ATTACHMENT J

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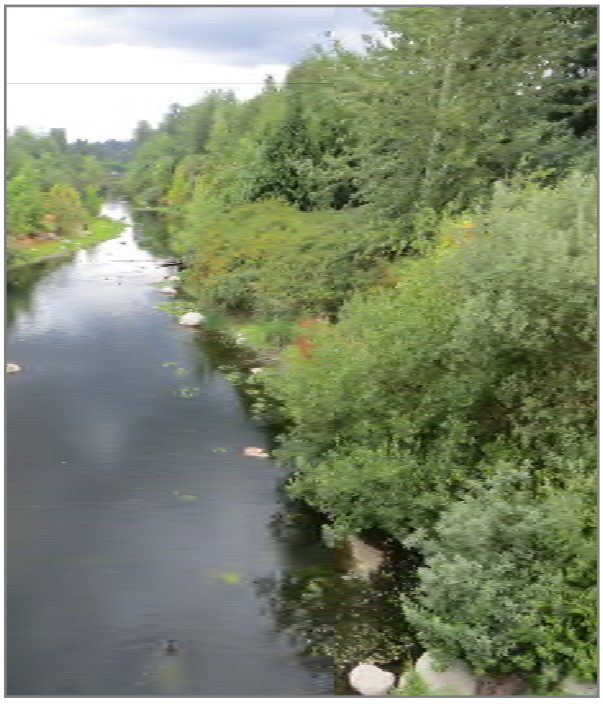
Critical Areas Report

Hopelink Redmond Integrated Service Center
Redmond, Washington



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CRITICAL AREAS REPORT

Hopelink Redmond Integrated Service Center
Redmond, Washington

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Hopelink
Redmond, Washington

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I. INTRODUCTION

Hopelink intends to develop an integrated service center in the City of Redmond, Washington. The permanent service center will provide a consistent place to receive and give help and will include space for an innovative food program, adult education, energy and emergency financial assistance programs, case management and employment services. This report has been prepared to address City of Redmond identified critical areas at the project site. Included is a Level One and Level Two Hydrogeologic Assessment prepared by a State of Washington Licensed Hydrogeologist.

A. Location

The project is located at 15511 NE 90th St. in Redmond, WA at the intersection of 154th Ave NE with NE 90th Street (King County parcel # 022509224) (Figure 1).The subject property is just south of the NE 90th St. Bridge over the Sammamish River on the west side of the river. The project is occurring in the NE ¼ of Section 2, T25N, R05E.

B. Existing Site Conditions

1. General

The proposed project will be built on land owned by the City of Redmond and currently occupied by the Sammamish River Business Park. Figure 2 shows an aerial of the property. The current parcel is slightly over 2 acres and includes a portion of NE 90th Street, a retaining wall, and a pedestrian trail to the north. A boundary line adjustment is in process to remove the road and trail from the rest of the parcel. The resulting parcel will be 1.74 acres in size. There are currently two 17,000 square foot 1-story buildings on the site housing a variety of uses including City of Redmond facilities. The property fronts 154th Ave NE to the west and the trail along NE 90th St to the north. Access is from an entrance off of 154th Ave NE on the south side of the property that is shared with the neighboring property to the south. There is surface parking on the west and south sides of the buildings and a paved area between the two buildings. Along the east side, the property borders a King County owned parcel located along the Sammamish River, which supports a multipurpose trail. The eastern boundary of the property is approximately 110 feet from the Ordinary High Water line of the Sammamish River.

View of existing site from intersection of NE 90th Street and 154th Avenue NE

The two buildings occupy approximately 46 percent of the site. Parking lots and sidewalks occupy an addition 43 percent for a total of 89 percent impervious surface.

2. Topography/ Soils

A site survey is attached in Appendix B. The property is very nearly flat with elevations across most of the site ranging from 32 to 35 feet elevation (NAVD83), with a slightly raised berm along the east edge with a top elevation of 36 to 37 feet. The property is located in the historic floodplain of the Sammamish River in an area that was within the active meander zone of the river and likely once supported wetlands. Soils are mapped as Snohomish Silt Loam, thick surface variant. This is a floodplain soil formed in alluvium and underlain with organic material such as muck. Layers of diatomaceous earth may also be present. While this soil type is somewhat poorly drained with a water table present several feet below the surface, it is not rated as a hydric soil. It is very likely that fill material was placed on the site when the business park was constructed. Recent well data from a groundwater monitoring well in the northeast corner of the site shows groundwater fluctuating between 4 and 12 feet below the surface.

3. Land Use

The Sammamish River at the project location has undergone considerable change since early European settlement over 140 years ago. Prior to European settlement, the river between Lake Sammamish and Lake Washington was a wide, slow flowing, meandering channel with extensive wetlands. As the area was settled, portions were dredged or straightened to facilitate use of the river for navigation and commerce, and use of surrounding lands for agricultural. In 1916, the Lake Washington Ship Canal and locks were constructed, which lowered the level of Lake Washington by approximately 8 or 9 feet. This also lowered the level of Lake Sammamish and changed the slope and flow rate of the river. Around the same time, a drainage district straightened the upper reach of the river further to improve farming. In the 1936 King County aerial, old abandoned meanders are still visible in the vicinity of the project location, but this stretch of the river has been completely channelized and straightened. The project site was possibly used for pasture, though it appears much of the site may still have been wetlands in 1936. In 1964 the Corps of Engineers and King County undertook a major flood control project that included dredging and straightening the river further and building a weir at the outlet from Lake Sammamish. This project effectively lowered the river elevation further at the project site, so that it is approximately 6 feet lower than it was originally. The Business Park was constructed in 1980. In 2000 the NE 90th St bridge across the Sammamsh River was constructed, followed by a restoration of the river at the project location in 2002 that included reconfiguring the channel to include small meanders, placement of rock and large wood and installation of native plantings. There is a utility easement in the King County owned parcel along the west side of the river at this location which also supports the West Sammamish River Trail.

The property is in an area zoned as Manufacturing Park and is surrounded on three sides by light industrial uses. The Comprehensive Plan for the parcel is also Manufacturing Park. The King County parcel to the east is designated as Park and Open Space.

4. Shoreline Environment Existing Condition

The Shoreline designation on the property is High Intensity/Multi-Use. The Shoreline designation for the King County owned parcel to the east is Urban Conservancy. The 200 foot shoreline zone extends approximately 87 to 90 feet into the subject property and covers nearly a quarter of the property. Under the existing condition, over 50 percent of the shoreline zone is occupied by one of the office buildings and 78% of the zone is in impervious surfaces, 11 percent of which is currently pollution generating surfaces (PGS). Stormwater runoff goes straight into the river with no treatment.

According to the Shoreline Master Program, new structures, pavement, and other improvements are permitted within High Intensity/Multi-Use shoreline designation areas that are separated from the water by another parcel so long as incremental environmental benefit is provided and no net loss of shoreline ecological functions is demonstrated. Under the proposed project, there will be no buildings in the shoreline zone and impervious surfaces will be reduced to 51 percent. While most of the impervious surface under the proposed project will be parking lots, which increases the percent of PGS to 46 percent, stormwater from the PGS will be collected and filtered in a series of bio-retention cells prior to discharge. Native vegetation will increase from less than 20 percent to over 40 percent. Overall there should be no net loss of Shoreline ecological functions. The project is consistent with the shoreline designation and goals of the Shoreline Master Program.

5. Existing Site Vegetation

The only vegetated areas on the property are small islands in the parking lots, some narrow landscaped areas along the north and west sides of the property and a 15-18 foot wide berm along the east edge of the property abutting the King County parcel. In the parking lot landscape islands and around the buildings vegetation consists primarily of lawn grasses, English ivy (*Hedera helix*), ornamental shrubs and rose-of-Sharon (*Hypericum* sp). One of the landscape islands in the southwest corner has three 10-14 inch diameter Douglas fir (*Psuedotsuga menziesii)* trees and an island in the southeast corner has two quaking aspens (*Populus tremuloides*). There are some non-native red oak trees (*Quercus* sp) along 154th Ave NE ranging from 4 to 12 inches in diameter, and a couple of non-native red maples (*Acer rubrum*) at the NW corner and in one of the landscape islands on the south side of the buildings.

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The berm on the east edge measures approximately 3,300 sq ft in area. It supports a mostly planted native forest community. Trees include three 14-16” diameter Douglas fir trees, a 12 inch diameter non-native red maple, one large multi-stem cottonwood (*Populus balsamifera* var. t*ricocarpa*) and four 6-12 inch diameter quaking aspens. The large cottonwood is mostly on the adjoining property to the south. The aspens and maple were definitely planted, while the cottonwoods likely predate current development of the site. Other planted species include osoberry (*Oemleria cerasiformis*), swordfern (*Polystichum munitum*), snowberry (*Symphoricarpos albus*), tall Oregon grape (*Berberis aquifolium*), sweetgale (*Myrica gale*), and lady fern (*Athyrium filix-femina*). There are many small aspen saplings that have become established either from root suckers or seed. Other species present on the berm include bentgrasses (*Agrostis* sp), other grasses, Himalayan blackberry (*Rubus armeniacus*), creeping buttercup (*Ranunculus repens*), field bindweed (*Convolvulus arvensis*) and western dock (*Rumex occidentalis*). The invasive species (blackberry and bindweed) are currently a minor component. It

appears some of the plantings may have been associated with the King County river restoration plantings undertaken in 2002.

6. Stormwater

Over 90 percent of the site is currently impervious surface. All stormwater is collected in a series of catchbasins and then discharged through an 18" concrete pipe directly to the Sammamish River at an outfall located east of the property below OHW in the river. The outfall also receives stormwater from NE 90th St. No detention or treatment of stormwater is currently occurring on the site.

II. PROJECT DESCRIPTION

The project will demo all existing buildings and most of the hardscape. A new two story building with a footprint of approximately14,000 square feet will be built on the site. The building will be located on the west half of the parcel, with approximately 74 parking spaces located primarily on the east half of the property. A greenhouse and plaza is planned for the center of the site. Access will be off of 154th Ave NW via a shared drive with the adjacent property to the south as is currently the case. Figure 3 shows the proposed site plan. The proposed project will reduce impervious surface by10 percent. However, there will be a slight increase in pollution generating surfaces from 36% to 40% of the parcel. Stormwater from the roof drains will be collected and discharged directly to the Sammamish River via the existing stormwater pipe. Stormwater from the parking lot will be collected and treated prior to discharge to the river. Treatment will consist of six bio-retention areas; five at the south end of the parking lot and one at the north end.

The existing berm on the east side of the parcel that is in the river buffer will be largely undisturbed by the project. An arborist report for the property recommends removal of the non-native red maple and two aspens that are in poor health from this area, as well as the large multi-stem cottonwood at the southeast corner of the property, which is considered a hazard. That portion of the river buffer that is currently occupied by a building and sidewalk will be restored and planted to native species according to the planting plan in Section IV (Appendix B).

III. IDENTIFICATION AND CLASSIFICATION OF CRITICAL AREAS AND BUFFERS

Three types of Critical Areas have been identified on or adjacent to the project site. These critical areas were identified through discussions with the City, a detailed site inspection and review of City of Redmond critical areas definitions and available resources. Identified Critical Areas include Fish & Wildlife Habitat Conservation Areas (Sammamish River), Frequently Flooded Areas (Sammamish Floodplain), and Critical Aquifer Recharge or Wellhead Protection Areas. The boundaries of these critical areas and their associated buffers or setbacks are shown on Figure 2 and in Appendix B. During the site visit, we examined the property and vicinity for evidence of wetlands and found none either on the property or in the immediate vicinity. The National Wetland Inventory (NWI) shows a palustrine emergent wetland approximately 450 feet south of the subject property, but that wetland has been filled. The NWI maps also show a large wetland area across the river, north of the NE 90th Street Bridge but it has also mostly been filled except for a small 2 acre remnant just north of NE 90th St. Wetlands were likely present at the project site prior to the Corps dredging and site development.

A. Stream Reconnaissance – Sammamish River

1. General Characteristics

The Sammamish River is a shoreline of the state and a Class 1 water. As mentioned above it was originally a very slow moving, highly meandering river with an extensive floodplain and associated wetlands. Straightening reduced the length of the river by nearly half and the installation of the ship canal locks, flood control structures and dredging lowered the river elevation approximately 6 feet and disconnected it from its historical floodplain.

a) Reach characteristics

At the project location the river is 60 to 75 feet wide and up to 5 or 6 feet deep. The reach is primarily a glide reach with a slope of approximately 0.02 percent. When the river level was lowered back in the 1960s, relatively steep banks resulted. The river bank at the project site is approximately 10 feet high with 20 to 35 percent slopes, resulting in no connection to the floodplain on the west side of the river except in extreme floods. King County and the City of Redmond undertook a restoration project in 2002 at the project location that introduced some slight meandering to the previously straightened channel, pushed back the levee on the east side to create some gravel bars and floodplain, and added boulders and large wood features to the channel to create channel complexity. The banks were planted with native trees and shrubs.

b) Water Quality

The river is listed on the 2012 approved Washington State 303d list for dissolved oxygen and temperature, both limiting factors for salmonids. In the 2012 listing, the reach is listed in Category 5 for dissolved oxygen and Category 2 for temperature. The 2014 proposed listing elevates temperature to Category 5 and also adds bacteria as a limiting factor. The temperature criterion for the Sammamish River is 16° C (62° F). Data from 2004 to 2008 showed regular exceedances during the summer months with temperatures as high as 24° C (75° F). Temperatures can stay above the criterion for several months. In addition to the parameters listed above, the river also receives pollutants from direct discharge of untreated stormwater from roads, parking areas and other pollution generating impervious surfaces.

2. Ordinary High Water

Buffers for Class 1 streams are 150 feet from the Ordinary High Water (OHW) mark. The Shoreline Designation extends 200 feet from OHW or to the edge of adjacent wetlands. To determine the extent of the buffers and Shoreline Jurisdiction at the project site, we mapped OHW in the field. A separate OHW memo was prepared by PBS on July 27, 2015 to assist with early project planning. This section summarizes the information from that memo.

Ordinary high water is often defined as the line of mean high water. Federal regulations (U.S. Congress 1986) define the ordinary high water mark (OHWM) as:

> *"that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas"*.

The State of Washington defines the ordinary high water mark under the Revised Code of Washington 90.58.030 as

> *"that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland…"*

As discussed earlier, the river has undergone considerable change since historic times. Originally it was a highly meandering river with side channels and extensive adjoining wetlands. Now it is relatively straight and disconnected from its historic floodplain. The current OHW is in part controlled by the Corps of Engineers flood control project. The reach of the river at the project site is approximately 2.5 miles downstream from Lake Sammamish and 2 miles from the flood control weir at the upper end of the river.

In evaluating OHW, we are using the North American Vertical Datum of 1988 (NAVD88), which is used by the City of Redmond. The USGS gauge data and the FEMA flood mapping use the National Geodetic Vertical Datum of 1929 (NGVD29), so reported elevations from these agencies have been converted for comparisons. At the project location the difference is 3.6 feet as calculated using the VERTCON conversion program (NOAA, 2015). There is a USGS stream gauge (12125200) 1.7 miles downstream at the north end of the Willows Run Golf Course near NE 116th St. This guage recorded mean high water at approximately 23.6 feet. The elevation of the river at this point is approximately 1 foot lower than the elevation at the project site based on topographic maps. Base water levels tend to be a foot or two higher in the winter than in the summer. The maximum stage height differential for the recording interval is approximately 9 feet. River heights at this gauge ranged from 22.8 feet to 30.8 feet over this interval which is a range of 8 feet.

There is a King County gauge 1.1 miles upriver just below Bear Creek (Samm_TZ_4) that has stage data for the last five years. This gauge has a mean high water level of approximately 28 feet. The river elevation at the Bear Creek gauge is approximately 1 foot higher than at the project site. The City of Redmond Property Viewer shows the elevation of the river at the Bear Creek gauge at approximately 20 feet, the elevation in the vicinity of the property at approximately 19 feet, and the elevation at the NE 116th St gauge at 18 feet. The FEMA floodmaps have a 100 year floodplain elevation of 33.6 feet at the project location. Ordinary high water at the project site was mapped at approximately 26 feet elevation.

I visited the site on July 21, 2015. This visit occurred after an extended dry spell and river levels were likely lower than normal for this time of year. I walked the banks looking for evidence of OHW which included changes in vegetation, sediment deposits, debris racks, staining, and signs of erosion. Flags were placed at the approximate OHW mark in six locations on the west bank and GPS points recorded. GPS points were also taken in three locations of the east bank for additional reference. These points were then surveyed by a professional land surveyor.

Ordinary High Water along a river is relative to the slope of the river with generally consistent elevations across opposing banks. Since the study area is less than 250 feet long and the river in this location is a relatively low gradient reach, the OHW level does

not vary much over the length of the study area. The final OHW elevation is based on an average of the field identified elevations. Figure 4 shows the final surveyed OHW. This surveyed elevation does not match up exactly with the City GIS 26-foot elevation line, but is presumed to be more accurate.

3. Riparian Corridor Characterization

King County Parks owns a 100 foot wide parcel on either side of the river at the project location. The Sammamish River Trail, a multi-use trail runs along the east bank of the river for over 10 miles from Bothell to Marymoor Park. Between the trail and the river in the project vicinity is the restored riparian zone that is 40 to 80 feet wide. This area was planted to trees and shrubs in 2002 and has mostly filled in. Close to the river are some gravel bar areas with sparse vegetation. There is a public access point just south of the 90th Street Bridge which gets fairly high use. Unofficial public access occurs in other places along the east side of the river. There is not much habitat east of the trail, as the balance of the King County parcel is mostly public use areas, bordered by multi-family residential and the Redmond City campus.

On the west side of the river, the King County parcel contains a utility easement and the West Sammamish River Trail. While this trail does not receive the same level of use as the Sammamish River Trail, it still has a fair amount of pedestrian and bicycle use and there is unofficial access to the river at several points. Some camping by the homeless occurs along this side of the river. Most of the King County 100 foot wide parcel was planted in 2002 and the planted trees are now about 15 to 20 feet tall and shrubs have expanded to cover much of the area. The bitter cherry has spread in some areas to form dense thickets. Some vegetation in the riparian corridor predates the restoration. There is a grove of black cottonwoods that are up to 3 or 4 feet in diameter and 60 to 70 feet tall on the King County property near the border with the subject property. There are also 4 giant sequoia (*Sequoiadendron giganteum)* trees just south of the bridge on the west side of the river that are approximately 20 inches in diameter. Figure 5 shows the existing vegetation cover types on the project site and adjacent King County parcel. We have identified six general cover types which are described below in Table 1.

Table 1. Existing riparian corridor vegetation cover types

Cover Types	Dominant Species	
King County riparian plantings – floodprone area along river	Black cottonwood Western red-cedar Oregon ash Willows Ninebark Himalayan blackberry Grasses	*Populus balsamifera var. trichocarpa* *Thuja plicata* *Fraxinus latifolia* *Salix* sp *Physocarpus capitatus* *Rubus armeniacus*
King County buffer plantings – more upland area along trail	Western red cedar Big-leaf maple Vine maple Red-osier dogwood Nootka rose Snowberry Tall Oregon grape Osoberry Swordfern Thimbleberry Salmonberry Bittercherry Himalayan blackberry	*Thuja plicata* *Acer macrophyllum* *Acer circinatum* *Cornus sericea* *Rosa nutkana* *Symphoricarpos albus* *Mahonia aquifolium* *Oemlaria cerasiformis* *Polystichum munitum* *Rubus parviflorus* *Rubus spectabilis* *Prunus emarginata* *Rubus armeniacus*
Berm native plantings – similar to KC buffer plantings.	Douglas-fir Snowberry Tall Oregon grape Osoberry Sweet gale Swordfern Ladyfern Creeping buttercup Himalayan blackberry	*Pseudotsuga menziesii* *Symphoricarpos albus* *Mahonia aquifolium* *Oemlaria cerasiformis* *Myrica gale* *Polystichum munitum* *Athyrium filix-femina* *Ranunculus repens* *Rubus armeniacus*
Cottonwood forest- Mature cottonwoods, planted conifers, sparse understory	Black cottonwood Douglas-fir Western hemlock Osoberry Swordfern	*Populus balsamifera var. trichocarpa* *Pseudotsuga menziesii* *Tsuga heterophylla* *Oemlaria cerasiformis* *Polystichum munitum*
Aspen grove Mostly grass understory with many aspen seedlings coming in.	Trembling aspen Red maple Bent grasses Himalayan blackberry Other grasses	*Populus tremuloides* *Acer rubra* *Agrostis sp* *Rubus armeniacus*
Landscaped areas	Red maple Ornamental shrubs English ivy Rose-of-Sharon Lawn grasses	*Acer rubra* *Hedera helix* *Hypericum sp*

The ability of the riparian corridor/stream buffer at this location to provide natural functions is limited by the urban context, narrow width, high use trails, steep banks and lack of structural diversity. Table 2 lists the identified riparian functions with an assessment of the level of this function at the project site vicinity.

Table 2. Riparian Corridor Functional Assessment

Function	Level of functioning
Shade & Temperature	Low - Shade is improving in this reach as the plantings mature, but is still rather limited. Less than 1 percent of the channel at the project location is shaded. There is not much opportunity for temperature moderation.
Flood conveyance	Moderate - The river rarely overtops its banks because of the dredging which lowered the river elevation relative to the floodplain. Most flooding would be contained between the two trails. However, a large flood event is projected to extend well beyond the riparian corridor.
Water quality protection	Low – Some filtering of runoff from trails and other surfaces may occur, but given the urban context and high public use, the narrow, disturbed riparian corridor probably is not able to provide much in the way of water quality protection to the river at this location. High use by dogs, homeless people and concentrations of ducks would act to reduce water quality. Most stormwater runoff is directed straight into the river with little or no treatment.
Pollutant removal	Low – Very little of the riparian zone actually interacts with the river because of the steep banks. There are no wetlands at this location above OHW. Most stormwater runoff is directed straight into the river. Very limited opportunity to remove pollutants
Sediment transport	Moderate – The riparian zone in this reach likely contributes sediment from erosion but deposition would be limited by the steep banks. Some opportunity for sediment deposition was created during the 2012 restoration with the addition of gravel bars.
Bank stabilization	Moderate - The new plantings are functioning to help stabilize the banks, but the west bank is steep with some evidence of erosion.
Woody debris recruitment	Low – The plantings are still too young to provide woody debris recruitment. The few larger cottonwoods in the buffer are likely too far from the river to contribute much if they fell down.
Wildlife habitat	Low – High public use, narrow corridor, urban context, and lack of structural diversity limit wildlife use. While the river provides a travel corridor, there are no large habitat areas in the immediate vicinity. The riparian corridor does provide habitat for a variety of birds, waterfowl, and small mammals adapted to human presence. It likely provides a refuge within the urban context.
Microclimate control	Low to moderate– Improving as plantings mature but still relatively low

B. Fish & Wildlife Habitat Conservation Areas

The City has identified the Sammamish River and the King County property to the east of the subject property as critical wildlife habitat. The Sammamish River is a Class 1 stream so the 150 foot buffer is automatically considered a core preservation area. The river is considered an important wildlife corridor through the City, connecting higher value habitat areas to the south and north. The Sammamish River Corridor Action Plan

(Tetra Tech, 2002) identifies this reach of the river as being compromised by elevated water temperatures, lack of developed riparian area, lack of floodplain connectivity and lack of cover. Wildlife habitat was considered low due to the high level of human disturbance and habitat fragmentation. Since the report was written, the River Walk restoration project plantings have matured to the point they provide some cover and habitat, improving habitat conditions. There is now some overhanging vegetation developing in the project area as the plantings mature, but since the plantings are still young (<15 yrs), the trees are still quite small and shade on the channel is still very limited. The plantings are also too young to contribute much organic material to the river. The presence of high use trails on either side of the river and the urban context is a major limiting factor to habitat value.

1. Endangered, Threatened, Sensitive, or Other Priority Species

Despite all the modifications to the Sammamish River and the current degraded state of the channel, riparian zone and floodplain, the river still supports several listed species. The Washington Department of Fish & Wildlife (WDFW) Priority Habitats and Species (PHS) Report for the property lists 8 priority fish species that may utilize the Sammamish River during some portion of their life cycle. These are listed below in Table 3 with the report attached in Appendix D. Table 3 also lists other priority species that could utilize the river corridor at this location.

Table 3. Priority Species with a Potential Presence in the Vicinity of the Property

Species	Federal Status	Critical Habitat	State Status	Occurrence Type
Coastal-Puget Sound Bull Trout *Salvelinus confluentus*	Threatened	Yes	species of concern	no recent documentation
Puget Sound Chinook Salmon *Oncorhynchus tshawytscha*	Threatened	Yes	species of concern	breeding / occurrence
Puget Sound Steelhead *Oncorhynchus mykiss*	Threatened	Proposed	none	Infrequent occurrence
Puget Sound / Strait of Georgia Coho Salmon *Oncorhynchus kisutch*	Candidate		none	rearing / occurrence
Kokanee (non-migrating sockeye) *Oncorhynchus nerka*	Proposed		priority	occurrence / migration
Sockeye salmon *Oncorhynchus nerka*	Not Warranted		priority	occurrence / migration
Resident Coastal Cutthroat *Oncorhynchus clarki*			priority	occurrence / migration
Rainbow trout *Oncorhynchus mykiss*			priority	occurrence / migration
Bald Eagle *Haliaeetus leucocephalus*			sensitive species	occasional presence
Pileated Woodpecker *Dryocopus pileatus*			species of concern	possible occurrence
Great blue heron (Species of Local Importance) *Ardea herodias*				probable occurrence
Purple martin *Progne subis*			candidate	general vicinity Lake Sammamish

The Sammamish River historically supported large runs of most of the native salmonid species which migrated up from Lake Washington to spawn in the Sammamish River and Lake Sammamish tributaries. Now most of the stocks are seriously depleted due to habitat loss and degradation. Most of the listed salmonids that have a presence in the Sammamish River primarily use the project area reach as a migratory route to upstream creeks, which at the project location would be Bear Creek, Issaquah Creek and a couple of smaller streams. Many of the salmonids that use this stretch of river are reared in a hatchery in Issaquah that releases Coho and Fall Chinook salmon. Limited rearing of juveniles may occur in the river. The most serious limiting factor to salmonid use is temperature, but other limiting factors include degraded riparian conditions and lack of off-channel areas. The following descriptions of salmonid populations in the Sammamish River are from the Sammamish River Corridor Action Plan (Tetra Tech, 2002), WDFW's Salmonscape website and other sources.

Bull Trout are still listed as having a potential presence in the Sammamish River, but there have been no recent confirmations. There are both natural and hatchery run Chinook salmon present in the river, with greater numbers of hatchery fish. Fall run Chinook salmon have some documented spawning presence in the Sammamish River and may be present in the river at any time of year. The Sammamish River is considered Chinook salmon critical habitat. Winter-run Puget Sound Steelhead are still presumed present in the Sammamish River with spawning in creeks upstream from Lake Sammamish, though they have not been documented for several years. If present, adult steelhead would likely be found from December through April, while juvenile steelhead could occur at any time of year. The Sammamish River lies within the Lake Washington sub-basin which has been proposed as steelhead critical habitat (Federal Register 2013). Coho salmon have documented presence in the Sammamish River (WDFW 2015) and may be present in the river at any time of year. Sockeye migrate up the river to spawn in the creeks in late fall and then out migrate in spring with highest numbers present in the river in March. Kokanee primarily spawn in Issaquah Creek and use the river to migrate between the lakes. Coastal cutthroat trout can be found in the greatest numbers in the river in April and May when they migrate up to spawn in the creeks. Rainbow trout are likely to be present in May and June.

The nearest identified eagle nest on the WDFW PHS website is over 2 miles south at the edge of Lake Sammamish, but eagles would occasionally use this stretch of the river for foraging and traveling and may perch in the larger cottonwoods near the river. It is doubtful there are any Pileated woodpeckers at this location as there are few snags or old trees, though some of the older cottonwoods may provide suitable forage opportunity. There is a great blue heron rookery approximately ¾ mile south near where the river flows out of the lake. Herons have been seen along the banks of the river in the vicinity of the project. Purple martins are present at the north end of the lake as well. Other priority species that may occasionally be present include red-tailed hawk, osprey, band-tailed pigeon, harlequin duck, northern goshawk, merlin, peregrine falcon, Vaux's swift, and olive-sided flycatcher. It is unlikely any of these species would nest at this location, given the lack of suitable habitat and the high level of disturbance.

2. Other Wildlife

In addition to the species listed above, The Sammamish River provides habitat for a large variety of fish and wildlife species. Other native fish species identified in the river include sculpin, pike minnows, sticklebacks, longnose dace, suckers and lamprey. Non-

native fish are also present and include large- and small-mouth bass, yellow perch, bullhead, sunfish and carp (Tetratech, 2002). Ducks, geese and other waterfowl are common on the river, particularly at the project location since people regularly feed them under the bridge. There are also a variety of other birds present along the river. There is very little habitat for amphibians at this location because of the relatively steep banks and lack of shallow ponding habitat and wetlands.

Most of the mammal species that would utilize the river at this location would be those tolerant of human activity such as deer, raccoon, coyotes, possums, skunk, rabbits, shrews, mice and voles. We observed beaver activity along the river in the form of chewed stumps.

C. Frequently Flooded Areas

1. Flood Elevation Data

The entire project site is mapped by FEMA as within Zone AE, which is defined as the area subject to inundation by the 1 percent annual chance flood event or the 100-year flood (Figure 6). The base flood elevation is shown at 30 feet (NGVD29), which would be 33.6 feet in NAVD88. A cross section passes through the subject property as can be seen in Figure 6, so this elevation can be assumed to be quite accurate. The floodway is defined as the channel and adjacent lands areas that are needed to discharge a base flood without cumulatively increasing the water level by more than one foot. The floodway is mapped entirely within the King County owned parcels on either side of the river and is approximately 220 to 250 feet wide, or about half of the stream buffer width. The top elevation of the floodway appears to be around 30 feet. The 100-year floodplain or flood fringe extends approximately 1,400 feet on either side of the river at this location (Figure 7). It is slightly over ½ mile wide. The recent topographic survey of the property mapped 1 foot contour intervals with detailed spot elevations. Elevations range from 33 to 37 feet. Using this topographic data, approximately 20 percent of the site is currently below the 100-year base flood elevation. Areas currently subject to flooding occur in the southern parking area, at the north end of the buildings between the two buildings, and in the northwest corner. Figure 8 shows the approximate extent of land currently below the base flood elevation of 33.6 feet.

2. History of Flooding

Flooding is relatively rare because of the flood control structure and dredged channel. Discharge rates at the USGS gauge for the last 40 years range from less than 40 cubic feet per second to over 2,800 cubic feet per second during a flood in January 1997. The USGS gauge data does not show any events that would have flooded the site in the last 40 years, but one event that did come close. According to King County, the largest flood event for the present day channel occurred in 1997, when the river overtopped the Sammamish River Trail near NE 124th Street (King County, 2015). The trail at that location is at the 30 ft elevation. During that event, the stage height at the Willows Run gauge measured 30.53 feet. Since the river at that gauge is approximately 1 foot lower than at the site, the projected flood level at the project site would have been around 31.5 feet, which is only about 0.5 foot below the lowest elevation on the site.

D. Critical Aquifer Recharge Areas - Level One Hydrogeologic Assessment

1. Geologic and Hydrogeologic Characteristics of the Site

a) Topography and Soil

Refer to section (I)(B)(2).

b) Geology and Hydrogeology

The area of the subject property is underlain by 2-3 feet of fill consisting of gravelly sand that is moderately compact. Below the fill are native materials consisting of organic silt, ash, and peat that extend to depths of 4.5 to 7 feet. Underlying these organic soils is medium-dense sand with gravel that is typical of recessional glacial outwash.

The subsurface at the property is likely saturated beginning at shallow depth (<10 feet below ground surface [bgs]) and continuously downward. Groundwater is considered most available and moves more freely in poorly sorted sediments of sand diameter and greater. Well sorted smaller grained sediments (silt, clay) act as aquitards, which restrict groundwater movement between water bearing units.

Shallow groundwater can be perched on top of low permeability features such as peat and clay deposits. The primary aquifers present in the vicinity of the site are the alluvium and Vashon recessional outwash aquifers beneath the river and tributary valleys. Regionally, the watershed is mostly covered by the Vashon Till and allows only limited infiltration from precipitation (Carey, 2003).

2. Groundwater Depth, Flow Direction and Gradient

Based on a nearby property well log (MW001 – Figure 10), the shallowest occurrence of groundwater is expected to be at approximately 5-10 feet bgs. Based on topography, the direction of shallow, unconfined groundwater flow is expected to be eastward towards the river.

The regional deeper aquifers are expected to flow in the general direction of the river, southward toward Lake Sammamish.

3. Groundwater Wells within 1300 feet of the Site

PBS requested information from City of Redmond on October 21, 2015. Aaron Moldver, City Engineer, provided PBS with information on two water wells owned by the City of Redmond. The first well (MW001) is located in the northeast corner of the subject property and the second well (MW347) is located ~200 feet east of the subject property by the river as shown in Figure 10. Water levels were measured in the two wells from January 1, 2012 to May 29, 2014. Water levels in MW001 ranged from approximately 5 feet bgs in December 2012 to approximately 12 feet bgs in October 2012. Water levels in MW347 ranged from approximately 4.5 feet bgs in February 2012 to approximately 11 feet bgs in April 2012. A copy of the tables is provided in Appendix E of this report. PBS did not obtain pertinent information on the two wells observed to be located in the river (GS001 and ST026).

Ecology's Well Log Database (WDOE, 2015) was reviewed by PBS on November 11, 2015. This site provides logs for water wells, monitoring wells, and geotechnical borings, along with decommissioned well reports and other records. One record was listed for the *subject property* and three were listed within 1,300 feet from the subject property. The well log located on the property (BAL 236) indicates sand and gravel from 0 to 20 feet below ground surface (bgs). Depth to first-encountered groundwater is not reported. Well data is summarized in Table 4 below and copies of the logs are provided in Appendix E.

Table 4. Well Log Summary

Well Log Number and Well Type	BAL 236/Resource Protection
Well Owner	City of Redmond
Address/Location of Well	15511 NE 90th Street Redmond, WA
General Geology Description	Sand and gravel
Groundwater (ft bgs)	N/A
Other Information	Install date 11/19/2007

Well Log Number and Well Type	MW-GA1/Resource Protection
Well Owner	Unknown
Address/Location of Well	160th Ave NE and 90 St NE
General Geology Description	Sand and gravels
Groundwater (ft bgs)	10
Other Information	Well was installed at 17 feet bgs

Well Log Number and Well Type	MW-GA3/Resource Protection
Well Owner	Unknown
Address/Location of Well	160th Ave NE and 90 St NE
General Geology Description	Sand and gravels
Groundwater (ft bgs)	10
Other Information	Well was installed at 14 feet bgs

Well Log Number and Well Type	MW5-10
Well Owner	Unknown
Address/Location of Well	15444 NE 95th Street
General Geology Description	Fill, sand and cobbles from 0.5 to 5 feet bgs; peat from 5 to 10 feet bgs; coarse sand and gravel from 10 to 25 feet bgs
Groundwater (ft bgs)	8
Other Information	Install date 6/8-9/1993

4. Surface Water, Springs and other Critical Areas within 1300 feet of the Site

The Sammamish River is adjacent to the site to the east. There are neighborhood retention ponds located within 1300 feet on the site to the east. However, they are on the opposite side of the Sammamish River and are not considered hydraulically connected

to the site. The west side of the river in the vicinity of the site is developed commercial/ light industrial and no critical areas were identified.

5. Historic Water Quality

PBS did not identify contamination issues affecting groundwater quality on site or on the adjoining properties (Refer (2)(D)(2)(h)).

6. Proposed Best Management Practices

During construction, the project will need to abide by the City of Redmond performance standards for construction projects in wellhead protection areas (21.64.050 (D)(3)(f). These include:

- Designating an on-site person responsible for supervising the use, storage and handling of hazardous materials, and trained in the response to spills.
- Secondary containment for all hazardous substances
- Immediate removal or containment/repair of vehicles or equipment found to be leaking.
- Secure storage of all hazardous materials that is locked during off-work hours
- Immediate containment and/or clean-up of any spill
- Reporting as required.
- On-site materials needed to cleanup or contain spills or leaks.

E. Critical Aquifer Recharge Areas - Level Two Hydrogeologic Assessment

A Level Two Hydrogeologic Assessment was conducted as required for projects that include 5,000 or greater square feet of impervious surface. It is noted that the existing development at the property includes over 5,000 square feet of impervious surface. The total impervious surface area will decrease on site as a result of this project. The Level Two Hydrogeologic Assessment includes a number of considerations which are not considered applicable based on the proposed project.

1. Historic groundwater elevation and quality data

The City of Redmond provided PBS with water level data from two nearby wells (MW001 and MW347). The data presents measured groundwater levels over a period from January 1, 2012 to June 30, 2014. Groundwater elevations over this period generally fluctuated between 23 and 28 feet (NAVD88). The fluctuations do not represent a general rise or fall in water level over the period, but rather an average groundwater elevation of approximately 25 feet (NAVD88).

2. Groundwater Monitoring Plan Provisions

As the proposed project does not include the significant use and/ or storage of petroleum hydrocarbons or hazardous materials; and it is anticipated that Best Management Practices (BMPs) related to appropriate management of stormwater will be included in applicable NPDES and General Construction Stormwater permit process, a groundwater monitoring plan is not considered warranted.

3. Anticipated Effects of Project on Groundwater Quality and Quantity

The project is not anticipated to have a negative impact on groundwater quality or quantity.

4. Hazardous Materials: Type and Quantity

The proposed project does not include the significant use and/ or storage of petroleum hydrocarbons or hazardous materials.

5. Hazardous Materials: Storage and Containment

A locked cabinet will be provided for any hazardous materials over 20 gallons liquid or 200 lbs solid, or in quantities specified in the Redmond Fire Code. Any herbicides or pesticides used in the greenhouse or plantings will be stored in the greenhouse or in a weather proof shed at the southeast corner of the building. Composting may occur on site but will be confined to a self contained compost tumbler or similar container and shall not be in contact with the ground surface. No pesticides or herbicides will be used in the biofiltration areas.

6. Proposed Plan for Implementing Protection Standards During Construction

During construction, the project will need to abide by the City of Redmond performance standards for construction projects in wellhead protection areas (21.64.050 (D)(3)(f). These include:

- Designating an on-site person responsible for supervising the use, storage and handling of hazardous materials, and trained in the response to spills.
- Secondary containment for all hazardous substances
- Immediate removal or containment/repair of vehicles or equipment found to be leaking.
- Secure storage of all hazardous materials that is locked during off-work hours
- Immediate containment and/or clean-up of any spill
- Reporting as required.
- On-site materials needed to cleanup or contain spills or leaks.

7. Spill Protection Plan

As the proposed project does not include the significant use and/ or storage of petroleum hydrocarbons or hazardous materials, a Spill Prevention, Control and Countermeasure (SPCC) Plan is not warranted.

8. Prior Environmental Investigations

PBS did not identify previous environmental investigations conducted at the site. The Department of Ecology's (Ecology) website (Online Facility Profiler) was reviewed by PBS on November 10, 2015 to identify any potential contaminated sites on or within a 1,300 foot radius of the subject property. The *subject property* was not listed. Five adjoining properties appeared on the regulatory database and are summarized in Table 5 below. Copies of the Facility Site Sheets are included in Appendix E.

Table 5. Potential Contaminated Sites in Project Vicinity (1,300' radius)

Address: 15525 NE 90th Street	**Facility Site ID #: 31319136**
Located 90 feet northwest (cross hydraulic gradient) of *subject property*	
Yearound Lawncare was listed as a hazardous waste generator and enrolled in Ecology's HAZWASTE Program from 12/1/1988 to 2/28/1989. This program includes facilities that generate any quantity of a dangerous waste. There was no indication that a release to soil or groundwater occurred at the site.	
Address: 15500 NE 90th Street	**Facility Site ID #: 19698297**
Located 98 feet northwest (cross hydraulic gradient) of *subject property*	
Sunrise Design was listed as a hazardous waste designer from 1/1/1993 to 12/31/1993 as part of Ecology's HAZWASTE program. A waste designer is any facility that reports under Section 313 of the Emergency Planning and Community Right-To-Know Act, or that generate more than 2,640 pounds of hazardous waste per year. The site was also listed as a hazardous waste generator from 4/7/1987 to 12/31/1998. There was no indication that a release to soil or groundwater occurred at the site.	
Address: 8950 154th Ave NE	**Facility ID #: 9841**
Located 120 feet northwest (cross/down hydraulic gradient) of *subject property*	
Microsoft Willows Facility is listed as an Emergency/Haz Chem Report Tier 2 Site on Ecology's database. This includes businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely dangerous chemical on site at any one time must report annually. Reports are sent to the State Emergency Response Commission, Local Emergency Planning Committees, and local fire departments for emergency planning. There was no indication that a release to soil or groundwater occurred at the site.	
Address: 15509 NE 90th Street	**Facility ID #: 11347352**
Located 90 feet northwest (cross hydraulic gradient) of *subject property*	
King Auto Industrial Supply was listed as a hazardous waste generator as part of Ecology's HAZWASTE Program from 1/6/1992 to 12/31/1993. There was no indication that a release to soil or groundwater occurred at the site.	
Address: 15337 NE 92th Street	**Facility ID #: 22781**
Located 800 feet northwest (cross/up hydraulic gradient) of *subject property*	
Interior Woodworking Specialists is listed on Ecology's Revised Site Visit Program. This is a compliance related activity which is recorded into the EPA's RCRA Information System. There was no indication that a release to soil or groundwater occurred at the site.	

IV. PROJECT IMPACTS AND MITIGATION MEASURES

A. Fish and Wildlife Conservation Areas

Approximately 32% of the river buffer on the subject parcel is currently occupied by one of the existing office buildings. Impervious surfaces cover almost 90% of the property and 50% of the Fish and Wildlife Conservation Area on the property. Stormwater from the entire parcel is currently collected and discharged directly to the river with no treatment. The project will remove the existing office building and sidewalk from the stream buffer. Impervious surface on the entire property will be reduced to less than 80 percent and runoff from pollution generating surfaces will be treated prior to discharge to the river. There should be a net improvement to water quality as a result of the project.

An evaluation of the trees on or adjacent to the property by a certified arborist identified several trees that potentially pose a danger to life or property and were recommended for removal. Trees within the stream buffer on the property that are recommended for removal include four quaking aspens and a non-native red maple.

The portion of the Fish and Wildlife Conservation area that was occupied by the office building and sidewalk will be restored by planting with native species, increasing the effective width of the stream buffer at this location by approximately 20 feet. The goal of the restoration plantings will be to provide an incremental increase in available habitat for species using the buffer along the river. The restored area measures approximately 3,570 square feet or 0.08 acre.

Please refer to the Mitigation/Monitoring Plan for details on the buffer restoration.

B. Floodplains

While the project will encroach on some existing areas of flood storage, redevelopment of the site will result in no net loss of flood storage and will actually increase storage by about 62 percent. The existing site has approximately 340 cubic yards of flood storage below the 100-year base flood elevation. The proposed project will provide 550 cubic yards of flood storage. Figure 8 shows the existing flood storage and Figure 9 shows the proposed flood storage. Flood storage areas will be located in the south end of the parking lot. The only proposed development within the built-out 100-year floodplain will be the existing driveway, parking, landscape islands, and bio-retention areas. The first floor elevation of the new building will be 34.6 feet, which is one foot above the base flood elevation.

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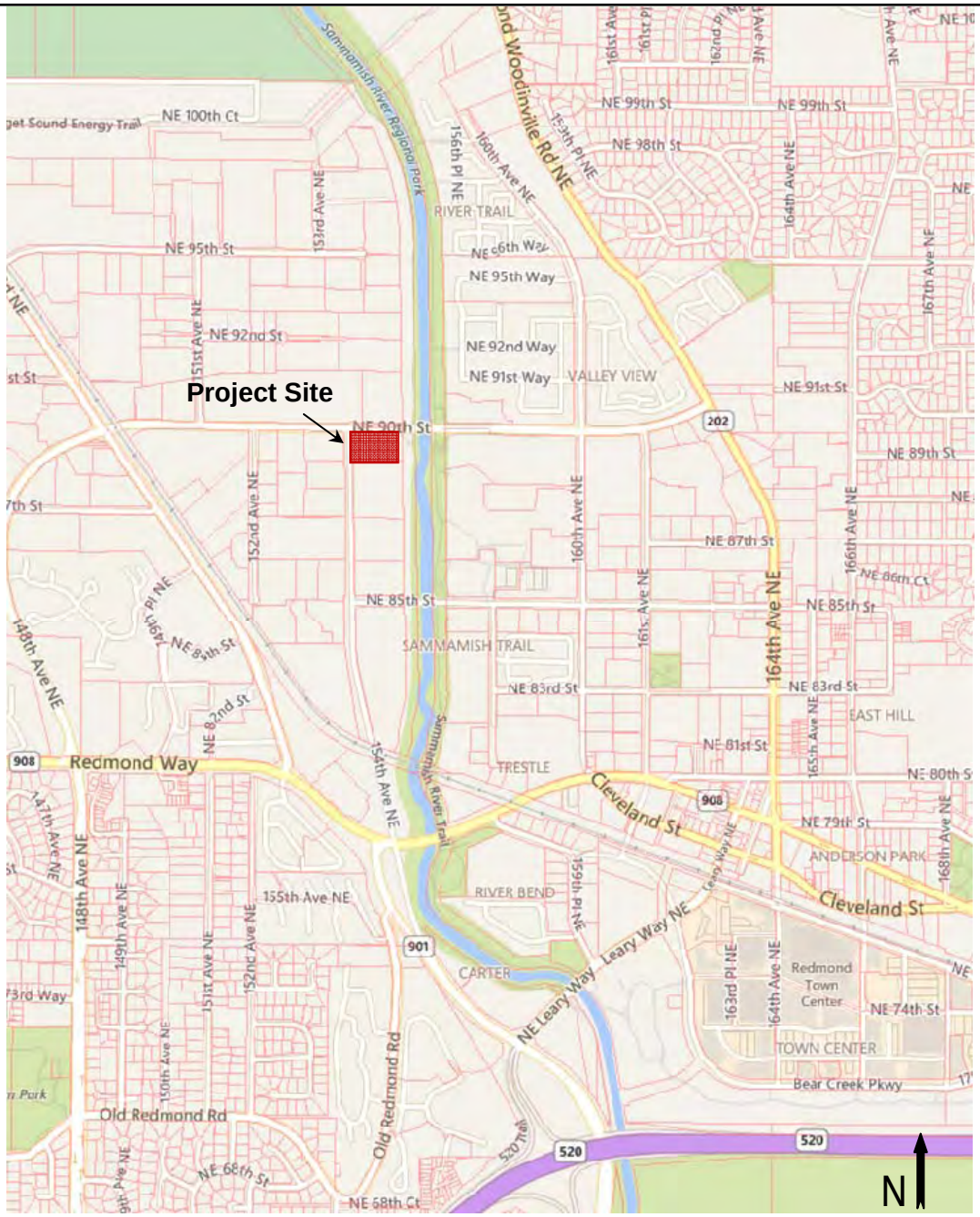
FIGURES



PBS

Project # 41342.000

May 2016

SITE VICINITY MAP

Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 1

CRITICAL AREAS

Entire parcel is in 100 Yr Floodplain

Entire parcel is in Wellhead Protection Zone 2

Approximate Floodway

150' Class 1 Stream River Buffer

200' Shoreline Zone

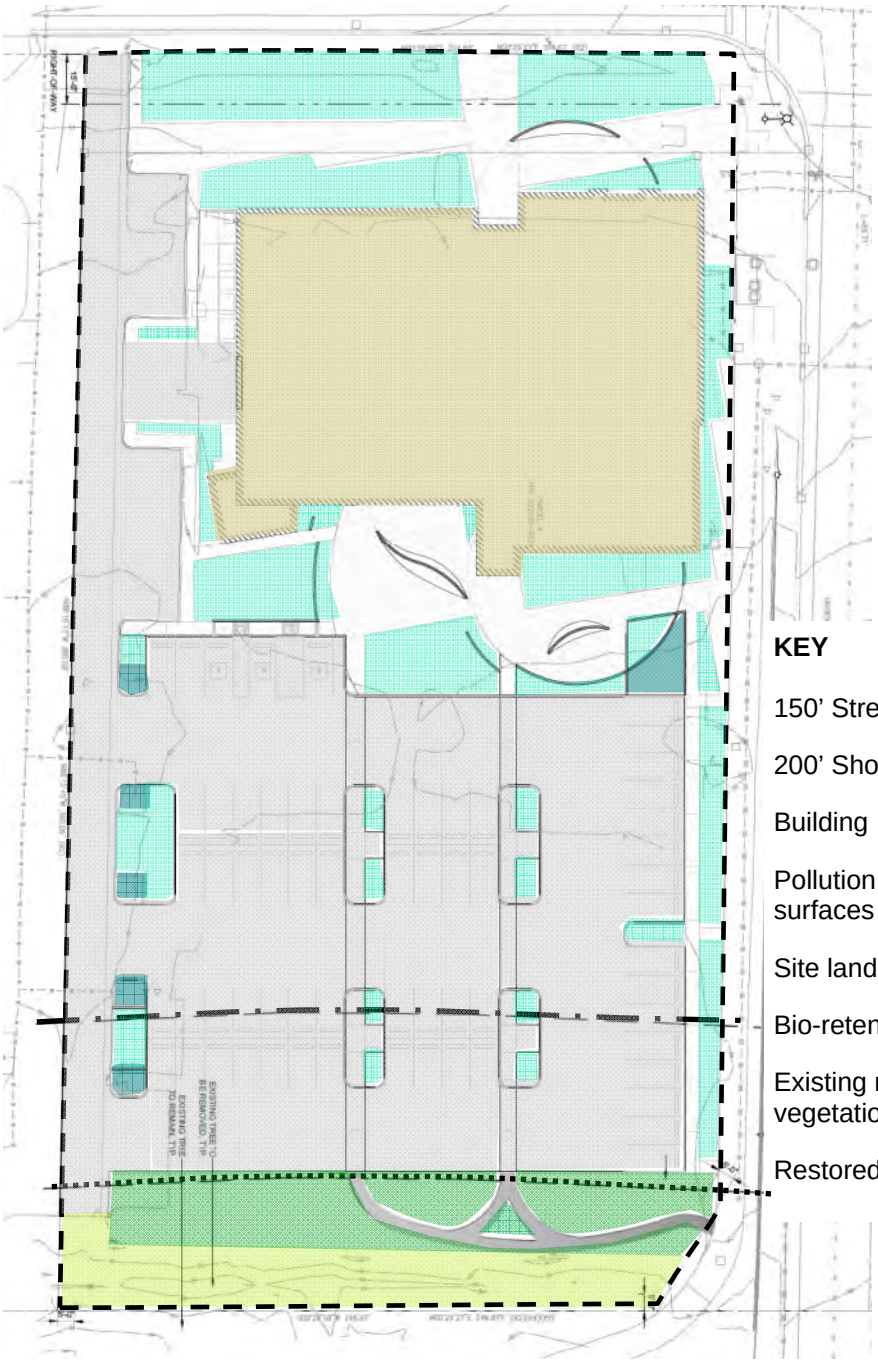
PBS

Project # 41342.000

May 2016

Site Aerial Photographs
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 2



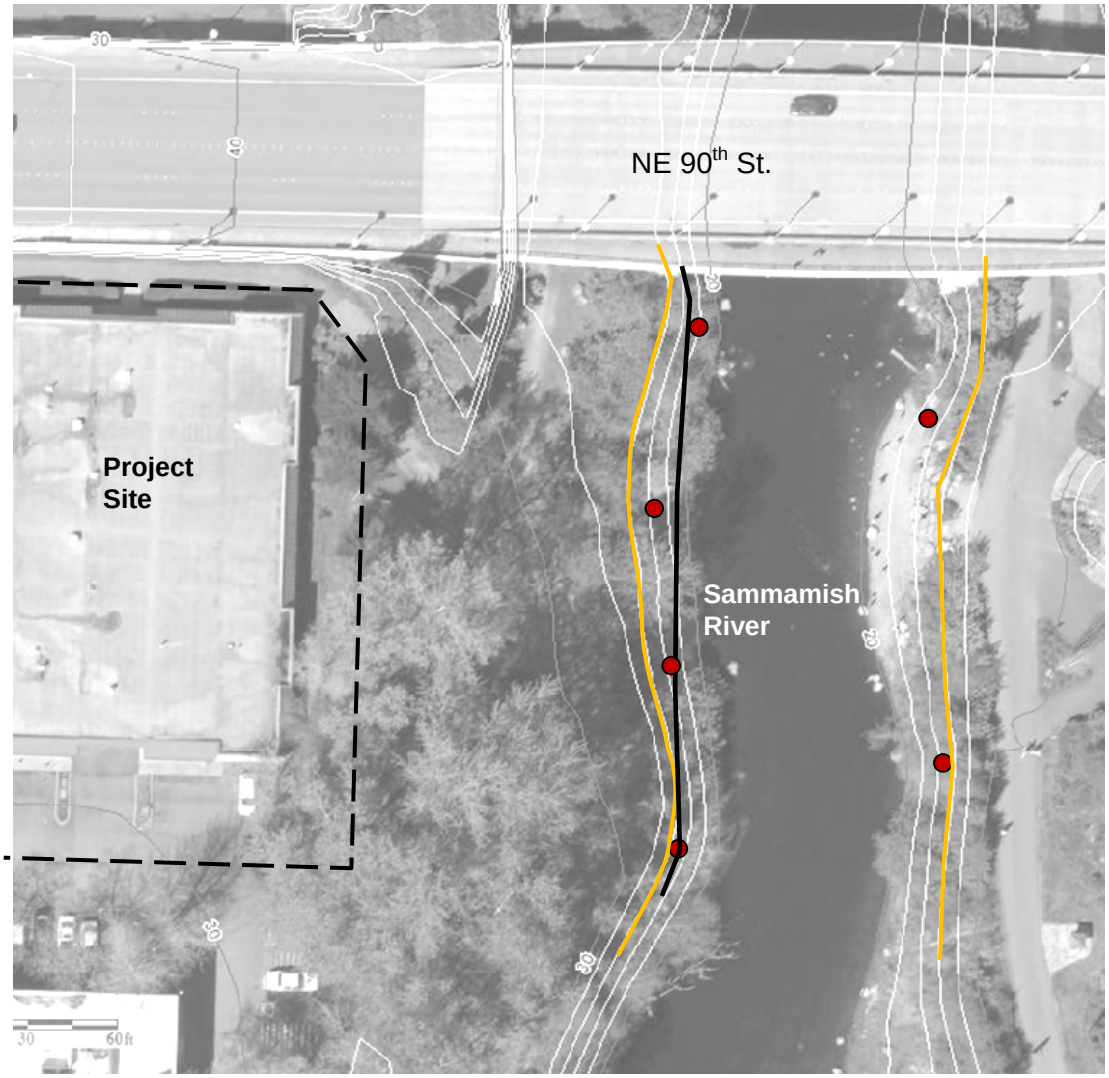
PBS

Project # 41342.000

May 2016

PROPOSED SITE PLAN
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 3



Property boundary

GPS locations of field located OHW marks

City GIS contours in white, 26' elevation highlighted in yellow

Surveyed field points and 26' elevation – used to measure buffers

N

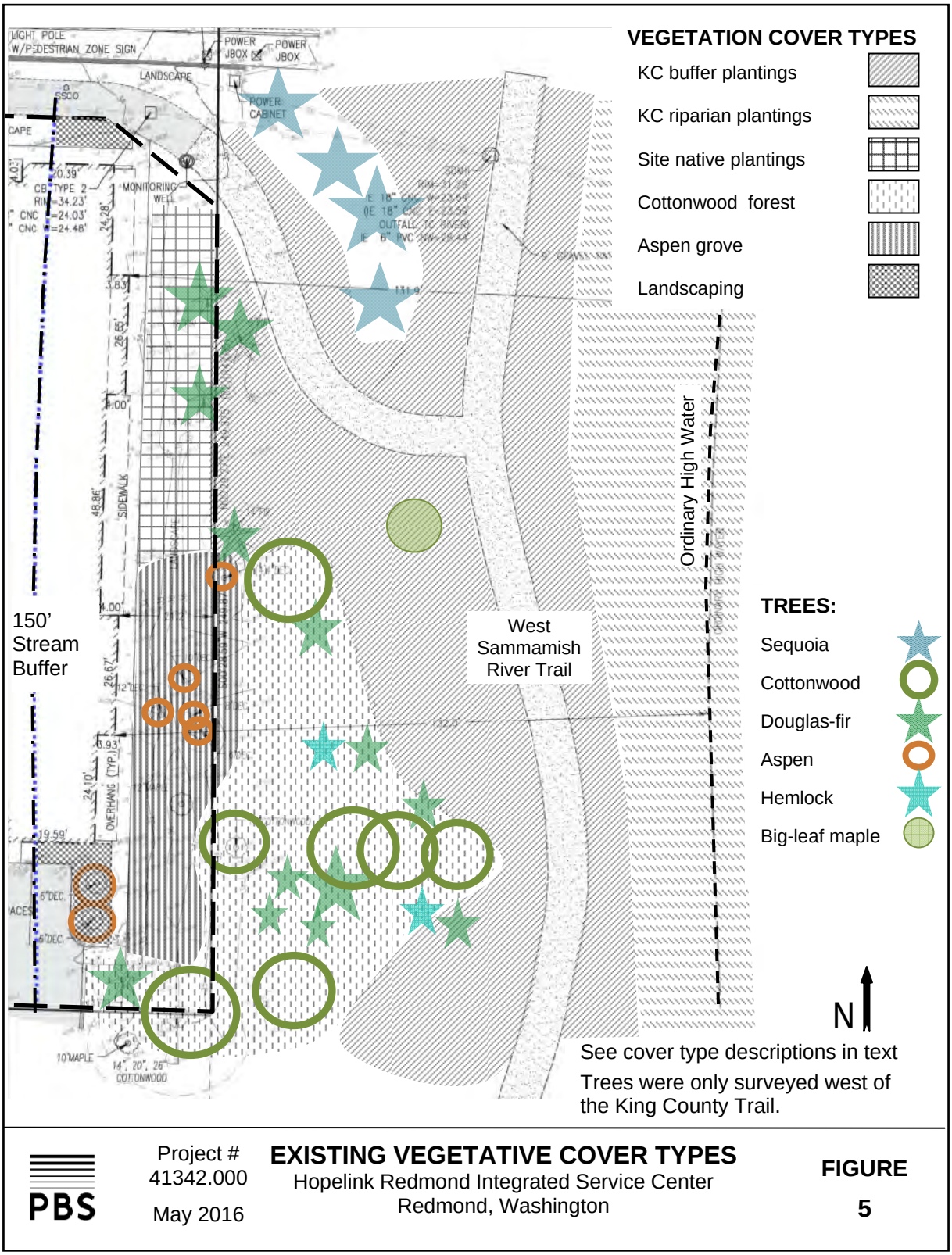
PBS

Project # 41342.000

May 2016

ORDINARY HIGH WATER MAP
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 4



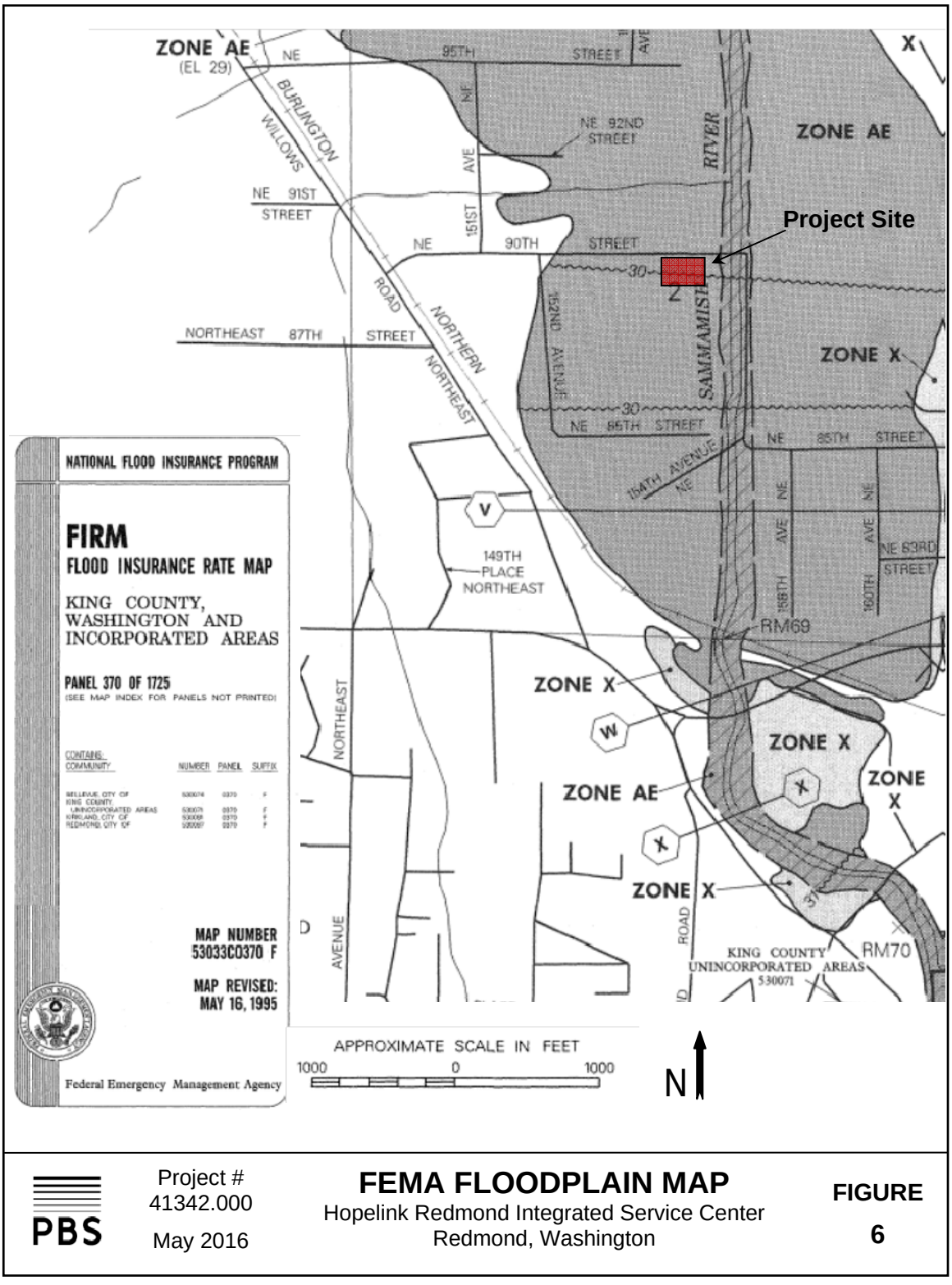
PBS

Project # 41342.000

May 2016

EXISTING VEGETATIVE COVER TYPES
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 5



PBS	Project # 41342.000 May 2016	**FEMA FLOODPLAIN MAP** Hopelink Redmond Integrated Service Center Redmond, Washington	**FIGURE** **6**

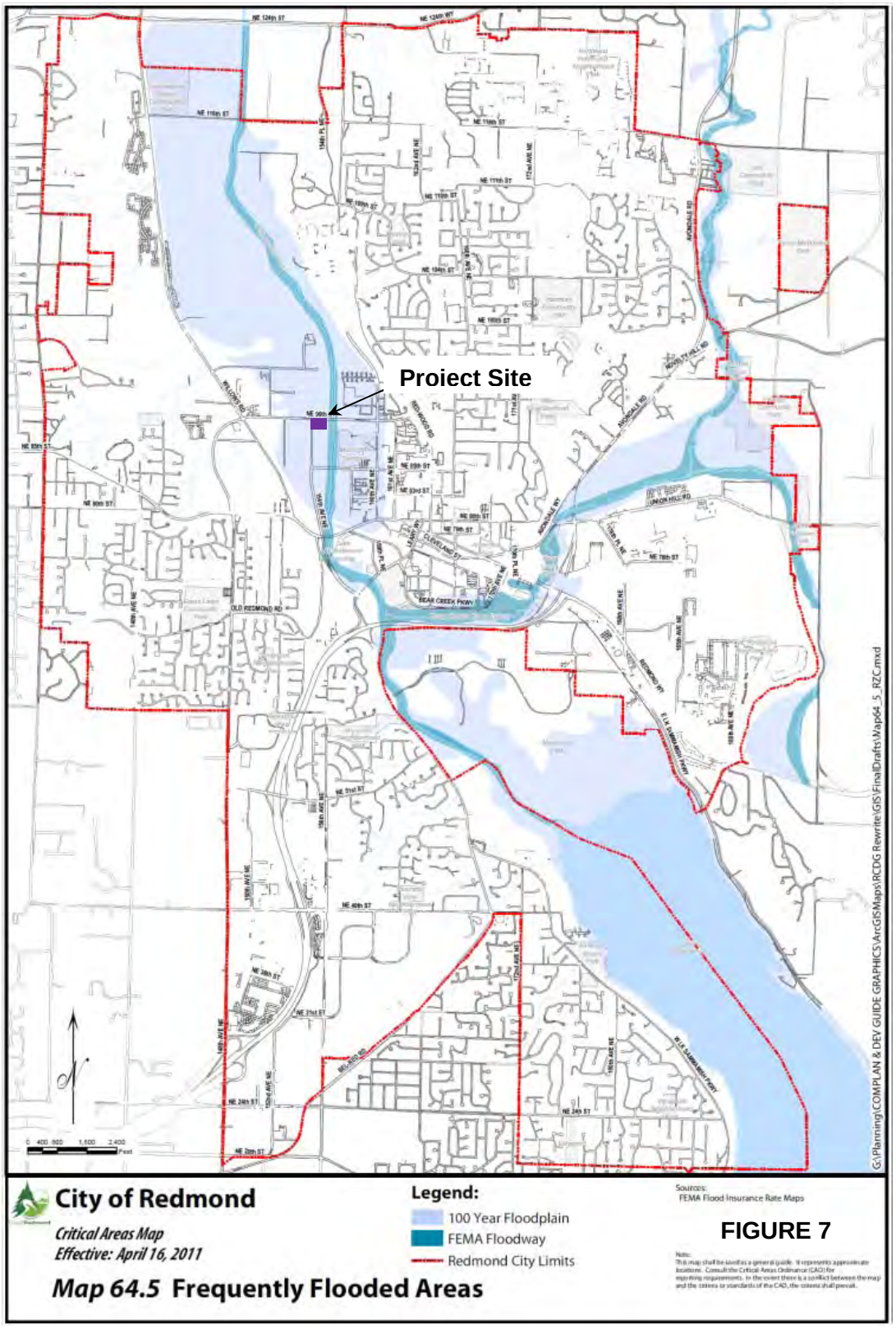

Proiect Site
City of Redmond
Critical Areas Map
Effective: April 16, 2011
Map 64.5 Frequently Flooded Areas
Legend:
100 Year Floodplain
FEMA Floodway
Redmond City Limits
Sources:
FEMA Flood Insurance Rate Maps
G:\Planning\COMPLAN & DEV GUIDE GRAPHICS\ArcGISMaps\RCDG Rewrite\GIS\FinalDrafts\Map64_5_RZC.mxd

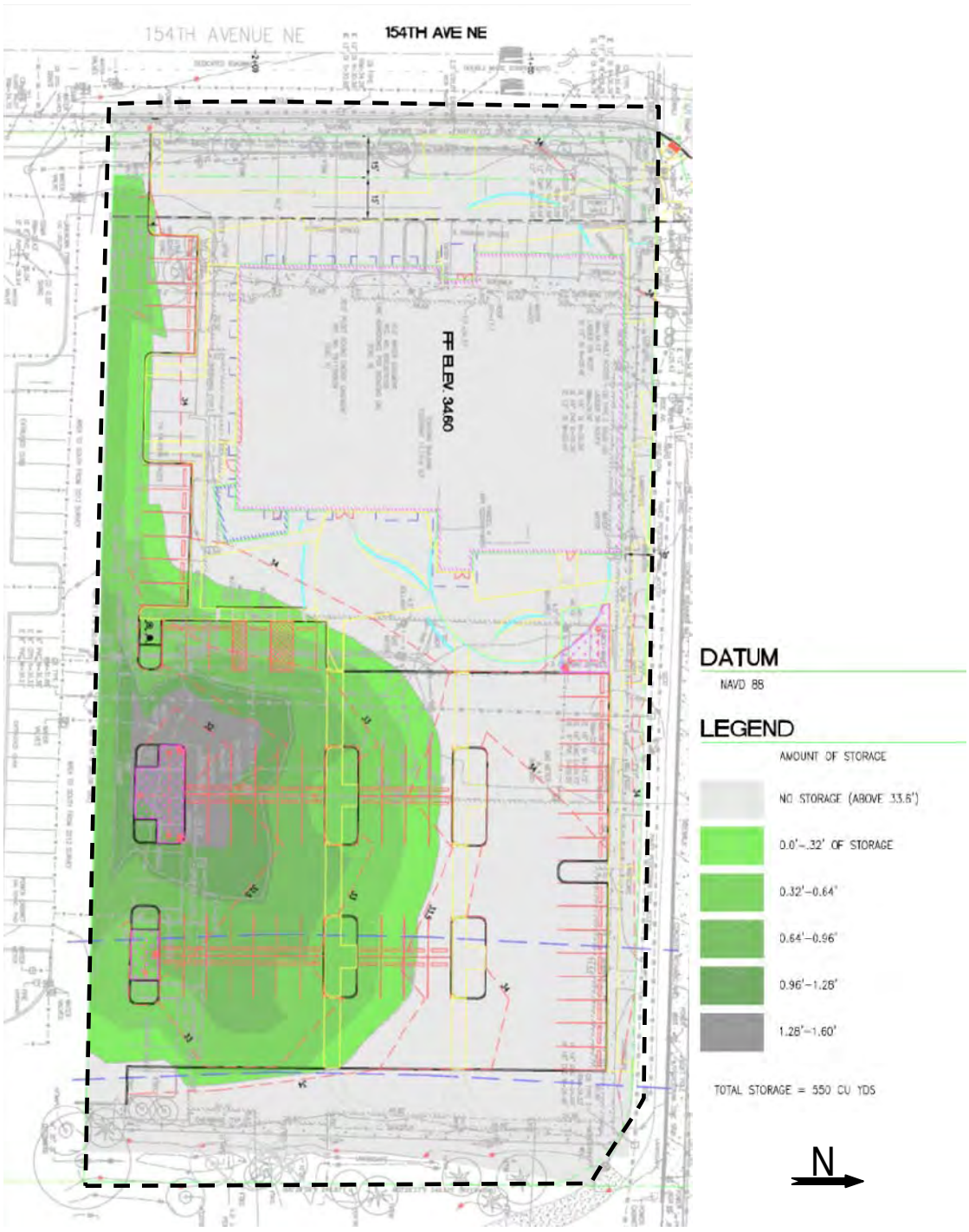
FIGURE 7

coterra ENGINEERING

May 2016

EXISTING FLOOD STORAGE
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE
8



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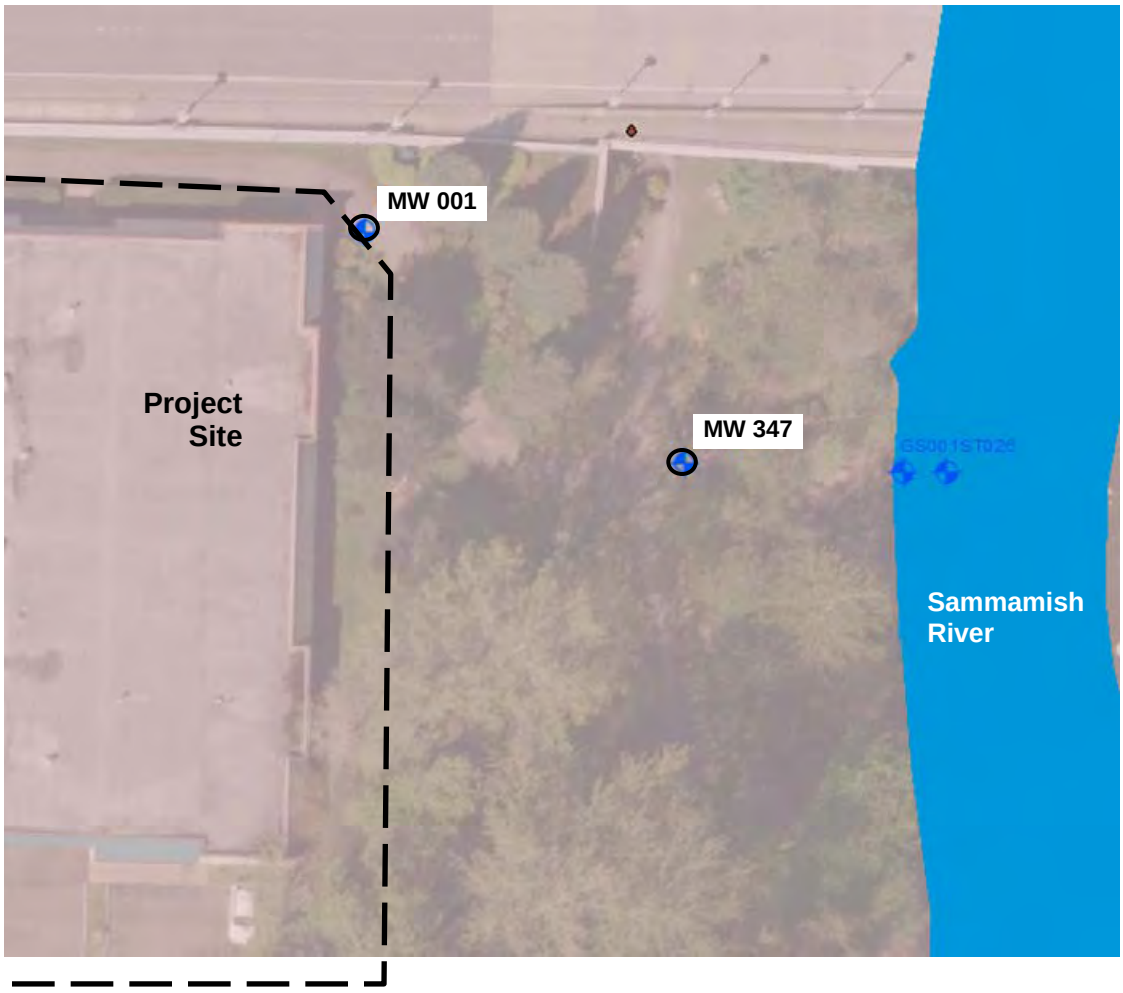
May 2016

PROPOSED FLOOD STORAGE
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 9



Project # 41342.000
May 2016

LOCATION OF GROUNDWATER MONITORING WELLS
Hopelink Redmond Integrated Service Center
Redmond, Washington

FIGURE 10

APPENDIX A

Site Photographs

Photo 1. View to north of east edge of parcel with existing building, sidewalk and planted berm with swordferns in the foreground and Douglas-firs in the background.

Photo 2. View to south of berm with quaking aspen seedlings in foreground and planted maple and older aspens in background. Maple and older aspens to be removed per arborist.

Photo 3. View of northern part of berm with planted snowberries and tall Oregon grape. Most berm plantings will be preserved.

Photo 4. View to south of northeast corner of property showing sidewalk and building on right and King County Trail on left.

Photo 5. View to west of North end of lot showing King County trail and retaining wall below NE 90th St. After boundary line adjustment, parcel will end at south edge of trail

Photo 6. View to north of King County trail through stream buffer.

Photo 7. Large cottonwoods at southeast corner of property

Photo 8. Three Douglas firs in southwest corner to remain if possible.

Photo 9. View of river under the NE 90th Street Bridge

Photo 10. View to southwest from the bridge of shoreline near property showing maturing plantings

Photo 11. View of riparian corridor east of trail with dense bitter cherry and tall Oregon grape

Photo 12. View of riparian corridor along river with planted willows and large wood placement.

APPENDIX B

Site Drawing Set

APPENDIX C

Habitat Unit Assessment Form and Stream Summary Sheet

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Planted Riparian Forest
LOCATION: 20 ft wide strip along east edge of property
TOTAL SCORE: 13

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	• ≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	1
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	1
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1 - horizontal (width) extension
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	2
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	2
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	3

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Planted Riparian Forest - constructed berm planted with mostly native species. The tree layer consists of one large mature multi-stem black cottonwood on corner of lot which predates the planting, three 14-16" Douglas-fir, four 6-12" quaking aspen, and a non-native re maple. Shrub layer consists of planted snowberry, osoberry, tall Oregon grape, and sweetgale. Swordferns and ladyferns were also planted.

INVASIVE PLANTS:

Himalayan blackberry and field bindweed present but less than 10% cover. Bentgrasses cover about 30 % of the understory.

HABITAT FEATURES (snags, perches, downed logs, etc):

Some downed branches but otherwise not present

WILDLIFE OBSERVATIONS (direct or indirect):

None observed, but likely used by songbirds, squirrels, small mammals, rodents, etc. Wildlife is more likely to use habitat along the river.

THREATS TO HABITAT INTEGRITY:

Landscape maintenance, urban setting, high human use on trail, potential for invasive species expansion,

OTHER NOTES:

Urban context with close proximity to buildings, parking lots, King County trail, etc.

HOPELINK REDMOND

STREAM SUMMARY			BUFFER SUMMARY			RIPARIAN CORRIDOR SUMMARY		
Label[1]	Type[2]	Linear Feet[3]	Required[4]	Proposed[5]	Averaging[6]	Disturbed Area[7]	Filled Area[8]	Mitigation Area[9]
A	Class 1 / Shoreline	0 feet	150	150	none	Up to 5 danger trees removed from buffer on property; other danger trees identified off property	none	Remove 3,650 sq ft of building/impervious surface in buffer and replant to native species; replacement of trees removed in existing buffer at 2:1 ratio

1 Stream A, B, C, etc.

2 Stream type per City stream classification system.

3 Length of stream on the property.

4 Required buffer width in feet per RCDG.

5 Proposed buffer width in feet.

6 Note if buffer averaging is used. If so, identify minimum and maximum buffer widths in feet as well as area in square feet contained within the buffer prior to and after averaging.

7 Area of buffer that is disturbed in square feet.

8 Area of buffer to be filled in square feet, such as for a road crossing.

9 Location and size in square feet of riparian corridor mitigation.

APPENDIX D

WDNR Natural Heritage Features and WDFW Habitats and Species Report

Sections that Contain Natural Heritage Features

Data Current as of July 24, 2015

List of surveyed land sections in Washington identified by the Natural Heritage Program as reported to contain Natural Heritage Features. Contact the Washington Natural Heritage Program at natural_heritage_program@dnr.wa.gov for more detailed information on locations and occurrences.

Town. Range Sec	Town. Range Sec.
T25N R01E S31	T25N R06W S01
T25N R01W S30	T25N R07E S13
T25N R01W S31	T25N R07E S20
T25N R01W S36	T25N R07E S29
T25N R02E S17	T25N R07W S02
T25N R02E S18	T25N R08E S18
T25N R02E S20	T25N R08E S19
T25N R02E S29	T25N R08E S30
T25N R02E S32	T25N R08E S33
T25N R02W S10	T25N R08E S34
T25N R02W S16	T25N R08E S35
T25N R02W S21	T25N R08E S36
T25N R02W S25	T25N R09E S11
T25N R02W S29	T25N R09E S14
T25N R02W S34	T25N R09E S34
T25N R02W S35	T25N R10E S07
T25N R02W S36	T25N R10E S21
T25N R03W PB49	T25N R10E S22
T25N R04W PB41	T25N R10E S30
T25N R04W PB42	T25N R10W S07
T25N R04W PB43	T25N R10W S08
T25N R04W PB44	T25N R10W S15
T25N R04W PB46	T25N R10W S16
T25N R04W S28	T25N R10W S17
T25N R04W S29	T25N R10W S18
T25N R05E S16	T25N R10W S19
T25N R05W PB46	T25N R10W S20
T25N R05W PB47	T25N R10W S21

Washington Natural Heritage Program, P O Box 47016, Olympia, WA 98504-7016

Project is located in T25N R05E S02, which is not on the list. The nearest feature is two miles away at Bridle Trails State Park

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

ATTACHMENT J

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 10/21/2015 11.47

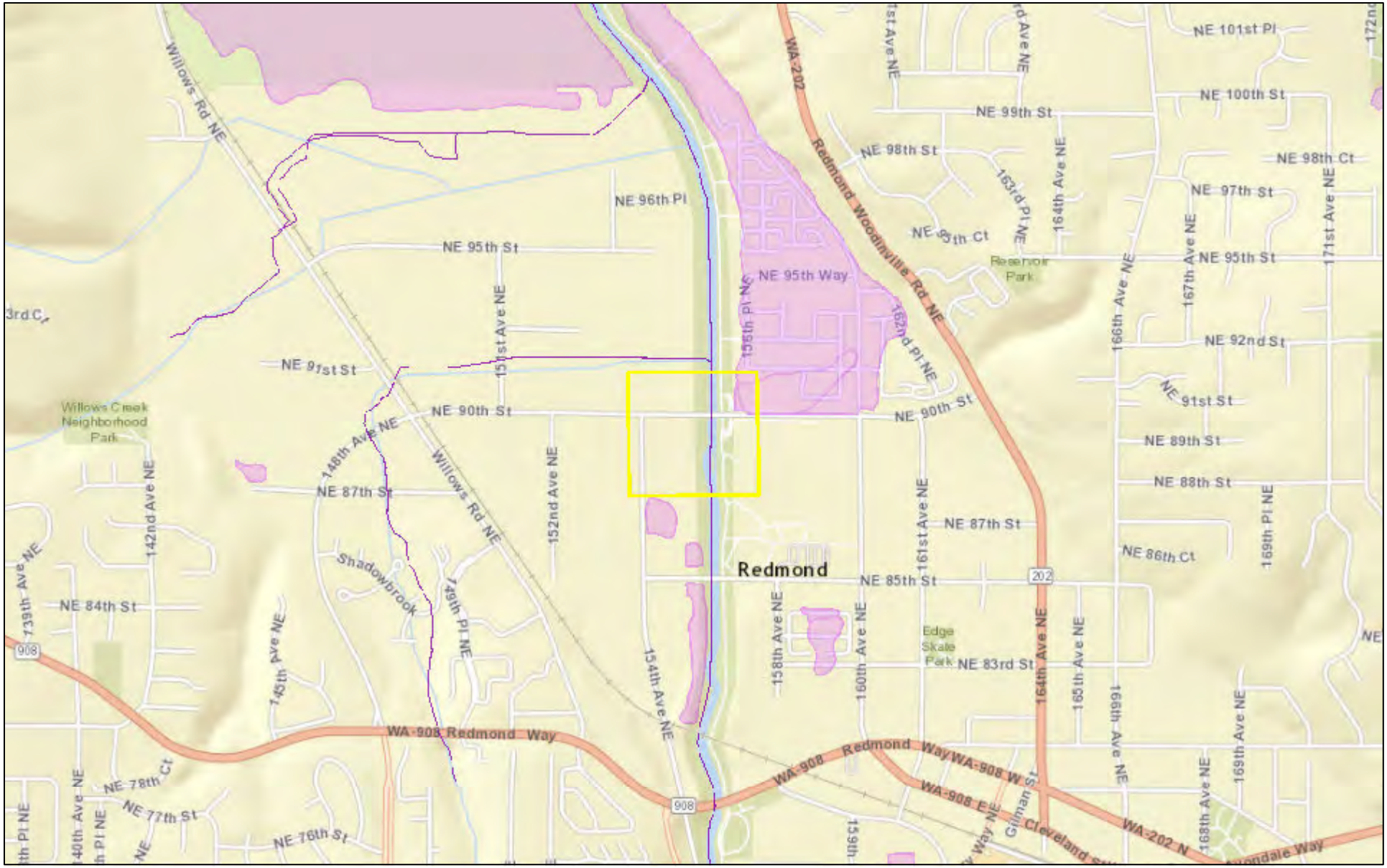
Query ID: P151021114704

Common Name / Scientific Name / Notes	Site Name / Source Dataset / Source Record / Source Date	Priority Area / Occurrence Type / More Information (URL) / Mgmt Recommendations	Accuracy	Federal Status / State Status / PHS Listing Status	Sensitive Data / Resolution	Source Entity / Geometry Type
Chinook Oncorhynchus tshawytscha	Sammamish River SASI 1128	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	Sammamish River SWIFD 39960	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Coho Oncorhynchus kisutch	Sammamish River SASI 3120	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Dolly Varden/ Bull Trout Salvelinus malma	Sammamish River SWIFD 39961	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Fall Chinook Oncorhynchus tshawytscha	Sammamish River SWIFD 39957	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name / Scientific Name / Notes	Site Name / Source Dataset / Source Record / Source Date	Priority Area / Occurrence Type / More Information (URL) / Mgmt Recommendations	Accuracy	Federal Status / State Status / PHS Listing Status	Sensitive Data / Resolution	Source Entity / Geometry Type
Kokanee Oncorhynchus nerka	Sammamish River SWIFD 39964	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Rainbow Trout Oncorhynchus mykiss	Sammamish River SWIFD 39966	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Resident Coastal Cutthroat Oncorhynchus clarki	Sammamish River SWIFD 39955	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Sockeye Oncorhynchus nerka	Sammamish River SWIFD 39967	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Sockeye Oncorhynchus nerka	Sammamish River SASI 5200	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Sammamish River SASI 6154	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Wetlands	SAMMAMISH RIVER PHSREGION 902534	Aquatic Habitat N/A http://www.ecy.wa.	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Winter Steelhead Oncorhynchus mykiss	Sammamish River SWIFD 39968	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines

WDFW Test Map

ATTACHMENT J



October 21, 2015

PHS Report Clip Area

PT

LN

AS MAPPED

SECTION

QTR-TWP

TOWNSHIP

1:19,842

0 0.15 0.3 0.6 mi

0 0.275 0.55 1.1 km

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand),

APPENDIX E

Well logs and Facility Site Reports

ATTACHMENT J

Well_name	MW001	MW001	MW347	MW347
x coord	1320271.133	1320271.133	1320347.6	1320347.6
y coord	251487.507	251487.507	251432	251432
Reference elevation	34.59	34.59	32.68	32.68
Measurement method	NAVD88	NAVD88	NAVD88	NAVD88
Dates	1/1/12- 1/1/14	1/1- 5/29/14	1/1/12- 1/1/14	1/1- 5/29/14
Ave. water depth (ft)	10.13	9.03	8.68	7.25
Ave GW Elevation (ft)	24.46	25.56	24.01	25.43
Max water depth (ft)	12.28	11.3	11.26	9.57
Max GW elevation (ft)	29.36	29.516	28.21	29.42
Min water depth (ft)	5.23	5.07	4.54	3.26
Min GW elevation (ft)	22.31	23.292	21.42	23.11

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT 25-5E-6D ATTACHMENT J

Notice of Intent No. 2479468

Construction/Decommission

280426

[X] Construction

[ ] Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

[X] Resource Protection

[ ] Geotechnical Soil Boring

Consulting Firm GeoEngineers

Property Owner City of Redmond

Site Address 15511 NE 90th St.

City Redmond County King

Location 1/4 NE 1/4 SW Sec 2 Twn 25N R 5E (EWM) or WWM

Unique Ecology Well ID Tag No. BAL 236

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____ Long Deg _____ Long Min/Sec _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

[ ] Driller [X] Trainee Name (Print) Curtis Askew

Driller/Trainee Signature _____

Driller/Trainee License No. _____

Cased or Uncased Diameter 8 Static Level _____

Work/Decommision Start Date 11/19/07

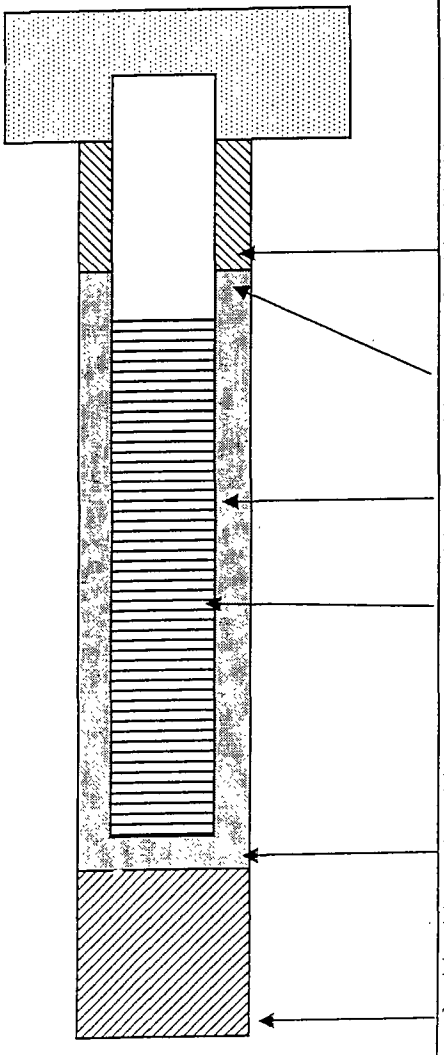
If trainee, licesned drillers' Signature and License No. 2355

Work/Decommision End Date 11/19/07

PW1 Construction/Design

Well Data W07-752-R

Formation Description



Concrete Surface Seal Depth	3 FT	0 - 20 FT sands, gravels
Blank Casing (dia x dep)	15x2"	
Material	PVC	
Backfill	_____ FT	
Type	_____	0 - _____ FT
Seal	10	
Material	Bent Chip	
Gravel Pack	7 FT	
Material	2/12 sand	
		0 - _____ FT
Screen (dia x dep)	5'x2"	
Slot Size	.010	
Material	PVC	
Well Depth	20 FT	
Backfill	_____	
Material	_____	
Total Hole Depth	_____ FT	

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Page _____ of _____

ECY 050-12 (Rec=v 2/01)

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ATTACHMENT J

25/5/2F

RESOURCE PROTECTION WELL REPORT

START CARD NO. 06748

PROJECT NAME: River Point
WELL IDENTIFICATION NO. MW-GA3
DRILLING METHOD: HSA 4"
DRILLER: CLAY GRIFFITH
FIRM: Pacific Testing LCB
SIGNATURE: Clay Griffith
CONSULTING FIRM: Golder
REPRESENTATIVE:

COUNTY: King
LOCATION: SE¼ NW¼ Sec 2 Twn 25N R 5E
STREET ADDRESS OF WELL:
1600th NE & 90st Redmond Wa.
WATER LEVEL ELEVATION: 10'
GROUND SURFACE ELEVATION: ?
INSTALLED: 1" PVC -14-
DEVELOPED: ND

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	0-2- monument in concrete 2-8- Bentonite chips 8-14' pea gravel	0-14- sands & gravels

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MAR -7 1994
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SCALE: 1" = _____ PAGE _____ OF _____

ECY 050-12 (Rev. 11/89)

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ATTACHMENT J

25/5/2F

RESOURCE PROTECTION WELL REPORT

START CARD NO. 06748

PROJECT NAME: River Point
WELL IDENTIFICATION NO. RPW-GA1
DRILLING METHOD: HSA 4"
DRILLER: CLAY GRIFFITH
FIRM: Pacific Testing Lab
SIGNATURE: Clay Griffith
CONSULTING FIRM: Golder
REPRESENTATIVE:

COUNTY: King
LOCATION: SE ¼ NW ¼ Sec 2 Twn 25N R 5E
STREET ADDRESS OF WELL:
160th NE + 90 st Redmond WA
WATER LEVEL ELEVATION: 10'
GROUND SURFACE ELEVATION: ?
INSTALLED: 1" piezo - 17'
DEVELOPED: hb

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
0 5 10 15 17 20	0-2 monument in concrete 2-8' Bentonite chips 8-17' pea gravel	0-17 sands & gravels

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ECY 050-12 (Rev. 11/89)

ATTACHMENT 5 2E/5F/2F

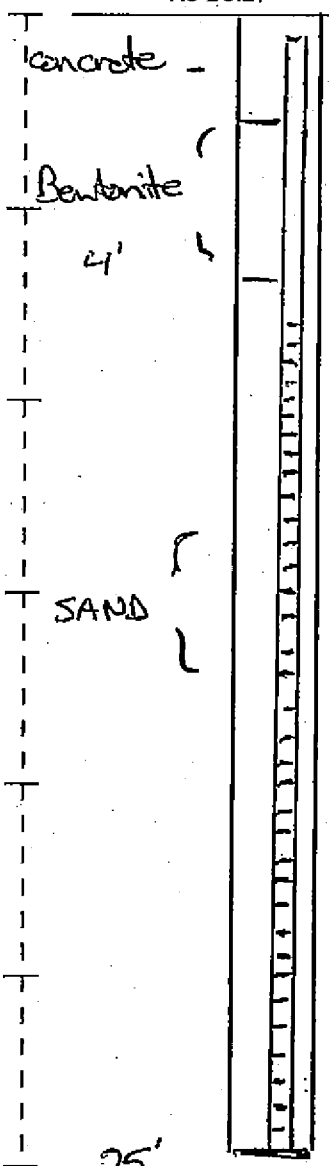
6

RESOURCE PROTECTION WELL REPORT

START CARD NO. 071944

PROJECT NAME: Prime Property Fund
WELL IDENTIFICATION NO. MW 5-10
DRILLING METHOD: HSA
DRILLER: Ken McClanahan
FIRM: McGanerA Drilling Inc.
SIGNATURE: Ken McClanahan
CONSULTING FIRM: ESE
REPRESENTATIVE: Mark Fishel

COUNTY: King
LOCATION: SE ¼ NE ¼ Sec 2 Twn 25N R 5E
STREET ADDRESS OF WELL: 15444 N.E. 95th Redmond Wa.
WATER LEVEL ELEVATION: 8'
GROUND SURFACE ELEVATION:
INSTALLED: 6-8/9-93
DEVELOPED: 6-9-93

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Flush mount monument 0-1 concrete 1-4 Bantonite 4-25 Colorado silica sand 10-20 1-5 pvc schl 40 2" blank 5-20 pvc schl 40 2" screen .010	0-.5 Asphalt .5-5 fill sand/cobbles 5-10 peat 10-25 coarse sand/gravel

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ECY 050-12 (Rev. 11/89)

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG No. 25/5E-1?

Date Jan 13, 19 47

Record by JBR

Source WPA - well proj. W. Warren

Location: State of WASHINGTON

County King

Area P

Map Snohomish 30'

¼ ¼ sec. T. N., R. E. W.

DIAGRAM OF SECTION

Drilling Co N. C Jamison

Address Seattle

Method of Drilling Date 11-10 19 32

Owner E. R. Myers

Address Redmond, Wash.

Land surface, datum ft. above / below

File number 25/5E

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses If material water-bearing, so state and record static level if reported Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc)		
	Glacial drift		
	clay, yellow	6	6
	clay, blue	34	40
	quicksand	3	43
	clay, blue	15	58
	boulders	1	59
	clay, blue, tough	13	72
	clay, blue	83	155
	"Shale" (salt?) water	7	162
	clay, blue	21	183
	44'		
	162 ft of 6" casing		
	400 gpm at [illegible]		

Turn up

Sheet of sheets

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG No. 25/5E-1?

Date Jan 13, 19 37

Record by JBR

Source WPA - well proj. W. Warren

Location: State of WASHINGTON

County King

Area P

Map Snohomish 30'

____ ¼ ____ ¼ sec. ____ T. ____ N., R ____ E. W.

DIAGRAM OF SECTION

Drilling Co N. C Jamison

Address Seattle

Method of Drilling ____ Date 11-10 19 32

Owner E. R. Myers

Address Redmond, Wash.

Land surface, datum ____ ft. above / below

25/5E
File number

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses If material water-bearing, so state and record static level if reported Give depths in feet below land-surface datum unless otherwise indicated Correlate with stratigraphic column, if feasible Following log of materials, list all casings, perforations, screens, etc)		
	Glacial drift		
	clay, yellow	6	6
	clay, blue	34	40
	quicksand	3	43
	clay, blue	15	58
	bldrs	1	59
	clay, blue tough	13	72
	clay, blue	83	155
	"Sand" (water)	7	162
	clay, blue	21	183
	44		
	162 ft of 6" casing		
	400 open at bottom		

Turn up

Sheet ____ of ____ sheets

RESOURCE PROTECTION WELL REPORT

ATTACHMENT J

25/25-03

START CARD NO. 020167

PROJECT NAME: PIPELINE NEAR REDMOND DRIVE

WELL INDENTIFICATION NO. _____

DRILLING METHOD: MUD ROTARY

DRILLER: BERT OLHEISER

FIRM: [illegible] & DR. INC.

SIGNATURE: Bert Olheiser

CONSULTING FIRM: CH2M HILL BELLEVUE

REPRESENTATIVE: Bonnie Walker

LOCATION: T 25N, R 5E, SEC. 2 1

DISTANCE: _____ FT. FROM N/S SECTION LINE

_____ FT. FROM E/W SECTION LINE

DATUM: _____

WATER LEVEL ELEVATION: Not recorded

INSTALLED: _____

DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
Piezometer installed in 6-1/2" cement grout 15-10" bentonite seal 10-15' pea gravel 2" diameter slotted PVC pipe from 13 to 15 Ft. Piezometer capped and protected by a meter vault		0-15 Ft Sandy silt to silty sand with up to 10% gravel, brown to gray, moist, dense to very dense

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AUG 10 1988
DEPARTMENT OF ECOLOGY
NORTHWEST REGION

SCALE: 1"= _____

PAGE 1 OF 1

ECY 050-12

ATTACHMENT J

VERSATILE drilling contractors inc.

Shaft Record Report

T-25-05-02C KING CO.

PROJECT Tolt Pipeline DAY Tuesday

JOB NO. 3148 DATE 7/18/89

DESIGN

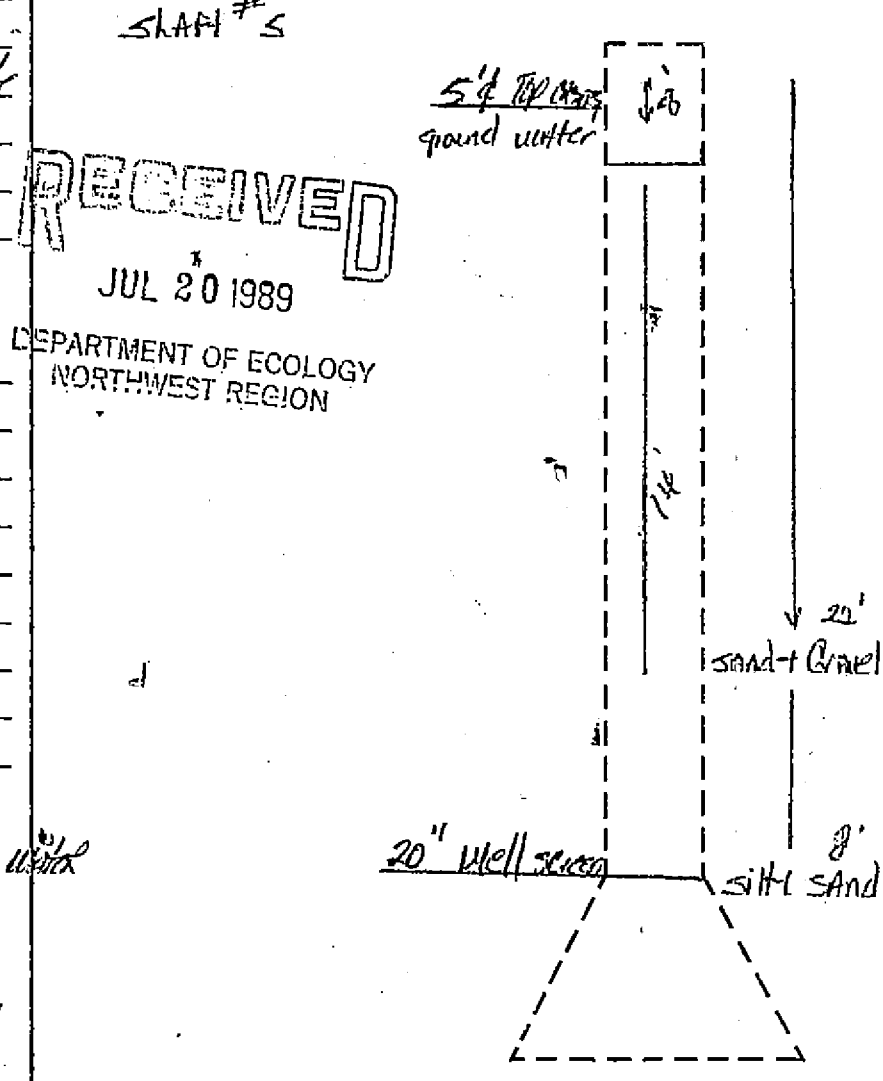
SHAFT LOCATION	Contractor
TYPE/DIAMETER	30"
TOP ELEVATION	Existing Grade
BOTTOM ELEVATION	30'
BELL DIAMETER	—
LENGTH	30'

AZBUILT

DATE STARTED	7/13/89
COMPLETED	7/18/89
DIAMETER	30"
TOP ELEVATION	Existing Grade
BOTTOM ELEVATION	30'
BELL DIAMETER	—
ADD OR DEDUCT	—
TOTAL LENGTH	30'
ACTUAL CONCRETE	—

REMARKS Head Pressure Maintain with water Holes were Drilled with A 30" Drilling Bucket Service Casing was used To Stop Caving in the Sand & Gravel Area

DRAWINGS (INCLUDE ELEVS, SIZE, SHAPE, CASING, & ALL OTHER PERTINENT INFORMATION)



RECEIVED
JUL 20 1989
DEPARTMENT OF ECOLOGY
NORTHWEST REGION

APPROVED BY =

Owners Representative _____

General Contractor _____

Versatile Drilling Contractors, Inc. Clyde Collins

Other _____

6970S

ATTACHMENT J.c

T-25-05-02C
K-KING CO

VERSATILE drilling contractors inc.

Shaft Record Report

PROJECT Tolt Pipeline DAY Tuesday

JOB NO. 3148 DATE 7/18/89

DESIGN

SHAFT LOCATION Contractor
TYPE/DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 40'
BELL DIAMETER —
LENGTH 40'

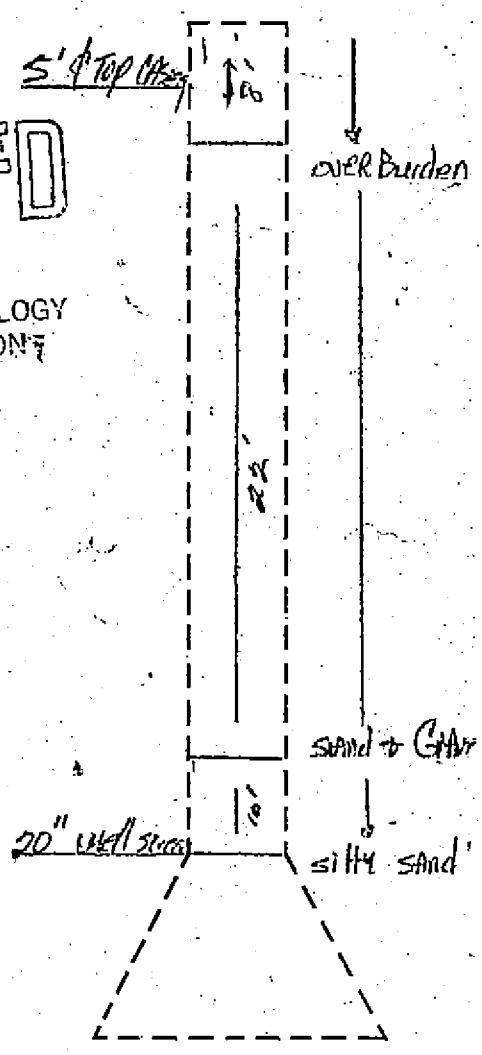
AZBUILT

DATE STARTED 7/18/89
COMPLETED 7/18/89
DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 40'
BELL DIAMETER —
ADD OR DEDUCT —
TOTAL LENGTH 40'
ACTUAL CONCRETE —

REMARKS Held Pressure attention with Inspector Holes were Drill with A 30" Drilling Bucket Service Casing was used TO STOP Caving in the Sand & Gravel Area

DRAWINGS (INCLUDE ELEVS, SIZE, SHAPE, CASING, & ALL OTHER PERTINENT INFORMATION)

SHAFT #4



APPROVED BY =

Owners Representative _____

General Contractor _____

Versatile Drilling Contractors, Inc. Chad Tallon

Other _____

69705

ATTACHMENT J

T. 25-05-02C

KING CO.

VERSATILE drilling contractors inc.

Shaft Record Report

PROJECT Tolt Pipeline DAY Monday

JOB NO. 3148 DATE 7/17/89

DESIGN

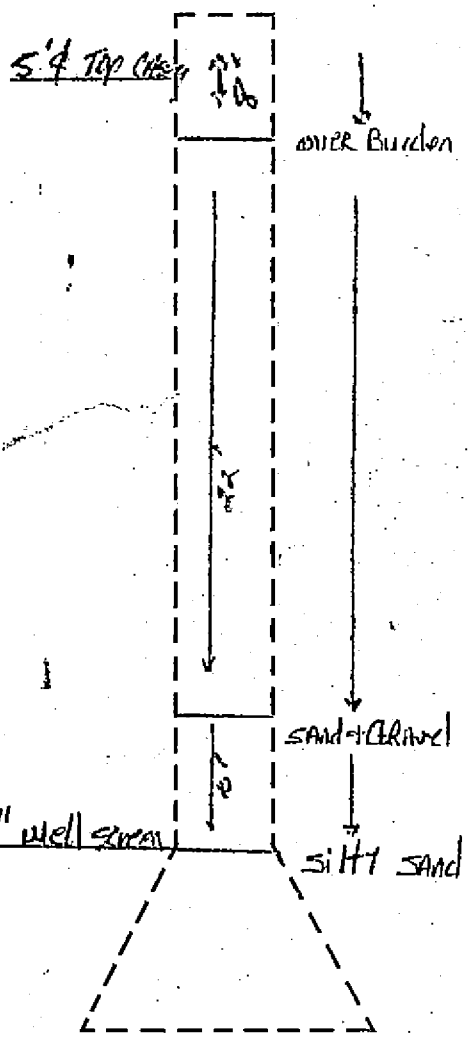
SHAFT LOCATION Contractor
TYPE/DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 40'
BELL DIAMETER —
LENGTH 40'

AZBUILT

DATE STARTED 7/17/89
COMPLETED 7/17/89
DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 40'
BELL DIAMETER —
ADD OR DEDUCT —
TOTAL LENGTH 40'
ACTUAL CONCRETE —

REMARKS Head Pressure Maintain with water Holes Were Drill with a 30" Drilling Bucket Service Casing was used To STOP Caving in the Sand + Gravel Area

DRAWINGS (INCLUDE ELEVS, SIZE, SHAPE, CASING, & ALL OTHER PERTINENT INFORMATION)



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NORTHWEST REGION

APPROVED BY =

Owners Representative _____

General Contractor _____

Versatile Drilling Contractors, Inc. _____

Other _____

6970S

ATTACHMENT 5-02C

VERSATILE drilling contractors inc.

Shaft Record Report

KING Co.

PROJECT Tolt Pipeline DAY Monday

JOB NO. 3148 DATE 7/17/89

DESIGN

SHAFT LOCATION	Contractor
TYPE/DIAMETER	30"
TOP ELEVATION	Existing Grade
BOTTOM ELEVATION	30'
BELL DIAMETER	—
LENGTH	30'

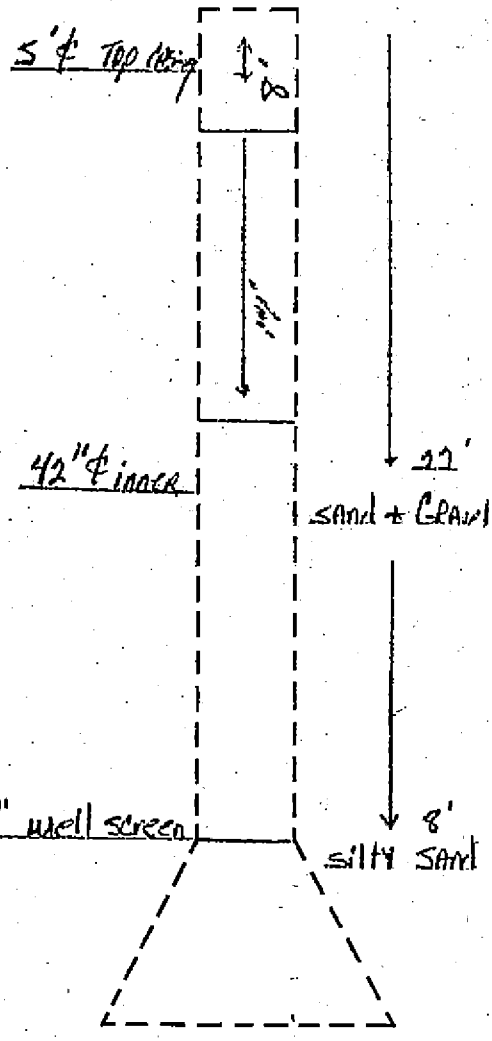
AZBUILT

DATE STARTED	7/15/89
COMPLETED	7/15/89
DIAMETER	30"
TOP ELEVATION	Existing Grade
BOTTOM ELEVATION	30'
BELL DIAMETER	—
ADD OR DEDUCT	—
TOTAL LENGTH	30'
ACTUAL CONCRETE	—

REMARKS Head Pressure Maintain with water Holes were Drill with A 30" Drilling Bucket Service Casing was used To STop Caving in the Sand & GRAVel AREA

DRAWINGS (INCLUDE ELEVS, SIZE, SHAPE, CASING, & ALL OTHER PERTINENT INFORMATION)

Shaft #2



RECEIVED
JUL 20 1989
DEPARTMENT OF ECOLOGY
NORTHWEST REGION

APPROVED BY =

Owners Representative _____

General Contractor _____

Versatile Drilling Contractors, Inc. Clyde Collins

Other _____

6970S

ATTACHMENT #2C

Shaft Record Report

KING CO.

PROJECT Tolt Pipeline DAY Saturday

JOB NO. 3148 DATE 7/15/89

DESIGN

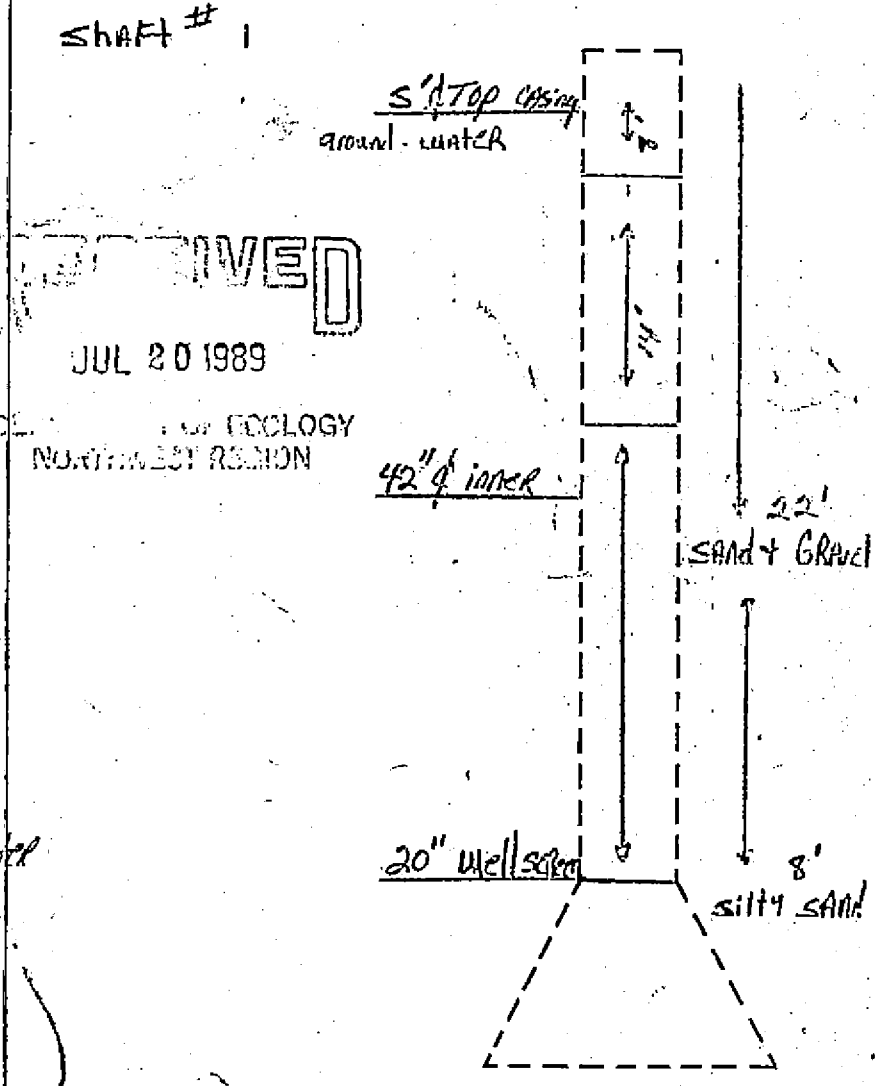
SHAFT LOCATION Contractor
TYPE/DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 30'
BELL DIAMETER —
LENGTH 30'

AZBUILT

DATE STARTED 7/14/89.
COMPLETED 7/15/89
DIAMETER 30"
TOP ELEVATION Existing Grade
BOTTOM ELEVATION 30'
BELL DIAMETER —
ADD OR DEDUCT —
TOTAL LENGTH 30'
ACTUAL CONCRETE —

REMARKS Head Pressure maintain with water Holes were Drilled with A 30" Drilling Bucket. Service casing was used To stop caving in the Sand & Gravel Area.

DRAWINGS (INCLUDE ELEVS, SIZE, SHAPE, CASING, & ALL OTHER PERTINENT INFORMATION)



RECEIVED
JUL 20 1989
DEPT. OF ECOLOGY
NORTHWEST REGION

APPROVED BY =

Owners Representative _____

General Contractor _____

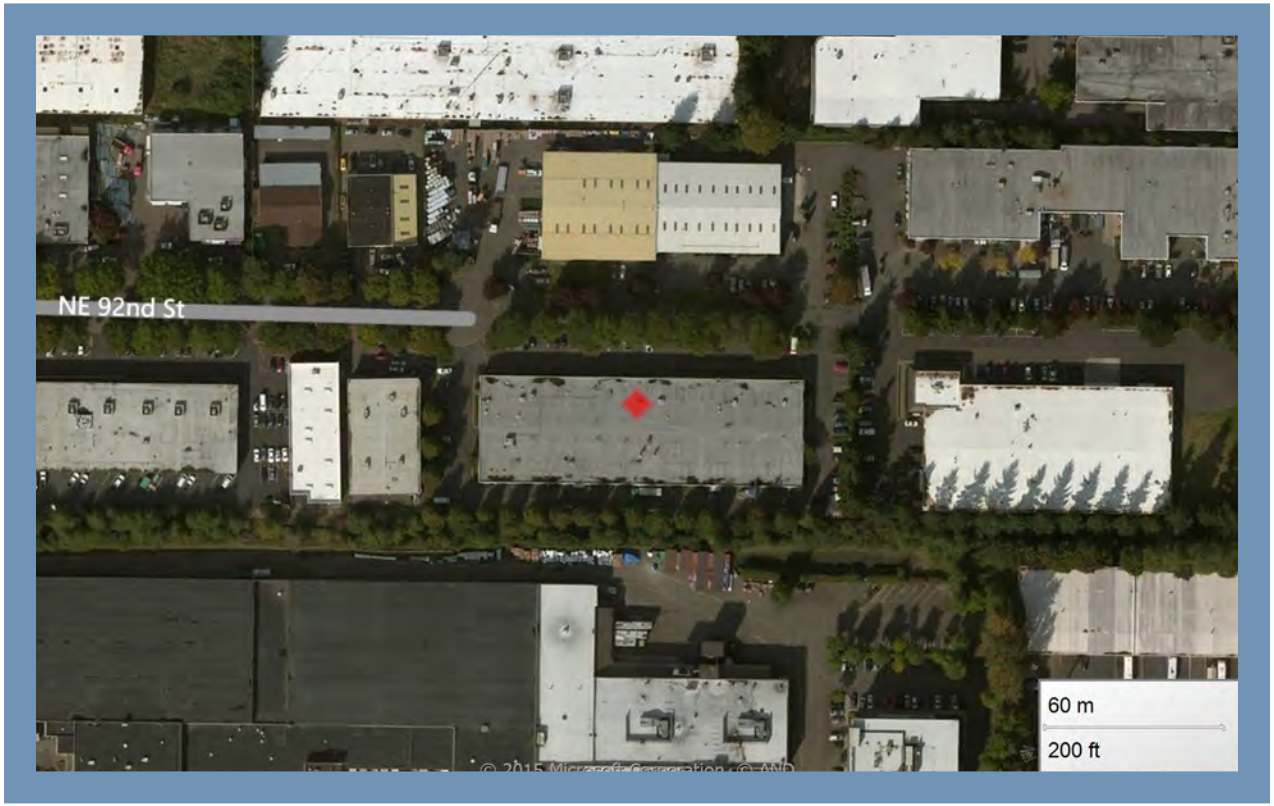
Versatile Drilling Contractors, Inc. _____

Other _____

69705

Facility/Site: 22781 Interior Woodworking Specialists

Also known as: Interior Woodworking Specialists



Address

15337 NE 92ND ST

REDMOND WA 98052

Decimal Coordinates

Latitude: 47.68381

Longitude: -122.13599

Geographic Information

Ecology Region: NWRO | Legislative District: 48 | WRIA: 8

County: King | Congressional District: 1 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Revised Site Visit Program	HAZWASTE	(360) 407-6736		9/17/2013	
The Hazardous Waste and Toxics Reduction Program engages in a variety of field work, site visits, and contacts with sites. While most compliance related activity is recorded into the EPA's RCRAInfo system, the other types of activities are recorded into the Revised Site Visit Program (RSVP).					

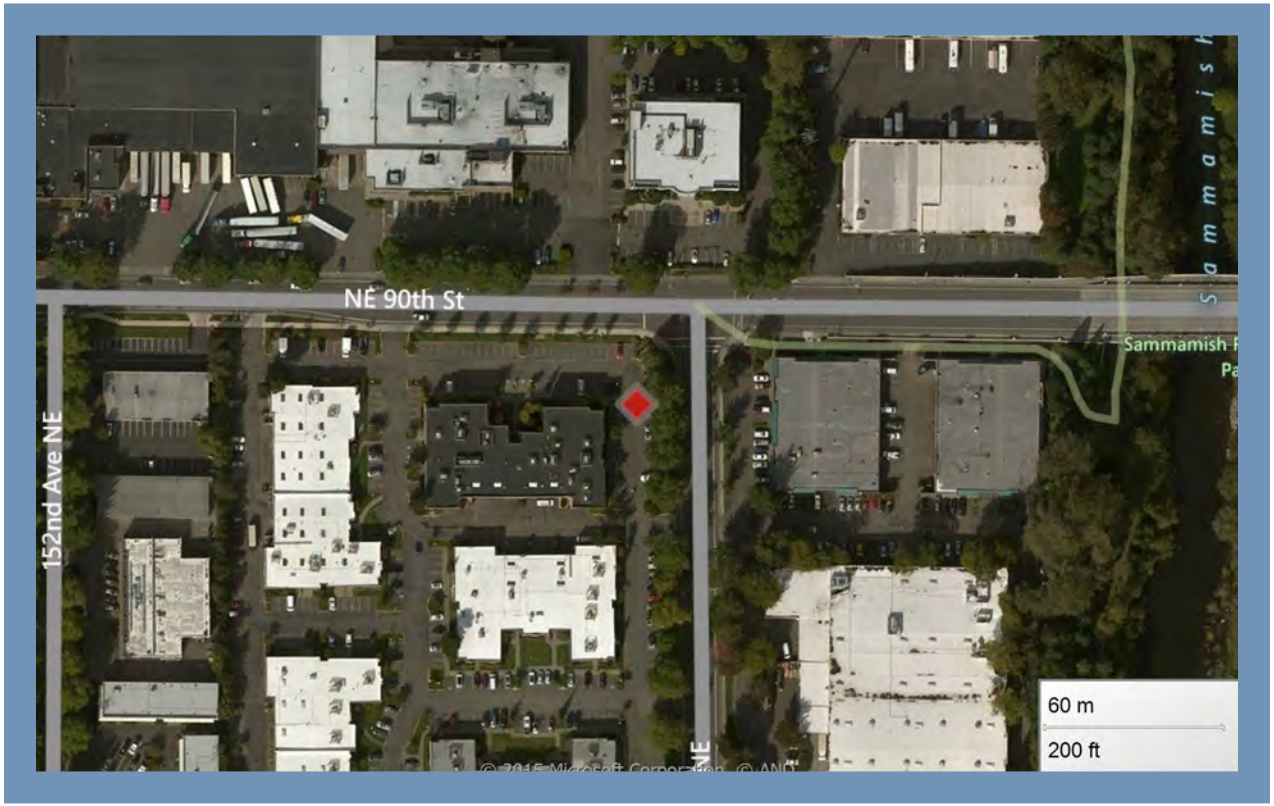
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Facility/Site: King Auto Industrial Supply 11347352

Also known as:



Address

15509 NE 90TH ST

REDMOND WA 98052-3520

Decimal Coordinates

Latitude: 47.68194

Longitude: -122.13503

Geographic Information

Ecology Region: NWRO	Legislative District: 48	WRIA: 8
County: King	Congressional District: 1	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAD988499539	1/6/1992	12/31/1993
Facilities that generate any quantity of a dangerous waste. They may be classified as SQG, MQG, or LQG depending on hazardous waste generated for a given month.					

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
9999	NONCLASSIFIABLE ESTABLISHMENTS

Facility/Site: Yearound Lawncare Redmond 31319136

Also known as:

Address

15525 NE 90TH

REDMOND WA 98052

Decimal Coordinates

Latitude: 47.68204

Longitude: -122.13665

Geographic Information

Ecology Region: NWRO | Legislative District: 48 | WRIA: 8

County: King | Congressional District: 1 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAD171571607	12/1/1988	2/28/1989
Facilities that generate any quantity of a dangerous waste. They may be classified as SQG, MQG, or LQG depending on hazardous waste generated for a given month.					

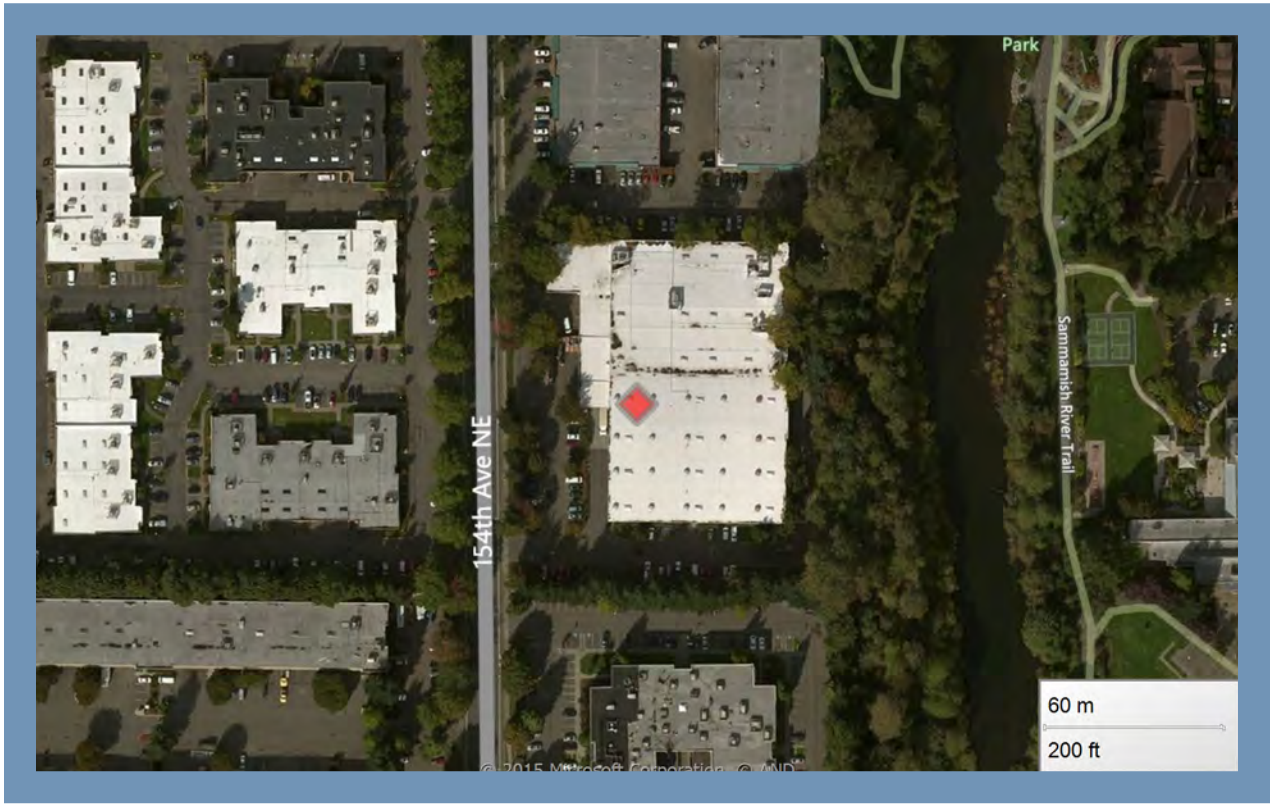
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
9999	NONCLASSIFIABLE ESTABLISHMENTS

Facility/Site: 9841 MICROSOFT WILLOWS FACILITY

Also known as: MICROSOFT WILLOWS FACILITY



Address

8950 154TH AVE NE

REDMOND WA 98052

Decimal Coordinates

Latitude: 47.68092

Longitude: -122.1338

Geographic Information

Ecology Region: NWRO	Legislative District: 48	WRIA: 8
County: King	Congressional District: 1	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Emergency/Haz Chem Rpt TIER2	HAZWASTE	(360) 407-6729	CRK000081330	2/28/2013	
Businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely hazardous chemical on site at any one time must report annually. Reports are sent to the State Emergency Response Commission [represented by Ecology] Local Emergency Planning Committees, and local fire departments for emergency planning. [product, not waste]					

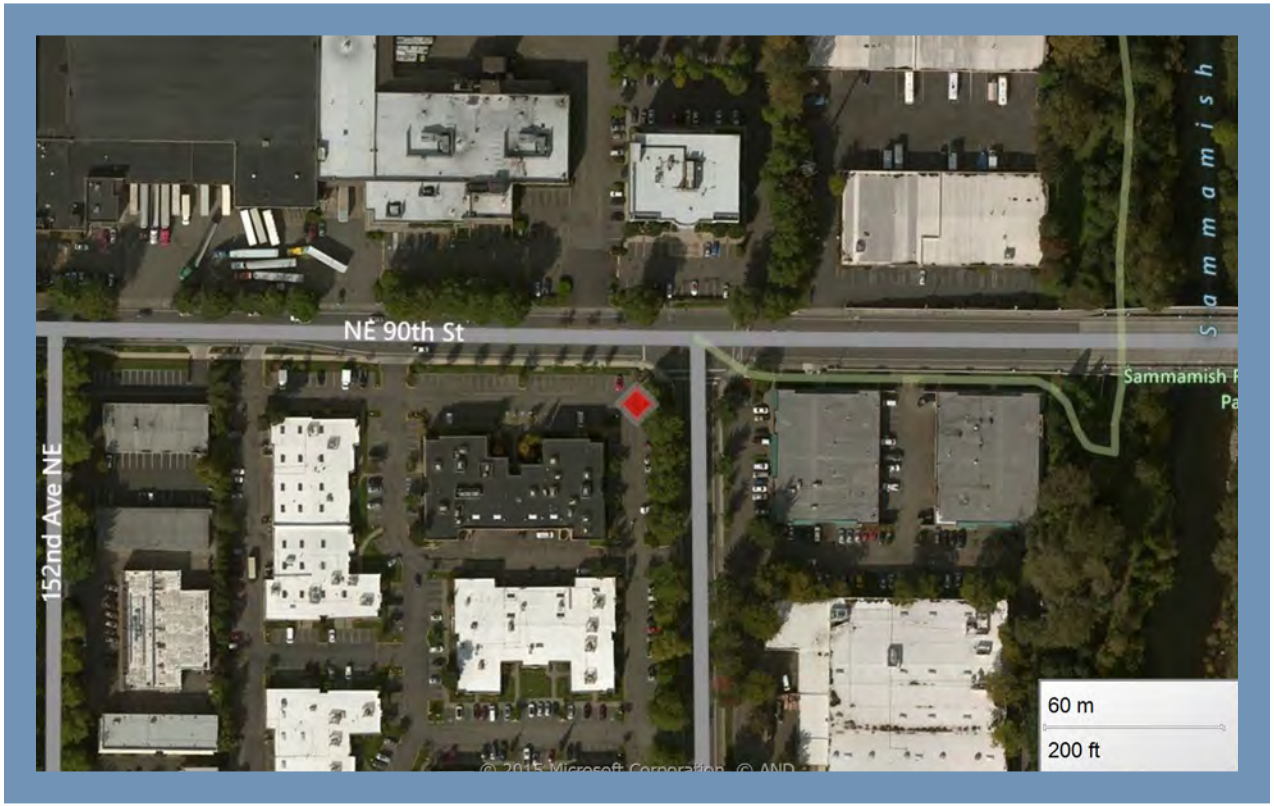
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Facility/Site: Sunrise Design 19698297

Also known as: Macro Technologies Inc



Address

15500 NE 90TH ST

REDMOND WA 98052

Decimal Coordinates

Latitude: 47.68197

Longitude: -122.1351

Geographic Information

Ecology Region: NWRO | Legislative District: 48 | WRIA: 8

County: King | Congressional District: 1 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Hazardous Waste Planner	HAZWASTE	(360) 407-6731	WAD981763980	1/1/1993	12/31/1993
Under Chapter 173-307 WAC, facilities that report under Section 313 of the Emergency Planning/Community Right-To-Know Act (EPCRA), or that generate more than 2,640 pounds of hazardous waste per year, must prepare Pollution Prevention Plans.					
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAD981763980	4/7/1987	12/31/1998
Facilities that generate any quantity of a dangerous waste. They may be classified as SQG, MQG, or LQG depending on hazardous waste generated for a given month.					

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
2322	MEN'S & BOYS' UNDERWEAR + NIGHTWEAR
3449	MISCELLANEOUS METAL WORK
3471	PLATING AND POLISHING