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Kittitas County CDS

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## Technical Memorandum

To: Schmaus Haus Construction LLC - Cameron Schmaus

File Number: 2906.0001

From: Kramer Canup, Soundview Consultants, LLC

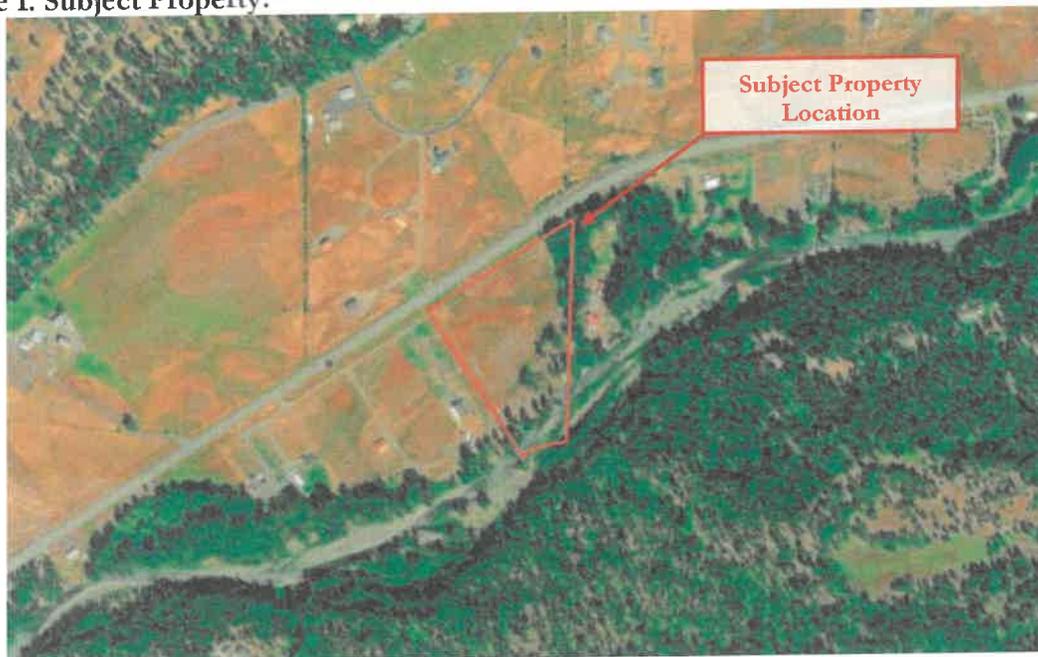
Date: August 26, 2025

Re: Shoreline, Wetland, and Fish and Wildlife Habitat Assessment -  
8174 SR 970, Cle Elum, Washington 98922

Dear Cameron Schmaus,

Soundview Consultants LLC (SVC) conducted a shoreline, wetland, and fish and wildlife habitat assessment of an approximately 11.00-acre subject property located at 8174 State Route 970 in the Cle Elum area of unincorporated Kittitas County, Washington (Figure 1). The subject property consists of one tax parcel situated in the Southwest and Northwest  $\frac{1}{4}$  of Sections 26 and 35, Township 20 North, Range 16 East (Kittitas County Tax Parcel Number 952175). SVC investigated the subject property for the presence of potentially-regulated wetlands, streams, or other fish and wildlife habitat conservation areas located on or within 300 feet of the subject property. This Technical Memorandum has been prepared to document the results of this assessment.

Figure 1. Subject Property.



## Methods

SVC investigated and assessed any potentially-regulated shorelines, wetlands, streams, and other fish and wildlife habitat conservation areas on or within 300 feet of the subject property in July of 2025. All determinations were made using observable vegetation, hydrology, and soils in conjunction with data from the U.S. Geological Survey (USGS) topographic maps, National Resource Conservation Service (NRCS) soil survey, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) and Information for Planning and Consultation (IPaC) database, Washington State Department of Natural Resources (DNR) water typing system, Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) mapping tools, WDFW and Northwest Indian Fisheries Commission (NWIFC) Statewide Washington Integrated Fish Distribution (SWIFD) database, Kittitas County Geographic Information Systems (GIS) data, and various orthophotographic resources.

Wetland presence/absence was determined using the routine approach outlined in the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and modified according to the guidelines established in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2.0* (USACE, 2010) and *Field Indicators of Hydric Soils in the United States* (NRCS, 2024). Prior precipitation conditions and seasonal timing of site investigations were considered in evaluations for wetland hydrology indicators. Pink surveyor's flagging was labeled alpha-numerically and tied to 3-foot lath or vegetation at formal sampling locations to mark the points where detailed data was collected (DP-1 to DP-9). Additional test pits were excavated at regular intervals throughout the subject property to further confirm wetland presence/absence. The locations of the data plots are illustrated in Attachment A.

Ordinary High Water (OHW) mark determinations were previously determined by the Washington Department of Fish and Wildlife (WDFW) assumedly using WSDOE's method as detailed in *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson et. al., 2016) and the definitions established in the Revised Code of Washington (RCW) 90.58.030(2)(b) and WAC 173-22-030(5). SVC identified unlabeled orange flagging during its July 2025 site visit which coincided with SVC's observance of OHW during the July 2025 site visit. SVC therefore accepts the existing WDFW OHWM determination in its entirety.

The fish and wildlife habitat assessment was conducted during the same site visits by qualified fish and wildlife biologists. The experienced biologists made visual and auditory observations using stationary and walking survey methods for both aquatic and upland habitats noting any special habitat features and direct and indirect signs of fish and wildlife activity (e.g. nesting, foraging, and migration/movement). Special attention was given to assessing the potential presence of wildlife habitat areas outlined under Kittitas County Code (KCC) Chapter 17A.04.

## Background Data

### Landscape Setting

The subject property is located in a rural-residential setting in the Cle Elum area of unincorporated Kittitas County, Washington. The subject property currently consists of maintained agricultural land, a small dirt pad for staging equipment, a boundary of an undeveloped forested area, and a short section of the Teanaway River. The Teanaway River runs through the southern portion of the property from northeast to southwest; single-family residences are adjacent to the property on both the east and west

boundaries, and State Route 970 borders the north side of the subject property. Nearly the entirety of the site is located within the 100-year floodplain of the Teanaway River. Elevations onsite range from approximately 1888 feet above mean sea level (amsl) in the southwestern part of the site to 1902 feet amsl in the northeast corner of the site. A Kittitas County topographic map is provided in Attachment B1. The subject property is located within Water Resource Inventory Area (WRIA) 39 – Upper Yakima.

### Critical Area Inventories

Prior to the site investigation, SVC staff conducted background research using the U.S Geological Survey (USGS) topographic map, Kittitas County Geographic Information System (GIS) data, Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS), and WDFW and Northwest Indian Fisheries Commission (NWIFC) Statewide Integrated Fish Distribution (SWIFD) mapping tools, Washington Department of Natural Resources (DNR) water typing system (Attachment B3), United States Fish and Wildlife (USFWS) National Wetland Inventory (NWI) (Attachment B2), and Natural Resource Conservation Service (NRCS) soil survey (Attachment B7).

The DNR stream typing map (Attachment B2), WDFW PHS map (Attachment B3), WDFW and NWIFC SWIFD map (Attachment B4) all identify Teanaway River at the south end of the subject property. DNR indicates Teanaway River as a Type S (shorelines of the state) stream. WDFW PHS and NWIFC SWIFD maps have the documented presence of coho (*Oncorhynchus kisutch*), Dolly Varden/bull trout (*Salvelinus malma/S. confluentus*), rainbow trout (*Oncorhynchus mykiss*), spring and summer Chinook (*Oncorhynchus tshawytscha*) summer steelhead (*Oncorhynchus mykiss*), and westslope cutthroat trout (*Oncorhynchus lewisi lewisi*) within this stream. In addition, WDFW PHS identified the potential presence of elk (*Cervus elaphus*) and northern spotted owl (*Strix occidentalis*), as well as this property being within a Biodiversity Areas with riverine wetlands and shrubsteppe habitat onsite. The USFWS NWI (Attachment B5) also identified a riverine wetland onsite along the Teanaway River. The FEMA floodplain map (Attachment B6) identifies most of the subject property as being within the FEMA 100-year floodplain. No other potentially-regulated wetlands, streams, or other priority habitats or species are mapped on or within 300 feet of the subject property.

The NRCS soil survey map (Attachment B7) identifies two soil series on the subject property: Xerofluvents, 0 to 5 percent slopes (205) and Patnish-Mippon-Myzel complex, 0 to 3 percent slopes (208). Xerofluvents, 0 to 5 percent slopes, is considered a hydric soil on the Washington State Hydric Soils List (NRCS, n.d.).

## Precipitation

Precipitation data was obtained from the National Oceanic and Atmospheric Administration (NOAA) National Weather Service weather station at the Easton station to evaluate precipitation during and preceding the site investigations. Year-to-date precipitation for site visits conducted during the June 1 to October 31st season begins January 1<sup>st</sup> to the onsite dates. A summary of data collected is provided in Tables 1 and 2.

**Table 1. Recent Precipitation Summary (Cumulative)**

Site Visit Date	Day Of	Day Before	Prior 1 Week Cumulative Precipitation	Prior 2 Weeks Cumulative Precipitation
07/24/2025	0	0	0.05	0.05

**Table 2. Precipitation Normal Summary (Cumulative)**

Site Visit Date	Prior 30 Days Cumulative Precipitation (Observed/Normal)	Year to Date Cumulative Precipitation (Observed/Normal)	Prior 30 Days Percent of Normal <sup>3</sup>	Year to Date Percent of Normal <sup>3</sup>
07/24/2025	0.05/0.83	15.62/26.90	6 – Below Normal Range	58 – Below Normal Range

1. Precipitation volume provided in inches. Data obtained from NOAA (<https://www.weather.gov/wrh/Climate?wfo=sew>) for Easton
2. Percent of normal is shown for the prior 30 days and 2025 calendar year from January 1<sup>st</sup> to the site visit date.
3. Normal range for precipitation is considered to be 70 to 130% of normal.

Precipitation levels during the July 2025 site visit date were significantly below the statistical normal range (70 to 130 percent) for the prior 30 days and the calendar year (6 and 58 percent of normal, respectively). This precipitation data suggests that hydrologic conditions encountered at the time of the site investigation were likely drier than normal. Such conditions were considered in making professional wetland boundary determinations.

## **Results**

The July 2025 site investigation identified one shoreline (Teaway River) onsite within the south portion of the subject property. Additionally, one unregulated ditch and two unregulated drainages were observed onsite. One unregulated offsite drainage was observed east of the subject property on the adjacent parcel. No other potentially- regulated wetlands, waterbodies, fish and wildlife habitat, or priority species were identified on or within 300 feet of the site.

## Upland Characterization

Upland vegetation varies throughout the subject property. The western portion of the subject property is predominantly an open grassy plain with a farm pen and sand lot dominated by a mixture of Canada thistle (*Cirsium arvense*), prickly lettuce (*Lactuca serriola*), Jim Hill mustard (*Sisymbrium altissimum*), field bindweed (*Convolvulus arvensis*), and tall annual willowherb (*Epilobium brachycarpum*). The easternmost portion is an undeveloped forested area dominated by black cottonwood (*Populus balsamifera*), black hawthorn (*Crataegus douglasii*), chokecherry (*Prunus virginiana*), and ponderosa pine (*Pinus ponderosa*). The understory in the forested areas consists of snowberry (*Symphoricarpos albus*), white spirea (*Spiraea*

*betulifolia*), Wood's rose (*Rosa woodsia*), Scouler's willow (*Salix scouleriana*), oxeye daisy (*Leucanthemum vulgare*), common mullein (*Verbascum Thapsus*), and occasional *Poa* species. A series of informal access roads are located throughout the parcel providing internal access through the site. Vegetation within the open fields on the western side are dominated by various species of tall goldenrod (*Solidago altissima*), blue wildrye (*Elymus glaucus*), perennial ryegrass (*Lolium perenne*), Jim Hill mustard, prickly lettuce, tall willowherb, and Canada thistle.

### *Non-Wetland Findings*

Nine data plots (DP-1 through DP-9) were collected throughout the parcel in representative locations during the site investigation. Data was collected in topographical low points, depressions, and swales to confirm onsite wetland absence. All nine data plots did not meet for all three wetland criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) required for wetland confirmation.

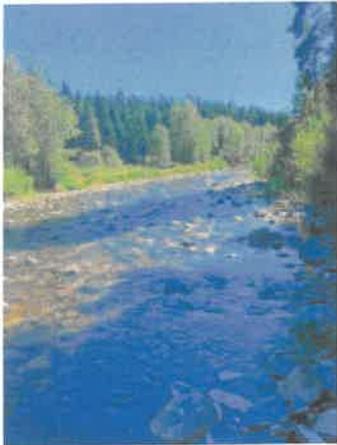
Only data plots DP-1, DP-5, and DP-8 had characteristics that met one wetland criteria (hydric soil, hydrophytic vegetation, and hydric soil, respectively). Data plot DP-1 met hydric soil criteria through indicator F6 (Redox dark surface) at a layer starting at four inches with a matrix color of 10YR 3/2 and over 5 percent redox. This data plot was taken at a low point within a ditch excavated from historically upland conditions used over time for agricultural irrigation and property access purposes likely contributing to a refusal layer at 13 inches below soil surface preventing further assessment of the full soil profile. Vegetation and hydrology within this plot did not meet wetland criteria. DP-5 met hydrophytic vegetation criteria through the dominance test at 67 percent and did have geomorphic position within the drainage that the data plot was in; however, the soil profile did not meet hydric soil indicators, nor were there any additional supporting hydrology indicators within this plot. Data plot DP-8 met hydric soil criteria through indicator F3 (Depleted Matrix) with a depleted layer beginning at ten inches maintained to digging rejection at sixteen inches but was lacking wetland hydrology or a dominance of hydrophytic vegetation. Therefore, these areas were identified as upland.

Maps depicting the data plot locations and existing conditions are presented in Attachment A. Data forms are provided in Attachment C.

### Shorelines

SVC identified the regulated shoreline of the Teanaway River on the southern portion of the subject property. The DNR stream typing map and Kittitas County Shoreline Master Program (SMP) identify the Teanaway River as a Type S (shoreline of the state) stream. The Teanaway River originates over 9 miles north of the subject property from the confluence of its primary tributaries, the West Fork Teanaway River and North Fork Teanaway River, and flows southwest from the subject property for approximately 1.5 miles before finding confluence with the Yakima River. The Teanaway River has a bankfull width of approximately 90 feet wide on average within the boundaries of the subject property. The river substrate is comprised of a moderately sorted pebble, cobble, and rock interspersed with fines and sands, with dominantly sandy and silty banks. Riparian habitat associated with the Teanaway River onsite is dominated by black cottonwood, Scouler's willow, Ponderosa pine, with scattered understory vegetation including *Poa* species and occasional arrowleaf balsamroot (*Balsamorhiza sagittata*). From these upland conditions, an approximate 4-foot slope down to a 6-foot headcut, or a larger vertical headcut drop leads into the bank of the river. Former ordinary high water mark determination efforts by WDFW were evidenced by existing orange flagging.

**Table 1. Teanaway River Summary.**

Teanaway River		
	<b>WRIA</b>	39 – Upper Yakima
	<b>Local Jurisdiction</b>	Kittitas County
	<b>Shoreline Designation</b>	Rural Conservancy

Non-Regulated Features

*Non-Regulated Ditch*

One non-regulated onsite ditch was identified running parallel east of the subject property. The ditch appeared to drain south to north based on observed onsite conditions and desktop analysis, and appears to drain into a large, excavated depression excavated for local stormwater and drainage containment, immediately south of State Route 970 and remain in this artificial depression.

The ditch is vegetated with herbaceous species and is approximately 6 feet wide on average with steep, trapezoidal excavated banks clearly maintained for onsite drainage conveyance. Partially degraded black plastic fabric lined the banks. Historical aerial photographs do not indicate the presence of any natural channels in these areas. As this roadside ditch was artificially constructed for stormwater and local drainage conveyance, this feature does not meet the definition of a regulated stream per KCC 17A.02.970

*Non-Regulated Drainages*

Two non-regulated drainages were identified onsite, and one non-regulated drainage was identified offsite within 300 feet of the subject property. The eastern and western onsite drainages as well as the offsite drainage are likely artificial ditches excavated from uplands for localized stormwater and local drainage, which have not been maintained of recent, and are considered unregulated drainages. The drainages are shallow, entirely lack sorting, are mostly or entirely vegetated with shrubs and herbaceous vegetation, and lack any true banks or bank development, and are all best considered shallow depression largely filled in by silts, fines, and topsoil, and average between 9 and 14-inches between the three. As the identified drainages lack defined beds or banks and were artificially created, and are less than 2 feet in width, they do not meet the definition of regulated streams per KCC 17A.02.970 or regulated wetlands per KCC 17A.02.840.

## Fish and Wildlife Habitat Conservation Areas

Per KCC 17A.04.020(1), fish and wildlife habitat conservation areas include those associated with any federal or state listed endangered, threatened, sensitive, and candidate species, and Kittitas County species of local importance.

The WDFW PHS map and NWIFC SWIFD map have documented the presence of coho, Dolly Varden/bull trout, rainbow trout, spring and summer Chinook, summer steelhead, and westslope cutthroat trout within this stream. In addition, WDFW PHS identified the potential presence of elk and northern spotted owl, as well as this property being within a designated Biodiversity Area. According to the USFWS IPaC mapping database, Canada lynx (*Lynx canadensis*), gray wolf (*Canis lupus*), North American wolverine (*Gulo gulo luscus*), yellow-billed cuckoo (*Coccyzus americanus*), and bull trout have the potential to occur within 300 feet of the subject property.

Pacific salmonids and steelhead require adequate water quantity and quality conditions. Essential features of critical habitat include adequate substrate, water quality, water quantity, water temperature, water velocity, cover, shelter, food, riparian vegetation, space and safe passage conditions. Bull trout have the most specific habitat requirements of salmonids. They require cold water temperatures, clean stream substrates for spawning and rearing, complex habitats including streams with riffles and deep pools, undercut banks and large logs, and they also rely on river, lake, and ocean habitats that connect to headwater streams for annual spawning and feeding migrations (Shellberg, 2002). In Washington, bull trout are typically found in major tributaries from the Cascades that flow into the Puget Sound as well as major tributaries for the Olympic Mountains that flow into the Hood Canal, Strait of Juan de Fuca, and the Pacific Ocean (USFWS, 2015). The southern portion of the subject property holds a section of the Teanaway River which provides suitable riparian and in-water habitat for salmonids. As such, coho, bull trout, rainbow trout, Chinook, steelhead, and westslope cutthroat trout are anticipated to exist within 300 feet of the site and have confirmed presence within the Teanaway River by WDFW.

Elk are found throughout Washington State, primarily near the eastern and western portions of the Cascade Crest and the Olympic Peninsula. Elk primarily graze on herbaceous species including grasses, sedges, and flowering plants. As indicated by WDFW PHS, elk are possible to exist onsite or within 300 feet of the subject property.

Northern spotted owl is typically found in mid and late seral coniferous forests with a complex and high canopy closure and large snags and logs. In Washington state, northern spotted owl occurs up to 5,000 feet in elevation and very rarely breed in the Puget Lowlands (Buchanan, 2005). With the subject property having a more open landscape with limited coniferous trees and similar age classes, it is unlikely that the northern spotted owl would occur onsite or within 300 feet of the subject property.

WDFW also documents the subject property to be within a biodiversity area/corridor. The subject property is situated along a complex river system with pockets of forested areas and an open landscape ideal for migration, breeding, nesting, and foraging activities for a wide array of wildlife. However, this property has a history of agricultural and residential use within a highly fragmented landscape resulting in high disturbance throughout the area. High biodiversity or biodiversity corridor conditions were not observed onsite.

Canada lynx primarily occur across most of Canada and Alaska, where their distribution is closely associated with the taiga forest system. Within the North Cascade Mountain range, boreal forests with

deep snow and dense horizontal forest cover that support adequate densities of snowshoe hares, the primary food source of the Canada lynx, characterize lynx habitat. The subject property is characterized more as an open field with pockets of forest along a riparian habitat, and therefore it is unlikely that Canada lynx will exist onsite or within 300 feet of the subject property.

North American wolverines commonly occur in boreal forests and tundra ecosystems and in Washington they occupy alpine and subalpine forests within the North Cascades National Park and the wilderness areas of the Okanogan-Wenatchee National Forest where heavy snowpack persists well into the spring months (WDFW, n.d.). Population estimates vary between 20 to 35 individuals residing in Washington state. Wolverines will travel hundreds of miles when hunting and will consume a wide variety of foods including insects, berries, marmots, ground squirrels, snowshoe hares and other small mammals but they are predominantly scavengers of carrion of large animals. The subject property consists more of an open landscape and therefore is not anticipated to host wolverines onsite or within 300 feet of the subject property.

Gray wolves are highly adaptable and can live in a variety of habitats if sufficient prey is available. In the northwestern states, gray wolves are most common in relatively flat forested areas, rolling hills, or open spaces such as valleys and basins, where prey are easier to chase and catch. Wolf populations tend to fare best in areas away from humans and their activities. These tend to be remote, relatively unpopulated areas with extensive public lands, few roads, and few or no livestock (Wiles et al., 2011). With the wide array of adaptable traits, gray wolves may exist occasionally onsite or within 300 feet of the subject property. WDFW shows the subject property within the nonbreeding Teanaway Pack territory and nearby the nonbreeding Naneum Pack territory, albeit at their fringes.

Yellow-billed cuckoo habitat consists of low to mid-level riparian forests dominated by cottonwoods and willows. Suitable habitat is approximately 100 to 198 acres and wider than 200 meters; marginal habitat is approximately 20 to 100 acres and 100 to 200 meters wide; and unsuitable habitat is smaller than approximately 37 acres and less than 100 meters wide (Wiles & Kalasz, 2017). Yellow-billed cuckoo have not been documented within western Washington since 1979 and as such are not expected to be present onsite.

No other suitable habitat for the other potential species identified by WDFW or the USFWS are present on or within 300 feet of the subject property.

### **Local Regulatory Considerations**

The site investigations identified one onsite Type S (shoreline of the state) water type, Teanaway River on the subject property. The Teanaway River is subject to standard critical area protection buffer of 100 feet from the ordinary high water mark (OHWM) per KCC Table 17B.05.050-1. No other potentially regulated wetlands, waterbodies, or fish and wildlife habitat were identified on or within 300 feet of the subject property.

### Shoreline Requirements

The Teanaway River is identified as a Type S water, Shoreline of the state and is therefore subject to the provisions outlined in the Kittitas County Shoreline Master Program (DOE 2021). Shoreline jurisdiction consists of shorelines, shorelines of statewide significance, and shorelands as defined in RCW 90.58.030 and K.C.C. 17B.02.440. Per KCC 17B.02.435 shorelands include “*lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the OHWM; floodways*

*(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;*

*(4) Wetlands adjacent to the following waters: (i) Waters identified in paragraph (a)(1) of this section; or (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;*

*(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section;*

*(b) The following are not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:*

*(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;*

*(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;*

*(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;*

*(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;*

*(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;*

*(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;*

*(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and*

*(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.*

The Teanaway River drains into the Yakima River and eventually into the Puget Sound; as such, this area meets the criteria of a Water of the United States (WOTUS) regulated by the USACE under Section 404 of the Clean Water Act.

## **Conclusions**

The site investigation confirmed one onsite Type S river (Teanaway River) along the southern boundary of the subject property. Per KCC Table 17B.05.050-1, Type S aquatic features are subject to a standard 100-foot buffer and a 200 foot shoreline jurisdiction. An additional 15-foot building setback is required from the edge of all critical area buffers per KCC 17B.05.020C(4). Nine data plots were collected to confirm lack of wetland presence onsite. No other potentially-regulated wetlands, streams, or other fish and wildlife habitat conservation areas were identified on or within 300 feet of the subject property during the site investigation.

If you have any further questions, please contact us at your earliest convenience.

Sincerely,



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Kramer Canup  
Senior Project Manager & Environmental Scientist

August 26, 2025

Date