



## DECISION CRITICAL AREAS DETERMINATION (AMENDED)

**Development Services Department**  
17301 133<sup>rd</sup> Avenue NE • Woodinville, WA 98072  
425-489-2754 • [www.ci.woodinville.wa.us](http://www.ci.woodinville.wa.us)

**Project Name:** Modi – Critical Areas Determination  
**Project Nos.:** CAE14001  
**Description of Proposal:** Critical areas determination associated with a proposal to develop a 1.63-acre lot into three parcels in the R-6 zone.

This critical areas determination only establishes the designation and identification of critical areas present on the subject property and does not include approval or acceptance of a development proposal. A complete environmental review will be completed with the development application. Critical areas present on site include geologically hazardous areas, streams, wetland areas, flood hazard area, fish and wildlife habitat conservation area, and associated buffers.

**Address:** King County Parcel No.: 0622100060  
Approximately 19400 136th Ave NE; Woodinville, WA

**Applicant:** Prakash Modi, Owner

**Staff Contact:** Jenny Ngo, Senior Planner at 425-877-2283 or [jennyn@ci.woodinville.wa.us](mailto:jennyn@ci.woodinville.wa.us)  
Agnes Kowacz, Associate Planner at 425-877-2293 or [agnesk@ci.woodinville.wa.us](mailto:agnesk@ci.woodinville.wa.us)

### SUMMARY OF PROJECT DECISION

Staff administratively reviewed this project for consistency with the policies, standards, and regulations of the City of Woodinville. After considering comments by the public and agencies, a critical areas determination has been issued pursuant to the Findings of Fact and Conclusions of Law.

Notice of Decision Date:	Monday, June 1, 2015
End of Appeal Period:	Monday, June 15, 2015
Project Permit Expiration Date:	June 1, 2017
Project Decision:	Issued

### APPEALS

**Appeals:** A party of record may appeal this decision to the Woodinville Hearing Examiner pursuant to Chapters 2.30 and 17.17 WMC. An appeal must be filed within 14 days of the date of issuance of this decision, by **4:00 p.m., on June 15, 2015**. Written appeals shall be submitted with the appropriate appeal fee to Development Services Department in City Hall, 17301 133<sup>rd</sup> Avenue NE, Woodinville, WA 98072. Contact the staff contact listed above if you wish to file an appeal.

Affected property owners may request a change in valuation with King County for property tax purposes notwithstanding any program of revaluation. For information regarding property valuations and/or assessments, contact the King County Assessor's Office at (206) 296-7300.

### PROPERTY INFORMATION

**Legal Description:** BAAP W 827.18 FT & S 30 FT FROM NE COR OF NW 1/4 OF SW 1/4 TH S 01-34-02 W 443.39 FT TH S 88-43-02 E 340.86 FT TH N 01-06-30 E 445.01 FT TO S LN OF

CO RD TH N 88-59-33 W ALG SD S LN TO POB LESS CO RD - AKA PARCEL A OF LLA  
#385108 APRVD 5/21/85

Zoning: R-6, residential

Comprehensive Plan Designation: Single-family residential

Critical Areas: Streams, wetlands, fish and wildlife habitat conservation area, geologically hazardous areas, flood hazard area

Environmental (SEPA) Review: The SEPA Determination has not been issued for this project.

Surrounding Zoning:

North: R-6	East: State Route 522
South: R-6	West: R-6

### NOTICES AND PUBLIC COMMENT

The application was received on October 31, 2014. The application was determined complete on November 18, 2014 pursuant to WMC 17.09.030.

Public noticing was completed for the reasonable use permit and SEPA applications. A Notice of Application was issued on November 24, 2014 consistent with WMC 17.11.010. The Notice of Application was mailed to property owners within 500 feet pursuant to WMC 17.11.040(4), published in *The Woodinville Weekly* newspaper, and posted on the site and other public notices locations (City Hall, Post Office, and City of Woodinville website). Pursuant WMC 17.11.010(1)(c) a 15-day public comment period was utilized, ending on December 9, 2014.

A request for additional information was sent on January 9, 2015. Application revisions were submitted on March 9, 2015.

**PUBLIC COMMENTS:** Two public comments were received. Bill Lider of Sno-King Watershed Council submitted a letter on February 4, 2015 stating that the on-site wetland should be rated as a Class 1, the designed dispersion trench does not meet the 2009 King County Surface Water Design Manual, and that impacts to salmon species should be evaluated as part of the proposal. Jeff and Betty Pierce submitted a letter on January 14, 2015 regarding protection and preservation of natural habitat present on the site. The letter requests that no intrusion into the buffers be made.

**AGENCY COMMENTS:** One comment was received from Karen Walter of the Muckleshoot Tribe Fisheries Division on December 9, 2014 requesting additional information on the proposal including development alternatives, stormwater management plans, a review of stream buffer functional impacts relating to temperatures, shade and wood recruitment. The comment identifies a lack of documentation of endangered and threatened fish species on the SEPA checklist and that mitigation is insufficient in terms of monitoring period, plant sizes, and spacing.

### FINDINGS OF FACT

#### GENERAL:

1. Prakash Modi and Sweta Khetan (applicant) are the taxpayers of record for the property identified as Parcel No. 0622100060 according to King County Assessors records. The lot is generally rectangular and contains approximately 71,101 square feet (1.63 acres) in size. The lot is zoned residential R-6, 6 units per acre. The property is bordered by 136<sup>th</sup> Avenue NE on the western boundary and State Route 522 borders the eastern boundary. Little Bear Creek runs through the property and geographically divides the lot between the western

two-thirds and eastern one-third. The property slopes downward from 136<sup>th</sup> Avenue NE from an elevation of 130 feet to an elevation of approximately 80 feet at Little Bear Creek.

2. The property features several critical areas including streams, wetlands, fish and wildlife habitat conservation area, geologically hazardous areas, flood hazard area, and all associated buffers. Pursuant to WMC 21.24.020, the City of Woodinville shall not approve permits or other authorization to alter the condition of any land, water, or vegetation or to construct or alter any structure or improvement without first assuring compliance with the requirements of Chapter 21.24 WMC.
3. The applicant is seeking to divide the property into three single-family residential lots on the subject property. The applicant submitted reasonable use permit and SEPA applications (File Nos. CAE14001 and SEP14023) on October 31, 2014. A critical areas determination, the subject of this decision, is included as part of the review for these permits. The critical areas determination is reviewed administratively as part of or in conjunction with the application review process, and is typically not issued as a separate determination. However, in instances where discrepancies between ratings or classifications occur, a separate critical areas determination may be issued.
4. Pursuant to Chapter 17.07 WMC, a critical areas determination is a Type I permit. The Development Services Director is the decision authority on Type I permits.
5. Pursuant to WMC 21.24.110(2), a critical areas review establishes whether critical areas exist on the property, confirms the nature and type of the critical area, and determines whether the development proposal is consistent with Chapter 21.24 WMC. Critical areas determinations occur for development proposal applications or other requests for alterations on sites that include a critical area or buffer. This critical areas determination only establishes the type and designation of critical areas present on a property. Review of environmental impacts resulting from the proposal including restoration, mitigation, or changes to standard buffer widths are not included in this determination and shall only be decided under the reasonable use permit and/or future development applications.
6. The applicant submitted a Stream and Wetland Assessment Report and Buffer Reduction Plan prepared by Acera, LLC (Exhibit 4). The report evaluated the wetland and stream conditions and information on wetland delineation, stream typing and rating using existing documentation and field observation.

**STREAMS:**

7. Streams are water bodies with a defined bed and banks and demonstrable flow of water pursuant to WMC 21.24.370. Little Bear Creek runs north-south within the eastern third of the property. Little Bear Creek is designated as a Type 1 stream and a Shoreline of the State pursuant to WMC 21.24.370(1) and SMP Section 5.3.1. Nine different fish species are documented within Little Bear Creek, including several species of salmon, cutthroat trout, coast range sculpin, and western brook lamprey.<sup>1</sup>
8. The standard stream buffer for Type 1 streams is 150 feet, but may be reduced to 115 or 100 feet if enhancement and the applicant can demonstrate using best available science that sufficient ecological functions may be achieved. The proposed buffer width shall be determined and evaluated under the reasonable use permit and/or future development applications, and not under this determination.

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<sup>1</sup> David Evans and Associates, Inc., *Little Bear Creek Corridor Habitat Assessment*, prepared for the City of Woodinville (July 2002).

**FLOOD HAZARD AREA:**

9. Pursuant to the Flood Insurance Rate Maps and Flood Insurance Study for King County, Special Flood Hazard Area (Zone AE) is present adjacent to and within Little Bear Creek and Wetland A (Exhibit 17). The base flood (also known as a 1 percent annual chance flood or 100-year flood) elevation in this area is 87 feet. The wetland and portions of the stream buffer are inundated with water during a 100-year flood event.

Pursuant to WMC 21.24.210(1), a flood hazard area comprises the floodplain, flood fringe, zero-rise floodway and Federal Emergency Management Act (FEMA) floodway. Zone AE comprises the floodplain, which is the total area subject to inundation by the base flood pursuant to WMC 21.06.255. Areas designated as Zone AE in the Flood Insurance Rate Maps and Flood Insurance Study qualify as flood hazard area and are subject to the requirements of WMC 21.24.210 through WMC 21.24.280.

**WETLANDS:**

10. Pursuant to WMC 21.24.320, wetlands are defined as areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. One wetland, identified as Wetland A, was identified on the site. Wetland A is adjacent to Little Bear Creek and within the stream buffer (Exhibits 3 and 4). Acera classifies the wetland as a slope wetland (Exhibit 4, page 7).
11. The delineation conducted by Acera, LLC indicates that the wetland is approximately 1,800 square feet (0.04 acres) (Exhibit 4, page 7). The Acera report appears to appropriately delineate wetland areas on the north, south, and east boundaries of Wetland A. The western side appears to be incomplete, as the wetland delineation excludes wetland lobes evidenced by vegetative, soil and hydrologic indicators (Exhibit 6, page 2). Additional wetland delineation must be conducted in order to determine the boundaries of the wetland as well as the wetland rating.
12. Wetlands must be rated using a dual system method as outlined in WMC 21.24.320, including the wetland rating system prescribed by the Department of Ecology and the wetland rating system prescribed by the City of Woodinville. The systems vary in that the Department of Ecology rating system provides a scoring mechanism to rank wetlands, whereas the City of Woodinville rating system classifies wetlands using specific characteristics or attributes. The Department of Ecology system serves as the "best available science" for wetlands under the Growth Management Act.<sup>2</sup> Although the systems share some similarities, the systems are fundamentally different in both method of rating and by distribution of categories or classes. An evaluation of wetlands under both the City and Department of Ecology rating systems is required in a critical area special study. The individual rating systems are discussed in more detail in Findings 13 and 14.
13. Although two rating systems are prescribed in the Woodinville Municipal Code, standard minimum buffers are only determined using the City's rating system pursuant to WMC 21.24.330. Wetland buffers may be reduced by 25 to 50 feet depending on the wetland class and if the subject buffer is significantly degraded. Wetland buffers cannot be reduced more than the allowed width pursuant to WMC 21.24.330(1). Where best available science identifies buffers are inadequate in protecting functions and values, wetland buffers may be increased. Additionally, when the buffer requirements are in conflict, the provision which provides more protection to environmentally critical areas applies unless specifically

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<sup>2</sup> Hruby, Thomas, *Washington State Wetland Rating System for Western Washington Revised*, Washington State Department of Ecology Publication # 04-06-15 (2004).

provided otherwise or unless such provision conflicts with Federal or State laws or regulations pursuant to WMC 21.24.020(4).

14. WMC 21.24.320(1) requires that wetlands be rated similarly to the Department of Ecology Wetland Rating System found in the Washington State Wetland Rating System document, Western Washington, Ecology Publication No. 93-74. At the time the application was vested, the 2004 version of the Washington State Wetland Rating System for Western Washington was the most current version used by the Department of Ecology. On January 1, 2015, the Department of Ecology issued a 2014 version of the rating system.

The Department of Ecology rating system establishes criteria for rating wetlands based on type, special or rare characteristics; potential or opportunity to improve water quality functions, potential or opportunity to reduce erosion or flooding; or potential or opportunity to provide habitat. Wetlands that feature special characteristics are automatically rated as a Category I or II. Wetlands without special characteristics are rated based on a score out of a total of 100 points. Category I wetlands score 70 points or more, Category II wetlands score 51 to 69 points, Category III wetlands score 30 to 50 points, and Category IV wetlands score less than 30.

15. Acera scores the wetland as 23 points and rates the wetland as a Category IV, the lowest possible category in the rating system (Exhibit 4, page 37). Under Acera's rating, the wetland rates low in all three functional areas: water quality function, hydrologic function, and habitat function (Exhibit 3, pages 12, 32-54). Generally, the potential and opportunity for each of these functions was rated low, as Acera did not identify a richness of plant species, significant vegetative cover or undisturbed areas, or interspersions of habitats or corridor connections (Exhibit 3, pages 32-54). The wetland rating provided by Acera evaluates the delineated limits of the wetland, which excludes western portions of the wetland (Finding 12).

16. WMC 21.24.320 requires that wetlands also be rated using the City's specific wetland rating criteria in Subsection (2). Wetlands are designated as Class 1, Class 2, or Class 3 depending on the characteristics or attributes expressed within the particular wetland or associations with certain stream types:

- (a) *Class 1 wetlands are those wetlands that meet any of the following criteria:*
- (i) *Documented habitat for Federal or State listed endangered or threatened fish, animal, or plant species; or*
  - (ii) *Wetlands documented as high quality habitats in the natural Heritage Information System; or*
  - (iii) *Wetlands of exceptional local significance or irreplaceable ecological functions, including spagnum bogs and fens or natural forest swamps; or*
  - (iv) *Wetlands proximal to and influenced by the main stem of the Sammamish River or Little Bear Creek.*
- (b) *Class 2 wetlands are those wetlands not rated as Class 1 wetlands and meet any of the following criteria:*
- (i) *Wetlands that have significant functions that may not be adequately replicated through creation or restoration; or*
  - (ii) *Wetlands of any size associated with Type 2 or 3 streams; or*
  - (iii) *Wetlands greater than one acre in size; or*
  - (iv) *Wetlands equal to or less than one acre having three or more classes of wetland vegetation as defined in Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al. 1979); or*
  - (v) *Wetlands equal to or less than one acre having a forested wetland class or open water habitat.*
- (c) *Class 3 wetlands are those wetlands not rated as Class 1 or 2 wetlands.*

17. Acera report states that the wetland is a Class 3 wetland, which is the closest equivalent to the Category IV wetland rating using the 2004 Department of Ecology wetland rating system.

Acera determined that the wetland does not meet the criteria in WMC 21.24.320(2)(a)(i) through (iii) within the Class 1 designation. Under the criteria in WMC 21.24.320(2)(a)(iv), Acera states that the wetland is not proximal nor hydrologically influenced by Little Bear Creek under criterion (iv) and does not qualify as a Class 1 wetland under criterion (i) through (iii) (Exhibit 4, page 12; Exhibit 12). The biologist uses a geologic definition, in which proximal is defined as in "in the center of" (Exhibit 4, page 12; Exhibit 12). The report states that the wetland does not provide hydrologic functions such as flood attenuation or habitat functions for Little Bear Creek, and at the time of visit, the creek was at flood stage and below the elevation of the subject wetland, indicating no connection to the creek (Exhibit 4, page 12).

Furthermore, Acera states that in order to determine that the wetland is influenced by Little Bear Creek, the wetland should have been classified as a riverine wetland instead of a slope wetland (Exhibit 17). Riverine wetlands are identified by the inundation by overbank flooding by a stream or river that occurs at least once every two years in addition to other field indicators. Overbank flooding and other field indicators were not identified during winter assessments over a two-year period. Acera states that the lower elevation of the wetland may rarely get inundated during infrequent major events and does not influence the existence of the wetland or provide a dominant regular source of hydrologic input (Exhibit 17).

Acera determined that the wetland does not qualify as a Class 2 wetland meeting any of the criteria in WMC 21.24.320(2)(b). The wetland does not provide significant functions that cannot be adequately replicated, is not associated with a Type 2 or 3 stream, is not greater than an acre, does not have three or more classes of wetland vegetation, nor has a forested wetland class or open water habitat. Acera concludes that the wetland cannot be classified as a Class 1 or Class 2 wetland, and therefore meets the criteria for a Class 3 wetland.

18. The City enlisted Otak to provide a third-party review of the Stream and Wetland Assessment Report and Buffer Reduction Plan prepared by Acera, LLC (Exhibit 6). In the memorandum, Otak does not concur with the Acera's findings on the wetland delineation and wetland rating under either rating system. The report states that the delineation on the west side of the wetland does not appear complete based on vegetative indicators present beyond the wetland delineation flags. Otak rated the wetland as a Class 1 under the City's rating system and a Category III under the 2004 Department of Ecology rating system (Exhibit 6, page 3).

Otak rates the wetland as a Category III with a score of 34 points under the 2004 Department of Ecology System. Based on the report, the wetland has opportunities for water quality improvement, provides hydrologic functions such as floodwater storage, and opportunity to provide habitat for wildlife species (Exhibit 6, pages 3, 12-24). As compared to Acera's rating, Otak rates the wetland higher for vegetation cover and type, opportunity to reduce flooding and erosion, interspersions of habitats, corridor connections, and adjacency to Priority Habitats. Otak rates the special habitat features lower than the Acera rating. (Exhibit 4, pages 32-54; Exhibit 6, pages 12-24).

The Otak memorandum states that the wetland is rated as a Class 1 wetland under the City's wetland rating system. The memorandum states that the wetland is both proximal and

hydrologically influenced by Little Bear Creek and meeting the criterion under WMC 21.24.320(2)(a) (Exhibit 6, page 3-4). The memorandum does not provide a specific definition of proximal, except that the wetland would be identified specifically as a slope river proximal wetland as it is "positioned in the landscape 'immediately above the floodprone area of the active river channel' and extends 200' upslope (Powell et al. 2003).

The memorandum states that the wetland is located within the 100-year floodplain of Little Bear Creek and is within the floodprone area of the active channel. During floods of the creek, the wetland provides flood storage functions during and after an event. The wetland and Little Bear Creek are connected hydrologically through a mixing and exchange of surface and subsurface water between the wetland and Little Bear Creek ("hyporheic exchange flows"). This is evidenced by shallow subsurface water and surface water flowing from the wetland into Little Bear Creek (Exhibit 6, page 4). Otak concludes that the wetland meets the criteria for a Class 1 wetland under WMC 21.24.320(2)(a)(iv) for both proximity to and influenced by Little Bear Creek.

19. WMC 21.24.320(2)(a)(iv) designates wetlands that are "proximal to and influenced by the main stem of... Little Bear Creek" as a Class 1 wetland. Although the Woodinville Municipal Code does not specifically define "proximal" or "influenced", common definitions used in this context can be found in the *Merriam-Webster Dictionary Revised Edition* (published by Houghton Mifflin Company). "Proximal" is defined as proximate, very near, close, immediate, or direct. "Influenced" is defined as to exert influence over, affect, or to modify.

The wetland is located approximately two to three feet from the ordinary high water mark of Little Bear Creek and situated within the stream buffer (Exhibit 4, page 26; Exhibit 3; Exhibit 6, pages 4 and 10). The wetland is immediately adjacent to the stream bank and qualifies as being proximal to Little Bear Creek. The wetland is within the 100-year floodplain of Little Bear Creek. The wetland sits an elevation between 84 to 86 feet and during a base flood (also known as a 1 percent annual chance flood or 100-year flood), the flood elevation of Little Bear Creek rises to 86 feet and inundates the wetland. The wetland is within the stream's documented base flood area and is influenced by flood flows. Additionally, a hydrologic connection exists between the wetland and Little Bear Creek through subsurface water recharge and discharge in the wetland. Hydrologic processes link both Little Bear Creek and Wetland A. The wetland qualifies as a Class 1 wetland, as it is proximal and influenced by Little Bear Creek.

#### *FISH AND WILDLIFE HABITAT CONSERVATION AREAS:*

20. Pursuant to WMC 21.24.410, fish and wildlife habitat conservation areas are those habitat areas that are Class 1 wetlands and buffers, Type 1 streams and buffers, or that have a documented presence of species listed by the Federal Government or State of Washington as endangered or threatened. Little Bear Creek is a Type 1 stream with documented use by threatened and endangered species such as Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*). Little Bear Creek and its buffers are designated as a fish and wildlife habitat conservation area. Wetland A qualifies as a Class 1 wetland under the City's wetland rating system, and is designated as a fish and wildlife habitat conservation area.

#### *GEOLOGICALLY HAZARDOUS AREAS:*

21. Pursuant to WMC 21.24.290, geologically hazardous areas include those areas susceptible to erosion, sliding, earthquake or other geological events. The site features landslide hazard and seismic hazard areas.
22. Pursuant to WMC 21.24.290(2)(a), erosion hazard areas are those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service or identified by a critical area special study as having a severe to very severe erosion potential. Site surface

soils were classified as Everett gravelly sandy loam and Norma sandy loam, which has the geologic units of glacial outwash and alluvium soils (Exhibit 8, page 5). These soils are listed as being slight to moderate erosion potential and do not qualify as an erosion hazard.

23. Landslide hazards are areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. The westernmost 50 to 75 feet the property features steep slopes greater than 40 percent measuring approximately 25 feet in height. Steep slopes qualify as landslide hazard area pursuant to WMC 21.24.290(2)(b)(v).
24. Pursuant to WMC 21.24.290(2)(c), seismic hazard areas are areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, surface rupture, or soil liquefaction. Underlying loose to medium dense alluvial soils present on the site are considered to have a moderate to high potential for liquefaction and amplification of ground movement. The site meets the definition of a seismic hazard area.
25. Robinson Noble prepared a Geotechnical Engineering Report for construction within the steep slopes (Exhibit 8). The report notes that the site has a potential for surficial soils on the steeper sections of the slope to slough over time. The installation of retaining walls, adequate drainage, and vegetation may reduce slough events (Exhibit 8, page 4). The report states that the site is suitable for proposed development from a geotechnical standpoint, provided recommendations in the geotechnical report are followed. The report states that the landslide hazard area buffer be reduced from 50 feet to 10 feet. Engineering recommendations include grading to expose medium dense or firmer native soils, placement of structural fill below structures, use of shallow spread foundations or stone columns, and other techniques. Suitability of the site for development, including proposed buffer width reductions, engineering techniques, and structure placement will be reviewed under the reasonable use permit and/or future development applications.

#### CONCLUSIONS OF LAW

1. Pursuant to Chapter 17.07 WMC, the Development Services Director has the authority to approve or deny the critical areas determination after reviewing all information submitted in support of the application.
2. Pursuant to WMC 21.24.110(2)(a), the Development Services Director shall perform a critical areas review and shall determine whether any critical area exists on the property and confirm its nature and type.
3. Streams are designated pursuant to WMC 21.24.370:  
*Streams are water bodies with a defined bed and banks and demonstrable flow of water. Streams shall be designated Type 1, Type 2, Type 3 and Type 4 according to the following criteria:*
  - (1) Type 1 streams are those streams identified as "Shorelines of the State" under Chapter 90.58 RCW or supporting significant anadromous salmonid use, including the Sammamish River and Little Bear Creek.
  - (2) Type 2 streams are those that have perennial (year-round) or intermittent (seasonal) flow and are used by salmonids.
  - (3) Type 3 streams are those that have perennial or intermittent flow and are used by fish other than salmonids.
  - (4) Type 4 streams are those natural streams with perennial or intermittent flow that are not used by fish.

**CONCLUSION:** Little Bear Creek is identified as a shoreline of the state that supports significant anadromous salmonid use. Little Bear Creek is designated as a Type 1 stream.

4. Wetlands are designated pursuant to WMC 21.24.320(1):  
*Wetlands shall be rated similarly to the Department of Ecology Wetland Rating System found in the Washington State Wetland Rating System document, Western Washington, Ecology Publication No. 93-74.*

**CONCLUSION:** Under the 2004 wetland rating system, the wetland rated as a Category IV wetland as rated by Acera and a Category III as rated by Otak. The wetland rating conducted by Acera did not evaluate the full limits of the wetland, as western portions of the wetland were not included in the delineation. The wetland rating pursuant to WMC 21.24.320(1) shall not be designated until a full delineation of Wetland A is complete. The Department of Ecology wetland rating system will be used in conjunction with the City's rating system to establish wetland and buffer impacts.

5. Wetlands are designated pursuant to WMC 21.24.320(2):
- (a) *Class 1 wetlands are those wetlands that meet any of the following criteria:*
    - (i) *Documented habitat for Federal or State listed endangered or threatened fish, animal, or plant species; or*
    - (ii) *Wetlands documented as high quality habitats in the natural Heritage Information System; or*
    - (iii) *Wetlands of exceptional local significance or irreplaceable ecological functions, including spagnum bogs and fens or natural forest swamps; or*
    - (iv) *Wetlands proximal to and influenced by the main stem of the Sammamish River or Little Bear Creek.*
  - (b) *Class 2 wetlands are those wetlands not rated as Class 1 wetlands and meet any of the following criteria:*
    - (i) *Wetlands that have significant functions that may not be adequately replicated through creation or restoration; or*
    - (ii) *Wetlands of any size associated with Type 2 or 3 streams; or*
    - (iii) *Wetlands greater than one acre in size; or*
    - (iv) *Wetlands equal to or less than one acre having three or more classes of wetland vegetation as defined in Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al. 1979); or*
    - (v) *Wetlands equal to or less than one acre having a forested wetland class or open water habitat.*
  - (c) *Class 3 wetlands are those wetlands not rated as Class 1 or 2 wetlands.*

**CONCLUSION:** The wetland does not qualify under the criteria under WMC 21.24.320(2)(i) through (iii). The wetland does not provide documented habitat for endangered or threatened species, is not documented as a high quality habitat in the Heritage Information System, and does not have exceptional local significance or irreplaceable ecological functions.

The wetland is located approximately two to three feet from the ordinary high water mark of Little Bear Creek and situated within the stream buffer (Exhibit 4, page 26; Exhibit 3; Exhibit 6, pages 4 and 10). The wetland sits an elevation at or below the base flood elevation and is subject to inundation during a base flood. The wetland is within the stream's documented base flood area and is influenced by flood flows. A hydrologic connection exists between the wetland and Little Bear Creek through subsurface water recharge and discharge in the wetland. The wetland qualifies as being proximal and influenced by Little Bear Creek.

Under the City's rating system, the wetland does not qualify as a Class 2 or Class 3 wetland. The wetland meets both conditions under WMC 21.24.320(2)(a)(iv) and is designated as a Class 1 wetland. The standard Class 1 buffers shall apply to Wetland A unless modified in accordance with Chapter 21.24 WMC.

6. Flood hazard areas are designated pursuant to WMC 21.24.210(1) and shall consist of the following components:
- (a) Floodplain;
  - (b) Flood fringe;
  - (c) Zero-rise floodway; and
  - (d) Federal Emergency Management Agency ("FEMA") floodway.

**CONCLUSION:** Floodplains are the areas subject to inundation by the base flood, which is a flood that has a one percent chance of being equaled or exceeded in any given year. The base flood is also identified as the 100-year flood and designated on Flood Insurance Rate Maps as having a letter A or V. According to these maps, a portion of the site is located in Zone AE. Areas designated by Zone AE in the Flood Insurance Rate Maps shall be also designated as flood hazard areas.

7. Fish and wildlife habitat conservation areas are designated pursuant to WMC 21.24.410(1):
- (a) Documented presence of species listed by the Federal Government or the State of Washington as endangered or threatened; or
  - (b) Heron rookeries or active nesting trees; or
  - (c) Class 1 wetlands and buffers as defined in WMC 21.24.310; or
  - (d) Type 1 streams and buffers as defined in WMC 21.24.350; or
  - (e) Native growth protection easements/ native growth protection areas (NGPE/NGPA) and other areas designated by the City; or
  - (f) Sites containing a bald eagle territory as mapped by WDFW. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (Chapter 232-12-292 WAC).

**CONCLUSION:** Little Bear Creek is designated as a Type 1 stream. Wetland A is designated as a Class 1 wetland under the City's wetland rating system. The stream and wetland and their buffers are designated as fish and wildlife habitat conservation area.

8. Geologically hazardous areas are designated pursuant to WMC 21.24.290:
- (a) Erosion Hazard Areas. Erosion hazard areas are those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service or identified by a critical area special study as having a severe to very severe erosion potential.
  - (b) Landslide Hazard Areas. Landslide hazard areas are areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to the following:
    - (i) Areas of historic failures, such as areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources;
    - (ii) Areas with all three of the following characteristics:
      - (A) Slopes steeper than 15 percent; and
      - (B) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
      - (C) Springs or ground water seepage;
    - (iii) Areas that have shown movement during the Holocene epoch (from 10,000 years ago to the present) or that are underlain or covered by mass wastage debris of that epoch;
    - (iv) Areas potentially unstable because of rapid stream incision, stream bank erosion, and undercutting by wave action;
    - (v) Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
    - (vi) Any area with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

(c) *Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, surface rupture, or soil liquefaction.*

**CONCLUSION:** The site contains geologically hazardous areas including landslide hazard and seismic hazard areas. The site does not qualify as an erosion hazard area, as site surface soils have a slight to moderate erosion potential not meeting the criteria of erosion hazard. Steep slopes greater than 40 percent are present on the western portion of the site and qualify as landslide hazard area as identified on submittal maps and documents. The site meets the definition of a seismic hazard area, with on-site loose to medium dense alluvial soils having a moderate to high potential for liquefaction and amplification of ground motion. Areas of the site featuring landslide hazard and seismic hazard areas are designated as geologically hazardous areas.

### DECISION

The City of Woodinville has conducted an administrative review of this application proposal for consistency Chapter 21.24 WMC – Critical Areas. The Director hereby issues the following critical areas determination for the property identified as Parcel No. 0622100060:

- A. The stream identified on the property as shown in Exhibit 3 is Little Bear Creek and designated as a Type 1 Stream.
- B. Floodplains shown in Exhibit 3 and on the FEMA Flood Insurance Rate Maps and Flood Insurance Study for King County as Zone AE are designated as flood hazard areas.
- C. Wetland A partially identified in Exhibit 3 and Exhibit 4 is designated as a Class 1 Wetland under the City's wetland rating system pursuant to WMC 21.24.320(2)(b). Under the Department of Ecology wetland rating system, the wetland shall be completely delineated prior to a determination of the designation pursuant to WMC 21.24.320(2)(a).
- D. Areas contained in Little Bear Creek and Wetland A and their buffers are designated as Fish and Wildlife Habitat Conservation Areas.
- E. The site features landslide hazard areas and seismic hazard areas. Geologically hazardous areas are designated on the property in accordance to the Geotechnical Engineering Report (Exhibit 8).

  
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David Kuhl, Development Services Director

June 1, 2015

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Date

### EXHIBITS

- Exhibit 1 Critical Areas Determination
- Exhibit 2 Land Use Permit Application
- Exhibit 3 Modi Short Plat Site Plan (Sheet PP1) dated February 25, 2015
- Exhibit 4 Stream and Wetland Assessment Report and Buffer Reduction Plan, prepared by Mike Laves of Acera LLC, dated January 2015
- Exhibit 5 SEPA checklist prepared by Prakash Modi, dated June 6, 2014
- Exhibit 6 Memorandum regarding Modi Short Plat Third Party Wetland Review, prepared by Shelby Petro and Kevin O'Brien of Otak, dated April 8, 2015

- Exhibit 7 Technical Memorandum regarding disputed wetland category, dated April 22, 2015
- Exhibit 8 Third Revision Geotechnical Engineering Report prepared by Rick Powell of Robinson Noble, dated January 23, 2015
- Exhibit 9 Critical Area Exhibit 1 prepared by Beyler Consulting, dated April 18, 2015
- Exhibit 10 Response to Request for Additional Information, prepared by Mike Layes of Acera LLC, dated January 24, 2015
- Exhibit 11 Response to Muckleshoot Indian Tribes Fisheries, prepared by Brandon Loucks of Beyler Consulting, dated February 25, 2015
- Exhibit 12 Response to Sno-King Watershed Council, prepared by Mike Layes of Acera LLC, dated February 16, 2015
- Exhibit 13 Response to Part II Sno-King Watershed Council, prepared by Brandon Loucks of Beyler Consulting, dated February 25, 2015
- Exhibit 14 Preliminary Technical Information Report, prepared by Brandon Loucks, dated revised February 18, 2015
- Exhibit 15 Tree Inventory prepared by Brandon Cook dated March 3, 2015
- Exhibit 16 Response to Public Works Comment #10, prepared by Brandon Loucks of Beyler Consulting, dated February 25, 2015
- Exhibit 17 Flood Insurance Study Excerpt (Volume 1 – Table 6; Volume 3); Preliminary Flood Insurance Rate Map – King County and Incorporated Areas (Map No. 53033C0068H), dated February 1, 2013  
Email correspondence between Prakash Modi, Mike Layes, Jenny Ngo, Dave Kuhl and Agnes Kowacz dating January 6, 2015 through May 20, 2015
- Exhibit 18 Letter from Bill Lider on behalf of Sno-King Watershed Council, dated February 4, 2015
- Exhibit 19 Letter from Jeff and Betty Pierce, dated received January 15, 2015
- Exhibit 20 Email from Karen Walter of Muckleshoot Indian Tribe, dated December 9, 2015
- Exhibit 19 Additional Information Request dated January 6, 2015