

November 30, 2023  
Project No. 20038

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**Regarding:**     **Critical Area Report: Wetlands & Wildlife Habitat**  
Proposed Shabalov Single Family Residence  
King County Tax Parcel No. 556140-1300

Lev,

## 1.0 INTRODUCTION

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This critical area report has been prepared for your residential project located in the Mirrormont area of unincorporated King County near Issaquah, Washington. The proposed project includes the construction of a single-family residence, driveway, and a septic system on a site that is entirely encumbered by critical areas, buffers, and setbacks. The project is subject to review and approval under King County's critical area alterations exception (CAAE) standards. This report demonstrates that the project conforms to King County Code (KCC) 21A.24.070 for wetland and wildlife habitat impacts.

## 2.0 PROJECT SITE AND LANDSCAPE SETTING

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The project site is a 36,455 square foot (0.84 acre) undeveloped residential property located at approximately 24XXX SE 146<sup>th</sup> Street in unincorporated King County near Issaquah, Washington. The site exists along the northern perimeter of the Mirrormont subdivision in the northwest quarter of Section 23, Township 23 North, Range 6 East, Willamette Meridian. The King County tax parcel number for the site is 556140-1300. A legal description for the site is Lot 130, Mirrormont Division Number 5, according to the plat thereof. The site is located east of Issaquah-Hobart Road SE approximately 4.5 miles south of downtown Issaquah and 7.75 miles north of Maple Valley. The site is slightly irregular in shape and measures roughly 190 feet wide (east to west) by 180 feet deep (south to north). Access to the site is from SE 146<sup>th</sup> Street, which is an asphalt paved roadway located within public right-of-way. The site is zoned RA-5 (rural area, one dwelling unit per 5 acres). Parcels located to the west and south are developed residential properties. Parcels located to the north and west are undeveloped.

## 3.0 BASELINE ENVIRONMENTAL CONDITIONS

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The project site is located within the Issaquah Creek drainage area in Water Resource Inventory Area (WRIA) 08 – Cedar-Sammamish Basin. An unnamed Issaquah Creek tributary (08-0208) is mapped approximately 375 feet northeast of the site and another Issaquah Creek tributary, Fifteenmile Creek,

exists approximately 1,275 feet north of the site.

The project site exists within a glacially modified landscape that is surrounded by Squak Mountain to the northwest, West Tiger Mountain to the north, Tiger Mountain to the east, and Taylor Mountain to the southeast. The underlying geology within the general vicinity of the project site creates pathways for surface and sub-surface water flows that result in depressions, drainages, and wetlands that are frequently present. The project site exists at the base of a hillslope with a wetland extending off-site to the north. Site aspect is to the north and topographic relief across the site is approximately 66 feet ranging from an elevation of approximately 608 feet along SE 146<sup>th</sup> Street to an elevation of approximately 542 feet near the northwest property corner. A narrow linear topographic bench traverses the southern portion of the site. King County (2021) suggests that the topographic bench is a former road grade. An area of steep slopes exists between the topographic bench and improved portions of SE 146<sup>th</sup> Street. Earth Solutions NW, LLC (2020) suggests that the steep slopes may be the result of the oversteepening of the pre-existing hill slope due to legal road construction within SE 146<sup>th</sup> Street.

The mapped soil type within the project site is Alderwood and Kitsap soils, very steep (AkF). AkF soils are comprised of about 50 percent Alderwood gravelly sandy loam and 25 percent Kitsap silt loam. Alderwood soils are moderately well drained soils formed under conifers in glacial deposits (Snyder et al. 1975). Kitsap soils are moderately well drained soils formed under conifers in glacial lake deposits on terraces and strongly dissected terrace fronts (Snyder et al. 1975). A soil assessment completed by Earth Solutions NW, LLC (2020) describes that on-site soils are derived from pre-Fraser glacial sedimentary deposits and that on-site soils comprise a variable thickness topsoil overlying gravel that has a variable component of sand and silt.

A Category III wetland exists in the northern portion of the project site. The wetland is a large palustrine forested seasonally saturated (PFOB) wetland that extends considerably off-site to the north, east, and west. For standard residential use, the wetland requires a 110 foot standard width buffer plus a 15 foot setback from the outer limits of the buffer for buildings and other structures. Because the standard width wetland buffer intersects the steep slopes that is present in the southern portion of the site, the wetland buffer is expanded to the top of slope along SE 146<sup>th</sup> Street. Wetland limits, classification, and buffers have been confirmed by King County under #CADS21-0103.

The project site is located within the Puget Sound lowland area of the “Western Hemlock Forest Zone” described by Franklin and Dyrness (1973). Vegetation within this vegetation zone is characterized typically by coniferous forests composed of mixed stands of western hemlock (*Tsuga heterophylla*), western redcedar (*Thuja plicata*), and Douglas-fir (*Pseudotsuga menziesii*) with a variable density shrub and herbaceous layer. Vegetation within the project site includes a second growth mixed species upland conifer-deciduous forest and a deciduous forested wetland. The understory consists mostly of native shrubs and groundcover.

The dominant tree species within upland portions of the site is western redcedar though scattered red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*) and Douglas-fir also are present. Based on a topographic survey completed by Encompass Engineering & Surveying, tree diameters range from less than six inches diameter at breast height (dbh) to 40 inches dbh, with an average diameter range of

approximately 18 to 22 inches dbh. Understory species are well dispersed throughout the site and include vine maple (*A. circinatum*), western hazelnut (*Corylus cornuta*), salmonberry (*Rubus spectabilis*), and western swordfern (*Polystichum munitum*). English ivy (*Hedera helix*), yellow archangel (*Lamium galeobdolon*), and Robert's geranium (*Geranium robertianum*) are locally prevalent near SE 146<sup>th</sup> Street.

Vegetation within the Category III wetland is dense and includes red alder, black cottonwood (*Populus balsamifera*), western redcedar, vine maple, Devil's club (*Oplapanax horridus*), salmonberry, common ladyfern (*Athyrium filix-femina*), skunk cabbage (*Lysichiton americanus*), and youth-on-age (*Tolmiea menziesii*).

## 4.0 WILDLIFE STUDY AND WILDLIFE HABITAT ASSESSMENT

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On October 24, 2023, a wildlife study and wildlife habitat assessment was completed within the project site. The study included a visual assessment of general habitat conditions and observations of wildlife use within the project site. As a result of this work, it was determined that the site likely provides seasonal foraging opportunities and escape cover for small to medium sized mammals as well as passerine birds accustomed to the suburban and semi-rural environments found in east King County. The site does not contain nests of or habitat for species listed in KCC 21A.24.382 and/or any active breeding sites for any federal or state listed endangered, threatened, sensitive, and candidate species or King County species of local importance not listed in KCC 21A.21.382.B through J. The site does exist within the known range of several threatened, endangered, sensitive, and candidate species; however, the site does not contain preferential or critical habitat for any listed species. Use of the project site by wildlife is generally limited by habitat patch size and quality, the proximity and intensity of surrounding residential development, and a lack of undisturbed connection to major wildlife networks. The site is not known to and does not appear to provide habitat unique to the local vicinity and/or the broader region. These determinations are based on the following:

1. The site has been altered from a natural condition by historic logging, grading, and adjacent residential development. Although forested, the site exists within a large residential subdivision where land use intensity is relatively high with individual parcels measuring approximately one acre or less in size.
2. The United States Fish and Wildlife Service (USFWS) "Critical habitat for Threatened & Endangered Species" website does not map proposed or final critical habitat for threatened and endangered species within the projects site. The closest mapped critical habitat is Lake Washington, which is located 8.8 miles to the east, and in the Snoqualmie River, which is located 8.5 miles to the northeast. The mapped critical habitat is for bull trout (*Salvelinus confluentus*), which is a federally threatened species. Based on the known current distribution and habitat requirements, bull trout are not expected to utilize or otherwise be present within either the unnamed Issaquah Creek tributary and/or Fifteenmile Creek, which are the closest streams to the project site.
3. The National Oceanic and Atmospheric Administration (NOAA) Fisheries does not map critical habitat for threatened and endangered species within the projects site. The closest mapped critical habitat is for both winter steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*O. tshawytscha*) and is located approximately 3.1 miles southwest of the site in the Cedar River.

4. The Washington State Department of Wildlife's (WDFW's) "Priority Habitats and Species (PHS) on the Web" maps that the project site exists within a large Yuma myotis (*Myotis yumanensis*) occurrence area. Yuma myotis is a small common bat that resides in moist and dry forests, riparian zones, grasslands, shrub-steppe, and deserts. The WDFW classifies myotis species as a priority species because of the species inclination to aggregate. Priority areas include regular concentrations in naturally occurring breeding areas and other communal roosts. The PHS mapping resolution for the species is non-specific and provided on a township (one square mile) scale. This species typically utilizes buildings, bridges, cliff crevices, caves, mines, and trees as summer day roosts especially when located near water. Maternity colonies occupy buildings, caves, mines, and the undersides of train trestles and piers. According to the WDFW's website, the largest known colonies for this species are located at Hanford, in Whitman County, near Olympia, and in Lincoln County. The project site does not present preferred habitat for Yuma myotis. If present within the project site, use would be transitory and not related to breeding or communal use.
5. The closest mapped King County wildlife network is located approximately one mile west of the project site along Issaquah Creek. Issaquah Creek supports various native salmonid species including state and federally listed species. Issaquah Creek drains to Lake Sammamish and is separated from the project site by Issaquah-Hobart Road SE and residential development.
6. The project site does not contain streams and WDFW's "Salmonscape" website does not map salmonid use within the segment of the unnamed Issaquah Creek tributary located north of the project site and east of Issaquah-Hobart Road SE.
7. The project site supports a predominantly second growth mixed species upland forest and a deciduous forested wetland. The break between the two habitat types is distinct, linear, and with little interspersion. Tree canopy closure and overstory species diversity is high. The understory in uplands is relatively open with moderate shrub and groundcover diversity and locally prevalent noxious weeds near SE 146<sup>th</sup> Street. The understory within the wetland is dense with relatively high species diversity. Edge habitat within the project site is low to moderate due, in part, to the general uniformity of the plant communities.
8. Downed woody debris is present within the site, but not in considerable quantity. Where present, woody debris generally comprises scattered decaying stumps, small diameter fallen trees, and/or larger tree branches.
9. Snags are limited within the site. Where present, snags are not of considerable quality and generally comprise scattered small diameter damaged or standing dead trees.
10. There was no evidence of general wildlife use within the site during the October 24, 2023 wildlife study. Nests, dens, and/or evidence of recent wildlife foraging were not observed.

## 5.0 SITE DEVELOPMENT HISTORY

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The general perimeter of the Mirrormont development can be traced back to an 1864 land grant to the North Pacific railroad. In the 1920's, the Mirrormont development was logged by the Wood and Iverson timber company. In 1968, the Mirrormont development, including the project site, was created through formal land subdivision. In the 1970's, SE 146<sup>th</sup> Street was constructed. In the late 1970's and early 1980's, residences located to the south of the project site were constructed. The residence located to

the west of the project site was constructed in 1998. The project site has never been developed. A review of historic aerial photographs shows that the forested conditions present within the project site are likely the result of forest stand development since the 1920's logging with encroachment of non-native plant species due to adjacent residential use.

## 6.0 PROPOSED PROJECT

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The proposed project includes the construction of a three-story single-family residence, a short, elevated driveway, and an on-site septic system. The residence will have a footprint measuring roughly 60 feet wide by 26 feet deep. The residence will be setback 20 feet from SE 146<sup>th</sup> Street with the long side of the residence aligned with SE 146<sup>th</sup> Street. A small multistory deck will be located on the east side of the residence and a two-car garage will be integrated into the upper floor of the residence. The garage will be accessed using a short, elevated driveway that will extend north from SE 146<sup>th</sup> Street. The driveway will measure 20 feet wide by 30 feet long. The on-site portion of the driveway will measure 20 feet long. The balance of driveway length will be located within SE 146<sup>th</sup> Street. The septic system has been approved by Public Health – Seattle & King County and includes various treatment tanks located near the residence and primary and reserve subsurface drip drainfields located north and east of the residence.

## 7.0 ALTERNATIVES ANALYSIS

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The purpose of the proposed project is to develop the project site for the minimum single-family residential use allowed by the underlying RA-5 zoning designation. The project provides needed residential housing within the local area and aims to construct a single-family residence in a compact format that has all the essential components of modern residential living.

The project has evolved considerably from initial design and currently reflects changes to the location, shape, orientation, and scale to conform to the critical area alteration exception development standards established in KCC 21A.24.070. Prior designs included a longer driveway with a hammerhead turnaround, more complex building architecture, and various exterior improvements such as retaining walls and stairs. Prior designs placed the residence closer to the wetland and required a larger building footprint that did not conform to the maximum permanent disturbance allowed under KCC 21A.24.070. The septic system was recently re-designed to locate the treatment tanks east of the residence, which help to compress the building site. Previous designs located the tanks north of the residence closer to the wetland.

Development opportunities within the site are considerably constrained by the combination of relatively small lot size, sloping topography, and presence of critical areas. The proposed project results in a consolidated building envelope that requires 4,998 square feet of permanent site disturbance of which the majority (3,507 square feet) is related to the required 15 foot building setback. The residence is a custom design comprising a simple rectangular shape, limited exterior architectural amenities, and a total interior finished area measuring 3,608 square feet. There exists no reasonably feasible alternative design to further reduce impacts and that achieve a similar use. There also exists no known alternative

construction methods that would yield an appreciably smaller construction footprint.

The proposed project is compatible with the adjacent residential use because it includes the construction of a single-family residence of similar size and character to adjoining properties and the broader Mirrormont subdivision. Land use surrounding the project site comprises single-family residences with very few undeveloped lots. Residential use within the local area extends back to the early 1970's. Most of the existing residences are located on sloping land and were constructed using conventional on-site "stick-built" construction methods. The average total finished area for the three residences surrounding the project site is 3,000 square feet; however, the residences are either one or two stories with considerably larger overall building footprints. One residence also includes a detached garage, which is not included in the finished area calculations.

## 8.0 IMPACT ANALYSIS

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This impact analysis has been prepared to describe wetland buffer and general wildlife habitat impacts. For discussion purposes, impacts are classified into the following categories:

- Permanent Impacts: Impacts that occur at or very close to the time of the proposed project that result in direct loss of wetland buffer and/or general wildlife habitat through permanent physical alterations or significant diminishment of function.
- Temporary Impacts: Non-permanent wetland buffer and/or general wildlife habitat impacts that occur at or very close to the time of the proposed project that can be restored or will recover over time.
- Indirect Impacts: Wetland buffer and/or general wildlife habitat impacts that occur later in time or may occur incidentally outside of permanent or temporary impacts.
- Interdependent/Interrelated Impacts: Wetland buffer and/or general wildlife habitat impacts dependent upon or related to the proposed project that would have no independent utility without the project.

### 8.1 Permanent Impacts

The proposed project results in 9,622 square feet of permanent wetland buffer and general wildlife habitat impacts. Permanent impacts include variable degrees of vegetation loss and soil alteration resulting from the conversion of the existing undeveloped conditions to residential use. Where the residence and driveway will be constructed and the septic tanks will be installed, vegetation removal will be complete and soil modification will include excavation, grading, and filling to support the proposed residential use. Vegetation removal and soil modification within the septic drainfield will be less, whereas no trees will be removed and other vegetation removal will be limited. Drainfield construction will comprise shallow trenches measuring approximately 5 inches wide by 6 inches deep. No work is proposed within the reserve drainfield area.

### 8.2 Temporary Impacts

The proposed project does not include areas of temporary vegetation removal and/or soil

disturbance. Clearing limits are defined on the project site plan and vegetation removal and/or soil disturbance will not occur outside of the clearing limits. Temporary impacts resulting from the project include short-term noise consistent with standard residential construction practices. Construction noise may temporarily flush and/or displace wildlife, if present, within project site and local vicinity. Construction noise is expected to be limited and of relatively short duration.

### 8.3 Indirect Impacts

Residential development can result in the following indirect wetland buffer and wildlife habitat impacts: longer term plant community changes, the introduction of non-native plants, modification to surface and groundwater conditions, and fragmentation of wetland and wildlife habitat. Indirect impacts resulting from the proposed project are negligible because of the following:

- The project has defined clearing limits and clearing will be limited to 9,622 square feet. Vegetation removal will occur topographically higher up on the site adjacent to SE 146<sup>th</sup> Street and a corridor of native vegetation will be maintained in the approximate northern half of the site contiguous with undeveloped land located to the north.
- Yard areas associated with the project are limited to 3,507 square feet and will be limited to only the 15 foot building setback that is required to surround the residence.
- Stormwater management is per the latest King County design standards. Impervious surfacing is limited to 2,412 square feet and includes the use of rock pads to slow and disperse stormwater runoff within the site.
- The septic system is per Public Health – Seattle & King County design standards. The project includes a NuWater on-site sewage system, which is a compact proprietary treatment system designed to remove nitrogen and bacteria from household wastewater.

### 8.4 Interdependent/Interrelated Impacts

The proposed project is a stand-alone project. It does not provide additional utility or road connections and there are no known projects that are dependent upon and/or are related to the project.

## 9.0 MITIGATION SEQUENCING

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KCC 21A.24 requires that adverse critical area impacts must be mitigated. Mitigation sequencing is core to this standard and exists as a progression of the following steps listed in order of priority: 1) impact avoidance; 2) impact minimization; 3) impact rectification (restoration); 4) impact reduction; 5) impact compensation (mitigation); and 6) monitoring impacts and compensation. The proposed project demonstrates compliance with the established mitigation sequencing standards per the following:

### 9.1 Avoidance

KCC 21A.25.080.A.1 defines impact “avoidance” as altogether not taking a certain action or parts of an action for purposes of eliminating an impact or hazard. The proposed project completely avoids

work within the Category III wetland. Unavoidable impacts are limited to on-site steep slopes, wetland buffer, and wildlife habitat. Impacts are related to the proposed residence, required 15 foot building setback, driveway, and septic system and are subject to limitation under KCC 21A.24.070.

## 9.2 Minimization

KCC 21A.25.080.A.2 defines impact “minimization” as limiting the degree or magnitude of an action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts. Minimization measures incorporated into the proposed project include the following:

1. Setbacks: The proposed project includes a consolidated site layout that utilizes minimum street and septic system setbacks.
2. Residence: The residence is located no more than 20 feet from the southern property line, utilizes simplified architecture that eliminates complex geometry, building projections, and most standard exterior improvements.
3. Minimum Width Driveway: The on-site width and length of the driveway has been limited to 20 feet by 20 feet, which is the minimum allowed per the underlying zoning. In addition, the driveway has been configured so that it is a straight-line departure from SE 146<sup>th</sup> Street.
4. On-site Sewage System: The project incorporates a NUWater on-site sewage system, which is a compact proprietary treatment system designed to remove nitrogen and bacteria from household wastewater. The drainfields incorporate minimum 10 foot and 30 foot setbacks from the residence and the treatment tanks utilize a minimum 5 foot setback from the residence.
5. Stormwater Management: Stormwater control best management practices (BMP’s) have been designed per the latest edition of the King County Surface Water Design Manual and include limiting impervious surfacing and routing downspout discharge to rock pads.

## 9.3 Rectification (Restoration)

KCC 21A.25.080.A.3 defines impact “rectification” as repairing, rehabilitating, or restoring the affected environment. The proposed project does not result in temporary construction impacts that require restoration.

## 9.4 Reduction

KCC 21A.25.080.A.4 requires that impact “reduction” or “elimination” occur over time through preservation and maintenance operations. The proposed project will be constructed using durable modern materials that have a considerable expected lifespan. Future maintenance may include activities such as cleaning and repainting the structure as well as septic tank pumping. Longer term maintenance operations include roof replacement, minor structural repairs, driveway repair/replacement, and utility repairs and upgrades. A 15 foot setback is established around the structure to facilitate future maintenance activities. Where applicable, utilities will be installed in conduit to allow for low impact replacement if ever needed.



## 9.5 Compensation (Mitigation)

KCC 21A.25.080.A.5 defines impact “compensation” as replacing, enhancing, or providing substitute resources or environments. KCC 21A.24.130 prioritizes on-site mitigation to the maximum extent feasible. Where on-site mitigation is not practical, off-site mitigation can be approved if it will achieve equivalent or greater hydrological, water quality, and wetland habitat functions. The project proposes 9,622 square feet of off-site mitigation through credit purchase at the “Keller Farm Mitigation Bank” owned by Habitat Bank, LLC. The bank is a 75-acre wetland, stream and riparian habitat restoration project located at the confluence of Bear, Evans, and Perrigo Creeks in Redmond, Washington. Wetland and habitat restoration goals at the bank were developed to address limiting factors in WRIA 08 related to the loss of wetland hydrology, the loss of wetland habitat and vegetation communities, and the alteration of topography that affects wetland, floodplain, and stream habitat conditions. Traditional on-site mitigation such as vegetation enhancements is not possible because the project site maintains a native upland forest on a north facing slope at the base of a hillside. Shade and resource competition from the adjacent mature vegetation will prevent the successful establishment of on-site vegetation enhancements.

Consistent with guidance provided by King County, the proposed off-site mitigation ratio is 1:1 (buffer mitigation: buffer impact). Credit availability for the project has been confirmed with the bank and proof of mitigation credit purchase will be provided during the subsequent building permit review.

Critical area fencing will fully enclose proposed permanent impact areas and critical area signage will be installed along the fence to inform landowners that critical areas exist in the retained natural areas located within the site. In addition, a notice that critical areas exist within the site will be placed on the property title.

## 9.6 Monitoring

KCC 21A.25.080.A.6 requires “monitoring” of impacts and taking appropriate corrective actions where appropriate. The proposed project will be subject to standard construction inspections during construction phases to ensure compliance with the approved plans. An as-built inspection will be required for the critical area fence and signage installation. No long-term critical area monitoring is proposed or warranted by the project.

## 10.0 REGULATORY COMPLIANCE

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Non-linear critical area buffer and setback alterations not otherwise allowed in KCC 21A.24 can be approved under KCC 21A.24.070 subject to the following conditions established for critical area alteration exceptions:

- a. There is no feasible alternative to the development proposal with less adverse impact on the critical area.**

Project conforms to this standard.

The proposed project aims to construct a single-family residence within a compact format that has all the essential components of modern residential living. The project site is an existing small residential parcel that was created in 1968 through formal land subdivision. Currently, the site exists as vacant forested land that has been altered from a natural condition by both historic logging and adjacent site development. Opportunities to develop the site for residential use are considerably limited by the cumulative effects of small lot size, sloping topography, and presence of critical areas. These limitations are generally natural or otherwise environmental conditions that are not the result of actions taken by the project applicant. The project addresses site limitations through a custom architectural design that includes a simple rectangular shape, limited exterior architectural amenities, and an elevated driveway. All areas located beyond the allowed permanent alteration areas will be retained in a natural condition. The project has undergone mitigation sequencing to demonstrate that adverse impacts have been avoided, minimized, and appropriately mitigated. The project completely avoids direct impacts to the Category III wetland and includes 9,622 square feet of wetland buffer mitigation through credit purchase at the "Keller Farm Mitigation Bank" located in Redmond, Washington.

The proposed project has evolved significantly from the initial design and has been reduced considerably in scale to minimize impacts. Prior designs included building footprints that were larger with a more complicated architecture and geometry including multiple building projections, exterior decks, and a grander driveway configuration.

**b. The alteration is the minimum necessary to accommodate the development proposal.**

Project conforms to this standard.

The site was purchased by the applicant with the expectation to construct a residence for personal use. There is and remains no investment backed expectation related to speculative purchase or future sale of the property. The purpose of the proposed project is to develop the project site for the minimum single-family residential use allowed by the underlying RA-5 zoning. The project aims to construct a single-family residence within a compact format that has all the essential components of modern residential living. The proposed residence has a custom architectural design that includes a simplified rectangular shape, limited exterior architectural amenities, an elevated driveway, and a total interior finished area measuring 3,608 square feet. The average total finished area for the three residences surrounding the project site is 3,000 square feet; however, the residences are either one or two story structures with considerably larger overall building footprints. One residence also includes a detached garage, which is not included in the finished area calculations. Although the proposed project has a total finished area higher than adjacent properties, the increase is related to the stacked multistory design required to address site topography rather than the accommodation of a larger footprint area. The proposed permanent disturbance related to the combination of the residence footprint and required building setback is 4,998 square feet, of which the majority (3,507 square feet) is the required 15 foot structure setback.

- b. The approval does not require the modification of a critical area development standard established by this chapter.**

Project conforms to this standard. The proposed project does not request modification to critical area standards established by this chapter. The maximum allowed permanent disturbance is 4,998 square feet, which is less than the 5,000 square feet allowed by KCC 21.24.070. The required mitigation ratio of 1:1 is met through credit purchase at the “Keller Farm Mitigation Bank” located in Redmond, Washington.

- c. The development proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest.**

Project conforms to this standard. The proposed use of the project site is consistent with allowed uses in the underlying RA-5 zoning. The site plan has been prepared by a licensed civil engineer, the project has been subject to input by a licensed geotechnical engineer, the on-site septic system was prepared by a qualified septic designer, and the building plans have been prepared by a licensed architect. Development of the project site for residential use is in the public interest because it provides needed additional housing within the local area and is consistent with the intended use as established by formal land subdivision.

- d. For dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater, may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping, but not including the area used for a driveway or for an on-site sewage disposal system. When the site disturbance is within a critical area buffer, the building setback line shall be measured from the building footprint to the edge of the approved site disturbance.**

Project conforms to this standard. The project site measures 36,445 square feet (0.84 acres) and is entirely encumbered by critical areas, buffers, and setbacks. The proposed project is subject to the 5,000 square feet permanent disturbance limits. The proposed permanent disturbance for the combined residence and 15 foot building setback area is 4,998 square feet, of which 1,491 square feet is for the building footprint and 3,507 square feet is for the required structure setback.

- e. To the maximum extent practical, access is located to have the least adverse impact on the critical area and critical area buffer.**

Project conforms to this standard. Access to the residence is in a straight line perpendicular to SE 146<sup>th</sup> Street.

- f. The critical area is not used as a salmonid spawning area.**

Does not apply. The proposed project does not contain aquatic areas or salmonid spawning areas.

- g. **The director may approve an alteration in a category II, III and IV wetland for development of a public school facility.**

Does not apply. The proposed project is residential in nature.

## 11.0 REPORT AUTHOR QUALIFICATIONS

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The qualifications I maintain to complete this report include a Bachelor of Science degree in Environmental Science, certification as a Professional Wetland Scientist (PWS), and nearly 24 years of environmental consulting experience within the Puget Sound area of Washington State. My experience with the project site extends back to 2006 when I completed an initial wetland delineation and site planning for a prior landowner. More recently, I completed a critical area delineation and rating report for the current landowner in December 2020. The findings from that report were reviewed and confirmed by King County under #CADS21-0103.

## 12.0 CLOSURE

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Based on my review of your proposed residential project located in the Mirrormont area of unincorporated King County near Issaquah, Washington, I determined that the project conforms to the critical area alteration exception standards established in KCC 21A.24.070 for wetland and general wildlife habitat impacts.

Within the limitations of scope, schedule, and budget, the wetland consulting services summarized in this report conform to the generally accepted standard of care in effect at the time the work was conducted. No other warranty, express or implied, is made. The purpose of the work summarized in this report is to describe site conditions per King County critical area regulations in effect at the time of report preparation. All opinions presented in this report should be considered preliminary until reviewed and confirmed by the King County.

I trust that this report meets your present needs. If you have any questions regarding the information presented in this report or require additional assistance with this project, please do not hesitate to call me at (425) 864-3244 or email me at [psuper@evergreenarc.com](mailto:psuper@evergreenarc.com).

Sincerely,

**EVERGREEN AQUATIC RESOURCE CONSULTANTS, LLC**  
Issaquah, Washington



Peter P. Super  
Professional Wetland Scientist



## 13.0 REFERENCES

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- Earth Solutions, NW, LLC. 2020. "Geotechnical Engineering Study: Proposed Single Family Residence: 24XXX Southeast 146<sup>th</sup> Street – King County (Issaquah) Washington". Prepared for Lev Shabalov. December 9, 2020.
- King County. 2021. "Critical Areas Designation: CADS21-0103, Parcel 56140-1300". Prepared for Leve Shabalov. King County Department of Local Services: Permitting Division. September 16, 2021.
- King County. "iMAP" website available at the following address: <https://gismaps.kingcounty.gov/iMap/>. Accessed October 31, 2023.
- United States Department of Agriculture, National Resources Conservation Service. "Web Soil Survey" website available at the following address: [websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx](http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx). Accessed October 31, 2023.
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**Photo 1 – Proposed Building Site**  
Date of Photograph is October 24, 2023



**Photo 2 – Proposed Septic Tank and Reserve Drainfield Area**

Date of Photograph is October 24, 2023



**Photo 3 – Proposed Primary Drainfield Area**

Date of Photograph is October 24, 2023