King County

Department of Permitting and Environmental Review
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June 8, 2018

John Priebe
Raging River Quarry, LLC
3132 NE Harrison Street
Issaquah, WA 98029

RE: Request for Information; KC File GRDE15-0004;
Raging River Quarry Permit Revision Application (Existing Operation)

Dear John Priebe:

Following the September 2017 Periodic Review Report and Decision (PRRD), Raging River Quarry (RRQ) is required to take a number of follow-up actions, including initiation of a required permit revision for King County mining permit GRDE15-0004. In November 2017, RRQ submitted the first set of required information to King County Department of Permitting and Environmental Review (DPER) for review, and in December 2017, RRQ submitted additional materials as part of an application to revise GRDE15-0004.

Based on a preliminary review of the submitted permit revision application materials, King County DPER staff is providing comments and requesting additional information, as discussed below.

A. Ecological Review

Laura Casey reviewed several documents related to prior reviews and requests for information and conducted a follow-up site visit on March 12, 2018, related to both the current mine operation (GRDE15-0004) and the proposed expansion permit (GRDE15-0166). See the attached memo dated May 8, 2018 for a detailed summary of the results of Laura Casey's review of the submitted materials. The following requests are related to the ecological review of GRDE15-0004:

1. Revise the site plan to show the relocated wetland flags reflecting the revisions discussed with Laura Casey in previous communications, during the on-site meeting, and as summarized in the attached memo.
2. Revise the site plan to reflect the required buffer width, which is larger than shown around Wetland A, based on the revised habitat scores, as previously discussed with Laura Casey.

3. Provide a profile through the man-made ditch south of Wetland A, the adjacent wetland edge, and the area where the previously existing culvert has been blocked with fill. Show the recently placed fill and provide an evaluation by an engineer of the anticipated water levels and capacity of the ditch in relationship to a 100-year event.
4. The buffer averaging proposal isn't relevant to the permit for the existing operation (GRDE15-0004) because the triangular portion of parcel 222407-9011 is outside the potential limits of the current permit. Additional mineral extraction activities in that triangular portion of the parcel, beyond the past encroachment into that area, cannot be approved under this permit. Therefore, remove the buffer averaging proposal from the site plan for GRDE15-0004.
5. The ecological review of this permit revision is not intended to show that the permit for the existing operation provides the full buffers that would be required under current critical areas code, but it will establish where the approved mining limits are in relationship to the currently applicable buffers. The site plan may show that the proposed mining limits and the previous encroachment and previously constructed reclamation setback are within the current buffers, and mitigation for impacts related to work in the buffers would likely occur as part of the reclamation activities. The way in which WA State DNR distinguishes between buffers, permanent setbacks, and reclamation setbacks is not exactly the same as the King County code definitions for buffers.
6. If stormwater facilities are proposed under this permit (GRDE15-0004) for the location currently marked "area reserved for future infiltration pond," then this parcel must also be evaluated for the presence of wetland, aquatic areas, or wildlife conservation areas.
7. Incorporate the recommendations regarding BMPs and stormwater facilities within Shoreline jurisdiction into any revisions to the stormwater management proposal for areas along Carmichael Road that do not currently drain to the existing stormwater ponds.

For questions related to the information requested for the ecological review of this application, you may contact **Laura Casey** at **206-477-0368** or **laura.casey@kingcounty.gov**.

B. Air Quality

Submitted materials were forwarded to the Puget Sound Clean Air Agency (PSCAA) for review and comment. The attached email dated January 18, 2018 includes feedback from PSCAA staff on the proposed permit revision. Please take PSCAA comments into account when preparing the requested revisions and additional information. See the comments below on each supplemental plan you submitted for additional details on how the PSCAA comments may need to be incorporated into your next submittal.

C. Traffic and Road Standards

KC DOT staff reviewed the submitted traffic and transportation materials and provided DPER with the comments summarized in the attached document titled *GRDE15-0004 – Raging River Quarry, January 2018 Entering Sight Distance (ESD) and Traffic Management Plan Review, KCDOT Road and Traffic Engineering comments*. DPER also received additional comments regarding community concerns

regarding traffic impacts and traffic safety related to quarry operations. KC DOT responses to these community concerns are included in the attachments along with the other KC DOT comments. The following requests are related to the traffic, transportation, and Road Standards review:

1. Prepare and submit a ROW Use proposal to DPER for the vegetation clearing required to obtain the minimum ESD noted in the KC DOT staff review comments when looking to the north (left) for an approaching southbound vehicle. This ROW Use proposal for clearing will be reviewed for by DPER and/or KC DOT for approval as part of the current permit revision application.
2. Incorporate the additional transportation and traffic related requirements that were noted as "ongoing" permit conditions #38 through # 45 in the PRRD into the proposed Traffic Management Plan.
3. The detail for the ROW encroachment (*Sheet C1.02)* should also show the presence of the caretaker's trailer and the parking/stockpile area to the southwest of the existing scale (or these should be removed and the area appropriately restored). To be approved, these elements would need to be incorporated into the required Special Use Permit from Real Estate Services (RES) for non-transportation use of county ROW. Note: It may not be possible to permit some of these uses/activities within the ROW or the M-zone portion of parcel 2224079011. Per the P-suffix conditions, mining-related uses and activities shall in no case be closer to the Raging River than the 300 foot contour line. Previous King County decisions related to this parcel provided exceptions to this condition only for the required access and stormwater facilities. Therefore, parking, stockpiles, equipment storage, and the caretaker's residence would all be mining-related uses/activities that would need to be removed or relocated to another part of the site.
4. KC DOT Road Service Division received your request to a haul road agreement, and they are ready to proceed with a meeting to discuss next steps in the process. Contact **Rey Sugui**, at **(206) 477-3637** or **Rey.Sugui@kingcounty.gov**, to schedule a meeting regarding the future haul road agreement.
5. As background for the overall permit revision review, and to facilitate preparation of the required haul road agreement, provide:
    - Information on the anticipated number of years of operation remaining under the current permit.
    - A summary of truck trip levels experienced in previous years under this permit.
    - Anticipated estimated truck trips and volumes/tonnage for the remaining mining under the current phase, as well as any future mining phases that are to be permitted under GRDE15-0004.

Assumptions developed from previous SEPA reviews related to the mine site, the more recent updated Environmental Checklist (ECL) for the separate expansion proposal, and the TIA used for KC DOT's review of this permit revision leads to conflicting estimates regarding the estimated annual volume anticipated for the remainder of operations under this permit, and the available information does not provide a clear estimate of the number of years remaining under the current permit. Based on the 10.75-acre area within the Phase 1 mining limits, and the information provided in the more recent ECL about the anticipated timeframe that would apply to each 5- to 10-acre phase, it appears the proposal potentially anticipates only 1 to 2 years remaining under the current permit. Please provide clarification.

For questions regarding the attached KC DOT Road and Traffic Engineering comments, you may contact **Robert Eichelsdoerfer** at **(206) 477-3652**. For questions regarding the request for information about the anticipated remaining years of operations under the current mine permit, please contact **Amanda L. Reeck** at **206-263-5783** or **areeck@kingcounty.gov**.

D. Drainage Review

Additional information regarding the engineering/drainage review of the proposed permit revision, including feedback on the Technical Information Report (TIR) and other elements of the drainage plan, will be provided separately. For questions regarding the drainage review, please contact **Amanda L. Reeck** at **206-263-5783** or **areeck@kingcounty.gov**.

E. Geological Review

Additional information regarding the geological review of the proposed permit revision, including feedback on the previously submitted geotechnical memos and the proposed blasting plan, will be provided separately.

F. Supplemental Plans

DPER also completed a preliminary review of the December 14, 2017 submittal of the draft Road Surface Management, Dust Mitigation, and Noise Management Plans in relationship to the items requested in the PRRD, observations regarding the current operations at the site, relevant standards/requirements, and each of the other submitted plans. Requested additional information and revisions for these plans are summarized in the following sections.

For questions regarding the requested Road Surface Management Plan revisions, Dust Mitigation Plan revisions, or Noise Management Plan revisions, please contact **Amanda L. Reeck** at **206-263-5783** or **areeck@kingcounty.gov**.

G. Road Surface Management Plan

Please address the following comments in the requested resubmittal:

1. Please include a revision date on all future submittals of this plan and other specialized plans that are submitted for review and approval by DPER for use with the grading permit (similar to the revision dates required on all submittals of plan sheets).
2. DPER recommends replacing the "King County Code and Permit Conditions" section with a section for "Relevant King County Code and Other Requirements," which would include current standards from code related to the topic of the specialized plan as well as ongoing requirements that apply to the site due to applicable P-suffix conditions, rezone/SEPA conditions, or state/federal requirements, but would not necessarily contain existing "permit" conditions. The permitting approach intended from this point forward is to replace certain prescriptive types of permit conditions with permit conditions that simply will require implementation of and compliance with each of the approved topical plans (i.e. the approved

Road Surface Management Plan, the Noise Management Plan, the Dust Mitigation Plan, the Blasting Plan, etc.). The contents of the Road Surface Management Plan need to adequately address the relevant requirements of the current or draft "permit conditions," such that when the final approved plan is followed, compliance with those permit conditions would be ensured.

3. *General:* A number of the measures/preventative controls discussed require regular maintenance and are dependent on such maintenance to properly function. In several places, the plan notes that maintenance will occur. Throughout the plan, as necessary, please provide operations and maintenance details that will apply to components of this plan. Specify what defects, problems, or conditions when maintenance are needed would prompt specific maintenance actions and indicate what results would be expected after the maintenance occurs.
4. Ongoing maintenance of the pavement itself is a key component of the permit conditions that the Road Surface Management Plan is intended to address. Therefore, the proposed program/schedule of pavement maintenance or the specific criteria that will prompt maintenance/repaving should be clear.
5. *Prevention Controls:* This section of the plan states that the prevention controls are "continuously evaluated for effectiveness." As you revise the plan to address the other deficiencies noted in these comments, also address the following questions in your revised plan. What occurs when the controls are found to be ineffective? What specific actions does that prompt? What are the criteria used by ERP management and staff for evaluating effectiveness of the prevention controls?
6. Per feedback from Puget Sound Clean Air Agency (PSCAA), "the cleaning activity described as 'daily sweeping of paved surfaces with Skidsteer with Broom Attachment' may potentially violate PSCAA Regulation I, Section 9.15 if fugitive emissions result and no water is in use." Please see the separate PSCAA attachment for details.
7. For the prevention control related to limiting traffic on the access road to 10 mph, how does the quarry monitor this? What happens when trucks exceed 10 mph? See also feedback from PSCAA on haul speeds within the "Dust Mitigation Plan" comments.
8. *Level 1:* This section discusses the importance of maintaining the drainage system to prevent tracking and accumulation of debris on roadway surfaces. The revised TIR submittal needs to include a full O & M plan addressing the requirements described in the 2016 SWDM.
9. When the flat-edge loader bucket is used to clean excess material from the roadway surfaces in the pit, where are those materials deposited?
10. Per feedback from PSCAA (see separate attachment), "the cleaning activity described as 'cleaning of excess material from roadway with flat-edge loader bucket' is recommended (with water) but, probably not sufficient to prevent fugitive dust from roadways. Dedicated vacuum street sweeping with water is recommended as the most efficient process for cleaning dust from paved roadways."
11. *Level 2:* What criteria are used to determine when additional spall pads are needed in addition to the permanent sections of quarry spalls located before/after the scale? Periods of excessive precipitation and periods of high precipitation are noted as factors in the determination that additional measures may be needed. Are some actions automatically taken throughout the defined wet season from October 1 to April 30? What would the observed conditions be that prompt maintenance of the quarry spall pads? Please show the permanent quarry spall pads

(at minimum) on the TESC plan and typical locations for placements of the intermittent supplemental quarry spall pads.

12. *Level 3:* In addition to cleaning the scale, what actions will be prompted when debris accumulation begins to show on the scale? At times when scale cleaning becomes necessary, will adaptive management occur in the areas prior to the scale? What criteria will prompt maintenance of the quarry spalls on the exiting side of the scale?
13. See note above regarding PSCAA feedback on proposed use of Skidsteer with Broom Attachment.
14. *Level 4:* When tracking and debris accumulation begins to show on the paved portion of SE Carmichael Rd between the scale and the bridge, tracking/debris should be brought under control before it extends on to the bridge where water quality impacts may occur. What provisions will be in place to shut down operations, take corrective actions to maintain or improve the preventative measures currently in place, and to clean up debris and tracking before it extends as far as the bridge?
15. Installation of straw wattles on the bridge does not adequately address the potential impacts from tracking of sediment on to the bridge or other discharges from the pollution generating surfaces of the bridge. Further edits to the drainage plan and road management plan are needed address these issues. Please also re-evaluate the statement regarding "proposed maintenance to drainage along the western approach to the bridge." If the preceding statement is in reference to the proposed modifications to the drainage plan discussed in the Section 8 of the TIR and shown on Sheets C2.01 and C3.02, be aware that the proposed approach to stormwater management along those portions of Carmichael Road needs to be revised to comply with SWDM requirements.
16. How do you propose use of the "Skidsteer with Broom Attachment" between the bridge and Preston-Fall City Road? Where could the skidsteer direct the swept debris? Debris cannot be swept on to the bridge or into Preston-Fall City Road? It seems as though any tracking/debris occurring either on the bridge or between the bridge and Preston-Fall City Road would need to be collected by a vacuum sweeper truck to prevent impacts to the County roadway or water quality.
17. See note above regarding PSCAA feedback on use of proposed Skidsteer with Broom Attachment.
18. If the proposed Road Surface Management Plan is not performing as expected, at what point would ERP propose revisions to the plan, such as the addition of a wheel wash, for example? Are there BMPs that are not currently being used at the site, which could be specified in the plan for consideration at times when the current measures are not effective? What situations would prompt implementation of specific additional measures or requests to revise to the plan? For the measures included in the current draft plan that are not routinely used at the quarry, such as the items listed under "additional potential controls," are there specific triggers that would prompt their use?
19. Consider adding potential use of a wheel wash to the quarry's list of Level 4 measures or "additional potential controls" that are not currently used at the site. Please note that installation of a wheel wash would require review/approval from DPER to evaluate impacts that a wheel wash may have on other aspects of the mine site, such as the stormwater system, steep slopes, shorelines jurisdiction, or other permit conditions. A wheel wash for a mine site is considered one of the structural source controls to be considered when evaluating SWDM Special Requirement #4. If proposed, you should also address the wheel wash in the

temporary and permanent erosion and sediment control plans for the site. The proposed Traffic Management Plan may need to be modified to accommodate wheel washing. If a wheel wash is proposed, it may be necessary to address the potential need for a water source for the wheel wash as well.

H. Dust Mitigation Plan

Please address the following comments in the requested resubmittal:

1. Please review the detailed comments and feedback from PSCAA on the proposed Dust Mitigation Plan (see separate attachment). There are specific PSCAA recommendations related to each section of the Dust Mitigation Plan.
2. *General:* When the permit conditions included in the section for King County Code and other relevant requirements are quoted directly from King County Code or other regulations, the "permit conditions" do not need to be repeated if the proposed plan will also require compliance with those requirements. The new permit conditions will most likely simply require compliance with the final approved plans (i.e. the approved Road Surface Management Plan, the Noise Management Plan, the Dust Mitigation Plan, the Blasting Plan, etc.). Compliance with KCC 21.22.070.C should be an imbedded requirement within the Dust Mitigation Plan, and it should be clear how the proposed "Dust Mitigation Plan" will address the requirements of the relevant code sections.
3. *Potential Dust Sources:* Describe the specific wind or weather conditions that would prohibit effective mitigation of dust from operations should be specified and indicate the criteria that would prompt cessation of operations.
4. *Crushing and Material Processing:* What prompts implementation of the additional potential mitigation strategies listed in the plan? How will ERP monitor whether the existing mitigation and prevention procedures are effective in compliance with the PSCAA guidelines/standards? What actions will ERP take when a problem related to dust is observed by ERP staff? What happens when the water supply is empty or malfunctioning? The plan should include provisions to shut down operations when the water supply is unavailable or when the dust suppression system is found to be insufficient to address specific conditions encountered during operations.
5. *Sales and Loading:* How does ERP address customer trucks that are not complying with the requested practices, such as covers and speed within the quarry? Are there specific weather criteria that prompt wetting of stockpiles? …that prompt wetting during loading? …that prompt wetting of road surfaces? What prompts implementation of the additional potential mitigation strategies listed in the plan?
6. If dust suppressant, such as Recycled Asphalt Pavement, is proposed, it should also be discussed in the TESC Plan, CSWPP, and source control plan for the site.
7. *Drilling and Blasting:* Are there specific weather conditions, wind directions, and wind speeds that prompt avoidance of blasting? What prompts implementation of the additional potential mitigation strategies listed in the plan?
8. *Material Excavation:* How are the strategies for "effective bench design" and "compact quarry layout" to reduce material handling reflected in the site plan currently submitted for review with the grading permit?
9. While separating blasted materials during dry weather, how do you determine whether the finer materials are wet enough even for that initial handling and sorting prior to being bailed?

10. The site plan (and supplemental plans, such as the Noise Management Plan) currently under review would not provide for relocation of the crushing plant to upper benches. If this is a proposed material handling strategy, it could only occur after a future permit revision (or the future expansion permit) or if incorporated into the current reviews. A substantial change in the site configuration such as that would likely require review by outside noise consultants. Since this strategy is not feasible under the existing permit as currently described in the other application materials, it should be removed from the Dust Management Plan.
11. *Continuous Monitoring:* What is or would be included in the "daily evaluations" that are "made by the site supervisor during routine production inspections," and do the results of these inspections trigger specific actions or dust control strategies? What are crew looking for during their weekly examinations of equipment by qualified persons? What information is recorded in the monthly record of inspections?

I. Noise Management Plan

Please address the following comments in the requested resubmittal:

1. Prior to approval, DPER may require that the Noise Management Plan be reviewed by a specialized noise consultant contracted by DPER; however, additional detail is needed in the proposed plan before this can occur.
2. The Noise Management Plan currently reads like a buffet of noise mitigation strategies that can be selected at will. Instead, strategies that will be required at all times should be described in the plan as requirements (i.e. ERP shall…, equipment operators should…, drillers shall…, etc.), while those that will be implemented only in certain specific situations should be described as such (along with the specific criteria that would prompt their use at the site). There may be some supplemental strategies that will be implemented only on an "as needed" basis, but that should not be the majority of the plan. If all of the items listed under the "Noise Mitigation Strategies" subheadings are currently used on the site and are proposed for continual use in the future, then they should be listed as "required" items.
3. *Examples:* If the vertical drop from loader bucket into the feeder must be limited to comply with the noise requirements, what is the maximum drop allowed or the criteria that are used by the loader operators in determining how far the material can be dropped? If rubber belting will always be used on all conveyors at the site, then the rubber belting item should read, "Rubber belting is required on all conveyors, at all times." Does the noise plan specify certain criteria for the drills used by your subcontractors? Is there a maximum size or a specific type of drill that is required to comply with the noise standards? Is a specific type or rating of sound paneling needed? Is the drill location limited to only certain areas within the site? The preceding comments are just representative examples of the type of edits that are needed; these comments are not going to individually list each item that should be revised.
4. Which strategies are currently used at the site at all times and which are only proposed for potential future use?
5. What prompts implementation of the additional potential mitigation strategies listed in the plan?
6. In the noise testing protocol, what are the criteria for adding additional temporary testing locations? Would a single complaint prompt the addition of a supplemental testing location? Would there be a four or six month wait, for the next planned monitoring event, before the supplemental testing can be carried out?

7. During the monitoring events, would certain sound levels prompt immediate cessation of activities or would the detailed reports that remove extraneous noises be necessary before operational adjustments could be made?
8. What is included in the "follow-up spot tests" mentioned on page 11?
9. The plan should describe how the quarry proposes to comply with the clearing and grading permit conditions rather than simply list the permit conditions. For example, the item labeled Condition CG-33 lists examples of elements that need to be included in this plan for review and approval by DPER. Rather than stating that those elements need to be in the comprehensive noise plan, the plan should demonstrate how the site has already implemented or will implement those elements.
10. For physical elements of the noise management plan, it would be helpful to either reference the location of the specific noise mitigation features as shown on the site plan set currently under review by DPER, or to include a noise mitigation schematic that is consistent with the site plan proposed for approval under this permit.
11. It may be beneficial to include the "Specific Operations Testing" protocol in the Noise Management Plan under review rather than deferring its preparation to another time (for additional activities more than 150 feet above the current pit floor and for concurrent crushing and drilling). These elements of the plan may require additional specialized review by a noise consultant under contract with DPER.
12. The area on the plan set Sheet C3.01 designated as "potential location for sound barrier and/or noise mitigation devices" would not be allowed in that location under this permit. Those portions of the site are outside the originally permitted area. The triangular portion of the site is outside the potential limits of the 1973 permit, and the small portion of the potential noise mitigation area that is within the footprint of the originally permitted parcel is in a location that has already been designated as reclaimed by the DNR.
13. "Reorienting the benches and faces to run north to south" is a strategy that would need to be reflected on the site plan. All of these supplemental plans and the approved site plan need to be compatible with one another.

J. Summary of Requested Materials

DPER's ability to continue with review of the required permit revision application is limited until the comments above have been addressed and the requested information has been provided. Please submit the following required items to DPER **by July 25, 2018**:

- Two copies of the requested wetland and ecological review information.
- Two copies of the requested traffic and transportation information.
- Four copies of all the supplemental plans that require revisions, including the Road Surface Management Plan, Dust Mitigation Plan, Noise Management Plan, Traffic Management Plan.
- One electronic copy of all revised/resubmitted information.
- One accompanying drop-off cover sheet for the re-submittal.

Please note that DPER expects that resubmittals of the site plan, drainage plan/TIR, and items related to the geological review will be required at some point following resubmittal of the items discussed above. RRQ can expect to receive additional feedback on the site plan, drainage plan/TIR, Blasting Plan, and

geological review within approximately two weeks, and the deadline to submit those additional items will be specified at that time. I can be reached at **206-263-5783** or by email at **areeck@kingcounty.gov** if you need clarification or have general questions regarding the requested items.

Sincerely,

Amanda L. Reeck
Engineer, Resource Product Line

Enclosures

Cc: Randy Sandin, Interim Assistant Director of Permitting
Ty Peterson, Resource Product Line Manager
Steve Bottheim, KC DPER Environmental Scientist
Laura Casey, KC DPER Environmental Scientist
Joe Barto, KC DPER Engineer
Robert Eichelsdoerfer, KC DOT Traffic Engineer

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May 8, 2018

TO: Amanda Reeck, Senior Engineer

FM: Laura Casey, Environmental Scientist III - Ecologist

RE: Raging River Quarry GRDE15-0004 and GRDE15-0166
Site Visit Follow-up for Ecological Critical Areas

In response to prior reviews and requests for additional information for both the operating mine and proposed expansion, DPER received several documents. I reviewed the following documents prepared by Gary Schulz, Wetland/Forest Ecologist:

- Technical Response for GRDE15-0004 dated August 1, 2017
- Technical Response for GRDE15-0166 dated December 1, 2017
- Response to Critical Areas Comments and Conditions on the Periodic Review Report and Decision dated December 12, 2017
- Technical Response for GRDE15-0004 dated April 10, 2018

I also reviewed a Bridge Inspection memo by Berger ABAM dated October 31, 2017, the Plans dated December 14, 2017, and the Periodic Review Report and Decision for the operating mine issued September 15, 2017.

I met applicant John Priebe and consultant Gary Schulz on March 12, 2018 and we investigated the site again to look at discrepancies in delineation of Wetlands A and B, a possible wetland at Date Point 2 on Transect T-1 on the proposed expansion site, and possible riparian wetlands along Type N aquatic area / stream on proposed expansion site.

Wetlands A and B are located east above the active mine site. Wetland A is slightly larger than previously flagged in the vicinity of the active mine face. Flags at A-3 and A-4 were relocated during our site meeting. Wetland B is also larger than previously identified, with a pocket of wetland located between Wetlands A and B that was flagged at our site meeting. A revised site plan is required to show the revised wetland edges.

Wetland Rating (rating question H2.4). I observed that there are three other wetlands within one-half mile of Wetland A, with relatively undisturbed connections. Ecology's Washington State Wetland Rating System for Western Washington (2004) states that "relatively undisturbed" means light grazing or open water is allowed, but connections should not be bisected by paved roads, fill, fields, pastures, or other development. Schulz reports that the gravel driveways between the on-site and off-site wetlands should be considered heavily-used gravel roads, which would mean that

the area between wetlands would be considered “disturbed”. I disagree; residential driveways are not heavily used. There are connecting areas of native forest vegetation on each of these parcels, and between these parcels and the wetlands on the mine parcel. This would revise the habitat score for Wetland A to 20 and change the required buffer width from 80 to 150 feet for a high intensity land use. As I understand it, the larger buffer would not affect the active mine operation, but could require additional restoration during reclamation once the mining is complete. The reclamation plan is subject to State Department of Natural Resources authority. The site plan should be revised to show the larger buffer around Wetland A.

Wetland A Hydrology. Wetland A drains to the north and also to the south, into a human-made ditch. The ditch until recently flowed into a pipe, which has been blocked with fill. Without this overflow, the water level in the ditch may rise to eventually flood back into the wetland or elsewhere on the site. Mr. Priebe believes that the water in the outlet ditch will infiltrate. DPER does not have any data to support that. Engineers should evaluate the 100-year capacity of the ditch to determine whether or not it will backflow into the wetland or overflow onto other areas of the property, and provide a written evaluation to DPER. A cross section lengthwise through the ditch, and adjacent wetland edge and recent fill is requested.

Buffer averaging proposal. The wetland buffers for Wetlands A and B were not regulated at the time the active mine was originally approved, or when the Environmental Impact Statement was prepared in 1979. The 150 foot buffer for Wetland A would extend into the area that was originally approved for the current mining operation. The Periodic Review Report and Decision states that the updated site plan will need to illustrate how the future mining program will stay within the permitted portion of the parcel and will avoid or mitigate for impacts to wetland buffers. The current buffer averaging proposal proposes to reduce the buffers to 65 feet, of which 25 feet would be altered in part to allow construction of an access road along the top of the quarry for future maintenance operations at the erosion site on the north side of the quarry. The buffer averaging proposal will need to be revised to account for the expanded buffer width for Wetland A. A detailed written explanation of the current buffer function and how the buffer averaging plan will replace those functions is necessary to meet the Code requirement that the ecological structures and functions of the buffer after averaging is equivalent to or greater than the structure and functions before averaging.

Stormwater facilities. Sheet C2.01 labels part of parcel 2224079035 as “area reserved for future infiltration pond”. This parcel must be evaluated for the presence of wetland, aquatic areas, or wildlife conservation areas if future stormwater facilities are shown on the plans. The plan sheet also depicts several stormwater “best management practices” within 200 feet of the Raging River in shoreline jurisdiction. This parcel is zoned RA-5, and the shoreline environment is Conservancy. The stormwater facilities and stormwater best management practices supporting the mine may not be allowed within the Conservancy shoreline environment. Avoid placing these facilities within shoreline jurisdiction during re-design of the stormwater facilities.

The areas I was concerned about along the Type N stream in the proposed expansion area are not wetlands. Saturated soils and hydrophytic vegetation are present, but the soils are not hydric as we observed.

The hole in the ground at Data Point 2 on Transect T-1 was dug over 20 years ago as a test pit to evaluate the overburden on top of rock, according to Mr. Priebe. The Schulz memo from

December 1, 2017 documents that the soils in this area are not hydric. Therefore this is not a regulated wetland.

I previously noted that no evaluation has been provided for project impacts to fish and wildlife from increased dust and particulates and blasting noise. No evaluation has been performed for the presence of wildlife habitat conservation areas on site. The Schulz report states it was not intended to conduct wildlife studies. Therefore, a wildlife study is required to evaluate possible wildlife habitat conservation areas as listed in 21A.24.382, for the site and within the protective buffer distance for these conservation areas. The study must also evaluate the potential impacts to wildlife from dust, particulates, and blasting noise.

I also observed the rock beneath the bridge over the Raging River. Berger ABAM's Bridge Inspection Memo stated that the west armor rock directly beneath the bridge was supplemented by the addition of quarry spalls sometime after 2007. Shoreline Exemption L07SX053 was issued for bridge repairs and included placement of the quarry spalls. No subsequent grading permit was obtained. I did not observe any new quarry spalls beneath the bridge.

If you would like to discuss this review, I can be reached at 206-477-0368 or by email at laura.casey@kingcounty.gov.

Cc: Randy Sandin, Deputy Director
Ty Peterson, Commercial and Rural Resource Product Line Manager
Steve Bottheim, Environmental Scientist III - Geologist
Joe Barto, Review Engineer II
Fereshteh Dehkordi, Project/Program Manager III

Reeck, Amanda

To: Reeck, Amanda
Subject: FW: Eastside Rock / Raging River Quarry, County operating permit revision, GRDE15-0004

From: Brian Renninger [mailto:BrianR@pscleanair.org]
Sent: Thursday, January 18, 2018 1:19 PM
To: Reeck, Amanda <areeck@kingcounty.gov>
Cc: Carole Cenci <CaroleC@pscleanair.org>; Nina Birnbaum <NinaB@pscleanair.org>
Subject: RE: Eastside Rock / Raging River Quarry, County operating permit revision, GRDE15-0004

Thanks, I'll provide some comments below. But, as a general recommendation the following resource has a lot of good advice and possible ideas for dust control a mines that may be applicable to this circumstance.

https://www.cdc.gov/niosh/mining/userfiles/works/pdfs/2012-112.pdf

Dust Mitigation Plan Comments

- The crusher spraying system (including the various physical barriers also described) is typical for this type of facility and usually what we would consider adequate to meet the emission limits in Agency Regulation I, Section 9.18 assuming: 1) it's operated and maintained consistently; and 2) the tanks are kept in continual supply of water during operation so the system does not run out of water. Adding vacuum based dust collection (baghouse/dust collectors) would potentially provide greater dust control (with proper enclosure and hooding) and would not trigger any additional licensing activity from the Agency but, it would trigger emission testing of the dust collectors per the Federal Rule 40 CFR 60 Subpart OOO.
- The truck loading section mentions that loading of "products containing fines will be done slowly when materials are dry". Agency Regulation I, Section 9.15 requires that reasonable precautions be taken to minimize fugitive dust. While material is not required to be fully saturated, typically loading of dry materials is not considered reasonable if fugitive dust results. Slow loading of dry materials may not be considered an adequate precaution as use of water is considered to be reasonable. If a product is needed to be dry then additional control measures may be necessary such as enclosed storage and vacuum dust collection during loading activity.
- Haul traffic. The slow speeds and wetting of haul roads/trafficked areas are generally what we consider reasonable precautions. Slow speeds by themselves are generally not considered a reasonable precaution. In addition, if the amount of water required is a concern then the use of various surface treatments to retain moisture may also be recommended. For areas that are permanent roads paving is recommended though paving should also be swept and cleaned with water to prevent deposited dust becoming airborne. Wheel washes should be available for all vehicles existing the facility.
- Stockpiles. Generally speaking wetting stockpiles is the reasonable precaution most frequently accepted. The setting of the piles in depressions to provide a degree of enclosure is also recommended but, may not be sufficient without water to be considered a reasonable precaution.
- Drilling. The plan describes vacuum based dust collection systems. These systems are generally effective though if fugitive dust results then wet drilling may also be a possible recommended practice.
- Blasting. For controlling blasting emissions the described efficient blast design and wetting the surrounding area are recommended. Should experience show that there is still significant fugitive

emissions due to blasting, blasting with water cartridges in addition to adequate tamping material may be a recommended practice (with proper changes to blast design to accommodate the practice).

- Material excavation. The 100 gallon water tank described may be inadequate as at 8 GPM it will last less than a quarter hour and require numerous refilling periods. Water sprays are recommended to ensure minimizing fugitive dust during: stripping of overburden, bailing blasted material, and rock breaking with hydraulic hammers.

Road Surface Management Plan

- Debris accumulation prevention controls list should include wheel washes for all vehicles exiting the facility.
- The cleaning activity described as "cleaning of excess material from roadway with flat-edge loader bucket" is recommended (with water) but, probably not sufficient to prevent fugitive dust from roadways. Dedicated vacuum street sweeping with water is recommended as the most efficient process for cleaning dust from paved roadways.
- The cleaning activity described as "daily sweeping of paved surfaces with Skidsteer with Broom Attachment" may potentially violate Agency regulation I, Section 9.15 if fugitive emissions result and no water is in use.

Blasting Plan

- As previously mentioned and already included in the plan, to minimize fugitive dust the wetting of the surrounding area is recommended.
- Possible reevaluation of shot design to include water cartridges should significant fugitive dust still occur.

Traffic Management Plan

- No comment of traffic management per se but, the previously mentioned wheel wash is recommended to prevent trackout from the site. Traffic management plan should be modified to accommodate wheel washing procedures should a wheel wash be implemented.

I hope these comments are helpful to you.

Sincerely,

Brian Renninger, P.E.

Engineer
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GRDE15-0004 – Raging River Quarry

January 2018 Entering Sight Distance (ESD) and Traffic Management Plan Review

KCDOT Road and Traffic Engineering comments – Contact Info (206) 477-3652

Project Description: The site is located at approximately 6300 Preston-Fall City Road SE, on the west side of Preston-Fall City Road SE. Access to and from the site will continue to be from the intersection of Preston-Fall City Road SE and SE Carmichael Road.

All existing extractive and processing operations are subject to a review of development and operating standards at 5 year intervals. The 5 year Periodic Review Report and Decision was issued for the Raging River Quarry on September 15, 2017. An EIS was prepared with an addendum in 1987 that identified between 50-60 truckloads (100-120 trips) per day from the quarry as the traffic impact. It is anticipated that approximately 400,000 tons per year would be removed based on this number of trips. The horizon year used for the project is 2021. The quarry is not proposing to increase the 50-60 truckloads per day as identified in the EIS addendum.

King County Department of Transportation (KCDOT), Road and Traffic Engineering Section has reviewed the September 15, 2017 Periodic Review and Report, the October 31, 2017 Entering Sight Distance (ESD) memorandum prepared by Gibson Traffic Consultants and the November 15, 2017 Traffic Management Plan (TMP) prepared by Eastside Rock Products. We have also completed a 2nd review of the August 2015 traffic impact analysis (TIA) prepared by Gibson Traffic Consultants. We have the following comments:

1. We concur with the following conditions in the TMP which need to be closely monitored and enforced:

    a) At no time shall trucks be allowed to park or queue on Preston-Fall City Road SE.
    b) No trucks waiting to enter the quarry shall be permitted to park on SE Carmichael Road prior to the stipulated hours of operation.
    c) Eastside Rock Products personnel shall be present on SE Carmichael Road (between the gate and Preston-Fall City Road SE) with a visible barrier (cones, etc.) to prevent any trucks from attempting to queue outside the gate before 7:00 AM. This barrier will remain in place from 6:40 AM to 7:00 AM to discourage early arrivals.
    d) In the event that quarry personnel determine that trucks may begin to queue on SE Carmichael Road outside the quarry gate before entering, a physical barrier (vehicle with hazard flashers, cones, etc.) will be put in place to block any additional trucks from entering onto SE Carmichael Road. Quarry personnel will direct any incoming trucks past SE Carmichael Road to prevent any stopping and/or parking on Preston-Fall City Road SE.

2. Per the 1987 EIS addendum, the project will generate a maximum of 120 daily truck trips. Hours of operation will be from 7:00 AM to 4:00 PM and trucks will haul approximately 260 days per year. From a level of service (LOS) standpoint, the intersection of Preston-Fall City Road SE and SE Carmichael Road will operate at LOS B in both the AM and PM peak hour period.

3. Per the TIA, there are no King County intersections that meet the K.C.C. 14.80, "Intersection Standards" thresholds of 30-peak hour and 20% of the peak hour trips and operating at a level of service worse than "E".

4. KCDOT Traffic Engineering concurs with the TIA that right and left turn lane warrants are not met at the intersection of Preston-Fall City Road SE and SE Carmichael Road per the Washington State Department of Transportation (WSDOT) Design Manual guidelines.

5. The posted speed limit for Preston Fall City Road SE is 45 mph. This implies a design speed of 55 mph. Per the 2016 King County Road Design and Construction Standards (KCRDCS), the required stopping sight distance (SSD) is 495 feet and the required entering sight distance (ESD) is 610 feet based on a 55 mph design speed.

6. SSD for a southbound vehicle to stop before rear ending a vehicle waiting to turn right at SE Carmichael Road is greater than 500 feet and for a northbound vehicle to stop before rear ending a vehicle waiting to turn left at SE Carmichael Road is greater than 700 feet. Therefore, per the TIA, there is adequate stopping sight distance (SSD) both north and south of the intersection of SE Carmichael Road and Preston-Fall City Road SE. These values exceed the required SSD of 495 feet per the KCRDCS.

7. When stopped on SE Carmichael Road at Preston-Fall City Road SE, there is over 700 feet of ESD when looking to the south (right) for an approaching northbound vehicle. This exceeds the required ESD of 610 feet per the KCRDCS.

8. When stopped on SE Carmichael Road at Preston-Fall City Road SE, there is less than 610 feet of ESD when looking to the north (left) for an approaching southbound vehicle. KCDOT Road and Traffic Engineering staff measured an ESD value of approximately 530 feet while the applicant's traffic consultant measured an ESD value between 545 feet and 560 feet.

9. The applicant's traffic consultant conducted a 3-day speed study along Preston-Fall City Road SE in the vicinity of SE Carmichael Road from October 17-19, 2017. A total of 29,198 vehicles were counted during this time period and the 85th percentile speed of those vehicles was 49 mph. If the 85th percentile speed is found to be less than the design speed, it is KCDOT Road and Traffic Engineering practice to substitute the 85th percentile speed for design speed for determining ESD requirements. Per the KCRDCS, the required ESD for 49 mph is 544 feet. This value is just less than the ESD measured by the traffic consultant but still higher than the value measured by KCDOT Road and Traffic Engineering staff.

10. Per the traffic consultant's October 31, 2017 Entering Sight Distance (ESD) memorandum, approximately 560 feet of ESD can be obtained by clearing vegetation within the Preston-Fall City Road SE right-of-way north of SE Carmichael Road. This value would exceed the 544 feet of ESD based on the 85th percentile speed. Once the clearing of vegetation is completed within the Preston-Fall City Road SE right-of-way, the applicant's traffic consultant shall measure and verify that there is a minimum of 560 feet of ESD.

11. Between January 1, 2007 and December 31, 2016, there was one collision in the vicinity of the SE Carmichael Road and Preston-Fall City Road SE intersection. This collision occurred north of the intersection and involved one vehicle going off the road and flipping on its side. There are no documented collisions associated with the Raging River Quarry truck traffic. This location is not a classified as a high accident location (HAL) or a high accident corridor (HAC) per KCDOT.

12. KCDOT Road and Traffic Engineering, Traffic Operations staff has previously installed two W11-6 (Truck Crossing Symbol) warning signs north and south of SE Carmichael Road and Preston Fall City Road SE intersection.

13. Eastside Rock Products contacted KCDOT Road Services Division staff on November 14, 2017 regarding a road haul agreement. There has been no additional contact to date.

14. Concerning the January 10, 2018 email from Mr. Ed Hazen, including the observations from Mr. Kent Ditch:

    The concern appears to be trucks turning right from SE Carmichael Road to proceed southbound on Preston-Fall City Road SE and not being able to accelerate quickly enough to prevent southbound traffic already on Preston-Fall City Road SE from slowing down. A possible solution for this situation would be the construction of a right turn acceleration lane on Preston-Fall City Road SE. A right turn acceleration lane allows entering vehicles from a driveway or minor cross street to accelerate before entering the through traffic flow. However, warrants need to be met to justify the installation of a right turn acceleration lane. Factors such as an unacceptable level of service (LOS F) at the intersection or a collision history are required to justify the acceleration lane. Currently, these risk factors are not present. Causing drivers to temporarily slow down while a truck accelerates to a speed that matches that of the existing traffic is not enough to justify a right turn acceleration lane. It is the responsibility of the truck driver to choose a long enough gap in the existing traffic along Preston-Fall City Road SE to minimize disruption when turning out of SE Carmichael Road.

    The situation depicted on the aerial photograph would be unacceptable. It is speculation as to if and when this would occur. If all traffic conditions listed in the September 15, 2017 Periodic Review and Report, the October 31, 2017 Entering Sight Distance (ESD) memorandum and the November 15, 2017 Traffic Management Plan (TMP) are enforced and followed, Mr. Hazen's theoretical worst case scenario should rarely occur, if at all.

Reeck, Amanda

Subject: FW: FW: RRQ Periodic Review documents

From: Eichelsdoerfer, Robert
Sent: Monday, May 21, 2018 9:40 AM
To: Reeck, Amanda <areeck@kingcounty.gov>
Cc: Sandin, Randy <Randy.Sandin@kingcounty.gov>; Peterson, Ty <Ty.Peterson@kingcounty.gov>
Subject: RE: FW: RRQ Periodic Review documents

Hi Amanda,

The Tilghman Group Memorandum dated January 31, 2018 presents an argument for using Section 2.13.D of the 2016 King County Road Design and Construction Standards (KCRDCS) in mitigating entering sight distance (ESD) for the Raging River Quarry looking to the north from the Quarry driveway intersection with the Preston-Fall City Road SE. Section 2.13.D states: *"Where a significant number of trucks will be using the approach road, the County Road Engineer may increase the entering sight distance requirements by up to 30 percent of single-unit trucks and 70 percent for semi-trailer combinations"*.

The County Road Engineer would need to be presented with data that justifies imposing the increased entering sight distance requirement. As stated in the January 18, 2018 KCDOT Road and Traffic Engineering comments, between January 1, 2007 and December 31, 2016, there was one collision in the vicinity of the SE Carmichael Road and Preston-Fall City Road SE intersection. This collision occurred north of the intersection and involved one vehicle going off the road and flipping on its side. There were no documented collisions associated with the Raging River Quarry truck traffic. This location is not a classified as a high accident location (HAL) or a high accident corridor (HAC) per KCDOT. 2017 data has now be analyzed, and there were no documented collisions associated with the Raging River Quarry truck traffic in 2017. Also, per the January 18, 2018 KCDOT Road and Traffic Engineering comments, no King County intersections will meet the K.C.C. 14.80, "Intersection Standards" thresholds of 30-peak hour and 20% of the peak hour trips and operating at a level of service worse than "E". The intersection of SE Carmichael Road and Preston-Fall City Road is projected to operate at an LOS of "B" in the AM and PM peak hours.

Unless the County Road Engineer is presented with compelling evidence to justify imposing an increased sight distance requirement, the January 18, 2018 KCDOT Road and Traffic Engineering comments will remain unchanged.

The citizens in the vicinity of the Raging River Quarry can of course appeal directly to the County Road Engineer.

Please let me know if you have any additional questions or concerns.

Robert

Robert Eichelsdoerfer, PE, Senior Engineer, Road Services Division, King County Department of Transportation, 206-477-3652
24/7 Help Line 206-477-8100, maint.roads@kingcounty.gov, www.kingcounty.gov/roads