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KING COUNTY D.P.E.R. Wetland/Forest Ecologist

7700 S. Lakeridge Drive Seattle, Washington 98178-3135 206/772/6514 ~ 206-920-5489 cell

April 10, 2018

C. Gary Schulz

Mr. John Priebe Raging River Mining, LLC

Re: Technical Response for the Raging River Quarry (Parcel # 222407-9011): Clearing & Grading Permit # GRDE15-0004 King County, WA.

Dear Mr. Priebe:

Per your request this letter is written as response to an additional County review comment that was addressed in the last Technical Response (Comment/Response #4, 8/1/17 Letter - Technical Response for the Raging River Quarry (Parcel # 222407-9011) Clearing & Grading Permit # GRDE15-0004 King County, Schulz). However, some new information regarding the presence of wetlands within ½ mile of Wetland A was provided by Laura Casey (King County Environmental Scientist III) via email on March 20, 2018. Also included in the email is an explanation that the connections between the Quarry wetlands and the off-site wetlands are "Relatively undisturbed". The determination of wetland connections being "Relatively undisturbed" is the focus of this response letter as it would change the wetland rating Habitat score and wetland buffer for Wetland A.

The new information included the known location of wetland on Parcel # 222407-9108 (5706 324th Pl. SE) and identified another small wetland on Parcel # 222407-9109 (5610 324th Pl. SE). These parcels are located adjacent to each other along 324th Pl. S.E. The information provided is a County reconnaissance that is nearly 16 years old and is not an actual survey of wetlands. However, the wetland on Parcel # 222407-9108 is visible from the main road (324th Pl. S.E.) and can be verified. Due to the period of time that has passed, subsequent residential development, and change of wetland delineation method the presence of the additional small wetland on Parcel # 222407-9109 is unknown.

In addition to another wetland being identified within ½ mile of Wetland A, the definition of "Relatively undisturbed" used in the wetland rating system (Ecology Pub. 04-06-025) needs to be re-addressed in greater detail. It is understood that the wetland rating system has terms and descriptions that can be interpreted differently by the professionals rating wetlands. Therefore the Western Washington Wetland Rating System Annotated version (August 2006) was developed to assist with interpretations and descriptions. Two sections (H2.1 and H2.4) of the Annotated version are referenced and copied starting on page 2 of this response letter. Two **Summary Responses** are provided following those sections. An aerial photograph was used to create the Disturbance Map that is attached to this letter.

In order to provide a more detailed interpretation of conditions that do not meet the definition of "Relatively undisturbed" portions of the wetland rating guidance (Annotated version) are copied and discussed below. Guidance comments are listed throughout the document. As part of the Annotated version the guidance comments are listed in red.

H 2.0 Does the Wetland Have the Opportunity to Provide Habitat? H 2.1 Buffers

Rationale for indicator: The condition of the buffer affects the ability of the wetland to provide appropriate habitat for a wide range of wetland-dependent and wetland-associated species. Undisturbed buffers provide access (i.e. opportunity) to the wetland, thereby increasing the suitability of the wetland itself as habitat. For a review of how buffers affect the opportunity of a wetland to provide habitat see McMillan (2000). Relatively undisturbed buffers in excess of 330 feet are needed for a wetland to provide the best habitat (see reviews in Desbonnet et al. 1994, McMillan 2000).

Determine the condition of the buffer around the wetland using the descriptive key in the rating form. If the condition of the buffer does not match the description exactly, use the description that most closely matches. The descriptions focus on the width of the buffer that is relatively undisturbed, and the relative length of that buffer around the circumference of the wetland. The buffer areas adjacent to the wetland may be wetland, deep open water, or upland areas. First determine if the buffer consists of any relatively undisturbed areas of forest, shrub-steppe, grassland (not currently grazed or tilled), or open water. The buffer is defined as any area (land or water) within 330 ft (100 m) of the edge of the wetland.

Comment [81]: Comments about the definition of —relatively undisturbed.

- 1. Areas dominated by invasive species are not considered disturbed unless you also have other evidence of disturbance still present. The invasive species could be a result of some past disturbance that is no longer present.
- 2. Logged areas that have been undisturbed for at least 5 years can qualify as —relatively undisturbed. This includes hybrid poplar plantations that are more than 5 years old.
- 3. Buffers that are regularly accessible to dogs, either from residential areas or from people walking their dog should be treated as disturbed. Dogs and other pets cause stress among the animals using a wetland.
- (((We were not able to describe all possible conditions in a wetland. If you are rating a wetland and you disagree with some of the definitions of undisturbed you may wish to record your different judgment and the rationale for why the buffer should be rated as —disturbed or —undisturbed.)))

Comment [82]: Heavy boat traffic means daily motor activity during the summer that may flush bird species, add oil based pollutants, and create loud noise. Some professional judgment should be used to answer this question because we cannot specify all possible conditions.

Any heavily used paved or gravel roads, residential areas, lawns, tilled fields, parking lots, or actively grazed pastures within a zone along the edge would disqualify the buffer from being —relatively undisturbed. Bridges crossing streams or rivers within the buffer are considered as a —disturbance. Infrequently used gravel or paved roads or vegetated dikes in a relatively undisturbed buffer, however, can be ignored as a —disturbance. Open water that is not part of the wetland is considered part of the buffer. The open water can be considered undisturbed unless there is heavy boat traffic there. NOTE: The criteria for categorizing the buffer are hierarchical. This means that you first determine if the buffer meets the first criterion. If it does, it is scored 5 points. If the wetland does not have a relatively undisturbed area of 330 ft (100 m) or more for more than 95% of its circumference, you determine if it matches the criterion for a buffer with a score of 4. If none of these criteria can be met, go to the criteria for the third category and assign 3 points if they are met, etc.

(1) Summary Response for Disturbed vs. Relatively undisturbed - H 2.1 Buffers:

The paragraph below is part of the response provided in the previous technical response letter.

"The residential lot at 32415 S.E. 58th Street (Parcel # 2224079107) is situated between Wetland A and the off-site wetland to the north. The residential lot has an actively used gravel road for access to the existing home and is nearly 1/3 developed with maintained lawn area and structures. Therefore a Habitat connection between Wetland A and the off-site wetland would not be considered as "Relatively undisturbed". The presence of "3 other wetlands within ½ mile" was not observed but if they exist it appears the connections would be disturbed" (8/1/17 Schulz).

The underlined portions of the Annotated version copied above are added to emphasize the opinion that the conditions between Wetland A and other wetlands situated to the north are not "Relatively undisturbed". There is a frequently used gravel roadway and a driveway associated with residential development within a zone along the edge of wetland and wetland buffer. There are likely several dogs as pets at the surrounding homes. The loop road (324th Pl. SE) is situated next to off-site wetlands (Wetland A) and serves 18 single-family residences. The loop road is a County right-of-way (ROW) that has surface water drainage ditches and is maintained.

The rationale for determining "disturbed" and not "Relatively undisturbed" is based on the presence of residential development and the associated activities. In addition to pets in the area there are daily traffic disturbances and maintenance activities that include mowing lawns within potential connections between the subject wetlands. The loop road (324th Pl. SE) is County ROW and is maintained to control vegetation and allow for adequate drainage. The wetland identified on Parcel # 222407-9108 (5706 324th Pl. SE) is next to the loop road and any wetland buffer area on the road side is disturbed or absent. These activities are situated within a zone along the edge of wetland and wetland buffer and would disqualify buffer areas between Wetland A and the wetlands to the north as "relatively undisturbed".

H 2.4 Position in Landscape

Rationale for indicator: This indicator addresses one major aspect of a wetland's position in the landscape that affects its opportunity to provide habitat: the proximity of the wetland being rated to other wetlands (often called a wetland mosaic). The presence of adjacent wetlands increases the opportunity that the wetland can provide suitable habitat for a large number of species. Reasons include: 1) a variety of upland habitat niches interspersed with different water sources results in greater habitat partitioning; and 2) more opportunities for refuge, food and migration; and 3) more opportunity for recolonization by wetland-dependent wildlife species in years of drought (Hruby et al. 2000).

For this question you will need to choose the description of the landscape around the wetland that best fits. If several descriptions apply, use the one that gives the most points.

Comment [94]: This is the wetland unit you are rating. If the unit is part of a larger wetland complex, the surrounding wetlands count as other wetlands within ½ mile.

Comment [95]: These are vegetated corridors that should be at least 50ft wide.

Comment [96]: This would include removal of the larger natural vegetation such as occurs in powerline right of ways. See Comment 85.

There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing in the connection or an open water connection along a lake shore are OK, but connections should NOT be bisected by paved roads, fill, fields, pastures, or other development).

Aerial photographs, NWI maps, or local wetland inventory maps can be useful in answering this question. If these data are not available, a visual survey of the surrounding countryside may be necessary. For this question you are looking only for vegetated wetlands. Other aquatic resources (e.g. streams, unvegetated lakes, etc.) are not to be counted. —Relatively undisturbed is used in the same way as in question H 2.1. It means that the connections between the wetlands are naturally vegetated (does not, however, have to be native species), and free of regular disturbances such as:

- o Tilling and cropping
- o Residential and urban development
- o Moderate to heavy grazing
- o Paved roads or frequently used gravel roads
- o Mowing

There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed.

In this case the wetland only needs to be within ½ mile of three other wetlands. The connections between the wetland being rated and the others are disturbed.

There is at least 1 wetland within ½ mile

In this case the wetland only needs to be within ½ mile of only one wetland, and the connections can be either disturbed or undisturbed.

(2) Summary Response for Disturbed vs. Relatively undisturbed - H2.4 Position in landscape:

The attached Disturbance Map is used as the aerial photograph that depicts current activities and conditions from past clearing of native forest. The habitat connections between Wetland A and the wetlands located to the north have some natural forest cover but are largely disturbed from residential development. There are 3 frequently used gravel driveways between the wetlands. In addition the proximity of the 324th Pl. SE gravel road ROW used to access the local residential properties and the existing Quarry would be considered regular disturbances. Due to the gravel road ROW there is little if any functioning buffer habitat along wetland areas that are adjacent to the road.

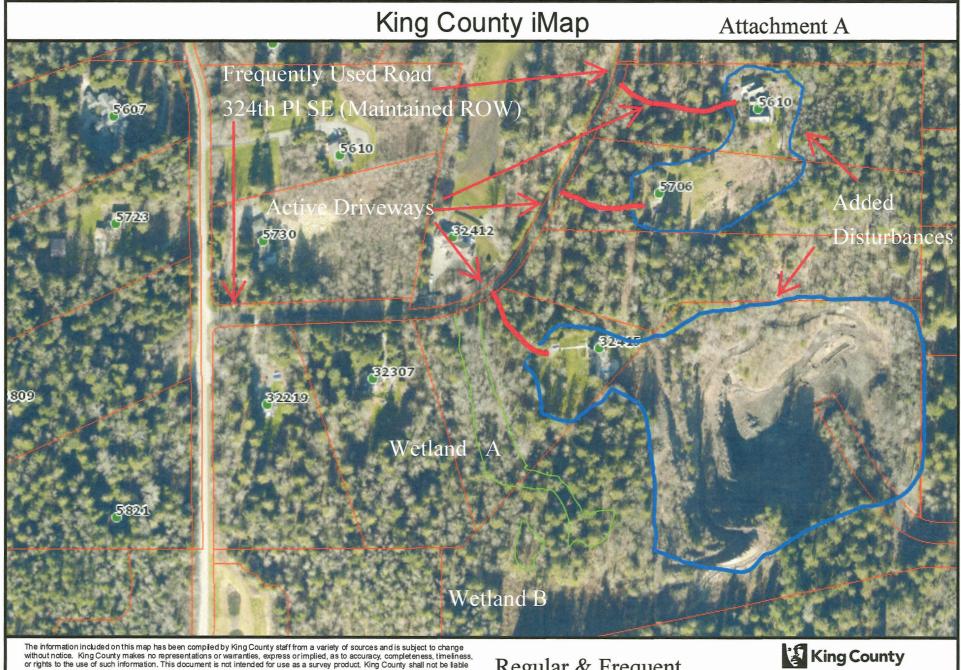
The backyards or eastern portions of the lots located at 32415 SE 58th Street and 5706 324th Pl. SE are mowed and maintained. These disturbances would impact any connection between Wetland A and the small wetland shown on the old Notice on Title map for 5610 324th Pl. SE.

In summary the two sections of the Western Washington Wetland Rating System Annotated version used that define the term "Relatively undisturbed" do not distinguish between rural versus urban or low density development versus high density. Instead they list the types of disturbances that would not meet the definition of "Relatively undisturbed". These disturbances include residential development, frequently used gravel roads, and lawn mowing or maintenance associated with surrounding homes. The existing quarry and 324th Pl. SE roadway are also physical barriers and impact the connections between wetlands. Please feel free to contact me if there are questions or a need for more information.

Sincerely,

C. Gary Schulz

Wetland/Forest Ecologist



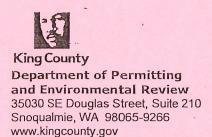
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Date: 3/25/2018

Notes:

Regular & Frequent Disturbance Map

King County GIS CENTER



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D12 Web date: 11/15/2012

For alternate formats, call 206-296-6600.

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Drop-Off Cover Sheet			
DATE 4 19 18 TO THE ATTENTION OF LAURA CASES (Permitting STAFF/SECTION)			
(Permitting STAFF/SECTION)			
Return this form and related submittal items to the King County Permitting Service Center. If you have any questions, please call 206-296-6600. This slip <u>MUST</u> accompany all submittals of additional information to the Department of Permitting. <u>SUBMITTALS WILL NOT BE ACCEPTED WITHOUT THIS COMPLETED FORM</u> .			
VINC COLINTY TRACKING/DEDMIT AN IMPER			
KING COUNTY TRACKING/PERMIT NUMBER 620315-0004			
Project Name RAGING RIVER QUARKS			
Address of Project			
ANY QUESTIONS ABOUT THIS ADDITIONAL INFORMATION SHOULD BE DIRECTED TO:			
Name JOHN PRIEBE			
Firm Name RRQ CC Phone 425-445-1189			
Mailing Address City, State & Zip			
STATE THE SCOPE OF ANY CHANGES OR DEFINE THE ADDITIONAL INFORMATION PROVIDED WITH THIS DOCUMENT:			

DOCUMENTS SUBMITTED (LIST ALL DOCUMENTS AND THEIR QUANTITIES):

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ITEM	QTY	DESCRIPTION	
1		FOLLOW LEP WETCAND INFORMATION	
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Check out the Permitting Web site at www.kingcounty.gov/ddes