August 27, 2016

Mr. John Priebe Raging River Quarry, LLC

Re: Wetland & Stream Reconnaissance for the Raging River Quarry Expansion: (Parcel # 2224079033) King County, WA.

Dear Mr. Priebe:

A wetland and stream investigation has been conducted on the Raging River Quarry Property (Expansion Area) located west of Preston-Fall City Road S.E. at the intersection with Carmichael Road in unincorporated King County (Parcel # 2224079033). The Property is situated along the west side of the Raging River and has a total area of 25.02 acres. There was a previous critical areas study conducted on the adjacent property to the west more than 5 years ago (Welch Property: Critical Area Site Designation L07SA395; Parcel No. 2124079017, 60XX 322nd Avenue SE Fall City, WA – 9/25/08 Letter from King County). Based on this 2008 critical area study an identified Type N stream is also located on the subject Property.

This wetland and stream reconnaissance is a site-specific study to determine the presence or absence of wetland areas or additional streams. The previously identified Type N stream that flows through the Property (Expansion Area) is also described for future project work. Wetland areas were <u>not</u> observed on the Property.

In addition, please refer to drawings included in the permit submittal that include the mapped on-site portion of stream (Existing Conditions, Sheet C1.02 & Excavation Plan, Sheet C3.01 Raging River Quarry - Core Design, 2016). The current phase of the mining operation is located on Parcel # 2224079011.

Site Description

The subject Property is undeveloped land with the majority being forest habitat. The current Raging River Quarry mine is located on the parcel directly north of the Expansion Property. The upper bench area reviewed is above the River's shoreline zone that is 200 feet west of the Raging River. The Expansion Area has undulating topography generally sloping to the east and south and then transitions to steep slopes extending down to the Raging River corridor.

Purpose / Methodology

The primary purpose of this report is to specifically identify the presence or absence of wetlands and streams, and the associated buffer areas related to the grading permit and related mining activities on the Property. The updated project plan will include avoidance of direct impacts to wetlands and streams.

In accordance with current State requirements, the 1987 US Army Corps of Engineers Wetlands Delineation Manual (FICWD 1987) was used for wetland determination. The methodology is based on the presence of dominant hydrophytic vegetation (i.e. plant species adapted to, or tolerant of, growing in saturated soil conditions), hydric soils, and observed wetland hydrology as described in the Manual and consistent with the Regional Supplemental to the Corps of Engineers Wetland Delineation Manual (US Army Corps of Engineers 2010). The technical criteria for vegetation, soils, and hydrology are mandatory under normal conditions and must all be met or present for an area to be identified as wetland.

The On-site Determination Method was Routine for areas greater than five acres. Wetland data transects were installed and used as a way to uniformly observe the site in a grid pattern. Four wetland data transects were installed to investigate the project site. The wetland transects are generally oriented west and east for Transects 1, 2, and 4. Transect 3 was installed parallel and adjacent to the stream to observe if any wetland seepage areas are associated with the stream. Data sampling and/or observation points are flagged about every 200 feet along the wetland transects. A total of 10 wetland data plots, approximately 0.01 acres in size, were installed throughout the Property (Expansion Area).

In general wetland data plots were installed to investigate potential wetland areas and provide a determination. The wetland data plot forms are attached at the end of this report. In addition, cursory soil excavations were conducted to verify upland conditions were present where there was significant cover of hydrophytic vegetation.

Determination of wetland area was based on observed plant species, topographic relief, soil profiles, and hydrology. Pink plastic flagging was used to mark the site's wetland data transects and data plot locations. Figures 1 and 2 are provided in this report to show the approximate location of wetland data transects (T-1 to T-4) and the associated wetland data plots. Per the County's critical areas code, the Washington State Wetland Rating System for Western Washington (Ecology Pub. #04-06-025) is used to rate wetlands (KCC Chapter 21A.24.318).

Wetland & Stream Reconnaissance

The Property was investigated during the months of April and May 2016. Based on the investigation of soils, hydrology, and dominant vegetation cover, wetlands were not observed on the Property or adjacent areas. An unnamed, seasonal stream flows through the Property generally west to east and was investigated along both sides of its channel.

The vegetation cover is primarily native species comprised of a mostly mature forest canopy. The upper bench area in the north portion is described as open forest with very little shrub cover. Side slope and swale areas have significant cover of shrubs.

The trees on the site are primarily Douglas fir (*Pseudotsuga douglasii*), Western hemlock (*Tsuga heterophylla*), Western red cedar (*Thuja plicata*), red alder (*Alnus rubra*), and big leaf maple (*Acer macrophyllum*). A few Sitka spruce (*Picea sitchensis*) and black cottonwood (*Populus balsamifera*) trees were also observed. The shrub cover is predominately salmonberry (*Rubus spectabilis*) and vine maple (*Acer circinatum*).

Groundcover species are diverse with sword fern (*Polystichum munitum*) occurring throughout the Property. In addition to sword fern dominant groundcover species observed are Oregon grape (*Mahonia nervosa*), bleeding heart (*Dicentra formosa*), and waterleaf (*Hydrophyllum sp.*).

Soil

According to the King County Area - Soil Survey (US Soil Conservation Service 1973), the property is mapped as having Alderwood and Kitsap soils, very steep (AkF). The soils observed in upland areas closely resemble the Alderwood series. Alderwood soils are moderately well drained soils formed under conifers, in glacial deposits. Slopes are 0 to 70 percent. Soils that can be included in this map unit are Norma, Bellingham, Seattle, Tukwila, and Shalcar series. These are poorly drained, hydric (wetland) soils

Hydrology

The soils on the Property are described as well-drained. With the exception of the seasonal stream, there were no observations of surface water ponding or evidence of water movement and erosion caused by flowing water. Based on topography most of the area drains toward the Raging River.

The seasonal stream enters the Property at the west boundary and flows east to the Raging River. Additional information is provided under the *Stream* section.

Wetland

The determination that there is no wetland habitat occurring on the Property (Expansion Area) is based upon several observations. In addition to the wetland data transects much of the Property was walked over the time of the investigation using old logging trails or following boundary lines. Please see Figures 1 and 2 for locations of wetland data transects and wetland data plots.

The vegetation cover is dominated by 'Upland' and 'Facultative Upland' species throughout most of the site. Low topographic areas and swales have well-drained soils that infiltrate rainfall and surface water runoff. Soil excavations did not encounter shallow groundwater or saturation. The only erosive feature from surface water movement is the channel of the identified stream located in the central portion of the Property. The time period of this investigation was during the "growing season" when wetland hydrology under normal circumstances is visible through water ponding, surface saturation, and/or shallow groundwater. Wetland hydrology indicators were not observed.

Stream

The subject stream flows east under 322^{nd} Avenue S.E. and enters the Property very close to the southeast corner of the Welsh property (Parcel No. 2124079017) and the common northeast corner of the Ditch property (Parcel No. 2124079088) (Figure 3). As identified in the 2008 study the stream channel was surveyed on the Welsh property as a Type N stream. In accordance with County code, Aquatic areas include Type N streams and are defined as waters that include all segments of aquatic areas that are not Type S or F waters and that are physically connected to Type S or F waters by an above-ground channel system, stream or wetland (KCC 21A.24.355.A.). The subject stream flows into the Raging River but is not a State shoreline (Type S) and is not known to support fish (Type F).

During the investigation the upper and lower portions of the stream were observed. Generally the stream has a channel bottom of about 4 feet in width composed of gravel and cobble-sized native rock. The channel varies from nearly flat to incised stream banks about 3 feet deep. Low water flows were observed in the lower portion above the steep slope adjacent to the Raging River. The upper western portion of the stream had intermittent surface water with subsurface flows evident. Riparian vegetation cover included scattered trees with vine maple and salmonberry shrubs.

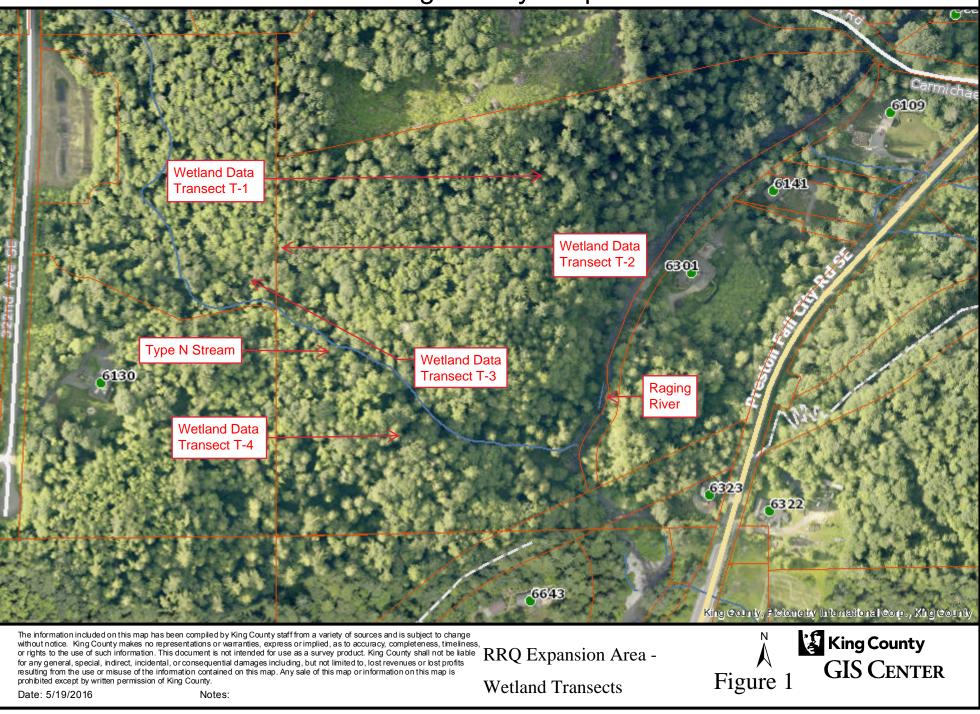
The stream has been mapped on the Existing Conditions and Excavation Plan sheets based on the King County iMap (Raging River Quarry, Core Design 2016). The stream as mapped on the website resource iMap appears relatively accurate (Figures 1 and 3). Type N streams have a standard buffer width of 65 feet

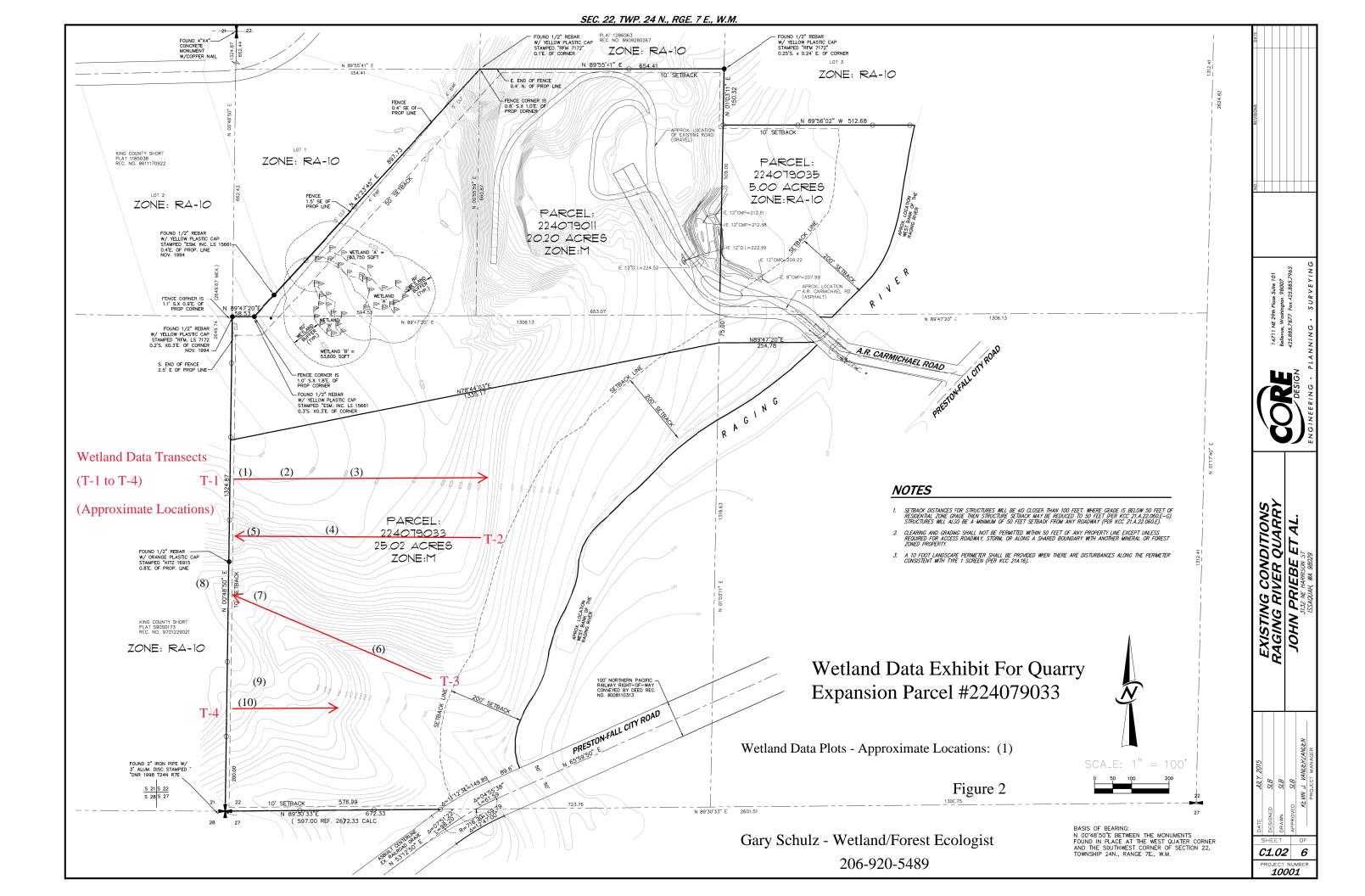
In summary, the Property has been investigated for the presence of wetland and stream areas. The reconnaissance of the Property relative to the project site did not observe wetland habitats. One Type N stream flows through the Property and has been mapped with a 65-foot aquatic area buffer. Please contact me with any questions or concerns regarding this wetland and stream report.

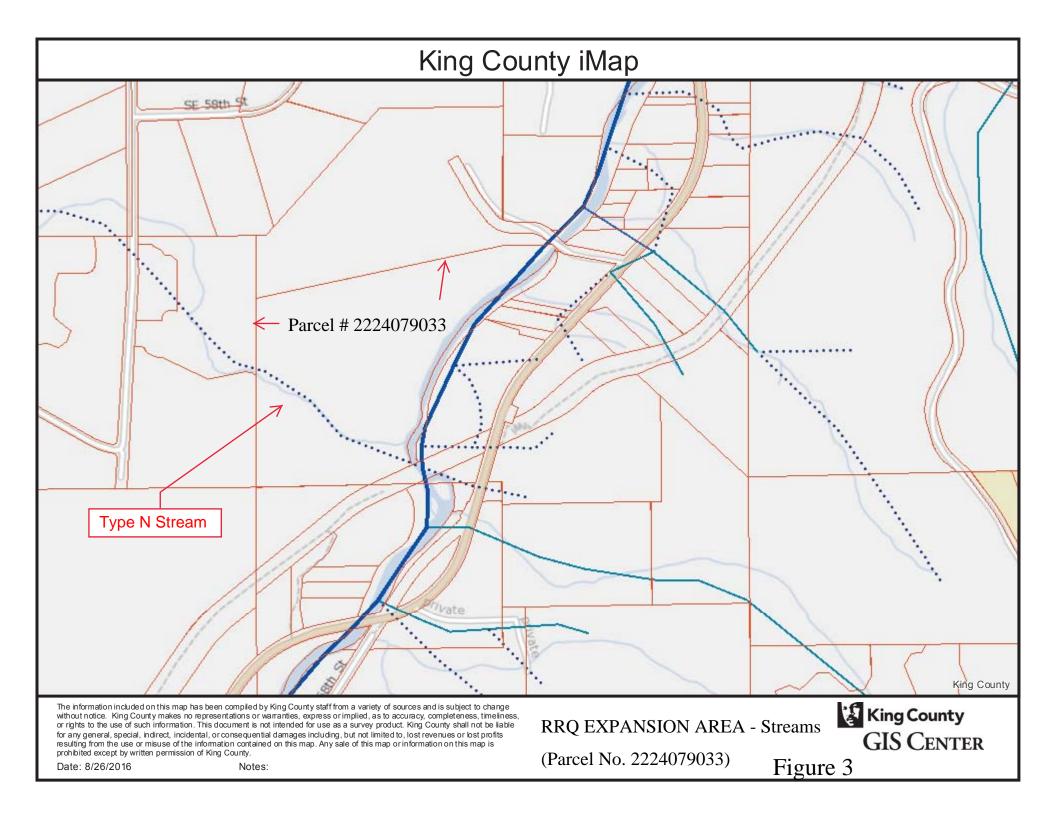
Sincerely, C. Harg Schuk

C. Gary \$chulz Wetland/Forest Ecologist

King County iMap







Project Site:	Raging R	iver Qu	uarry Expansion			City	//County:		/King	1	Sampling D	Date:	<u>4/18</u>	8/16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	Point:	<u>1</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	<u>I, 7E,</u>			
Landform (hillslope, ter	rrace, etc.)	: <u>te</u>	errace			Local relief	(concave,	conve	x, non	e): <u>none</u>		Slope	(%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & K	Kitsap (AkF)							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	urbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	d, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	\boxtimes				
Hydric Soil Present?		No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes	No	\boxtimes				
Remarks: Plot is located at Transect Point #T-1-1.							

Tree Stratum (Plot size: 1/100 th acre)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
 <u>Thuja plicata</u> 	<u>80</u>	<u>ves</u>	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u>	(A)
3 4				Total Number of Dominant Species Across All Strata:	<u>3</u>	(B)
50% =, 20% = <u>Sapling/Shrub Stratum</u> (Plot size: <u>1/100th acre</u>)	<u>80</u>	= Total Cove	r	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33</u>	(A/B)
1. Acer macrophyllum (saplings)	<u>30</u>	yes	FACU	Prevalence Index worksheet:		
2				Total % Cover of:	Multiply by:	
3				OBL species	x1 =	
4				FACW species	x2 =	
5				FAC species	x3 =	
50% =, 20% =	<u>30</u>	= Total Cove	r	FACU species	x4 =	
Herb Stratum (Plot size: 1/100 th acre)				UPL species	x5 =	
1. Polystichum munitum	<u>25</u>	<u>ves</u>	FACU	Column Totals: (A)		(B)
2		<u>n/a*</u>	<u>-</u>	Prevalence Index = B/A =		
3				Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Vegetatic	วท	
5				2 - Dominance Test is >50%		
6				□ 3 - Prevalence Index is $\leq 3.0^1$		
7 8				4 - Morphological Adaptations ¹ (Provide data in Remarks or on a separate she	supporting eet)	
9				5 - Wetland Non-Vascular Plants ¹	,	
10				Problematic Hydrophytic Vegetation ¹ (E)	valain)	
11					(piain)	
50% =, 20% =	25	= Total Cove	r	¹ Indicators of hydric soil and wetland hydrolog be present, unless disturbed or problematic.	y must	
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation Yes 🗌	No	
50% =, 20% =	. <u></u>	= Total Cove	r	Present?	NO	
% Bare Ground in Herb Stratum						
Remarks:						

SOI	OIL Sampling Point: 1												
Prof	ile Descri	otion: (Describe t	o the depth	n needed to d	ocument the ind	licator or confir	m the absenc	e of indicator	s.)				
D	Pepth	Matrix			Redox	Features							
(incł	nes)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture			Remark	s	
	8	10YR3/2	100					sandy loar	n gra	avelly, dry			
	<u>16</u>	<u>10YR4/3</u>	<u>100</u>					sandy loar	n gra	avelly, dry			
-													
_													
-													
_													
_													
_													
1Тур	pe: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix												
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils													
	Histosol	(A1)			Sandy Redox (S5)			2 cm N	luck (A10)			
	Histic Ep	ipedon (A2)			Stripped Matrix	(S6)			Red Pa	arent Material (TF2)		
	Black His	stic (A3)			Loamy Mucky N	/lineral (F1) (exc	ept MLRA 1)		Very S	hallow Dark Su	ırface (T	F12)	
	Hydroge	n Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other	(Explain in Rem	narks)		
	Depleted	Below Dark Surfa	ce (A11)		Depleted Matrix	(F3)							
	Thick Da	rk Surface (A12)			Redox Dark Su	rface (F6)							
	Sandy M	ucky Mineral (S1)			Depleted Dark	Surface (F7)				hydrophytic veg drology must b			
	Sandy G	eyed Matrix (S4)			Redox Depress	ions (F8)				urbed or proble		п,	
Rest	trictive La	yer (if present):											
Туре):												
Dept	th (inches)						Hydric Soils	Present?		Yes		No	\boxtimes
Rem	arks:												

Wetla	etland Hydrology Indicators:												
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Livir	ig Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)				ils (C6)		FAC-Neutral Test (D5)					
Surface Soil Cracks (B6) Stunted or Stresses Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)													
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7)													
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	and Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), i	f available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			City	//County:		/King	1	Sampling D	ate:	<u>4/18</u>	/16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	oint:	<u>2</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22, 24N</u>	I <u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)	: <u>te</u>	errace			Local relief	(concave,	conve	x, non	e): <u>none</u>		Slope	(%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	<u>Alderwo</u>	od & k	Kitsap (AkF)							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	urbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	d, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	\boxtimes				
Hydric Soil Present?		No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes	No	\boxtimes				
Remarks: Wetland A outside Flag #A-6.							

Tree Stratum (Plot size: 1/100 th acre)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1. <u>Thuja plicata</u>	<u>10</u>	no	FAC	Number of Dominant Species	1	(A)
2				That Are OBL, FACW, or FAC:	<u>L</u>	(~)
3				Total Number of Dominant	2	(B)
4				Species Across All Strata:	-	(2)
50% =, 20% =	<u>10</u>	= Total Cove	r	Percent of Dominant Species	<u>50</u>	(A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: <u>1/100th acre</u>)				That Are OBL, FACW, or FAC:		()
1. <u>Rubus spectabilis</u>	<u>50</u>	yes	FAC	Prevalence Index worksheet:		
2. <u>Acer circinatum</u>	<u>15</u>	<u>no</u>	<u>FACU</u>	Total % Cover of: <u>N</u>	Multiply by:	
3				· · · · · · · · · · · · · · · · · · ·	x1 =	
4					x2 =	
5				FAC species x	x3 =	
50% =, 20% =	<u>65</u>	= Total Cove	r	FACU species x	x4 =	
Herb Stratum (Plot size: 1/100 th acre)				UPL species x	x5 =	
1. <u>Athyrium felix-femina</u>	I	no	FACW	Column Totals: (A)		(B)
2. <u>Tolmeia menziesii</u>	<u>15</u>	no	FAC	Prevalence Index = B/A =		
3. Polystichum munitum	<u>25</u>	<u>ves</u>	FACU	Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Vegetation	ı	
5				2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is $\leq 3.0^1$		
7				4 - Morphological Adaptations ¹ (Provide s	supporting	
8				data in Remarks or on a separate shee	et)	
9				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetation ¹ (Exp	plain)	
11						
50% =, 20% =	<u>40</u>	= Total Cove	r	¹ Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic.	must	
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic		
50% =, 20% =		= Total Cove	r	Vegetation Yes Present?	No	\boxtimes
% Bare Ground in Herb Stratum						
Remarks:						

Project Site: Raging River Quarry

SOIL

SOIL	DIL Sampling Point: <u>4</u>												
Profile D	Description: (Describe	to the dept	h needed to d	ocument the ind	icator or confi	rm the absence	e of indicator	s.)					
Dept	n Matrix			Redox	Features								
(inches)	Color (moist)	%	Color (mo	ist) %	Type ¹	Loc ²	Texture			Remarks	3		
<u>12</u>	10YR3/2	100					sandy loar	n <u>dry</u>					
<u>14</u>	<u>10YR5/4</u>	<u>80</u>					sandy loar	n dry, restric	ted, de	nse from	gravel		
	10YR5/5	<u>20</u>											
¹ Type: C	= Concentration, D=Dep	letion, RM=	Reduced Matr	ix, CS=Covered o	or Coated Sand	Grains. ² Lo	ocation: PL=P	ore Lining, M=N	<i>A</i> atrix				
Hydric S	oil Indicators: (Applica	able to all L	RRs, unless o	otherwise noted.	.)		Indica	tors for Proble	matic I	lydric S	ioils ³ :		
🗆 His	stosol (A1)			Sandy Redox (S	S5)			2 cm Muck (A1	0)				
🔲 His	stic Epipedon (A2)			Stripped Matrix	(S6)			Red Parent Ma	aterial (TF2)			
🗆 Bla	ack Histic (A3)			Loamy Mucky M	/lineral (F1) (ex	cept MLRA 1)		Very Shallow D	Dark Su	rface (TI	F12)		
🗆 Ну	drogen Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other (Explain	in Rem	arks)			
🗆 De	pleted Below Dark Surfa	ace (A11)		Depleted Matrix	(F3)								
🗆 Th	ick Dark Surface (A12)			Redox Dark Su	rface (F6)								
🗆 Sa	ndy Mucky Mineral (S1)			Depleted Dark	Surface (F7)		³ Indica	tors of hydroph	ytic veg	etation a	and		
🗆 Sa	ndy Gleyed Matrix (S4)			Redox Depress	ions (F8)			land hydrology ess disturbed or			t,		
Restrict	ive Layer (if present):												
Type:													
Depth (ir	nches):					Hydric Soils F	Present?		Yes		No	\boxtimes	
Remarks	:												

HYDROLOGY

Wetla	etland Hydrology Indicators:												
Prima	ary Indicators (minimum	of one r	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Roots	s (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4	.)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)						FAC-Neutral Test (D5)					
Surface Soil Cracks (B6)													
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlan	nd Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	aerial photos, previous inspections), if availab	ble:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			Cit	y/County:		/King	1	Sampling D	ate:	<u>4/18</u>	8/16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	oint:	<u>3</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	I <u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)): <u>te</u>	errace			Local relie	f (concave	, conve	x, non	e): <u>none</u>		Slope	: (%)	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & P	<u> Kitsap (AkF)</u>							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	turbed?	Are "Nor	mal Cir	cumst	ances" present?	•	Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes				
Hydric Soil Present?			No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes				
Remarks: Plot is located about 60 feet from Transect Po	oint #T-	1-4.						

Tree Stratum (Plot size: 1/100 th acre)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1. <u>Thuja plicata</u>	<u>15</u>	no	FAC	Number of Dominant Species	0	(A)
2. <u>Tsuga heterophylla</u>	<u>20</u>	<u>ves</u>	FACU	That Are OBL, FACW, or FAC:	<u>0</u>	(A)
3				Total Number of Dominant	2	(B)
4. <u>2</u>				Species Across All Strata:	<u>3</u>	(0)
50% =, 20% =	<u>35</u>	= Total Cove	эr	Percent of Dominant Species	<u>0</u>	(A/B)
Sapling/Shrub Stratum (Plot size: 1/100 th acre)				That Are OBL, FACW, or FAC:	<u>u</u>	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1. <u>Acer circinatum</u>	<u>15</u>	no	FACU	Prevalence Index worksheet:		
2				Total % Cover of:	Multiply by:	
3				OBL species	x1 =	-
4				FACW species	x2 =	-
5				FAC species	x3 =	-
50% =, 20% =	<u>15</u>	= Total Cove	ər	FACU species	x4 =	-
Herb Stratum (Plot size: 1/100 th acre)				UPL species	x5 =	.
1. Polystichum munitum	<u>95</u>	<u>ves</u>	FACU	Column Totals: (A)		(B)
2		<u>n/a*</u>	<u>-</u>	Prevalence Index = B/A =	=	
3				Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Vegeta	tion	
5				2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is $\leq 3.0^1$		
7				4 - Morphological Adaptations ¹ (Provid	le supporting	
8				data in Remarks or on a separate s	heet)	
9				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetation ¹ (I	Explain)	
11				· · · · · · · · · · · · · · ·		
50% =, 20% =	<u>95</u>	= Total Cove	ər	¹ Indicators of hydric soil and wetland hydrolo be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size:)						
1						_
2				Hydrophytic Vegetation Yes	1 No.	
50% =, 20% =		= Total Cove	ər	Vegetation Yes Present?] No	\boxtimes
% Bare Ground in Herb Stratum						
Remarks:						

SOI	L									S	Sampling F	Point: <u>3</u>			
Prof	ile Descrip	tion: (Describe t	o the depth	n needed to d	ocument the in	dicator or con	firm the abser	nce	of indicate	ors.)					
D	epth	Matrix			Redo	x Features									
(incł	nes)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²		Texture				Remark	s	
	<u>13</u>	10YR3/2	<u>100</u>					_	sandy loa	am	gravelly,	dry			
	<u>16</u>	<u>10YR4/4</u>	<u>100</u>						sandy loa	<u>am</u>	gravelly,	dry			
_										_					
-										-					
-										-					
-						- <u> </u>				-					
-						· <u> </u>				-					
-						· <u> </u>				-					
1Тур	e: C= Cond	entration, D=Dep	letion, RM=	Reduced Matr	ix, CS=Covered	or Coated San	d Grains.	² Loc	cation: PL=						
Hydı	ric Soil Ind	icators: (Applica	ble to all L	RRs, unless	otherwise noted	d.)			Indic	cators	for Prob	lematic	Hydric S	Soils ³ :	
	Histosol (A1)			Sandy Redox	(S5)				2 c	m Muck (A	A10)			
	Histic Epi	pedon (A2)			Stripped Matri	x (S6)				Re	d Parent N	Material (TF2)		
	Black His	tic (A3)			Loamy Mucky	Mineral (F1) (e	xcept MLRA 1)		Ve	ry Shallow	/ Dark Su	Irface (T	F12)	
	Hydroger	Sulfide (A4)			Loamy Gleyed	Matrix (F2)				Otł	ner (Explai	in in Rem	narks)		
	Depleted	Below Dark Surfa	ce (A11)		Depleted Matr	ix (F3)									
	Thick Dar	k Surface (A12)			Redox Dark S	urface (F6)			2						
	Sandy Mu	icky Mineral (S1)			Depleted Dark	Surface (F7)					of hydrop				
	Sandy Gl	eyed Matrix (S4)			Redox Depres	sions (F8)					disturbed			к,	
Rest	rictive Lay	er (if present):													
Туре	:														
Dept	h (inches):						Hydric Soils	s Pr	esent?			Yes		No	\boxtimes
Rem	arks:														

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Livir	ig Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)					Shallow Aquitard (D3)						
	Iron Deposits (B5)					Recent Iron Reduction in Tilled So	ils (C6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)			.RR A)		Raised Ant Mounds (I	06) (LRR A)				
	Inundation Visible on A	Aerial Ima	agery (I	37)		Other (Explain in Remarks)			Frost-Heave Hummoo	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	and Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), i	f available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			City	/County:		/King	1	Sampling D	ate:	<u>4/18</u>	/16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	oint:	<u>4</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	<u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)	: <u>te</u>	errace			Local relief	(concave,	, conve	x, non	e): <u>none</u>		Slope	(%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & Þ	<u> Kitsap (AkF)</u>							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	urbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	d, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes				
Hydric Soil Present?			No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes				
Remarks: Plot is located about 36 feet from Transect Po	oint #T-	2-5.						

Tree Stratum (Plot size: 1/100 th acre)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1. <u>Alnus rubra</u>	<u>50</u>	<u>ves</u>	FAC	Number of Dominant Species		(A)
2. <u>Acer macrophyllum</u>	<u>10</u>	no	FACU	That Are OBL, FACW, or FAC: 2		(A)
3				Total Number of Dominant		(D)
4				Species Across All Strata: <u>3</u>		(B)
50% =, 20% =	<u>60</u>	= Total Cove	ŗ	Percent of Dominant Species		(A/B)
Sapling/Shrub Stratum (Plot size: 1/100 th acre)				That Are OBL, FACW, or FAC:		(A/D)
1. <u>Acer circinatum</u>	<u>5</u>	<u>no</u>	FACU	Prevalence Index worksheet:		
2. <u>Rubus spectablilis</u>	<u>70</u>	yes	FAC	Total % Cover of: Multiply	by:	
3				OBL species x1 =		
4				FACW species x2 =		
5				FAC species x3 =		
50% =, 20% =	<u>75</u>	= Total Cove	•	FACU species x4 =		
Herb Stratum (Plot size: 1/100 th acre)				UPL species x5 =		
1. <u>Polystichum munitum</u>	<u>30</u>	<u>ves</u>	FACU	Column Totals: (A)	(В)
2. <u>Dicentra formosa</u>	<u>15</u>	no	NL (UPL)	Prevalence Index = B/A =		
3. <u>Cardamine sp.</u>	<u>5</u>	no	FACW	Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Vegetation		
5				2 - Dominance Test is >50%		
6				□ 3 - Prevalence Index is $\leq 3.0^1$		
7				4 - Morphological Adaptations ¹ (Provide supportin	ng	
8				data in Remarks or on a separate sheet)	-	
9				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetation ¹ (Explain)		
11						
50% =, 20% =	<u>50</u>	= Total Cove	·	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic		_
50% =, 20% =		= Total Cove	•	Vegetation Yes 🖂 Present?	No	
% Bare Ground in Herb Stratum				i resent:		
Remarks:						

SOIL	-									S	ampling I	Point: <u>4</u>			
Profil	le Descrip	tion: (Describe te	o the depth	n needed to d	ocument the in	dicator or conf	irm the absen	nce o	of indicate	ors.)					
De	epth	Matrix			Redo	x Features									
(inch	es)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²		Texture				Remark	S	
-	11	10YR3/2	100						sandy lo	am	gravelly,	dry			
	<u>16</u>	<u>10YR4/4</u>	<u>100</u>						sandy lo	am	gravelly,	dry			
										_					
										-					
										-					
			·							_					
			·							_					
										-					
¹ Type	e: C= Conc	entration, D=Depl	etion, RM=I	Reduced Matr	ix, CS=Covered	or Coated Sand	d Grains. 2	² Loc	ation: PL=	=Pore	Lining, M	=Matrix			
Hydri	ic Soil Ind	icators: (Applica	ble to all L	RRs, unless (otherwise noted	i.)			Indic	ators	for Prob	lematic	Hydric S	Soils ³ :	
	Histosol (41)			Sandy Redox	(S5)				2 c	m Muck (A10)			
	Histic Epi	pedon (A2)			Stripped Matrix	x (S6)				Re	d Parent I	Material (TF2)		
	Black Hist	tic (A3)			Loamy Mucky	Mineral (F1) (ex	(cept MLRA 1))		Ve	y Shallow	v Dark Su	rface (T	F12)	
	Hydrogen	Sulfide (A4)			Loamy Gleyed	Matrix (F2)				Oth	ier (Expla	in in Rem	arks)		
	Depleted	Below Dark Surfa	ce (A11)		Depleted Matri	ix (F3)									
	Thick Dar	k Surface (A12)			Redox Dark S	urface (F6)									
	Sandy Mu	icky Mineral (S1)			Depleted Dark	Surface (F7)					of hydror hydrolog				
	Sandy Gle	eyed Matrix (S4)			Redox Depres	sions (F8)					disturbed			ιι,	
Restr	rictive Lay	er (if present):													
Type:															
Depth	n (inches):						Hydric Soils	s Pre	esent?			Yes		No	\boxtimes
Rema	arks:														

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Livir	ig Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)					Shallow Aquitard (D3)						
	Iron Deposits (B5)					Recent Iron Reduction in Tilled So	ils (C6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)			.RR A)		Raised Ant Mounds (I	06) (LRR A)				
	Inundation Visible on A	Aerial Ima	agery (I	37)		Other (Explain in Remarks)			Frost-Heave Hummoo	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	and Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), i	f available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			Ci	ty/County:		/King	1	Sampling D	ate:	4/18	/16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	oint:	<u>5</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	I <u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)	: <u>te</u>	errace			Local relie	ef (concave	, conve	x, non	e): <u>none</u>		Slope	(%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & k	<u> Kitsap (AkF)</u>							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dis	turbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes								
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes			
Wetland Hydrology Present?	Yes		No	\boxtimes								
Remarks: Plot is located in a steep & short swale at the end of Transect T-2, Point #T-2-6.												

Tree Stratum (Plot size: <u>1/100th acre</u>)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1. <u>Alnus rubra</u>	<u>15</u>	ves	FAC	Number of Dominant Species		(A)
2. <u>Acer macrophyllum</u>	<u>10</u>	<u>no</u>	FACU	That Are OBL, FACW, or FAC: <u>3</u>		(A)
3. <u>Thuja plicata</u>	<u>40</u>	yes	FAC	Total Number of Dominant		(B)
4				Species Across All Strata:		(D)
50% =, 20% =	<u>65</u>	= Total Cove	r	Percent of Dominant Species		(A/B)
Sapling/Shrub Stratum (Plot size: 1/100 th acre)				That Are OBL, FACW, or FAC:		(AD)
1		<u>n/a*</u>	<u>-</u>	Prevalence Index worksheet:		
2		<u>n/a*</u>	<u>-</u>	Total % Cover of: Mul	ultiply by:	
3				OBL species x1 =	=	
4				FACW species x2 =	=	
5				FAC species x3 =	=	
50% =, 20% =		= Total Cove	r	FACU species x4 =	=	
Herb Stratum (Plot size: 1/100 th acre)				UPL species x5 =	=	
1. Polystichum munitum	<u>15</u>	<u>ves</u>	FACU	Column Totals: (A)	(I	B)
2. <u>Hydrophyllum sp.</u>	<u>15</u>	yes	FAC	Prevalence Index = B/A =		
3		<u>n/a*</u>	=	Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Vegetation		
5				2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is $\leq 3.0^1$		
7				4 - Morphological Adaptations ¹ (Provide sup		
8				data in Remarks or on a separate sheet)		
9				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetation ¹ (Explai	ւin)	
11				1		
50% =, 20% =	<u>30</u>	= Total Cove	r	¹ Indicators of hydric soil and wetland hydrology mu be present, unless disturbed or problematic.	ust	
Woody Vine Stratum (Plot size:)				· ·		
1						
2				Hydrophytic Vegetation Yes ⊠	No	
50% =, 20% =		= Total Cove	r	Present?	NO	
% Bare Ground in Herb Stratum						
Remarks:						

SOI	L									S	Sampling F	Point: <u>5</u>			
Prof	ile Descri	otion: (Describe t	o the depth	n needed to d	ocument the in	dicator or conf	irm the absen	nce o	of indicate	ors.)					
C	Pepth	Matrix			Redo	x Features									
(incl	nes)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²		Texture				Remark	s	
	<u>12</u>	10YR3/2	100						sandy loa	am	gravelly,	dry			
	<u>16</u>	<u>10YR4/2</u>	<u>100</u>						sandy loa	am	gravelly,	dry			
_										-					
_										-					
_										-					
-										-					
-										-					
_										-					
¹ Typ	e: C= Con	centration, D=Dep	letion, RM=l	Reduced Matr	ix, CS=Covered	or Coated Sand	d Grains.	² Loc	ation: PL=	Pore	Lining, M	=Matrix			
Hyd	ric Soil Ind	licators: (Applica	ble to all L	RRs, unless	otherwise noted	i.)			Indic	ators	for Prob	lematic	Hydric S	Soils ³ :	
	Histosol	(A1)			Sandy Redox ((S5)				2 c	m Muck (/	A10)			
	Histic Ep	pedon (A2)			Stripped Matrix	k (S6)				Re	d Parent N	Material (TF2)		
	Black His	tic (A3)			Loamy Mucky	Mineral (F1) (e >	(cept MLRA 1))		Ve	ry Shallow	Dark Su	ırface (T	F12)	
	Hydroge	n Sulfide (A4)			Loamy Gleyed	Matrix (F2)				Oth	ner (Expla	in in Rem	narks)		
	Depleted	Below Dark Surfa	ice (A11)		Depleted Matri	x (F3)									
	Thick Da	rk Surface (A12)			Redox Dark Su	urface (F6)									
	Sandy M	ucky Mineral (S1)			Depleted Dark	Surface (F7)					of hydrop hydrolog				
	Sandy G	eyed Matrix (S4)			Redox Depres	sions (F8)					disturbed			п,	
Rest	trictive La	yer (if present):													
Туре	e:														
Dept	th (inches)						Hydric Soils	s Pre	esent?			Yes		No	\boxtimes
Rem	arks:														

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B))		(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Liv	ring Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled S	oils (C6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)				Stunted or Stresses Plants (D1)	(LRR A)		Raised Ant Mounds (E	06) (LRR A)		
	Inundation Visible on A	Aerial Ima	agery (E	37)			Frost-Heave Hummod	ks (D7)					
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	nd Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, mor	nitoring	well, a	erial photos, previous inspections)	, if available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion	<u>.</u>		С	ity/County:		/Kin	<u>a</u>	Sampling D	ate:	4/19)/16	
Applicant/Owner:	John Prie	ebe								State: WA	Sampling P	oint:	<u>6</u>		
Investigator(s):	Gary Sch	ulz						S	ection,	Township, Rang	ge: <u>22, 24N</u>	<u>, 7E,</u>			
Landform (hillslope, ter	rrace, etc.)): <u>s</u>	stream corridor			Local reli	ef (concave	, conve	ex, nor	ne): <u>none</u>		Slope	e (%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & I	<u>Kitsap (AkF)</u>							NWI clas	sification:				
Are climatic / hydrologi	c condition	ns on t	the site typical fo	or this t	time of year?	Yes	\bowtie	No		(If no, explain i	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	\Box ,	significantly dist	urbed?	Are "No	rmal Ci	rcums	tances" present?	2	Yes	\boxtimes	No	
Are Vegetation	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, exp	lain ar	y answers in Re	emarks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes				
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes				
Remarks: Transect T- 3. Plot is located on north side of	fstream	n at Ti	ransed	t Poin	t #T-3-2.			

VEGETATION – Use scientific names of plants Absolute Dominant Indicator Tree Stratum (Plot size: 1/100th acre) **Dominance Test Worksheet:** % Cover Species? Status 1. Alnus rubra FAC 15 no Number of Dominant Species 1 (A) That Are OBL, FACW, or FAC: FACU 2. Acer macrophyllum 35 ves 3. Thuja plicata <u>10</u> no FAC Total Number of Dominant 2 (B) Species Across All Strata: 4. 50% = ____, 20% = ____ 60 = Total Cover Percent of Dominant Species (A/B) 50 That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 1/100th acre) 1. Oploplanax horridum Prevalence Index worksheet: 10 FAC <u>no</u> 2. <u>n/a*</u> Total % Cover of: Multiply by: Ξ 3. _____ OBL species x1 = 4. FACW species x2 = FAC species 5. x3 = 50% = ____, 20% = ___ = Total Cover FACU species x4 = Herb Stratum (Plot size: 1/100th acre) UPL species x5 = <u>15</u> FACU 1. Galium aparine no _ (A) (B) Column Totals: 2. Hydrophyllum sp. 80 FAC Prevalence Index = B/A = yes 3. Dicentra formosa 5 NL (UPL) Hydrophytic Vegetation Indicators: no 4. 1 – Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 5. _____ \boxtimes 6. 3 - Prevalence Index is <3.01 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. 9. 5 - Wetland Non-Vascular Plants¹ 10. _____ Problematic Hydrophytic Vegetation¹ (Explain) 11. _____ ¹Indicators of hydric soil and wetland hydrology must 50% = ____, 20% = ____ 100 = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 1. ____ Hydrophytic 2. Vegetation Yes No \boxtimes 50% = , 20% = = Total Cover Present? % Bare Ground in Herb Stratum Remarks:

SOI	L									S	Sampling F	Point: <u>6</u>			
Prof	ile Descri	otion: (Describe t	o the depth	n needed to d	ocument the in	dicator or conf	irm the abser	nce	of indicate	ors.)					
D	epth	Matrix			Redo	x Features									
(inch	nes)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²		Texture				Remark	s	
	<u>16</u>	10YR3/2	100					_	sandy loa	am	gravelly,	dry			
	<u>18</u>	<u>10YR4/3</u>	<u>100</u>						sandy loa	am	gravelly,	dry			
_										-					
_										-					
_										-					
_										-					
_										-					
_										-					
1Тур	e: C= Con	centration, D=Dep	letion, RM=	Reduced Matr	ix, CS=Covered	or Coated Sand	d Grains.	² Loc	cation: PL=	Pore	Lining, M=	=Matrix			
Hydı	ric Soil Ind	licators: (Applica	ble to all L	RRs, unless o	otherwise noted	i.)			Indic	ators	for Prob	lematic	Hydric S	Soils ³ :	
	Histosol	(A1)			Sandy Redox ((S5)				2 c	m Muck (A	A10)			
	Histic Ep	ipedon (A2)			Stripped Matrix	k (S6)				Re	d Parent N	Aaterial (TF2)		
	Black His	stic (A3)			Loamy Mucky	Mineral (F1) (ex	ccept MLRA 1)		Ve	ry Shallow	Dark Su	urface (T	F12)	
	Hydroge	n Sulfide (A4)			Loamy Gleyed	Matrix (F2)				Oth	ner (Explai	in in Ren	narks)		
	Depleted	Below Dark Surfa	ce (A11)		Depleted Matri	x (F3)									
	Thick Da	rk Surface (A12)			Redox Dark Su	urface (F6)			2						
	Sandy M	ucky Mineral (S1)			Depleted Dark	Surface (F7)					of hydrop				
	Sandy G	eyed Matrix (S4)			Redox Depres	sions (F8)					disturbed			к,	
Rest	rictive La	yer (if present):													
Туре	:														
Dept	h (inches)	<u> </u>					Hydric Soils	s Pr	esent?			Yes		No	\boxtimes
Rem	arks:														

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one r	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	10)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Roots	(C3)		Geomorphic Position ((D2)			
	Algal Mat or Crust (B4	-)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C6)			FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)					Raised Ant Mounds (E	D6) (LRR A)				
	Inundation Visible on	Aerial Ima	agery (I	37)		Other (Explain in Remarks)			Frost-Heave Hummoc	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlan	d Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), if availab	ole:						
Rema	arks:												

Project Site:	Raging R	iver C	uarry Expansion			С	ity/County:		/King	1	Sampling D	Date:	4/19	9/16	
Applicant/Owner:	John Prie	ebe								State: WA	Sampling F	oint:	<u>7</u>		
Investigator(s):	Gary Sch	ulz						Se	ection,	Township, Rang	ge: <u>22,24N</u>	I <u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)): <u>s</u>	stream corridor			Local reli	ef (concave	e, conve	ex, non	ie): <u>none</u>		Slope	e (%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od &	<u>Kitsap (AkF)</u>							NWI clas	sification:				
Are climatic / hydrologi	c conditior	ns on	the site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain i	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	turbed?	Are "No	rmal Ci	rcumst	ances" present?	•	Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, exp	lain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes				
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes	No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes				
Remarks: Transect T- 3. Plot is located on north side o	f strean	n at Ti	anseo	t Poin	t #T-3-4.			

VEGETATION – Use scientific names of plant	s				
Tree Stratum (Plot size: 1/100 th acre)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. <u>Alnus rubra</u>	<u>10</u>	no	FAC	Number of Dominant Species	(4)
2. <u>Acer macrophyllum</u>	<u>25</u>	<u>ves</u>	FACU	That Are OBL, FACW, or FAC:	(A)
3		<u>n/a*</u>	<u>-</u>	Total Number of Dominant	(B)
4				Species Across All Strata: <u>4</u>	(D)
50% =, 20% =	<u>35</u>	= Total Cove	r	Percent of Dominant Species	(A/B)
Sapling/Shrub Stratum (Plot size: 1/100 th acre)				That Are OBL, FACW, or FAC:	(A/B)
1. <u>Rubus spectabilis</u>	<u>65</u>	yes	FAC	Prevalence Index worksheet:	
2		<u>n/a*</u>	<u>-</u>	Total % Cover of: Multiply by:	
3				OBL species x1 =	_
4				FACW species x2 =	_
5				FAC species x3 =	
50% =, 20% =	<u>65</u>	= Total Cove	r	FACU species x4 =	_
Herb Stratum (Plot size: 1/100 th acre)				UPL species x5 =	
1. <u>Galium aparine</u>	<u>5</u>	no	<u>FACU</u>	Column Totals:(A)	(B)
2. <u>Hydrophyllum sp.i</u>	<u>20</u>	ves	FAC	Prevalence Index = B/A =	
3. <u>Dicentra formosa</u>	<u>10</u>	no	<u>NL (UPL)</u>	Hydrophytic Vegetation Indicators:	
4. Polystichum munitum	<u>20</u>	<u>ves</u>	FACU	1 – Rapid Test for Hydrophytic Vegetation	
5				☑ 2 - Dominance Test is >50%	
6				□ 3 - Prevalence Index is $\leq 3.0^1$	
7				4 - Morphological Adaptations ¹ (Provide supporting	
8				data in Remarks or on a separate sheet)	
9				5 - Wetland Non-Vascular Plants ¹	
10				Problematic Hydrophytic Vegetation ¹ (Explain)	
11				1	
50% =, 20% =	<u>55</u>	= Total Cove	r	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size:)					
1					
2				Hydrophytic Vegetation Yes □ No	57
50% =, 20% =		= Total Cove	r	Vegetation Yes No Present?	
% Bare Ground in Herb Stratum					
Remarks:					

Project Site: Raging River Quarry Expansion

SOIL

SOIL										Sampling	g Point: <u>7</u>			
Profile De	escription: (Describe to	the depth	needed to c	locument	the indicat	or or conf	irm the absend	ce of ir	ndicato	ors.)				
Depth	Matrix				Redox Fea	tures								
(inches)	Color (moist)	%	Color (mo	oist)	%	Type ¹	Loc ²	т	exture			Remarks		
										<u></u>				
										<u></u>				
¹ Type: C=	Concentration, D=Deple	tion, RM=R	Reduced Mat	rix, CS=Co	overed or Co	pated Sand	d Grains. ² l	Locatio	on: PL=	Pore Lining,	M=Matrix			
Hydric So	oil Indicators: (Applicab	le to all LR	Rs, unless	otherwise	noted.)				Indic	ators for Pro	oblematic I	lydric S	oils³:	
Hist	tosol (A1)			Sandy F	Redox (S5)					2 cm Muck	(A10)			
Hist	tic Epipedon (A2)			Stripped	Matrix (S6))				Red Paren	t Material (ΓF2)		
□ Blac	ck Histic (A3)			Loamy N	Nucky Mine	ral (F1) (e)	(cept MLRA 1))		Very Shalle	ow Dark Su	rface (TF	12)	
🗌 Hyd	Irogen Sulfide (A4)			Loamy (Gleyed Matr	ix (F2)				Other (Exp	lain in Rem	arks)		
🗌 Dep	oleted Below Dark Surface	e (A11)		Deplete	d Matrix (F3	3)								
Thic	ck Dark Surface (A12)			Redox D	Dark Surface	e (F6)								
🔲 San	ndy Mucky Mineral (S1)			Deplete	d Dark Surfa	ace (F7)				cators of hydr etland hydrol				
🗌 San	ndy Gleyed Matrix (S4)			Redox D	Depressions	; (F8)				nless disturbe			·,	
Restrictiv	ve Layer (if present):													
Туре:														
Depth (inc	ches):						Hydric Soils	Prese	nt?		Yes		No	
Remarks:	Transect point locate	d on a high	i bank area a	and no soil	data neede	ed due to n	on-hydrophytic	vegeta	ition.					

Wetl	and Hydrology Indica	tors:												
Prima	ary Indicators (minimur	n of one r	equired	; check	all tha	t apply)			Sec	ondary Indicators (2 or r	more requii	ed)		
	Surface Water (A1)					Water-Stained Leaves	s (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2	2)				(except MLRA 1, 2, 4,	A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)				Drainage Patterns (B1	10)			
	Water Marks (B1)					Aquatic Invertebrates	(B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (E	32)				Hydrogen Sulfide Odo	or (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizosphere	s along Living Roots	s (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B	4)				Presence of Reduced	Iron (C4)			Shallow Aquitard (D3)	1			
	Iron Deposits (B5)					Recent Iron Reduction	n in Tilled Soils (C6)			FAC-Neutral Test (D5)			
	Surface Soil Cracks (B6)				Stunted or Stresses P	lants (D1) (LRR A)			Raised Ant Mounds (I	D6) (LRR A)		
	Inundation Visible on	Aerial Im	agery (B7)				Frost-Heave Hummoo	ks (D7)					
	Sparsely Vegetated 0	Concave S	Surface	(B8)										
Field	Observations:													
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):								
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):								
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):		Wetlan	d Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (st	ream gau	ige, mo	nitoring	well, a	erial photos, previous in	spections), if availab	ble:						
Rem	arks: No hydrology	observe	d.											

Project Site:	Raging R	iver Q	uarry Expansion			C	ity/County:		/King	2	Sampling D	Date:	4/19	/16	
Applicant/Owner:	John Prie	ebe								State: WA	Sampling F	Point:	<u>8</u>		
Investigator(s):	Gary Sch	ulz						S	ection,	Township, Ran	ge: <u>22,24N</u>	<u>I, 7E.</u>			
Landform (hillslope, ter	race, etc.)): <u>s</u>	tream corridor			Local relie	ef (concave	, conve	ex, nor	ne): <u>none</u>		Slope	e (%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	<u>Alderwo</u>	od & k	Kitsap (AkF)							NWI clas	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain i	n Remarks.)				
Are Vegetation	Soil	□,	or Hydrology	□,	significantly dist	turbed?	Are "Noi	rmal Ci	rcumst	tances" present?	2	Yes	\boxtimes	No	
Are Vegetation	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, exp	lain ar	iy answers in Re	emarks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes									
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes				
Wetland Hydrology Present?	Yes		No	\boxtimes									
Remarks: Plot is located on north side of stream close t	emarks: Plot is located on north side of stream close to stream channel. I ocated at Transect Point #T-3-5, and is off-site west of the north property boundary												

Remarks: Plot is located on north side of stream close to stream channel. Located at Transect Point #T-3-5 and is off-site west of the north property boundary.

VEGETATION – Use scientific names of plants Absolute Dominant Indicator Tree Stratum (Plot size: 1/100th acre) **Dominance Test Worksheet:** % Cover Species? Status 1. Alnus rubra <u>10</u> FAC <u>no</u> Number of Dominant Species 2 (A) That Are OBL, FACW, or FAC: 2. n/a* = 3. n/a* Total Number of Dominant 2 3 (B) Species Across All Strata: 4. ____ 50% = ____, 20% = ____ 10 = Total Cover Percent of Dominant Species (A/B) 66 That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 1/100th acre) 1. Acer circinatum <u>20</u> Prevalence Index worksheet: FAC yes 2. <u>n/a*</u> Total % Cover of: Multiply by: 2 3. _____ OBL species x1 = 4. FACW species x2 = FAC species 5. x3 = 50% = ____, 20% = ____ <u>20</u> = Total Cover FACU species x4 = Herb Stratum (Plot size: 1/100th acre) UPL species x5 = FACU (B) 1. Galium aparine <u>30</u> ves _ (A) Column Totals: 2. Hydrophyllum sp. 20 FAC Prevalence Index = B/A = yes 3. Dicentra formosa 15 NL (UPL) Hydrophytic Vegetation Indicators: no 4. Grass sp.? <u>10</u> FAC 1 – Rapid Test for Hydrophytic Vegetation <u>no</u> 2 - Dominance Test is >50% 5. _____ \boxtimes 6. ____ 3 - Prevalence Index is <3.01 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. 9. 5 - Wetland Non-Vascular Plants¹ 10. _____ Problematic Hydrophytic Vegetation¹ (Explain) 11. _____ ¹Indicators of hydric soil and wetland hydrology must 50% = ____, 20% = ____ = Total Cover 75 be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 1. _____ Hydrophytic 2. Vegetation Yes \boxtimes No 50% = , 20% = = Total Cover Present? % Bare Ground in Herb Stratum Remarks:

SOI	L									S	ampling F	Point: <u>8</u>			
Prof	ile Descri	ption: (Describe t	o the depth	n needed to d	ocument the in	dicator or con	firm the absen	nce o	of indicate	ors.)					
C	Pepth	Matrix			Redo	x Features									
(incl	nes)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²		Texture				Remark	s	
	<u>16</u>	<u>10YR3/2</u>	100						sandy loa	am	gravelly,	dry			
	<u>18</u>	<u>10YR4/4</u>	100						sandy loa	am	gravelly,	dry			
_															
_															
_															
-	<u> </u>									•					
-	<u> </u>									•					
_															
¹ Typ	e: C= Con	centration, D=Dep	letion, RM=	Reduced Matr	ix, CS=Covered	or Coated San	d Grains.	² Loc	cation: PL=	Pore	Lining, M=	=Matrix			
Hyd	ric Soil In	dicators: (Applica	ble to all L	RRs, unless	otherwise note	d.)			Indic	ators	for Prob	lematic	Hydric S	Soils ³ :	
	Histosol	(A1)			Sandy Redox	(S5)				2 c	m Muck (A	\10)			
	Histic Ep	pipedon (A2)			Stripped Matri	x (S6)				Re	d Parent N	Aaterial (TF2)		
	Black Hi	stic (A3)			Loamy Mucky	Mineral (F1) (e	xcept MLRA 1)		Ve	y Shallow	Dark Su	Irface (T	F12)	
	Hydroge	n Sulfide (A4)			Loamy Gleyed	I Matrix (F2)				Oth	ier (Explai	n in Rem	narks)		
	Depleted	d Below Dark Surfa	ice (A11)		Depleted Matr	ix (F3)									
	Thick Da	ark Surface (A12)			Redox Dark S	urface (F6)									
	Sandy M	lucky Mineral (S1)			Depleted Dark	Surface (F7)			³ India	cators	of hydrop I hydrolog	hytic ve	getation	and	
	Sandy G	ileyed Matrix (S4)			Redox Depres	sions (F8)					disturbed			ιι,	
Rest	trictive La	yer (if present):													
Туре	e:														
Dept	th (inches)	:					Hydric Soils	s Pro	esent?			Yes		No	\boxtimes
Rem	arks:											_			

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Livir	ig Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled So	ils (C6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)				Stunted or Stresses Plants (D1) (L	.RR A)		Raised Ant Mounds (I	06) (LRR A)		
	Inundation Visible on A	Aerial Ima	agery (I	37)		Other (Explain in Remarks)			Frost-Heave Hummoo	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	and Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), i	f available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			С	ity/County:		/King	3	Sampling D	Date:	<u>5/7/</u>	16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	Point:	<u>9</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	<u>I, 7E,</u>			
Landform (hillslope, ter	rrace, etc.)): <u>te</u>	errace			Local relie	ef (concave	e, conve	ex, nor	ne): <u>concave</u>		Slope	(%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & F	<u> Kitsap (AkF)</u>							NWI class	sification:				
Are climatic / hydrologi	ic conditio	ns on t	he site typical fo	r this	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	\Box ,	significantly dist	turbed?	Are "No	rmal Ci	rcumst	tances" present?		Yes	\boxtimes	No	
Are Vegetation	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, exp	lain an	iy answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
emarks: Plot is located on south side of stream close to Transect T-4 in a distinct swale.									

Tree Stratum (Plot size: <u>1/100th acre</u>)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1 2		<u>n/a*</u> n/a*	-	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u>	(A)
3 4.		<u>n/a*</u>	-	Total Number of Dominant Species Across All Strata:	<u>3</u>	(B)
4 50% =, 20% = Sapling/Shrub Stratum (Plot size: 1/100 th acre)		= Total Cove	er	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>66</u>	(A/I
1. Acer circinatum	<u>10</u>	no	FAC	Prevalence Index worksheet:		
2. Rubus spectabilis	<u>10</u> 20	<u>yes</u>	FAC	Total % Cover of:	Multiply I	ov:
3		<u>100</u>		OBL species	x1 =	<u></u>
4.				FACW species	x2 =	
5.				FAC species	x3 =	
50% = , 20% =	30	= Total Cove	er	FACU species	x4 =	
Herb Stratum (Plot size: 1/100 th acre)	—			UPL species	x5 =	
1. Polystichum munitum	<u>25</u>	<u>yes</u>	<u>FACU</u>	Column Totals: (A)		(B)
2. <u>Maianthemum dilatum</u>	<u>20</u>	yes	FAC	Prevalence Index = I	B/A =	
3. <u>Dicentra formosa</u>	<u>15</u>	no	<u>NL (UPL)</u>	Hydrophytic Vegetation Indicators:		
4		<u>n/a*</u>	-	□ 1 – Rapid Test for Hydrophytic Ve	getation	
5				2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is $\leq 3.0^1$		
7 8				4 - Morphological Adaptations ¹ (P data in Remarks or on a separ		g
9				5 - Wetland Non-Vascular Plants ¹		
10				 Problematic Hydrophytic Vegetati 		
11						
50% =, 20% =	<u>60</u>	= Total Cove	er	¹ Indicators of hydric soil and wetland hy be present, unless disturbed or problem		
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2				Vegetation Yes	\boxtimes	No 🗆
50% =, 20% =		= Total Cove	er	Present?		
% Bare Ground in Herb Stratum						

SOI	L									S	Sampling P	oint: <u>9</u>			
Profi	ile Descrip	tion: (Describe t	o the depth	n needed to d	ocument the in	dicator or con	firm the abser	nce o	of indicate	ors.)					
D	epth	Matrix			Redo	x Features									
(inch	nes)	Color (moist)	%	Color (mo	ist) %	Type ¹	Loc ²		Texture				Remark	5	
	14	10YR3/2	100					_	sandy loa	am	gravelly,	dr <u>y</u>			
	<u>16</u>	<u>10YR3/3</u>	<u>100</u>						sandy loa	am	cobbles &	gravel,	dry		
_										-					
_										-					
_										-					
-										-					
-										-					
-										-					
¹ Type	e: C= Conc	entration, D=Dep	letion, RM=	Reduced Matr	ix, CS=Covered	or Coated Sar	nd Grains.	² Loc	ation: PL=	Pore	Lining, M=	Matrix			
Hydr	ric Soil Ind	icators: (Applica	ble to all L	RRs, unless (otherwise note	d.)			Indic	ators	s for Probl	ematic	Hydric S	ioils ³ :	
	Histosol (A	A1)			Sandy Redox	(S5)				2 c	m Muck (A	.10)			
	Histic Epi	oedon (A2)			Stripped Matri	ix (S6)				Re	d Parent N	laterial (TF2)		
	Black Hist	ic (A3)			Loamy Mucky	Mineral (F1) (e	except MLRA 1)		Ve	ry Shallow	Dark Su	urface (T	F12)	
	Hydrogen	Sulfide (A4)			Loamy Gleyed	d Matrix (F2)				Oth	her (Explai	n in Ren	narks)		
	Depleted	Below Dark Surfa	ce (A11)		Depleted Mat	rix (F3)									
	Thick Dar	k Surface (A12)			Redox Dark S	surface (F6)			2						
	Sandy Mu	cky Mineral (S1)			Depleted Dark	Surface (F7)					s of hydrop d hydrolog				
	Sandy Gle	eyed Matrix (S4)			Redox Depres	ssions (F8)	•				disturbed of			ι,	
Rest	rictive Lay	er (if present):													
Туре	:														
Dept	h (inches):						Hydric Soils	s Pre	esent?			Yes		No	\boxtimes
Rem	arks:														

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2))				(except MLRA 1, 2, 4A, and 4E	\$)		(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Li	ving Roots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled	Soils (C6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (E	36)				Stunted or Stresses Plants (D1)	(LRR A)		Raised Ant Mounds (E	06) (LRR A)		
	Inundation Visible on A	Aerial Ima	agery (E	37)		Other (Explain in Remarks)			Frost-Heave Hummod	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	nd Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, mor	nitoring	well, a	erial photos, previous inspections), if available:						
Rema	arks:												

Project Site:	Raging R	iver Q	uarry Expansion			Cit	ty/County:		/King	1	Sampling D	ate:	<u>5/7/</u>	16	
Applicant/Owner:	John Prie	be								State: WA	Sampling P	oint:	<u>10</u>		
Investigator(s):	Gary Sch	<u>ulz</u>						Se	ection,	Township, Rang	ge: <u>22,24N</u>	I <u>, 7E,</u>			
Landform (hillslope, ter	race, etc.)	: <u>te</u>	errace			Local relie	ef (concave	e, conve	x, non	e): <u>none</u>		Slope	e (%):	<u>0</u>	
Subregion (LRR):	<u>A</u>			La	t:			Long:		_		Datum:			
Soil Map Unit Name:	Alderwo	od & k	<u> Kitsap (AkF)</u>							NWI class	sification:				
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	r this t	time of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dist	turbed?	Are "Noi	rmal Ci	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation	Soil	□,	or Hydrology	□,	naturally proble	matic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes						
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes	
Wetland Hydrology Present?	Yes		No	\boxtimes						
emarks: Transect T- 4. Plot is located on south side of stream at Transect Point #T-4-1.										

Tree Stratum (Plot size: <u>1/100th acre</u>)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
1		<u>n/a*</u>	<u>-</u>	Number of Dominant Species	2	(A)
2. <u>Acer macrophyllum</u>	<u>50</u>	<u>ves</u>	FACU	That Are OBL, FACW, or FAC:	<u>2</u>	(A)
3		<u>n/a*</u>	<u>-</u>	Total Number of Dominant	2	(D)
4				Species Across All Strata:	<u>3</u>	(B)
50% = , $20% =$	<u>50</u>	= Total Cov	er	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>66</u>	(A/B)
Sapling/Shrub Stratum (Plot size: <u>1/100th acre</u>)	-		540			
1. <u>Rubus spectabilis</u>	<u>5</u>	<u>no</u>	FAC	Prevalence Index worksheet:		
2. <u>Acer circinatum</u>	<u>60</u>	<u>yes</u>	FAC	Total % Cover of:	Multiply by:	
3. <u>Sambucus racemosa</u>	<u>10</u>	<u>no</u>	<u>FACU</u>	OBL species	x1 =	
4				FACW species	x2 =	_
5		—		FAC species	x3 =	_
50% =, 20% =	<u>75</u>	= Total Cov	er	FACU species	x4 =	_
Herb Stratum (Plot size: 1/100 th acre)				UPL species	x5 =	_
1. <u>Galium aparine</u>	<u>10</u>	no	FACU	Column Totals: (A)	. <u></u>	(B)
2. <u>Hydrophyllum sp.i</u>	<u>50</u>	yes	FAC	Prevalence Index = E	3/A =	
3. <u>Rubus ursinus</u>	<u>10</u>	no	FACU	Hydrophytic Vegetation Indicators:		
4. Polystichum munitum	<u>5</u>	no	FACU	□ 1 – Rapid Test for Hydrophytic Ve	getation	
5				2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is $\leq 3.0^1$		
7				4 - Morphological Adaptations ¹ (Pr	ovide supporting	
8				data in Remarks or on a separa	ate sheet)	
9				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetatic	on ¹ (Explain)	
11						
50% =, 20% =	<u>75</u>	= Total Cov	er	¹ Indicators of hydric soil and wetland hydric soil and wetland hydric be present, unless disturbed or problem		
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic	_	
50% =, 20% =		= Total Cov	er	Vegetation Yes	🛛 No	
% Bare Ground in Herb Stratum				Present?		

Project Site: Raging River Quarry Expansion

SOIL

SOIL								Samplir	ng Point: <u>10</u>			
Profile	e Description: (Describe to th	e depth neede	ed to d	locument the inc	dicator or confi	rm the absence	e of indicat	ors.)				
De	pth Matrix			Redox	x Features							
(inche	es) Color (moist)	% Co	lor (mo	oist) %	Type ¹	Loc ²	Texture			Remarks	5	
									_			
									_			
									_			
				·					_			
				·					_			
				·					_			
				·					_			
									_			
¹ Type:	C= Concentration, D=Depletio	n, RM=Reduce	ed Mati	rix, CS=Covered	or Coated Sand	Grains. ² L	ocation: PL:	=Pore Lining	, M=Matrix			
Hydric	c Soil Indicators: (Applicable	to all LRRs, u	nless	otherwise noted	l.)		Indi	cators for P	roblematic	Hydric S	oils³:	
	Histosol (A1)			Sandy Redox ((S5)			2 cm Muc	:k (A10)			
	Histic Epipedon (A2)			Stripped Matrix	< (S6)			Red Pare	nt Material (TF2)		
	Black Histic (A3)			Loamy Mucky I	Mineral (F1) (ex	cept MLRA 1)		Very Sha	llow Dark Su	Irface (TF	12)	
	Hydrogen Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other (Ex	plain in Rem	narks)		
	Depleted Below Dark Surface (A11)		Depleted Matrix	x (F3)							
	Thick Dark Surface (A12)			Redox Dark Su	urface (F6)							
	Sandy Mucky Mineral (S1)			Depleted Dark	Surface (F7)			cators of hydrodiate the second se				
	Sandy Gleyed Matrix (S4)			Redox Depress	sions (F8)			nless disturb			ι,	
Restri	ctive Layer (if present):											
Type:												
Depth	(inches):					Hydric Soils F	Present?		Yes		No	
Remar	rks: Transect point located	on an elevated	ridge a	area and no soil c	data needed bas	sed on local obs	ervations ar	nd vegetation	o cover.			

Wetl	and Hydrology Indica	tors:												
Prim	ary Indicators (minimun	n of one r	equired	; check	all tha	t apply)			Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B	39)			Water-Stained Leaves	s (B9)			
	High Water Table (A2	2)				(except MLRA 1, 2, 4A,	and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)				Drainage Patterns (B1	10)			
	Water Marks (B1)					Aquatic Invertebrates (B1	13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (E	32)				Hydrogen Sulfide Odor (0	C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres a	along Living Roots	s (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B	4)				Presence of Reduced Iro	on (C4)			Shallow Aquitard (D3)	1			
	Iron Deposits (B5)					Recent Iron Reduction in	Tilled Soils (C6)			FAC-Neutral Test (D5)			
	Surface Soil Cracks (B6)				Stunted or Stresses Plan	ts (D1) (LRR A)			Raised Ant Mounds (I	D6) (LRR A)		
	Inundation Visible on	Aerial Im	agery (B7)		Other (Explain in Remark	<s)< td=""><td></td><td></td><td>Frost-Heave Hummoo</td><td>ks (D7)</td><td></td><td></td><td></td></s)<>			Frost-Heave Hummoo	ks (D7)			
	Sparsely Vegetated 0	Concave	Surface	(B8)										
Field	Observations:													
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):								
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):								
	ation Present? Ides capillary fringe)	Yes		No	\boxtimes	Depth (inches):		Wetlar	nd Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (st	ream gau	ige, mo	nitoring	well, a	aerial photos, previous inspe	ections), if availab	ole:						
Rem	arks: No hydrology	observe	d.											