Critical Areas Report: Wetlands & Habitat Conservation Areas for 119 Ashley Street

Bellingham, Washington
Parcel No. 380332-025095

for
Trent Slusher

September 13, 2024

MILLER ENVIRONMENTAL SERVICES, LLC

Project No. 230043

CRITICAL AREAS REPORT:
WETLANDS AND HABITAT CONSERVATION AREAS
119 ASHLEY STREET, BELLINGHAM, WA

September 13, 2024

Prepared for:

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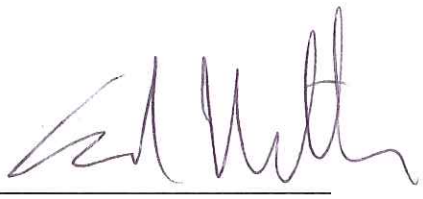

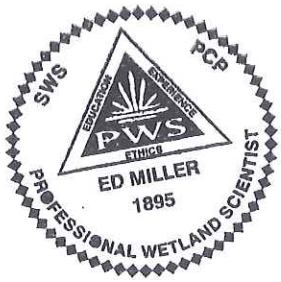

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Author Qualifications

This report was prepared by Ed Miller.

Ed Miller is a senior biologist and owner of Miller Environmental Services, LLC, who specializes in wetlands, wildlife, and habitat assessments. He is a Society of Wetland Scientists certified Professional Wetland Scientist (PWS), #1895. Mr. Miller obtained a Bachelor of Science in Terrestrial Ecology from Western Washington University in 1993 and a Masters of Environmental Science and Management with a focus on Watershed Management at the University of California at Santa Barbara in 2000. His experience includes preparing wetland delineations and reports, wetland functional assessments, stream and shoreline ordinary high water mark determinations, habitat conservation area reports, mitigation design, mitigation monitoring and floodplain habitat assessments for FEMA Endangered Species Act compliance. Mr. Miller has completed project permitting and compliance for agencies including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, Washington Department of Ecology.

Disclaimer

This report and wetland and/or stream delineation, is based on protocols that are described and defined in manuals and publications utilized by Federal, State, and Local agencies. The wetland delineation methodology used is consistent with the *Washington State Wetlands Identification and Delineation Manual* (Ecology, 1997), the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Corps, 2010), and subsequent Corps guidance. Completed work is based on conditions at the time of the site visit. No guarantees are given that a delineation determination or assessment will concur exactly with those performed by regulatory agencies or by other qualified professionals.

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1.0 INTRODUCTION

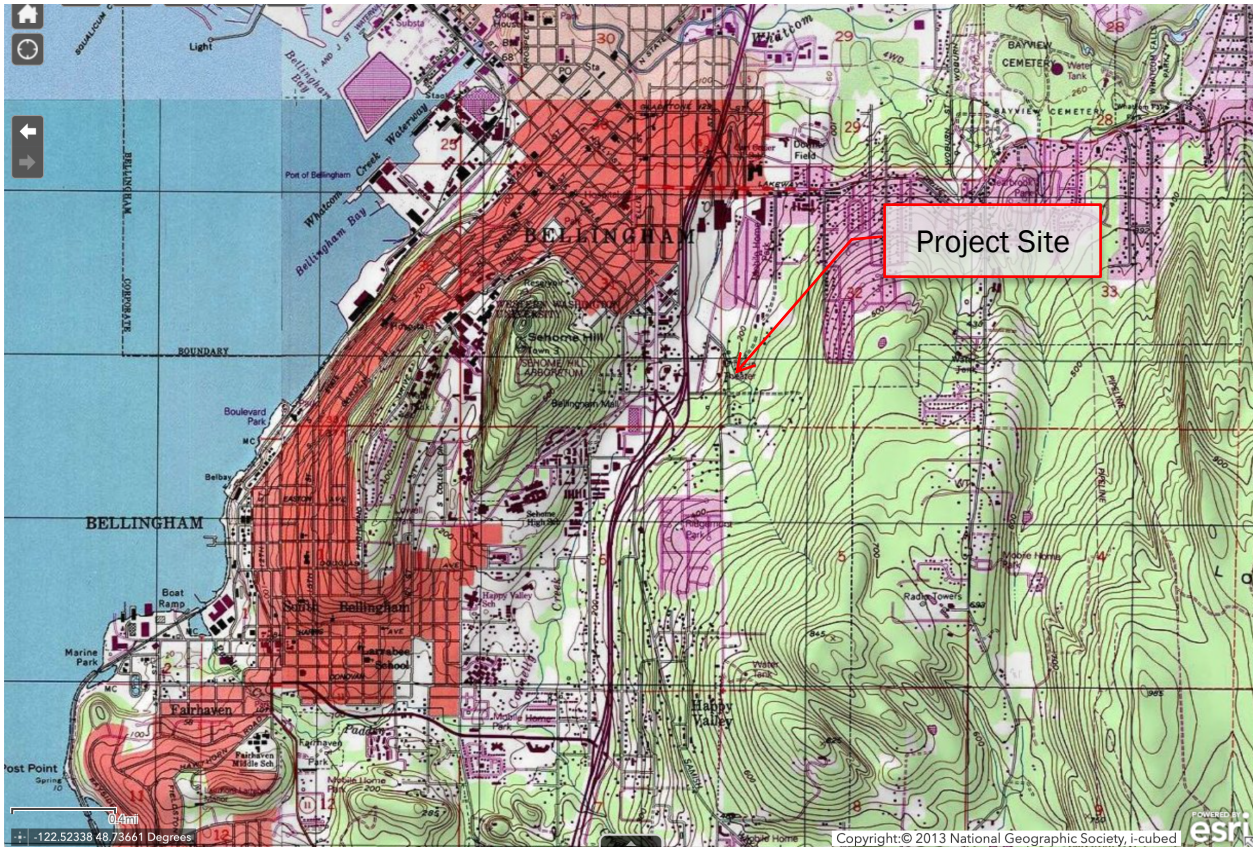
At the request of the applicant, Slusher Luxury Homes, Miller Environmental Services, LLC (MES) conducted a wetland delineation and Habitat Conservation Area assessment at 119 Ashley Street (tax parcels 380332-025095), located on the east side of Ashley Street just north of Byron Avenue. The property is located in Bellingham, Washington; Section 32, Township 38 N, Range 03 E, W.M. The project location is shown below on **Figure 1**. A map of the property and critical areas is included as **Appendix A**.

This report presents the best professional judgment of MES in estimating the subject jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. However, only the regulatory agencies can make a final determination of jurisdictional boundaries.

1.1 PURPOSE

This Critical Areas Report was conducted as required within the City of Bellingham Critical Areas Chapter [Bellingham Municipal Code (BMC) 16.55]. This report documents the location and nature of critical areas (wetlands and fish and wildlife habitat conservation areas) on the project site.

Figure 1: Vicinity Map



2.0 METHODS

2.1 PRELIMINARY RESEARCH

Published information about local conditions was reviewed for known critical area occurrences in the project vicinity. The information reviewed included:

- *National Wetlands Inventory (NWI*), *Wetlands Mapper*, United States Fish and Wildlife Service (USFWS);
- *Priority Habitats and Species Mapper,* Washington State Department of Fish and Wildlife (WDFW);
- *SalmonScape Mapper,* WDFW;
- *City of Bellingham CityIQ,* City of Bellingham;
- *Web Soil Survey,* United States Department of Agriculture, Natural Resource Conservation Service (NRCS);
- *National Hydric Soils List*, United States Department of Agriculture, NRCS; and
- *National Map Viewer,* United States Geological Survey (USGS).

2.2 FIELD INVESTIGATION

An investigation of the property was conducted on September 11, 2023 to document site conditions. The site visit included a wetland delineation, ordinary high water mark (OHWM) delineation of Lincoln Creek and an assessment of onsite habitat. The west OHWM of Lincoln Creek was flagged. Site photographs taken during the site visit are included within **Appendix B**.

Wetlands were identified on the basis of hydrophytic vegetation, hydric soils, and evidence of wetland hydrology as described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), *Corps Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (U.S. Army Corps of Engineers, 2010), and subsequent U.S. Army Corps of Engineers (Corps) guidance.

Hydrophytic vegetation (i.e., plants adapted to saturated soil conditions) was determined to be present when dominant cover of plants observed (greater than 50 percent) had an indicator status of facultative (FAC), facultative wetland (FACW), or obligate wetland (OBL). Plant species on-site were identified according to Cooke (1997), Pojar and MacKinnon (1994), and Hitchcock and Cronquist (1973). Plant indicator status was determined using the *Western Mountains, Valleys, and Coast 2012 Final Regional Wetland Plant List* (Lichvar, 2016).

Hydric soils were determined according to the methodology in the *Field indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 8.1* (USDA NRCS, 2017).

Wetland hydrology was determined through the observation of soil saturation, surface ponding, or other primary and secondary indicators such as water marks, drift deposits, iron deposits, surface cracks, water-stained leaves, drainage patterns, etc. (U.S. Army Corps of

Engineers, 2010). No wetlands were observed on the property. The west OHWM of Lincoln Creek was flagged and surveyed by professional land surveyors.

2.3 WETLAND CLASSIFICATION AND FUNCTIONAL ASSESSMENT

Wetlands were classified using the USFWS wetland classification system (Cowardin et al., 1979). A wetland rating was completed for the on-site wetlands, using the 2014 Washington State Wetland Rating System for Western Washington (Ecology Rating System) (Hruby, 2014).

Wetland delineators visited each wetland and determined wetland classes and categories using field observations and resources utilized during the preliminary data review process. Ecology recognizes four categories of wetlands based on sensitivity to disturbance, rarity, the functions they provide, and difficulty to replace.

A qualitative functional assessment was also conducted for the wetland based on the Ecology Rating System (Hruby, 2014). Hydrologic, water quality, and habitat functions were evaluated based on the scoring criteria listed in **Table 1**.

Table 1: 2014 Wetland Functional Assessment Criteria

	Criteria		
Wetland Functions	**Low Score**	**Moderate Score**	**High Score**
Water Quality Functions	3-4	5-7	8-9
Hydrology Functions	3-4	5-7	8-9
Habitat Functions	3-4	5-7	8-9

3.0 PROJECT AREA SETTING

3.1 WATERSHED

The property is located within the Whatcom Creek Watershed, a coastal basin that drains to Bellingham Bay - within Water Resource Inventory Area (WRIA) number 01.

Runoff form the western portion of the property drains eastward to Lincoln Creek, located on the east portion of the property. A small portion of the property, the northeast corner, is located east of Lincoln Creek, and drains westward into the stream. Lincoln Creek carries water westward and northward to the confluence with Whatcom Creek approximately 1.5 miles to the north.

3.2 PROJECT VICINITY

The subject property is located within an urban area in the City of Bellingham that is developed with dense residential development. Single family residences are located to the north, east and south while a high density residential building is located to the west, across Ashley Street.

3.3 PROJECT SITE

The property is un-developed, consisting of coniferous/deciduous forest habitat. Dominant plants include big-leaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga mensiezii*), western red cedar (*Thuja plicata*), snowberry (*Symphoricarpos albus*), sword fern (*Polystichum munitum*) and Indian plum (*Oemleria cerasiformis*).

The property is shown on the map in **Appendix A**. Site photographs are included in **Appendix B**.

4.0 WETLANDS AND HABITAT CONSERVATION AREA RESULTS

4.1 PRELIMINARY RESEARCH

4.1.1 National Wetland Inventory

Other than Lincoln Creek, no wetlands or water features are mapped on or adjacent to the property on the National Wetlands Inventory (NWI) mapper (USFWS, 2024).

4.1.2 Soils Survey Data

The property is mapped entirely with Squalicum gravelly loam, 5 to 15 percent slopes (soil unit 156). Squalicum gravelly loam is a deep and moderately well drained soil. A seasonal high water table is at a depth of 3.5 to 5.0 feet from December through April. This soil is listed as non-hydric (NRCS, 2024).

4.1.3 WDFW Priority Habitats and Species Data

The Washington State Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Mapper identifies the entire township that includes the review area as a big brown bat (*Eptesicus fuscus*) breeding area. No other priority habitats or species are shown on or near the project (WDFW, 2024).

4.1.4 City of Bellingham Critical Areas

The City of Bellingham City IQ Mapper shows no wetlands on the property. A wetland associated with Lincoln Creek is shown to the north, on the western side of Ashley Street. Additionally, a wetland is shown to the north of Consolidation Avenue to the north of the project site (City of Bellingham, 2024). The property is not within any designated forest blocks or habitat corridors as identified by the City of Bellingham - City of Bellingham 2021 Wildlife Corridor Analysis (Diamond Head Consulting, 2021).

4.2 FIELD INVESTIGATION

4.2.1 Uplands

With the exception of Lincoln Creek, the entire property consists of upland habitat containing deciduous/coniferous forest. Dominant plants include Douglas fir, western red cedar, big-leaf maple, snowberry, Indian plum, sword fern and trailing blackberry (*Rubus ursinus*). Additionally, the area contains a low to moderate amount of common ivy (*Hedera helix*) across the site. The riparian corridor along the edges of Lincoln Creek also contains salmonberry (*Rubus spectabilis*) and devil's club (*Oplopanax horridus*).

4.2.2 Wetlands

No wetlands were observed on the property. The site contains upland habitat dominated by upland plant species.

4.2.3 Fish and Wildlife Habitat Conservation Areas

In the City of Bellingham, designated fish and wildlife habitat conservation areas (16.55.470.A) includes:

1. Areas with which State or Federally designated endangered, threatened, and sensitive species have a primary association. This includes state priority habitats and areas associated with state priority species;

2. Commercial and recreational shellfish areas;

3. Naturally occurring ponds under 20 acres;

4. Waters of the State, including lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses;

5. State natural area preserves and natural resource conservation areas;

6. Areas of rare plant species and high quality ecosystems; and

7. Land useful or essential for preserving connections between habitat blocks and open spaces.

Fish and wildlife habitat conservation areas that were observed and/or may be located on the property include potential bat habitat and streams (Lincoln Creek). No other fish and wildlife habitat conservation areas were observed on or in the vicinity of the property.

Bats

Priority habitats and areas associated with state priority species are considered habitat conservation areas under WCC 16.16.710(C)3, including big brown bat. WDFW has a *Living with Wildlife: Bats* informational flyer and additional information on bats available at: https://wdfw.wa.gov/living/bats.html (WDFW, 2020).

Big brown bat are generalists and are associated with forest and non-forest habitats throughout Washington state. Maternity colonies occur in trees, snags, caves, cliffs, bridges, and buildings. Possible threats to Big brown bat include logging, roost disturbance (mine and cave closures and visitation by humans), urbanization, loss of riparian habitat, and pesticide applications. Conservation measures for this species includes retention of large snags and hollow trees and maintaining diverse forest patches with abundant large snags (Hayes and Wiles, 2013).

Although no bats were observed onsite, the property contains suitable habitat for big brown bat.

Stream

Lincoln Creek is located along the eastern portion of the property. The stream is shown as a potential fish stream in the Washington Department of Fish and Wildlife salmonscape mapper. The stream is seasonal (dry at the time of the site visit), with a six-foot-wide channel containing a cobble and boulder substrate. The channel is steep, between four and seven percent gradient. Under City of Bellingham code, this stream requires a 75-foot standard buffer.

4.2.4 Wildlife

Wildlife that may utilize the habitat on this property include comment terrestrial species such as black-tailed deer (*Odocoileus hemionus columbianus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), eastern cottontail (*Sylvilagus floridanus*), Douglas squirrel (*Tamiasciurus douglasii*), deer mouse (*Peromyscus maniculatus*) and opossum (*Didelphis marupialis*). Additionally, common songbirds, owls and falcons may utilize the property for nesting and foraging.

Given the lack of seasonal ponding or stream pooling on the property, there is no apparent breeding habitat for amphibians.

4.2.5 Off-site Areas

Off-site areas were viewed as feasible given site conditions at the time of the site visit. Other information was used where applicable including aerial photography and CityIQ (City of Bellingham, 2020) mapping to assess off-site conditions. Conditions were viewed or estimated to a distance of roughly 100 feet from the property boundaries.

Off-site Areas- West. Ashley Street is located along the west side of the property. A residential apartment building is located on the west side of Ashley Street.

Off-site Areas- East. Single family residences are located to the east of the project site.

Off-site Areas- South. A residence is located to the south of the property. Lincoln Creek extends upstream to the southeast between residences on Ashley Street and residences on 41st Steet.

Off-site Areas- North. The lot to the north is developed with a single family residence along an alley off of Consolidation Avenue, between Ashley Street and 41st Street. This residence is located on the east side of Lincoln Creek. Deciduous forest habitat is located on this property on the west side of Lincoln Creek. No wetlands were observed.

5.0 REGULATORY REQUIREMENTS

The wetlands identified on the property are subject to federal regulations under the Clean Water Act (CWA) Sections 404 and 401, as well as state regulations under the Growth Management Act administered by the City of Bellingham under the Critical Areas Chapter (BMC 16.55).

5.1 CWA SECTION 404- US ARMY CORPS OF ENGINEERS

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States, including wetlands. Any impacts to onsite wetlands would require a Nationwide Permit (for up to 0.5 acre of wetland fill) or an Individual Permit (for greater than 0.5 acre of wetland fill). No impacts to wetlands or waters of the U.S are proposed.

5.2 CWA SECTION 401 - DEPARTMENT OF ECOLOGY

Ecology is the state agency responsible for administering the CWA Section 401 Water Quality Certification program. Impacts to wetlands may require approval or a waiver from the Department of Ecology.

5.3 CRITICAL AREAS ORDINANCE - CITY OF BELLINGHAM

The City of Bellingham regulates critical areas, including wetlands and their associated buffers, and fish and wildlife habitat conservation areas under Title 16, Chapter 55 of the Bellingham Municipal Code. Lincoln Creek, as a seasonal, potential fish bearing stream, requires a 75-foot standard buffer. This standard buffer extends over the entire property onto the Ashley Street right-of-way. Even with a code allowed administrative buffer reduction of 25 percent, there is no portion of the property that would allow for a reasonable development.

Per BMC 16.55.120 a variance from the standards of chapter may be authorized by the City following a review and determination made by the City hearing examiner. The variance may be granted if the applicant demonstrates that the requested action conforms to all of the criteria set forth as follows:

1. *Special conditions and circumstances exist that are peculiar to the land, the lot, or something inherent in the land, and that are not applicable to other lands in the same district;*

   Lincoln Creek is located in the eastern portion of the property. The property is small, only 7911 square feet in size and the required standard stream buffer extends over the entire property.

2. *The special conditions and circumstances do not result from the actions of the applicant;*

   The encumbering condition of the property, presence of Lincoln Creek and buffer, are not the result of applicant actions. The condition existed on the property prior to the applicant's ownership and is natural in origin.

3. *A literal interpretation of the provisions of this chapter would deprive the applicant of all reasonable economic uses permitted to other properties in the vicinity and zone of the subject property under the terms of this chapter, and the variance requested is the minimum necessary to provide the applicant with such rights;*

   No reasonable use of the property could occur given the code allowance for a buffer reduction of 25 percent – to 56 feet. Application of this buffer, 56 feet, would allow for an area 200 square feet in size adjacent to the Ashley Street ROW.

4. *Granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or buildings under similar circumstances;*
   No special privilege will be conferred on the applicant with the granting of the variance. The applicant is seeking to construct a single family residence on an infill lot consistent with the zoning and current neighborhood condition.

5. *The granting of the variance is consistent with the general purpose and intent of this chapter, and will not have a significant adverse impact on functions and values of the associated critical area or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property;*
   The proposed project is consistent with the general purpose and intent of this chapter. The stream and buffer areas are protected as much as is feasible with the proposed construction of a residence on the property. The footprint was minimized in size and shifted to the portion of the property as far from the stream as possible. The applicant is also requesting a variance in the road setback for structures, to place the residence five feet from the Ashley Street ROW. The proposal includes mitigation such that there will be no net loss of function to Lincoln Creek. It is not anticipated that the proposed project will be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property.

6. *The decision to grant the variance includes the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance fish habitat; and*
   The proposed project assessment and mitigation includes the use of best available science.

7. *The granting of the variance is consistent with the general purpose and intent of the comprehensive plan and adopted development regulations.*
   The proposed project and variance request is consistent with the general purpose and intent of the comprehensive plan and adopted development regulations.

The City of Bellingham requires a tree retention plan per BMC 16.16.080.B.4, that identifies the species and size of significant trees, identifies trees that will be removed and describes replacement of significant trees to be removed.

6.0 PROJECT DESCRIPTION

The proposed project includes the construction of a 931 square foot single family residence located in the southwest corner of the property. The project will include a reduced ROW setback of 5 feet (normally 20 feet), to reduce stream buffer impacts. The project will include a short driveway off of Ashley Street, a five foot wide maintenance access area around the residence, split rail fence and buffer enhancement. Stormwater from the driveway, residence

and yard will be routed to a City stormwater collection pipe located in the adjacent Ashley Avenue. A site plan is included in **Appendix A**.

7.0 IMPACT ASSESSMENT

The proposed project will result in 2,043 square feet of stream buffer impact. This will occur with the construction of a 931 square foot single family residence, driveway/parking area and maintenance access area around the building. Due to the small size of the property, location of Lincoln Creek on the east side of the property and extension of the 75-foot stream buffer over remaining portions of the property – stream buffer impacts cannot be avoided. However, impacts were minimized by decreasing the building footprint with the construction of a three story structure and reduction of the road setback from the standard 20 feet to 5 feet. The impact area will occur to an area of forested buffer containing 14 significant trees (western red cedar, Douglas fir and big-leaf maple), shrubs and herbaceous species. One of these trees is a multi-trunk big-leaf maple in excess of 36 inches in diameter at breast height (DBH) size. However, this tree (labeled as tree 31) is in poor condition- as noted on the Arborists tree inventory included in **Appendix C**. The tree has one dead "snag" trunk. As this large tree proposed for removal (tree 31) is in a poor growing condition, it does not appear to meet the City of Bellingham landmark tree criteria – a tree of 36-inch DBH in size or greater in a healthy growing condition.

A portion of the potential bat habitat on the property will be removed with the construction of the project. However, a larger proportion of the property will remain undisturbed. This area includes large trees and bat habitat and will be enhanced with additional conifer under plantings.

No indirect or temporary impacts to critical areas or buffers are anticipated with the proposed project. Proposed work areas will be accessed from Ashley Street and will not cross onsite buffers. Potentially stormwater impacts from proposed construction will be mitigated with the installation of stormwater management features.

Cumulative impacts from the project are not anticipated. The subject property is within the Lincoln Creek/Whatcom Creek Watershed. This basin includes heavily developed areas through the center of Bellingham. A majority of the Lincoln Creek basin has been developed. Any new development within this Watershed will need to meet strict development standards per City of Bellingham Code similar to the proposed project. This would eliminate or reduce potential impacts from other projects. As such, cumulative impacts to critical areas within the watershed are not anticipated.

8.0 TREE RETENTION PLAN

Per BMC 16.16.080.B.4 a tree retention plan is required for this project. The onsite trees were mapped and sized by the surveyors and by an arborist assessment (included in **Appendix C**). Several of the trees mapped onsite within the building area are dead snags, as noted on the site map. Additionally, several trees, including the one large 36 inch plus DBH tree, are in a poor condition. The project will require the removal of 14 significant trees, including the one larger tree. Sixty six percent of the property will be left in forest habitat and enhanced with native tree and shrub plantings. The enhancement includes the installation of 45 native trees – a 3.2 to 1 replacement ratio.

9.0 MITIGATION

The proposed project, construction of a single-family residence, will impact 2,043 square feet of stream buffer that consists of forest habitat. Mitigation to offset this impact will include the installation of native conifers and shrubs within remaining areas of stream buffer on the property and the removal of non-native species, including Himalayan blackberry and ivy. This mitigation will increase the stream buffer function on site by providing a higher level of habitat function and screening – between the stream and the proposed house. A split rail fence and critical areas protection signs will be placed along the edge of the final buffer to protect the proposed stream buffer from intrusion. Additionally, the area of the property outside of the development footprint (stream and buffer) will be placed within a conservation easement for permanent protection.

A mitigation site plan is including in **Appendix A**.

9.1 MITIGATION APPROACH

The project design followed a series of steps in accordance with the State Environmental Policy Act (Chapter 197-11-768) and BMC 16.55.250 as follows:

1. **Avoid the impact.** The project avoids direct impacts to the onsite stream. However, as the stream buffer extends over the entire property, it is not possible to avoid buffer impacts with the construction of a single-family home. Accordingly, stream buffer impacts will occur.

2. **Minimize the impact**. Impacts to the stream buffer are minimized by reducing the standard road setback for structures, from 20 feet to 5 feet, and designing the residence with three stories to minimize the footprint.

3. **Rectify the impact**. No temporary impacts are proposed.

4. **Minimize or eliminate the hazard.** No hazards are located on the property.

5. **Reduce or eliminate the impact or hazard.** No impacts to steep slopes are proposed.

6. **Compensate for impacts**. Buffer impacts will be offset with the enhancement of 5,514 square feet of buffer - a 2.7 to 1 ratio of mitigation to impact.

7. **Monitor the hazard or other required mitigation**. The proposed mitigation will be monitored for five years, per this mitigation plan.

9.2 TYPE AND LOCATION OF MITIGATION

The proposed stream enhancement will occur over the entire property, excluding the development footprint and stream bed. This area contains scattered coniferous and deciduous trees (as mapped), native shrubs, non-native shrubs, invasive species (ivy) and herbaceous species. A portion of the buffer has a garden planting bed (installed by the neighbors to the south) that will be removed and replanted.

9.3 MITIGATION GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

The proposed mitigation plan is designed to increase stream buffer function on the property. During monitoring activities, performance standards will be measured to ensure the site is meeting the goals and objectives of the mitigation plan. These standards are the primary factors that will be used to judge the success of the mitigation project. While specific performance criteria provide important benchmarks and will help to direct maintenance and contingency efforts, the mitigation goals must also be considered when evaluating mitigation success.

(A) Goal: Improve stream buffer function on the property.

Objective: Plant 5,514 square feet of stream buffer with native conifers and shrubs.

Performance Standard 1: Invasive species aerial cover shall be less than 10 percent in the first year and shall be less than 15 percent in years 2, 3, 4, and 5. This will be measured by visually estimating aerial cover in the mitigation area. Invasive species include those listed in **Table 2** and other noxious weeds listed by the Whatcom County Noxious Weed Board Control (https://www.whatcomcounty.us/DocumentCenter/View/66490/CountyList22).

Table 2: Non-native, Invasive Species that Must Be Removed

Scientific Name	Common Name
Hedera helix	English Ivy
Convolvus spp.	Bindweed
Phalaris arundinacea	Reed canarygrass
Polygonum cuspidatum	Japanese knotweed
Rubus lacinatus	Cutleaf blackberry
Rubus armeniacus	Himalayan blackberry

Performance Standard 2: Percent survival of installed plants shall be no less than 90-percent at the end of Year 1. Survival of installed plants shall be 80 percent in years 2 through 5.

9.4 MITIGATION INSTALLATION

A general outline and schedule for the implementation of the mitigation is as follows:

- Install mitigation work area boundaries with temporary fencing or markers;
- Clear English Ivy and other invasive plant species, minimizing disturbance to existing native trees and shrubs as feasible;
- Install native plants around existing native plants;

- Install split rail fence and signs and remove temporary work fencing and/or markers;

Plant installation should occur in the winter (if bare root plants are used), spring or fall (if container plants are used). The other mitigation implementation tasks listed above can occur in any month of the year.

9.4.1 Site Preparation and Removal of Invasive Species

Site preparation shall consist of installing temporary construction fencing to mark the clearing limits; controlling or removing invasive plants as necessary; removing trash and debris; and doing any other work necessary to prepare the area for planting. This would include the removal of Ivy and Himalayan blackberry plants and root bulbs as possible.

9.4.2 Source of Plant Materials

All plant materials used at the mitigation site shall be grown in the Puget Sound lowlands and obtained from a reputable native plant nursery.

9.4.3 Planting Method

Preferably, plants shall be installed between late fall to early spring (November 1 to March 31). If summer installation is proposed, weekly watering shall be required between June and September. Plants shall be installed at ten-foot on center spacing.

Plants shall be flagged with bright colored flagging to assist with identification during annual monitoring and maintenance.

9.4.4 Planting Schedules

Table 3 provide a plant list for the planting area. Due to availability and or cost, plants listed may be substituted for plants with similar environmental requirements if approved by the biologist. Specific numbers of plants for each species may be varied but the total number of plants must remain the same. There shall be at least two different tree species and two different shrub species selected.

Table 3: Native Plantings for Upland Planting Area

Scientific Name	Common Name	On-center Spacing (feet)	Size/Condition[1]
Trees			
Tsuga heterophylla	Western hemlock	10	1 Gal or bareroot
Abies grandis	Grand fir		
Thuja plicata	Western red-cedar		
Tree Total = 45 (choose 2 species)			
Shrubs			
Galtheria shallon	Salal	10	1 Gal or bareroot
Mahonia nervosa	Low Oregon grape		
Mahonia aquifolium	Tall Oregon grape		
Symphoricarpos albus	Snowberry		
Acer circinatum	Vine maple		
Oemleria cerasiformis	Indian plum		
Shrub Total = 10 (choose 2 or more species)			

[1] Bare root shrubs should be planted December to March (the dormant period).

9.4.5 Mitigation As-Built

Once the planting is complete, an as-built drawing and letter shall be prepared with site photographs documenting completion of mitigation installation. The as-built shall be submitted to:

City of Bellingham
Planning and Community Development Department
210 Lottie Street
Bellingham, Washington 98225
Email: permits@cob.org attn. Amy Dearborn

9.5 MONITORING AND MAINTENANCE

9.5.1 Monitoring Activities and Reports

The planting area shall be monitored for five years, following the completion of installation. An as-built report documenting the installation shall be submitted to the City of Bellingham for approval. Once the as-built report is approved by the City, annual monitoring reports shall be submitted to the City of Bellingham in years 1, 2, 3, 4, and 5 beginning one growing season after the as-built drawings are accepted. Reports shall be due by December 31 of the monitoring year and submitted to the City of Bellingham.

Monitoring reports will assess both attainment of yearly target success criteria and progress toward final success criteria. These reports shall include the survival and/or replacement of

tree and shrub species, invasive species coverage, and diversity data, as outlined in the Performance Standards.

9.5.2 Monitoring Methods

Monitoring shall be accomplished by counting the number of alive and dead installed plants (which should be clearly marked within the mitigation area upon installation). Invasive and native species aerial coverage can be estimated by visual observations or plot sampling.

Photographs of the mitigation should be included to document representative areas of the mitigation site.

9.6 MAINTENANCE ACTIVITIES

The purpose of this maintenance program is to ensure the success of the plantings. Maintenance will occur over the life of the required monitoring. Non-native/invasive plant species that must be removed are outlined in the performance standards.

Plant removal occurring after installation will be completed by hand (hand power tools or other) or as necessary with herbicide. All invasive plant material removed must be properly disposed of off-site.

These maintenance guidelines are specifically tailored for native plant establishment. The maintenance personnel will be fully informed regarding the habitat establishment program so they understand the goals of the effort and the maintenance requirements. A landscape contractor with experience and knowledge in native plant habitat restoration is recommended to perform all mitigation maintenance.

9.7 COMPLETION OF MITIGATION

9.7.1 Notification of Completion

The applicant shall notify the City of Bellingham in writing when the monitoring period is complete and the agency-approved success criteria have been met. If the City determines that the project meets all success criteria at the end of the monitoring period, the mitigation plan will be considered a success. If not, the City will be consulted and must approve contingency measures prior to implementing changes to the plan. Only those areas that fail to meet the success criteria will require additional monitoring. This process will continue until all performance standards are met or until the City determine that other revegetation measures are appropriate.

Should the revegetation effort meet all goals prior to the end of the monitoring period, the City may, at their discretion, terminate the monitoring effort. At that time the applicant will be released from further maintenance and monitoring requirements of the mitigation area.

If, during the monitoring period, a destructive natural occurrence does occur which damages or destroys the mitigation planting, and if the mitigation planting was documented to have been proceeding well toward establishment, then reconstruction and replanting will not be

required. This is inclusive of catastrophic flood or landslide events that may scour, erode, and/or deposit sediment over mitigation areas.

9.7.2 Contingency Plan

If a performance standard is not met for all or any portion of the mitigation project in any year, or if the approved success criteria are not met, an analysis of the cause(s) of failure shall be prepared and, if determined necessary by the City of Bellingham or more of the success criteria or performance standards, the applicants' maintenance and monitoring obligations shall continue until the agencies give final approval the mitigation obligations have been satisfied.

The contingency plan will provide for the remediation of aspects of the mitigation that have prevented the achievement of mitigation goals. If the desired mitigation goals, as measured by the monitoring program and compared against the performance standards, have not been met and cannot be achieved through routine maintenance, then the agencies and the applicant will make a joint determination on a suitable contingency plan. If the contingency plan is substantial, the agencies could extend the monitoring period.

9.7.3 Site Protection

A split rail fence and two critical areas protection signs shall be installed at the edge of the proposed buffer. Additionally, the entire stream and final buffer area, outside of the development footprint, shall be placed within a conservation easement for permanent protection.

9.7.4 Financial Guarantee

The applicant shall submit a surety or assignment of savings documentation to the City of Bellingham for 150-percent of the estimated cost of mitigation installation, maintenance, and monitoring. The estimated costs include:

- Installation cost for 1 gallon trees or shrubs and installation: 55 plants x $8.50 - $468;
- Split rail fence at $12 per linear foot: approximately 105 linear feet - $1,260;
- Critical Areas Protection Sign, $50 per sign: two signs - $100
- Maintenance costs: $180 per year x 5 years - $900
- Monitoring: $360 per year x 5 years - $1,800

The total estimated cost is $4,528.

A surety of 150-percent = $6,792.

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APPENDICES

Appendix A

Project Maps

EXISTING CONDITIONS

GRAPHIC SCALE: 1"= 10'-0"

1 0 1 2 3
10 0 10 20 30

SLUSHER
LUXURY HOMES
512 40th St. BELLINGHAM, WA 98229 360-595-1069 trent@slusherhomes.com

EXISTING CONDITIONS

119 ASHLEY ST.

NEW 2,111 SF SINGLE FAMILY RESIDENCE
w/ 4-BDRM, 4-BATH, 2-CAR GARAGE

ADDRESS:
119 ASHLEY St.
BELLINGHAM WA 98229

ASSESSOR'S PARCEL:
380 332 025 095 0000

LEGAL DESCRIPTION:
JAMESON'S 2ND BAY VIEW ADD TO FAIRHAVEN LOTS 14-15-16 BLK 2

OWNER(S):
RKS DEVELOPMENT, INC.
512 40th St.
BELLINGHAM WA 98229

DRAWN BY:
TRENT SLUSHER
SEPTEMBER 5th, 2024

SHEET
A2

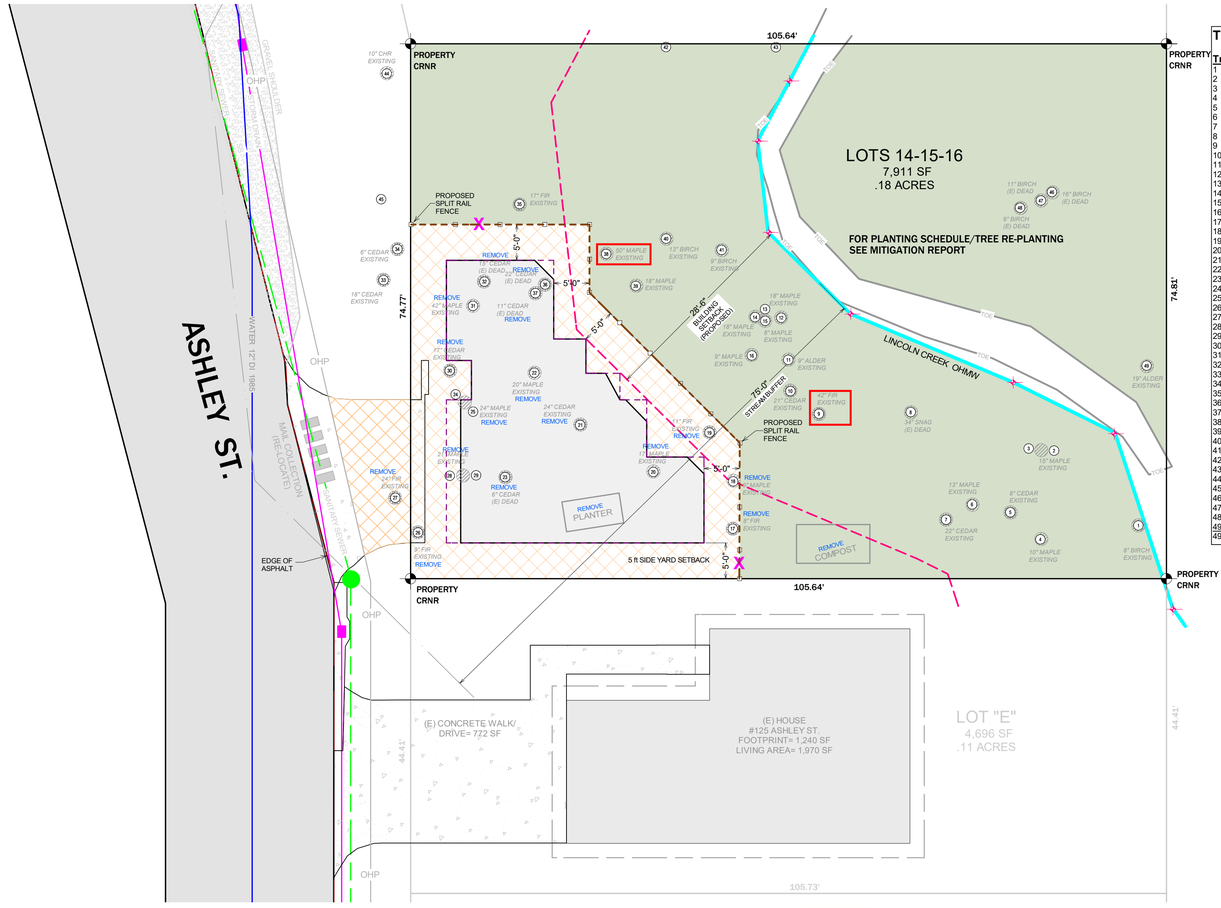
Tree Inventory
For Single Residential Development

119 Ashley St.
Bellingham, WA 98225

Aubrey Stargell
PN6860A

Prepared by Aubrey J. Stargell
Forester, Certified Arborist PN 6860A
TRAQ

July 19, 2024



MITIGATION PLAN
GRAPHIC SCALE: 1"= 10'-0"

1 0 1 2 3
10 0 10 20 30

- BUFFER IMPACT (2,043 S.F.)
- BUILDING SETBACK (28.5 FT. MIN.)
- LINCOLN CREEK OHWM
- DEVELOPMENT FOOTPRINT (931 S.F.)
- BUFFER ENHANCEMENT (5,514 S.F.)
- X NGPA SIGN
- SPLIT-RAIL FENCING

Table 1 below provides an inventory of existing site trees 6"+ dbh.

Tree	Species	Dbh	Condition/Comments
1	Paper birch	8"	Poor condition. Hard lean E over Lincoln Cr. Vertical seam w/decay SW face.
2	Bigleaf maple	8"	Fair condition. Somewhat suppressed but good form. 1' downslope of T3.
3	Bigleaf maple	8"	Fair condition. Somewhat suppressed but good form.
4	Bigleaf maple	11"	Good condition. Good crown, pistol butt NE, mild sweep, oval trunk.
5	W. red cedar	9"	Poor condition. Multi hard trunk bends at base, supp, crown hvy to S.
6	Bigleaf maple	15"	Good condition. Little supp, crown okay unbal hvy to E.
7	W. red cedar	24"	Fair condition. Broken out top at 40', crown okay below.
8	Bigleaf maple	18"	Dead. 25' snag w/high decay.
9	Douglas fir	42"	Good condition. Good crown.
10	W. red cedar	22"	Good condition. Good crown/form
11	Red alder	10"	Poor condition. Suppressed, hard trunk kink at 12'.
12	Bigleaf maple	21"	Fair condition. Crown vigorous but cavity w/decay W face trunk at 70'.
13	Bigleaf maple	9"	Fair condition. Crown fair but trunk has hard arch NE.
14	Bigleaf maple	19"	Good condition. Good crown/form, few dead secondary limbs.
15	Bigleaf maple	9"	Fair condition. Fair crown, good form, but cavity w/decay W face at 8'.
16	Bigleaf maple	19"	Fair condition. Good crown/form but minor decay N base.
17	Douglas fir	9"	Good condition. Vigorous crown but hvy to S, fast taper.
18	Bigleaf maple	3,5,5.9"	Poor condition. Vigorous crown but basal decay, poor branch arch., 4 trunks.
19	Douglas fir	12"	Good condition. Good crown/form but fast taper.
20	Bigleaf maple	18"	Poor condition. *K. deusta* basal decay w/cavity, crown still vigorous.
21	W. red cedar	28"	Poor condition. Nearly dead, top 30' dead.
22	Bigleaf maple	20"	Good condition. Good crown/form.
23	W. red cedar	6"	Dead. 15' snag.
24	Bigleaf maple	11"	Poor condition. Vertical scar W base up to 7', weak/spindly crown.
25	Bigleaf maple	13"	Fair condition. Weak/spindly top hvy to W.
26	Douglas fir	10"	Good condition. Good vigor but crown hvy to S, fast taper.
27	Douglas fir	14"	Fair condition. Trunk kink 30' up, some suppressed. In city r.o.w.?
28	Bigleaf maple	12"	Fair condition. Good vigor but poor branch architecture, some suppressed.
29	Bigleaf maple	9"	Poor condition. Top broken out at 15' w/decay but still live.
30	W. red cedar	20"	Poor condition. Near dead, few live branches lower crown.
31	Bigleaf maple	15,18,21"	Poor condition. 18" 70' snag, 15" hard lean N, weak crown, 21" fair crown.
32	W. red cedar	18"	Dead. 70' snag.
33	W. red cedar	25"x17"	Poor condition. Double leaders both topped 25', crown vigorous below.Cityr.o.w?
34	W. red cedar	7"	Poor condition. Top 6' dead, only 25' tall. In city r.o.w.?
35	Douglas fir	21"	Good condition. Good crown, sinuous trunk.
36	W. red cedar	11"	Dead. 35' snag.
37	W. red cedar	26"	Dead. 65' snag.
38	Bigleaf maple	15",40"	Poor condition. 15" is 80' snag, 40" divides 2 at 7', *K. deusta*, W trunk 90' snag.
39	Bigleaf maple	14"	Fair condition. Good crown/form but cavity S base.
40	Cherry	6",6"	Fair condition. Dbl trunks, vigorous crowns but arching hard to N, NE.
41	Cherry	11"	Good condition. Vigorous crown but little suppressed, mod. lean NE.
42	Cherry	20"	Good condition. Dbltrunkat4',goodvigor,mild gummosis W base, near/over N line.
43	Bigleaf maple	11"	Good condition. Little suppressed but good crown/form,near/over N prop. line?
44	Cherry	11"	Good condition. Good crown/form. In city r.o.w.?
45	Cherry	6"	Good condition. Good crown/form. In city r.o.w.?
46	Paper birch	21"	Dead.65' snag. Hard lean NE. High decay. E of creek.
47	Paper birch	13"	Dead. 30' snag. High decay, E. of creek.
48	Paper birch	10"	Dead. 8' snag. High decay. E of creek.
49	Red alder	22"	Poor condition. Main trunk slabbed off at 15', two 5" trunklets remain green.

49 total trees 6"+ dbh

PROPOSED NEW SINGLE FAMILY RESIDENCE WITHIN STREAM BUFFER

The entirety of the subject parcel is within a 75 ft. stream buffer. The development envelope would occupy **2,043 square feet of stream buffer** area including all structures, concrete surfacing, and the small areas of maintained landscaping around and in front of the home. Impacts to stream buffer functions and values are anticipated to be permanent. To mitigate unavoidable buffer impacts, the proposal includes **enhancement of 5,514 square feet** of area surrounding the residence through conifer underplanting with some shrubs and removal of ivy. Minor impacts to water quality functions are expected to be offset through stormwater controls and site enhancement plantings, including native trees, shrubs, and groundcover, which would filtration and year-round water quality improvement functions over the existing site condition. All mitigation plantings would be maintained and monitored for a period of five years. A split-rail fence with native growth protection signage would be installed along the boundary of the mitigation, and all retained critical areas (both enhancement area and retained native area) would be placed in a permanent conservation easement recorded with the Whatcom County auditor's office.

SLUSHER
LUXURY HOMES
512 40th St. BELLINGHAM, WA 98229 360-295-1069 trent@slusherhomes.com

MITIGATION PLAN
119 ASHLEY ST.
NEW 2,111 SF SINGLE FAMILY RESIDENCE
w/4-BDRM, 4-BATH, 2-CAR GARAGE

ADDRESS:
119 ASHLEY St.
BELLINGHAM WA 98229

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LEGAL DESCRIPTION:
JAMESON'S 2ND BAY
VIEW ADD TO FAIRHAVEN
LOTS 14-15-16 BLK 2

OWNER(S):
RKS DEVELOPMENT, INC.
512 40th St.
BELLINGHAM WA 98229

DRAWN BY:
TRENT SLUSHER
SEPTEMBER 5th, 2024

SHEET
A5

Appendix B

Site Photographs

Site Photographs

Photo 1. View east from near the southwest corner along the south property boundary (9/11/23).

Photo 2. View north from near the southwest property corner along Ashley Street and the west side of the property (9/11/23).

Site Photographs

Photo 3. View northwest along the stream from near the center of the property (9/11/23).

Photo 4. View south over the streambed from near the south side of the property (9/11/23).

Site Photographs

Photo 5. View east from the west side of the property along the north side of the property (9/11/23).

Photo 6. View east along the south side of the property and planter bed to be removed (9/11/23).

Site Photographs

Photo 7. View north over dead cedar trees in the center of the property (9/11/23).

Photo 8. View west from near the northeast property corner over buffer area on the east side of the stream (9/11/23).

Appendix C

Arborist Tree Inventory

Tree Inventory
For Single Residential Development

119 Ashley St.
Bellingham, WA 98225

Prepared for
Slusher Homes
512 40th St.
Bellingham, WA 98229

Aubrey Stargell
PN6860A

Prepared by Aubrey J. Stargell
Forester, Certified Arborist PN 6860A
TRAQ

July 19, 2024

Background Information

Slusher Homes is proposing a single-family residence on 0.18 acres at 119 Ashley St. in Bellingham, WA. This report serves to inventory the existing site trees = > 6" dbh (diameter at breast height).

Existing Conditions

There are 49 trees 6" dbh and larger inventoried on the subject area of 0.18 acres. The site is completely forested. Trees are all native species from young ages to ~ 80 years old. The trees include 6 Douglas fir (*Pseudotsuga menziesii*), 11 western red cedar (*Thuja plicata*), 21 bigleaf maple (*Acer macrophyllum*), 4 paper birch (*Betula papyrifera*), 2 red alder (*Alnus rubra*), and 5 cherry (*Prunus sp.*) Some portions of the stand are overstocked/crowded with suppression and some mortality taking place. Topography is moderately to steeply sloping with east facing aspect and elevation decreasing going west to east with Lincoln Creek at the base of the site. All the trees are numbered on site with pink ribbons and Sharpie and shown on the attached site plan. Table 1 below details the inventory.

Table 1 below provides an inventory of existing site trees 6"+ dbh.

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49	Red alder	22”	Poor condition. Main trunk slabbed off at 15’, two 5” trunklets remain green.

49 total trees 6”+ dbh

Other Observations

While this document is not intended to constitute a Tree Risk Assessment under ISA TRAQ (Tree Risk Assessment Qualification) protocol, there are some dead standing and/or poor condition trees that will likely constitute a High Risk under the proposed development conditions. Removal of the dead and/or poor condition trees as part of the site development process would be prudent to reduce potential hazard and urban wildfire risk.

Additionally, there are some site trees that can have crown-cleaning and/or crown-raising done to reduce hazard risk, tree crowding, and improve urban forest health. Crown-cleaning would include removal of dead/damaged/decayed crown portions. Crown-raising would include pruning of lower to mid-crown branches to reduce crowding/rubbing/abrading portions while removing no more than ~ 1/3rd live crown. Crown-cleaning and crown-raising should be done by qualified professionals using ISA Best Management Practices.

Disclaimer

This Tree Inventory and Protection Plan has been prepared exercising a reasonable standard of care using accepted professional standards. These recommendations are in no way a guarantee of tree health and survival in the future due to potential unforeseen circumstances and acts of God/force majeure. However, they do represent responsible steps in promoting the continued viability of the trees. Be advised that this document does not constitute a Tree Risk Assessment. No representations are made or implied whatsoever regarding the relative safety or stability of any site tree on the subject property or adjacent properties. High or Extreme risk trees may exist on or near this site. A separate Tree Risk Assessment per the ISA Tree Risk Assessment Qualification (TRAQ) protocol can be done upon request to assess relative risk of existing site trees.

Respectfully,

Aubrey Stargell

Aubrey Stargell
Forester, Certified Arborist PN 6860A, TRAQ