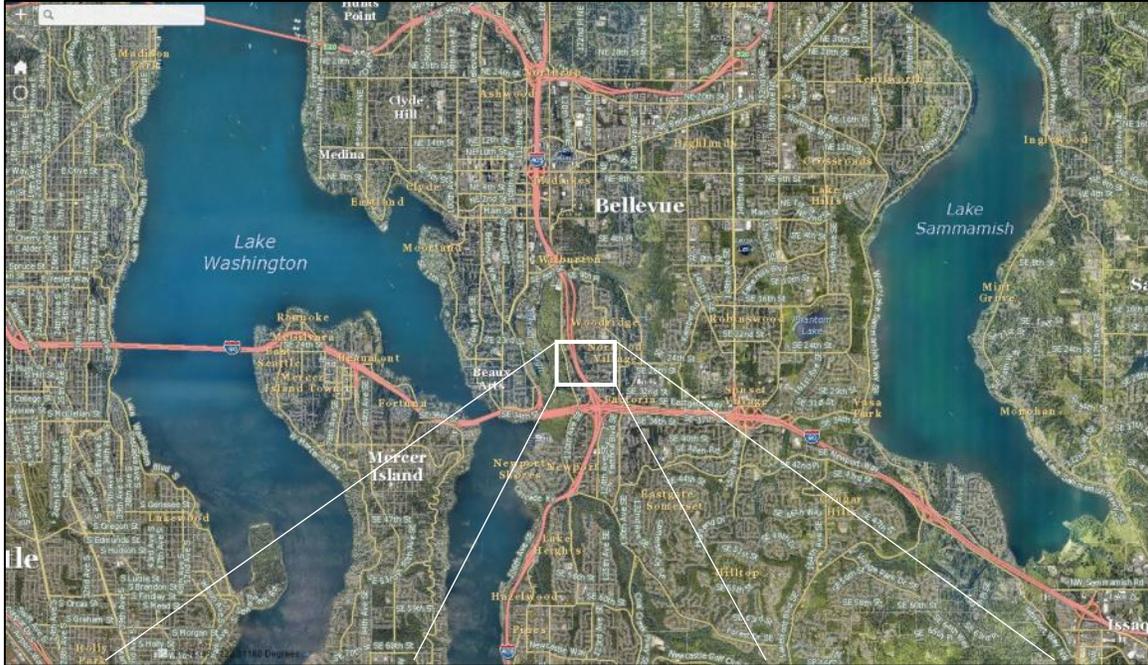


Figure 1 - Overview showing the vicinity of the subject parcel. (King County iMap)

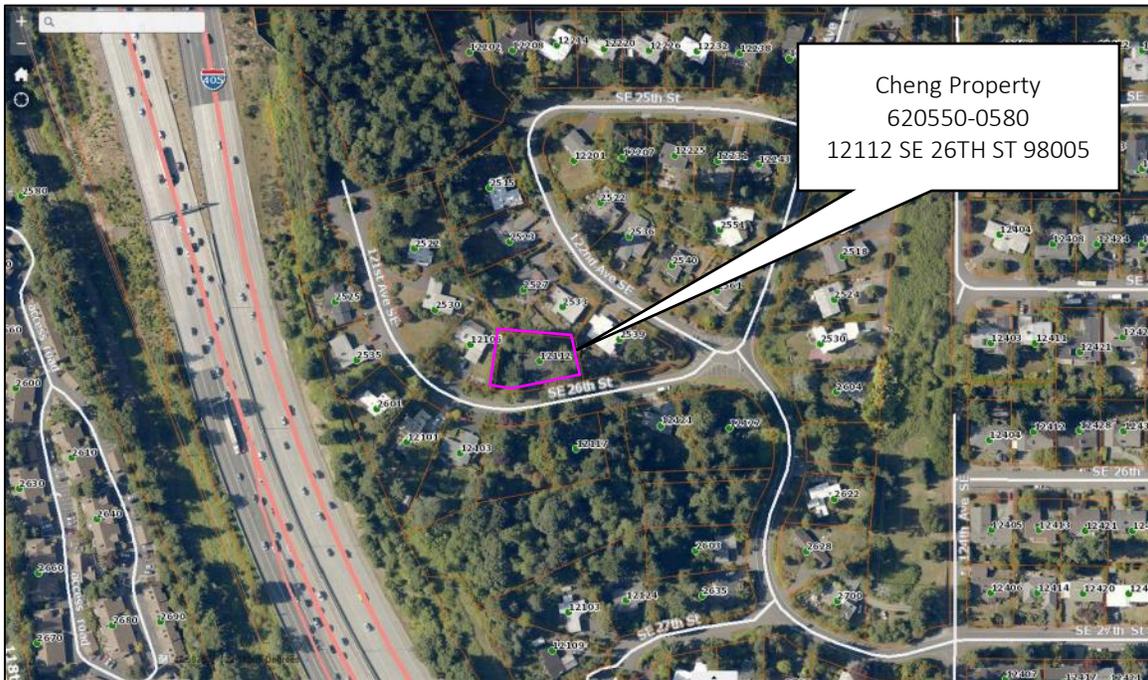


Figure 2 - Neighborhood view showing the subject parcel. (King County iMap, 2015)

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
		TOTAL = 143

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 26th 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 26th 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 26th 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.



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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

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
Tree	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
Shrub	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
Groundcover	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

See Appendix B

7 SUMMARY

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

Vegetation Management Plans

APPENDIX B

Bond Quantity Worksheet

