

CALM Commentary
RECOMMENDATIONS TO THE PLANNING COMMISSION
November 14, 2013

CALM Introduction: CALM appreciates the work staff and the Planning Commission have done so far to review and revise the zoning code provisions related to surface mining. Our additional recommendations focus on three key areas:

- ***Establishing SMO designation criteria that fully implement WAC 365-190-070, the state mandatory designation criteria.***
- ***Refining operational standards to minimize conflicts between mining operations and adjacent uses, especially residences.***
- ***Establishing meaningful monitoring and enforcement procedures through regulation. Without monitoring and enforcement, the key provisions about operational impacts are toothless.***

CALM's suggested changes to 11/14/13 staff recommendations are highlighted and underlined in the following text, with commentary in bold italics.

A. Draft Policy Changes

Mineral Lands Comprehensive Plan Policies

GOAL: To protect and ensure appropriate use of gravel and mineral resources of the county, and minimize conflict between surface mining and surrounding land uses.

3.5 Policies

- 3.5.1 Support the conservation of mineral lands for productive economic use by identifying and designating lands that have long-term commercial significance for mineral extraction and that are not already characterized by urban growth. *(Revision to current 3.5.1)*
- 3.5.2 Designate mineral resource lands based on the following:
- a. geological, environmental, and economic factors;
 - b. surrounding land uses, zoning, and parcel size; and
 - c. the suitability of access roads to be used as haul roads. *(Revisions to current 3.5.3)*

CALM Rationale: We have heard many times that the WAC 365-190-070 direct the designation criteria. There is no harm in referencing the WAC standards these policy factors represent.

- 3.5.3 Ensure that mineral extraction and processing operations minimize and mitigate any significant adverse impacts on water, fish, wildlife, and nearby land uses. *(Revisions to current 3.5.9)*

CALM 1/13

- 3.5.4 Ensure that land use activities adjacent to designated mineral resource lands and mining activities are located and designed to minimize conflicts with each other. *(Revisions to current 3.5.10)*
- 3.5.5 Establish notification standards whereby developments on lands in the vicinity of designated mineral resource lands are given notice that they are locating in or adjacent to a potential mining area. *(Revisions to current 3.5.12)*
- 3.5.6 The surface mining overlay shall not be designated within rural residential (R) zones ~~except to allow the expansion of an existing mining site.~~

CALM Rationale: If the surface mining and rural residential uses are incompatible at the designation stage then expansion of mining operations into rural residential lands must also be incompatible.

CALM believes that the following policies deserve a place in the County Comprehensive Plan:

- 3.5.7 Encourage restoration of mineral extraction sites at the earliest opportunity following completion of surface mining activity as the site is mined, consistent with the requirements identified in RCW 78.44.

CALM Rationale: Amend, do not delete, existing policy 3.5.4. DNR may regulate reclamation and restoration but the County, as part of the development review process, can also make reclamation and restoration consistent with DNR standards a condition of approval. If DNR oversight of mine restoration is lax, the County could enforce its condition of approval and require an owner to restore lands consistent with the RCW. It does the citizens who live near an abandoned mine no good to hear their county say "That's a state problem" when, in fact, the County could make restoration a local requirement.

- 3.5.8 Approach the designation of mineral resource lands as a county-wide or regional process. With the exception of owner-initiated requests for designation, the county will not review mineral resource lands designations solely on a parcel-by-parcel basis and will designate mineral resource lands as a legislative amendment to the Comprehensive Plan.

CALM Rationale: If designation of the SMO is to be a Type IV process, as the WACs indicate, that direction belongs in the Comprehensive Plan. CALM's language is consistent with WAC 365-190-070(1). The county designates other resource lands, agriculture and forest, through the legislative amendment process.

- 3.5.9 Develop a program for monitoring and enforcement of active mining activities to ensure that the county's surface mining program operates efficiently, complies

with applicable local, state and federal regulations, and upholds the local values expressed in the goals and policies of this chapter.

CALM Rationale: Recent experience in the County underscores the importance dedicating resources to monitor and enforce its policies and regulations relating to mineral lands on an ongoing basis, rather than during a crisis.

STRATEGIES FOR MINERAL RESOURCE LANDS

Maintain a map showing areas designated with the surface mining overlay and permitted mining sites.

Develop a program for coordinated monitoring and enforcement of conditions of approval for active mining sites.

EXISTING POLICIES RECOMMENDED TO BE DELETED

3.5.2 Capital improvement plans should take into consideration maintaining and upgrading public roads adequate to accommodate transport of mineral commodities. *Capital improvement funding priorities are addressed in Chapter 5 Transportation*

3.5.5 Encourage recycling of concrete, aggregate and other materials. *Not a County activity. Industry does this.*

3.5.6 Encourage restoration of mineral extraction sites as the site is mined, consistent with the requirements identified in RCW 78.44. *Not a County activity. DNR does this.*

3.5.7 Land shall not be used for any activity other than surface mining or uses compatible with mining until the gravel or mineral resource is commercially depleted, reasons for not mining the site are clearly demonstrated, or the site has been reclaimed. *Appears to conflict with WAC 365-190-040(6): "Classifying, inventorying, and designating lands or areas does not imply a change in a landowner's right to use his or her land under current law."*

3.5.8 Surface mining other than Columbia River dredging shall not occur within the 100-year Floodplain. *Conflicts with Shorelines Master Program standards.*

3.5.14 The county shall allow continued mining at existing active sites. *Not necessary or meaningful. These are existing permitted, conditional or non-conforming uses.*

3.5.11 Designated mineral operations of long-term commercial significance are not exempt from the normal environmental review process of the county or state agencies. *Not necessary or meaningful; no such exemption is contemplated or implied.*

3.5.13 Prior to removal of the surface mining designation, the landowner needs to show that the extraction of the mineral resource is not commercially feasible. *This is more like a standard than a policy.*

3.5.16 Designation to alternative land uses at the time of reclamation shall take into consideration surrounding land uses and other policies of this 20-Year Plan. *No longer relevant; all mineral resource lands have underlying Comp Plan and zoning designations.*

3.5.17 Future land use designations for those areas designated Mineral Lands (Fisher Quarry and Section 30/31) should be made consistent with city land use and at the time of annexation. *No longer applicable; all three areas have been annexed or zoned.*

3.5.18 Some level of processing should be associated with mineral extraction. *There is no clear rationale for this policy.*

3.5.19 Future sites designated with a surface mining overlay shall be assessed on a case by case basis, based on the commercial or industrial value of the resource, and the relative quality and quantity of the resource as well as the following conditions:

- the resource should be of a quality that allows it to be used for construction materials or meet applicable quality specifications for the intended use(s);
- the resource should be of a quantity sufficient to economically justify development based upon the characteristics of the aggregate, life of the resource site, cost of extraction, accessibility, opportunity, type of transportation and the location of high demand areas; and,
- designation of these mineral resource lands should follow the "Criteria for Designating Mineral Resources," as outlined in the Designation Criteria component of the Rural and Natural Resource Element.

The Criteria for Designating Mineral Resources were adopted because of "limited geological information regarding mineral resources within the county." This table will be deleted and designation criteria should be adopted in Code. See Section 40.560.010(S) below.

CALM Rationale: Moving many of the designation criteria from Table 3.4 to new Code Section 40 560.010(S) makes sense. Placing the more detailed designation criteria into the code section that deals with how the County amends the Comprehensive Plan is an elegant code writing solution.

However, because the mineral resource land designation criteria and conversation are spread throughout Chapter 3 of the Comprehensive Plan, merely removing one table will not remove the other relevant designation discussions in Chapter 3. We urge you to act carefully because:

- 1. The Comprehensive Plan (page 3-8) states that there are three key issues to designation and conservation of mineral resource lands:
(A) defining what type of mineral resources are significant;***

- (B) addressing long term significance; and
(C) balancing other land uses with mineral resource areas.**

This analysis is reflected in the Mineral Lands Goal which requires protection of resources and minimizing conflicts between mining and surrounding land use. In other words, balance must remain a key element of the designation criteria regardless of where the criteria are located in County planning documents.

- 2. *On page 3-11 the Comprehensive Plan reinforces the idea of balancing potentially competing interests to “ensure resource conservation in a manner that also maintains a balance of land uses.” The section directs the reader to Table 3.4, which the current plan states should be “used to assess the feasibility of designating and protecting potential resource areas.”***
- 3. *Table 3.4, Matrix for Assessing Mineral Resources, is the heart of the current plan’s designation scheme for mineral resource lands. The beauty of Table 3.4 is that it looks at mineral resource conservation factors, such as,***
 - *quality of deposit,***
 - *size of deposit, and***
 - *access to market.***

It also expressly considers such factors as, adjacent land uses, and the potential impacts of surface mining, such as noise, blasting, truck traffic, flooding and more. These range of factors in Table 3.4 is consistent with the designation factors WAC 365-190-070(3(a) through (e) require.

- 4. *In order for the Comprehensive Plan to remain internally consistent, as GMA requires, Table 3.4, a balancing matrix, should not be replaced unless the Commission can make a Finding that the designation criteria under consideration fully implement this Goal.***

Clark County's Shoreline Master Program shall be reevaluated for consistency with the Growth Management legislation and Clark County's 20-Year Comprehensive Growth Management Plan. Any areas of inconsistency shall be reviewed and resolved with either modification of the Shoreline Master Program or Comprehensive Plan policies, whichever is more appropriate. *This policy is outdated and not directly related to mineral resource lands.*

Clark County Unified Development Code, Title 40

B. Procedure & Draft Criteria to Amend the Surface Mining Overlay

Keep Section 40.560.020 Changes to Districts, Amendments, Alterations as is. Delete the changes proposed by the Mineral Lands Task Force that would make the surface mining overlay a zoning overlay subject to change through a Type III procedure.

Adopt the following as a new Section 40.560.010(S), re-number subsequent sections and

CALM 5/13

correct citations:

S. Additional Criteria for Surface Mining Overlay Changes.

1. Amendments to the plan map to designate additional areas with the Surface Mining Overlay shall demonstrate that the following criteria have been met:
 - a. The quality of the resource meets applicable specifications for the intended uses;
 - b. The quantity of the resource is sufficient to economically justify development based on the size of the deposit, the depth of overburden, the distance to market, the cost of transport and resource availability in the region;
 - c. The site is accessible and haul road conditions are suitable for safe truck travel or will be improved to meet County standards;
 - d. At least sixty percent (60%) of the area within one thousand (1000) feet of the proposed mineral resource land is characterized by parcels of five (5) acres or larger.
 - e. The proposed designation is based on current federal, state and private geological data and mapping;
 - f. Public services and utilities at the site, including water supply, are sufficient or will be made available.
- CALM Rationale: Additional criteria are needed to fully implement the state designation standards.**

2. Amendments to the plan map to remove the Surface Mining Overlay shall demonstrate that one of the following conditions is met:
 - a. The mineral resources have been depleted;
 - b. There is evidence that the mining of the mineral resource is not economically feasible based on the factors listed in Section 40.560.010(S)(1)(b);
 - c. Environmental or access constraints make it impractical to mine the resource; or
 - d. The area has been brought into an urban growth boundary or adjacent land uses or developments are incompatible with mineral extraction.

C. Draft Surface Mining Overlay Standards

40.250.020 SURFACE MINING OVERLAY DISTRICT

(Repeal current 40.250.020 and replace)

A. Purpose.

The purpose of the surface mining overlay district is to ensure the continued availability of rock, stone, gravel, sand, earth and mineral products without disrupting or endangering adjacent land uses, while safeguarding life, property and the public welfare.

B. Applicability.

CALM 6/13

1. The provisions in this section shall apply to parcels designated with the surface mining overlay.
2. The provisions of this section shall apply only to new applications for surface mines and related uses, **and expansions or alterations of existing operations**. Operation of existing surface mines and related uses shall conform to the conditions of approval adopted with their site plan and/or conditional use approval. ***CALM Rationale: Clarify that expansions of existing uses constitute a new application and trigger compliance with the revised code.***
3. Provisions of Chapter 78.44 RCW and Chapter 332-18 WAC pertaining to surface mining that are applicable to Clark County are adopted by reference.

C. Uses.

1. Permitted uses. In addition to uses allowed in the underlying zoning district, the following uses are permitted in the surface mining overlay district:
 - a. Extractions from deposits of rock, stone, gravel, sand, earth and minerals.
 - b. Temporary offices, shops or other accessory buildings and structures used for the management and maintenance of onsite mining and processing equipment.
2. Conditional uses. In addition to uses allowed conditionally in the underlying zoning district, the following uses are allowed in the surface mining overlay district, subject to conditional use approval:
 - a. Asphalt mixing
 - b. Concrete batching;
 - c. Clay bulking;
 - d. Rock crushing, processing and stockpiling.

D. Standards.

1. Site area. When the activity includes both extraction and any one of the uses listed on Section 40.250.020(C)(2), the total site area shall be a minimum of twenty (20) acres. Activities which are limited to extraction only shall not have a minimum site size.
2. Setbacks.
 - a. A minimum 200-foot setback shall be required for all mining uses abutting residential uses. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback. The setback area shall be used only for roads, berms, landscaping, signs, fencing and reclamation activities.
 - b. Adjacent properties shall maintain a 100-foot setback from designated mineral resource land. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback or if it is not feasible to meet the setback due to site constraints. Setbacks shall not apply to existing structures.
3. Access. Roads into the site shall be gated and the site or mining area shall be fenced and posted "No Trespassing".

4. Noise. Maximum permissible noise levels must be in accordance with the provisions of Chapter 173-60 WAC or as identified in the SEPA document prepared consistent with 40.570.080(C)(3)(g). Mitigation is required to limit noise levels to no more than 5 dBA over ambient levels at the property line.

CALM Rationale: Align noise limitations with the County's own SEPA standards and ensure mitigation.

5. Hours and days of operation.
- No operations shall take place on Sundays or on the following legal holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.
 - All operations and activities other than blasting and maintenance are restricted to the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday.
 - Blasting is restricted to the hours of 9:00 a.m. to 4:00 pm Monday through Friday.
 - Maintenance activities may be performed outside the normal hours of operation, provided that no equipment with narrow-band (beeping) back-up alarms is used.
 - Loading and hauling outside of normal hours of operation may be approved by the responsible official provided that:
 - the applicant provides at least fourteen (14) days notice to the county prior to the event such that the county can provide at least ten (10) days notice to property owners within one (1) mile of the site boundary and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as connectors, arterials, or State highways;
 - the applicant provides evidence that the contract is to fulfill a publicly funded project and requires delivery of rock or rock products outside of normal operating hours; and
 - all equipment shall utilize broadband back-up alarms or reverse-activated strobe lights conforming to Mining Safety and Health Administration (MSHA) requirements.
 - loading and hauling outside of normal hours shall not take place more than 10 consecutive days, and not more than 30 total days in one calendar year. Applicant shall make a separate application to the responsible official for each period of requested activity outside of normal hours of operation.

In a state of emergency declared by the Governor, the responsible official may waive the requirements of this subsection.

CALM Rationale: Authorization for work outside of normal hours of operation should be tied to a public purpose, and should have an overall limit such that adjacent users are not subjected to continuous after-hours operations. Emergency exemptions should be clearly defined and issued sparingly.

6. Stormwater and erosion control must meet the standards of Chapter 40.385.
7. Blasting and mining activities must not adversely affect the quality or quantity of groundwater or groundwater wells or cause damage to offsite structures.

8. Notice of blasting events shall be provided by the operator to property owners within one mile (1) ~~one-half (1/2)~~ mile of the mining limits by conspicuous posting at the property line of the affected properties, Secondary notice shall be provided by mail at least seven (7) days prior to blasting or by electronic communication at least twenty-four (24) hours prior to blasting.

CALM Rationale: Improve notice procedures by delivering notices to affected property owners, so that they are most likely to receive them. Mail and email notices may be used as secondary notification.

9. Mining activities must meet applicable Federal, State and county standards governing odors, dust, smoke, lighting, blasting and vibration. Lighting shall not cast significant light or glare on adjacent properties.

a. Dust and Smoke Control. The operator shall obtain all required permits from the Southwest Clean Air Agency, and shall comply with all of the regulations of the Southwest Clean Air Agency. In addition, the approval authority may require methods of dust control, such as water trucks or sprinklers, which will mitigate the dust from the site.

b. Lighting. All lighting shall be limited to the lowest intensity which allows the permitted activity to be carried out in a safe manner. The lights shall be shielded and directed so that illumination affects only the premises of the site and does not result in glare outside of the permit site or on public rights-of-way.

CALM Rationale: Strengthen lighting standard to prevent light trespass and glare by specifying mitigation measures. Strengthen dust and smoke standards by specifying mitigation measures and coordination with application review authority.

10. The director of public works may require pavement wear agreements for public roads used to access the site, and may include, but are not limited to, safety, restoration, rehabilitation, and resurfacing of the affected roadways and/or financial participation in county road preservation projects. Public access roads to mining sites must be maintained to the satisfaction of the director of public works, to minimize problems of dust, mud, potholes, runoff and traffic safety. All vehicles shall comply with RCW 46.61.655 (escape of load materials and cleaning of vehicles).

CALM Rationale: Provide more specificity on the content of pavement wear agreements.

11. Internal access roads shall be paved within one hundred (100) feet of a paved county road or state highway to reduce tracking of dirt, mud and rocks. Wheel washes or other methods may also be used to control these impacts.

12. The applicant shall identify the source or potential source for water and calculate the anticipated water use for the site. approximate amount of water anticipated to be used on the site. If this amount exceeds the exemption provided for under RCW 90.44.050, the applicant must present evidence that adequate water will can be made available.

CALM Rationale: Strengthen requirements for applicant to prove water is available on site. Wording would allow for approval subject to subsequent Department of Ecology water permits.

E. Approval Process.

1. Plans shall be drawn to an engineer's scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this section and all other relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work, the names and addresses of the owner, and the person by whom they were prepared. The plans shall include the following minimum information:
 - a. General vicinity maps of the proposed site;
 - b. Property boundaries and accurate contours of existing ground, details of existing terrain, and details of existing area drainage;
 - c. Proposed elevations and contours of the greatest extent of the proposed mining and proposed drainage channels and related construction;
 - d. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, berms, settling ponds and other protective devices to be constructed with or as a part of the proposed work, together with the maps showing the drainage area and the estimated runoff of the area served by any drains;
 - e. Location of any buildings or structures on the property where the work is to be performed, and the location of any buildings or structures on land of adjacent property owners which are within two hundred (200) feet of the property;
 - f. Location of internal access roads and primary haul routes.
 - g. Stormwater calculations and proposed treatment facilities for runoff from access roads and impervious areas; and
 - h. A hydrogeology report which characterizes the groundwater and surface water and identifies wells within one-half (1/2) mile of the proposed mining limits and a monitoring and mitigation plan if impacts are anticipated to offsite properties.
 - i. An noise study, produced by a licensed acoustical engineer, which includes measurements of ambient noise, projections of anticipated noise levels at the property line and proposed mitigation measures.
CALM Rationale: Necessary component to ensure noise standards in 40.250.020(D)(4) are met.
 - j. A traffic impact analysis including the following elements, or as directed by the director of public works:
 - (1) Estimated life of the quarry/mine;
 - (2) Trip generation, including passenger & haul vehicles;
 - (3) Trip assignment and distribution;
 - (4) Capacity analysis: Existing and proposed operational LOS at the site access and intersections along primary and secondary haul routes including any proposed mitigations;
 - (5) Safety analysis: Sight distance at intersections and crash history at intersections and along all haul route corridors, including any proposed mitigations;
 - (6) Vehicle maneuvering analysis: Turning movements at intersections and tracking at intersections and horizontal curves including any proposed mitigations; and

(7) Structural capacity analysis: Remaining life of primary and secondary haul routes under current and proposed loading including any improvements needed to achieve a 15-year structural capacity.

CALM Rationale: Specify scope of traffic analysis, based on requirements from the Clark County traffic engineers.

k. A plan which addresses material entering the county right-of-way as a direct result from mining operations and asphalt plants or accessory uses. The plan shall include methods to control material leaving the site and response should any material enter the right-of-way. Material may include, but is not limited to, rock, sand, mud, soil, water, asphalt, Portland cement concrete, and/or oil. The plan is subject to approval by the director of public works, and may be combined with the pavement wear agreement.

CALM Rationale: Develop and monitor plan for minimizing material tracked onto the roadway.

2. Site plan approval is required prior to any surface mining use.
3. For those uses permitted under Section 40.250.020(C)(1), the responsible official shall review and approve plans, specifications, and other supporting data through a Type II-A process pursuant to Section 40.510.025.
4. Conditional uses permitted under Section 40.250.020(C)(2) shall be reviewed through a conditional use process pursuant to Section 40.520.030.
5. For temporary uses permitted under Section 40.250.020(C)(1)(b) that are not exempt from review per Section 40.260.220(C)(3)(b), the responsible official shall review and approve plans and specifications through a Type I process pursuant to Section 40.510.010.

CALM Rationale: Remove exemption for temporary uses, as discussed in reference to Section 40.510.010.

6. Notice required by Sections 40.250.020(E)(3) and (4) above shall be sent to owners of property within a radius of one (1) mile of the site and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as collectors, arterials or State highways.

F. Monitoring and Enforcement.

1. A hearing shall be held within twelve (12) months of the commencement of any uses permitted under Section 40.250.020 and at intervals thereafter as determined by the Hearings Examiner. Public hearing notice and procedures shall be conducted pursuant to Section 40.510.030, and notice shall be provided to all residents identified in Section 40.250.020(E)(6). The scope of these hearings shall be limited to:
 - a. assessing whether the conditions of approval were adequate or necessary to mitigate the actual impacts of the use;
 - b. determining whether the conditions of approval have been met; and
 - c. evaluating the effectiveness of any required monitoring programs.
2. Owners of all mining operations shall submit completed registration forms to the county on an annual basis every year following the hearing required by Section 40.250.020(E)(6). For existing operations, initial forms shall be submitted to the

CALM 11/13

county by not later than six (6) months from date of adoption. Registration forms shall include: (1) location and ownership of parcel, (2) size and depth of mine, (3) current state and/or local permit status of mining activity on parcel, and (4) information contained on any annual report required by the Department of Natural Resources. Fees shall be assessed as adopted by the Board of County Commissioners.

3. Mining operations shall be inspected annually for compliance in conjunction with the annual registration process. The operator shall provide access to the site for the purpose of such inspections. The inspection shall be based on conditions and standards ordered by the approval authority and the standards of this chapter. Fees shall be assessed as adopted by the Board of County Commissioners.

4. Mining operators shall maintain compliance with all applicable standards. Deficiencies identified in the annual review and inspection shall be remedied. A conditional use permit may be revoked for noncompliance pursuant to Section 40.520.030(H).

CALM Rationale: Monitoring and enforcement provisions are essential for mining operations. The operational standards in subsection (D) must be backed up with solid monitoring and enforcement procedures, as established here. Existing code enforcement procedures have not been sufficient in previous cases to elicit compliance.

40.260.220 Temporary Uses and Structures

C. Uses and Exceptions.

3. Exceptions. Certain structures and uses are exempt from the requirement to obtain a temporary use permit. However, building and fire code requirements still apply. The following are exempt from the requirement for a temporary use permit:
- b. For nonresidential districts: Temporary construction trailers, construction materials, and equipment storage areas, and construction offices accessory to a construction or mining site.

CALM Rationale: The task force recommended making some temporary uses exempt from permitting. However, construction and mining uses are fundamentally different in their duration, despite their visual and functional similarities. A construction trailer sited for a construction project is used for a fixed period of time, whereas a mining use may continue for years. If a use on a mining site is truly temporary, the operator should obtain a temporary use approval, or permanent approval if necessary. Additionally, the exempt uses listed here overlap with the allowed temporary uses in 40.250.020(C)(1)(b), creating confusion.

~~40.260.120 Mines, Quarries and Gravel Pits~~

~~Extractions from deposits of rock, stone, gravel, sand, earth, minerals, or building or construction materials shall not be construed to be permitted uses in any district established by this title except as provided in specific districts, unless a surface mining overlay district has been obtained, as provided for in Section 40.250.020, except for on-site excavation and grading in conjunction with a specific construction or improvement project. Odor, dust, noise or drainage shall not be permitted to create or become a~~

~~nuisance to surrounding property. The responsible official may approve a request for an aggregate extraction for a single construction project for a period not to exceed ten (10) days in operation and not requiring a state permit, in accordance with Section 40.260.220, Temporary Uses.~~

CAAM 13/13

November 20, 2013

Clark County Planning Commission
c/o Marilee McCall
Clark County Community Planning
PO Box 9810
Vancouver, WA 98666-9810

email: marilee.mccall@clark.wa.gov

Re: Surface Mining Overlay

Dear Clark County Planning Commissioners:

I write on behalf of the Friends of Livingston Mountain ("Friends") to provide further comments on the proposed amendments to Clark County's mineral lands policies, procedures and surface mining overlay code. The comments are intended to supplement comments you will receive directly from members of the Friends of Livingston Mountain.

These comments follow the order of the November 14, 2013, Staff Recommendations.

A. Draft Policy Changes

1. Proposed New Policies

Friends supports the proposed new policies 3.5.1 through 3.5.6 with the following changes:

3.5.1 Support the conservation of mineral lands for productive economic use by identifying and designating lands that have long-term commercial significance for mineral extraction ~~and~~ that are not already characterized by urban growth, not already developed with inconsistent uses, that can be developed without significant environmental impact, and have suitable access.

3.5.2 Designate mineral resource lands based on the following:

- a. geological, environmental, and economic factors;
- b. surrounding land uses, zoning, and parcel size; and
- c. the suitability of access roads to be used as haul roads connecting the potential mineral lands to market.

3.5.3 Ensure that mineral extraction and processing operations minimize and mitigate any significant adverse impacts on surface and ground water, fish, wildlife, and nearby land uses.

3.5.4 Ensure that land use activities adjacent to designated mineral resource lands and mining

activities are located and designed to minimize conflicts with each other.

3.5.5 Establish notification standards whereby developments on lands in the vicinity of designated mineral resource lands are given notice that they are locating in or adjacent to a potential mining area.

3.5.6 The surface mining overlay shall not be designated within rural residential (R) zones. ~~except to allow the expansion of an existing mining site.~~

2. Strategies for Mineral Resource

Friends supports the two identified “strategies for mineral resource lands” but strongly believes that the following addition should be made to the enforcement strategy:

“Develop a program for coordinated monitoring and enforcement of conditions of approval for active mining sites including the creation of: (1) a dedicated monitoring and enforcement account funded by permit fees for existing and ndw mines; and (2) a County Ombudsman position for assisting local residents to resolve conflicts with mining operations. Until the County’s program for monitoring and enforcing is established, no existing mines should be allowed to expand and new mines should be permitted.”

3. Existing Policies Proposed for Deletion

While Friends does not oppose deletion of several of the existing policies, there are also several that should be left in place including the following:

Existing Policy 3.5.5: “Encourage recycling of concrete, aggregate and other minerals.” We respectfully disagree with Staff that encouraging recycling is not a County activity. The County should be encouraging the recycling of concrete, aggregate and other minerals during the process of reviewing and approving demolition permits as well as for County road and building projects.

Existing Policy 3.5.19 Contains a list of conditions necessary for future designation of new surface mining overlays. Staff recommends deletion of these policies as well as the current Designation Criteria Table and instead adopting designation criteria in County Code. FOLF strongly believes that the existing policy *and* Designation Criteria Table should remain in place as part of the Comprehensive Plan Policies *and* be fully codified in the County Code.

B. Procedures and Criteria to Amend Surface Mining Overlay

1. Amendments Must Remain a Type IV Process

Friends fully concurs with Staff that amendments to the Surface Mining Overlay must remain a Type IV Legislative Action. The process of designation natural resource lands, including mineral resource lands is required to be done on a county-wide basis and not in a piecemeal

manner. GMA itself clearly mandates that the review and amendment process be carried out by the legislative body – the County Council. RCW 36.70A.131 set out that the review and designation of mineral resource lands and mineral resource lands development regulations are to be done in context of the County’s overall Comprehensive Plan Amendment process set out in RCW 36.701.130(1). According to RCW 36.70A.130(1):

(1)(a) Each comprehensive land use plan and development regulation shall be subject to continuing review and evaluation by the county or city that adopted them. Except as otherwise provided, a county or city *shall take legislative action*, to review, and if needed, revise its comprehensive land use plan and development regulations to ensure that plan and regulations comply with the requirements of this chapter....

This requirement for county-wide and legislative approvals is carried forward in GMA’s implementing regulations. For example, WAC 365-190-040(10)(b) provides that when reviewing and amending natural resource lands designations:

“(10)(b) In classifying and designating natural resource lands, counties must approach the effort as a county-wide or regional process. Counties and cities should not review natural resource lands designations solely on a parcel-by-parcel process.”

Similarly, WAC 365-190-070(1) makes abundantly clear that “Counties and cities should not review mineral resource lands designations solely on a parcel by parcel basis.”

Amendments to the surface mining overlay should be restricted to the Type 4 process and then conducted county-wide during the county-wide review and update process. The Planning Commission should recommend against modifying the process for reviewing amendments.

2. Proposed CCC 40.25.010(S) Surface Mining Overlay District

Friends supports the codification of designation criteria for Surface Mining Overlay Changes, but the proposed code should include all of the criteria currently set out in the existing Comprehensive Plan Table 3.4 Matrix for Assessing Mineral Resources. This includes the following changes to Staff’s proposal:

40.25.012(S). Additional Criteria for Surface Mining Overlay Changes.

1. Amendments to the plan map to designate additional areas with the Surface Mining Overlay shall demonstrate that the following criteria have been met:
 - a. The quality of the resource meets applicable specifications for the intended uses;
 - b. The quantity of the resource is sufficient to economically justify development based on the size of the deposit, the depth of overburden, the distance to market, the cost of transport and resource availability in the region;

c. The site is accessible and haul road conditions are suitable for safe truck travel or will be improved to meet County standards;

d. At least sixty percent (60%) of the ~~lots area~~ within one-half mile ~~one thousand (1000) feet~~ of the proposed mineral resource land is characterized by parcels of five (5) acres or larger.

e. Existing uses within one-half mile are not presently incompatible with mining and its impacts including noise, dust, blasting, heavy truck traffic;

f. There is an adequate supply of water to serve any proposed mining operation;

g. Mining operations will not significantly impact existing ground or surface water uses;

h. Mining operations will not significantly impact wetlands, riparian areas, or wildlife habitat;

i. Mining operations will not be located on active unstable slopes, or potentially or historically unstable slopes.

3. Proposed CCC 40.250.020 Surface Mining Overlay District

Friends strongly supports Staff's recommendation to retain uses such as Asphalt mixing, Concrete batching, Clay bulking, and Rock crushing, process and stockpiling as conditional uses in the proposed new CCC 40.250.020 Surface Mining Overlay District. FOLF also request the following amendments to Staff's proposal:

40.250.020 SURFACE MINING OVERLAY DISTRICT

A. Purpose.

The purpose of the surface mining overlay district is to ensure the continued availability of rock, stone, gravel, sand, earth and mineral products without disrupting or endangering adjacent land uses, while safeguarding life, property and the public welfare.

B. Applicability.

1 The provisions in this section shall apply to parcels designated with the surface mining overlay.

2. The provisions of this section shall apply only to new applications for surface mines and related uses and expansions of existing mines. Operation of existing surface mines and related uses shall conform to the conditions of approval adopted with their site plan and/or conditional use approval. *[CALM + Turner]*

3. Provisions of Chapter 78.44 RCW and Chapter 332-18 WAC pertaining to surface mining that are applicable to Clark County are adopted by reference.

C. Uses.

1. Permitted uses. In addition to uses allowed in the underlying zoning district, the following uses are permitted in the surface mining overlay district:

a. Extractions from deposits of rock, stone, gravel, sand, earth and minerals.

b. Temporary offices, shops or other accessory buildings and structures used for the management and maintenance of onsite mining and processing equipment may be allowed only where the if predicted mine life is less than 10 years.

2. Conditional uses. In addition to uses allowed conditionally in the underlying zoning district, the following uses are allowed in the surface mining overlay district, subject to conditional use approval:

- a. Asphalt mixing
- b. Concrete batching;
- c. Clay bulking;
- d. Rock crushing, processing and stockpiling.

D. Standards.

1. Site area. When the activity includes both extraction and any one of the uses listed on Section 40.250.020(C)(2), the total site area shall be a minimum of twenty (20) acres. Activities which are limited to extraction only shall not have a minimum site size. [*Retains existing language.*]

2. Setbacks.

a. A minimum 200-foot setback shall be required for all mining uses abutting residential uses. ~~The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback.~~ The setback area shall be used only for roads, berms, landscaping, signs, fencing and reclamation activities. [*similar to CALM proposal*]

b. Adjacent properties shall maintain a 100-foot setback from designated mineral resource land. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback or if it is not feasible to meet the setback due to site constraints. Setbacks shall not apply to existing structures. [*similar to CALM proposal*]

3. Access. Roads into the site shall be gated and the site or mining area shall be fenced and posted "No Trespassing". [*similar to Storedahl proposal*]

4. Noise. Maximum permissible noise levels must be in accordance with the provisions of Chapter 173-60 WAC or as identified in the SEPA document. whichever is lower.

5. Hours and days of operation.

a. No operations shall take place on Sundays or on the following legal holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.

b. All operations and activities other than blasting and maintenance are restricted to the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday, unless further restricted through SEPA review due to proximity of existing uses and/or site specific conditions. [*Turner - format*]

c. Blasting is restricted to the hours of 9:00 a.m. to 4:00 pm Monday through Friday.

d. Maintenance activities, excluding mining, crushing, and loading, may be performed outside the normal hours of operation, provided that no equipment with narrow-band (beeping) back-up alarms is used. Noise levels must comply with night-time noise requirements.

e. Loading and hauling outside of normal hours of operation may be approved by the responsible official provided that:

(1) the applicant provides at least fourteen (14) days notice to the county prior to the event such that the county can provide at least ten (10) days notice to property owners within

one-half (1/2) mile of the site boundary and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as connectors, arterials, or State highways;

(2) the applicant provides evidence that the contract requires delivery of rock or rock products outside of normal operating hours;

(3) the contract is for a Public Works and not private contract; and

(4) all equipment shall utilize broadband back-up alarms or reverse-activated strobe lights conforming to Mining Safety and Health Administration (MSHA) requirements.

In an emergency, the responsible official may waive the requirements of this subsection except noise limits.

6. Stormwater and erosion control must meet the standards of Chapter 40.385, and all applicable federal and state requirements.

7. Blasting and mining activities must not adversely affect the quality or quantity of groundwater or groundwater wells or cause damage to offsite structures. *[Turner]*

8. Notice of blasting events shall be provided by the operator to property owners within one-half (1/2) mile of the mining limits by mail at least seven (7) days prior to blasting or by electronic communication at least twenty-four (24) hours prior to blasting.

9. Mining activities must meet applicable Federal, State and county standards governing odors, dust, smoke, blasting and vibration. Lighting shall not cast significant light or glare on adjacent properties. *[Storedahl and 40.340.010(7)]*

10. Odor, dust, noise, or drainage shall not be permitted to create or become a nuisance to surrounding properties.

11. The director of public works ~~may~~ shall require pavement wear agreements for public roads used to access the site. Public access roads to mining sites must be maintained to the satisfaction of the director of public works, to minimize problems of dust, mud, potholes, runoff and traffic safety. All vehicles shall comply with RCW 46.61.655 (escape of load materials and cleaning of vehicles). *[CALM]*

12. Internal access roads shall be paved within one hundred (100) feet of a paved county road or state highway to reduce tracking of dirt, mud and rocks. Wheel washes or other methods may also be used to control these impacts. *[similar to Storedahl]*

13. The applicant shall identify the source or potential source and approximate amount of water anticipated to be used on the site. If this amount exceeds the exemption provided for under RCW 90.44.050, the applicant must present evidence that adequate water can be made available without negatively affecting neighboring wells and aquifers. *[similar to Storedahl]*

E. Approval Process.

1. Plans shall be drawn to an engineer's scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this section and all other relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work, the names and addresses of the owner, and the person by whom they were prepared. The plans shall include the following minimum information: *[Turner]*

a. General vicinity maps of the proposed site;

b. Property boundaries and accurate contours of existing ground, details of existing

Mann 6/7

terrain, and details of existing area drainage; [Turner]

c. Proposed elevations and contours of the greatest extent of the proposed mining and proposed drainage channels and related construction;

d. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, berms, settling ponds and other protective devices to be constructed with or as a part of the proposed work, together with the maps showing the drainage area and the estimated runoff of the area served by any drains;

e. Location of any buildings or structures on the property where the work is to be performed, and the location of any buildings or structures on land of adjacent property owners which are within two hundred (200) feet of the property; [Turner]

f. Location of internal access roads and primary haul routes. [CALM]

g. Stormwater calculations and proposed treatment facilities for runoff from access roads and impervious areas; and

h. A hydrogeology report which characterizes the groundwater and surface water and identifies wells within one-half (1/2) mile of the proposed mining limits and a monitoring and mitigation plan if there are existing wells within one-half (1/2) mile of the proposed site. ~~If impacts are anticipated offsite properties.~~

2. Site plan approval is required prior to any surface mining use.

3. For those uses permitted under Section 40.250.020(C)(1), the responsible official shall review and approve plans, specifications, and other supporting data through a Type II-A process pursuant to Section 40.510.025. [CALM]

4. Conditional uses permitted under Section 40.250.020(C)(2) shall be reviewed through a conditional use process pursuant to Section 40.520.030. [CALM]

5. For temporary uses permitted under Section 40.250.020(C)(1)(b) that are not exempt from review per Section 40.260.220(C)(3)(b), the responsible official shall review and approve plans and specifications through a Type I process pursuant to Section 40.510.010. [CALM]

6. Notice required by Sections 40.250.020(E)(3) and (4) above shall be sent to owners of property within a radius of one (1) mile of the site and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as collectors, arterials or State highways. [Turner]

D. Conclusion

Thank you for your time and careful consideration of these comments. Please do not hesitate to contact me if you have any questions.

Very truly yours,

GENDLER & MANN, LLP



David S. Mann

Mann 7/7

From: [Mabrey, Michael](#)
To: [McCall, Marilee](#)
Cc: [Cook, Christine](#); [Oriako, Oliver](#)
Subject: FW: SMO recommendation comments
Date: Wednesday, November 20, 2013 1:16:03 PM
Attachments: [Meeting Summary.docx](#)

-----Original Message-----

From: Valerie Uskoski [<mailto:vuskoski@maulfoster.com>]
Sent: Wednesday, November 20, 2013 12:13 PM
To: Mabrey, Michael
Subject: RE: SMO recommendation comments

Mike,

I really appreciate your willingness to meet with us on Monday. I've attached my changes to the code and a few comments. Storedahl will likely submit additional comments but this is a summary of what we had discussed in the meeting.

Thank you,

VALERIE USKOSKI PE | MAUL FOSTER & ALONGI, INC. d. 360 433 0218 | c. 360 831 3824 | p. 360 694 2691 | f. 360 906 1958 | www.maulfoster.com
400 East Mill Plain Boulevard, Suite 400, Vancouver, WA 98660 Please consider the environment before printing this email.

NOTICE: This email, and any attachments, is intended only for use by the named addressee(s) and may contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or the person responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this email, and any attachments, is strictly prohibited. If you have received this email in error, please immediately notify the sender by reply email and permanently delete and/or destroy the original and all copies. Written MFA authorization is required for modification of final electronic work products. Distribution to others of any MFA electronic work products, whether or not they are modified, is prohibited without the express written consent of MFA.

-----Original Message-----

From: Mabrey, Michael [<mailto:Michael.Mabrey@clark.wa.gov>]
Sent: Wednesday, November 20, 2013 10:35 AM
To: Valerie Uskoski
Subject: SMO recommendation comments

Valerie -

Thank you for organizing the meeting on Monday. I thought that it was very productive and helped to narrow the points of apparent disagreement. Are you still planning to submit proposed amendments? If so, could I get them today? I would like to collate all of the proposed changes such that the PC could look at them together and hopefully agree on their preferred language.

Mike Mabrey
Clark County Community Planning
360-397-2280 x4343

This e-mail and related attachments and any response may be subject to public disclosure under state law.

Uskoski 1/18

RECOMMENDATIONS TO THE PLANNING COMMISSION
November 14, 2013

Formatted

At the November 7th worksession, the Planning Commission requested that staff review all the public comments regarding mineral lands policies, procedures and the surface mining overlay code and draft a revised text that strikes a balance between the various interests while meeting the statutory requirements.

The following text incorporates suggestions from multiple parties. The language is intended to be simple, clear and unambiguous. It is presented without strikethrough and underline format for the sake of clarity. The policy and code sections could be adopted by a motion to delete existing and replace with the draft mineral lands policies and Section 40.560.010 (as amended).

A. Draft Policy Changes

Rationale: Policies should be clear, meaningful and few. They should support applicable state statutes and local values and provide a framework for development regulations.

Mineral Lands Comprehensive Plan Policies

GOAL: To protect and ensure appropriate use of gravel and mineral resources of the county, and minimize conflict between surface mining and surrounding land uses.

3.5 Policies

- 3.5.1 Support the conservation of mineral lands for productive economic use by identifying and designating lands that have long-term commercial significance for mineral extraction and that are not already characterized by urban growth.
- 3.5.2 Designate mineral resource lands based on the following:
 - a. geological, environmental, and economic factors;
 - b. surrounding land uses, zoning, and parcel size; and
 - c. the suitability of public access roads to be used as haul roads.
- 3.5.3 Ensure that mineral extraction and processing operations minimize and mitigate any significant adverse impacts on water, fish, wildlife, and nearby land uses.
- 3.5.4 Ensure that land use activities adjacent to designated mineral resource lands and mining activities are located and designed to minimize conflicts with each other.
- 3.5.5 Establish notification standards whereby developments on lands in the vicinity of designated mineral resource lands are given notice that they are locating in or adjacent to a potential mining area.
- 3.5.6 The surface mining overlay shall not be designated within rural residential (R) zones except to allow the expansion of an existing mining site.

Uskaski 2/8

STRATEGIES FOR MINERAL RESOURCE LANDS

Maintain a map showing areas designated with the surface mining overlay and permitted mining sites.

Develop a program for coordinated monitoring and enforcement of conditions of approval for active mining sites.

EXISTING POLICIES RECOMMENDED TO BE DELETED

Capital improvement plans should take into consideration maintaining and upgrading public roads adequate to accommodate transport of mineral commodities. *Capital improvement funding priorities are addressed in Chapter 5 Transportation*

Encourage recycling of concrete, aggregate and other materials. *Not a County activity. Industry does this.*

Encourage restoration of mineral extraction sites as the site is mined, consistent with the requirements identified in RCW 78.44. *Not a County activity. DNR does this.*

Land shall not be used for any activity other than surface mining or uses compatible with mining until the gravel or mineral resource is commercially depleted, reasons for not mining the site are clearly demonstrated, or the site has been reclaimed. *Appears to conflict with WAC 365-190-040(6): "Classifying, inventorying, and designating lands or areas does not imply a change in a landowner's right to use his or her land under current law."*

Surface mining other than Columbia River dredging shall not occur within the 100 -year Floodplain. *Conflicts with Shorelines Master Program standards.*

The county shall allow continued mining at existing active sites. *Not necessary or meaningful. These are existing permitted, conditional or non-conforming uses.*

Designated mineral operations of long-term commercial significance are not exempt from the normal environmental review process of the county or state agencies. *Not necessary or meaningful; no such exemption is contemplated or implied.*

Prior to removal of the surface mining designation, the landowner needs to show that the extraction of the mineral resource is not commercially feasible. *This is more like a standard than a policy.*

Designation to alternative land uses at the time of reclamation shall take into consideration surrounding land uses and other policies of this 20-Year Plan. *No longer relevant; all mineral resource lands have underlying Comp Plan and zoning designations.*

Future land use designations for those areas designated Mineral Lands (Fisher Quarry and Section 30/31) should be made consistent with city land use and at the time of annexation. *No longer applicable; all three areas have been annexed or zoned.*

Some level of processing should be associated with mineral extraction. *There is no clear rationale for this policy.*

Future sites designated with a surface mining overlay shall be assessed on a case by case basis, based on the commercial or industrial value of the resource, and the relative quality and quantity of the resource as well as the following conditions:

- the resource should be of a quality that allows it to be used for construction materials or meet applicable quality specifications for the intended use(s);
- the resource should be of a quantity sufficient to economically justify development based upon the characteristics of the aggregate, life of the resource site, cost of extraction, accessibility, opportunity, type of transportation and the location of high demand areas; and,
- designation of these mineral resource lands should follow the "Criteria for Designating Mineral Resources," as outlined in the Designation Criteria component of the Rural and Natural Resource Element.

The Criteria for Designating Mineral Resources were adopted because of "limited geological information regarding mineral resources within the county." This table will be deleted and designation criteria should be adopted in Code. See Section 40.560.010(S) below.

Clark County's Shoreline Master Program shall be reevaluated for consistency with the Growth Management legislation and Clark County's 20-Year Comprehensive Growth Management Plan. Any areas of inconsistency shall be reviewed and resolved with either modification of the Shoreline Master Program or Comprehensive Plan policies, which ever is more appropriate.

This policy is outdated and not directly related to mineral resource lands.

B. Procedure & Draft Criteria to Amend the Surface Mining Overlay

Rationale: Convincing testimony has been submitted that designation of mineral resource lands must be accomplished through a Type IV procedure. Staff believes that these criteria for adding and removing the overlay are consistent with WAC 365-190-070 and the draft policies above.

Keep Section 40.560.020 Changes to Districts, Amendments, Alterations as is. Delete the changes proposed by the Mineral Lands Task Force that would make the surface mining overlay a zoning overlay subject to change through a Type III procedure.

Adopt the following as a new Section 40.560.010(S), re-number subsequent sections and

Uskoski 4/18

correct citations:

S. Additional Criteria for Surface Mining Overlay Changes.

1. Amendments to the plan map to designate additional areas with the Surface Mining Overlay shall demonstrate that the following criteria have been met:
 - a. The quality of the resource meets applicable specifications for the intended uses;
 - b. The quantity of the resource is sufficient to economically justify development based on the size of the deposit, the depth of overburden, the distance to market, the cost of transport and resource availability in the region;
 - c. ~~The site is accessible and haul road conditions are suitable for safe truck travel or will be improved to meet County standards;~~
 - d. At least sixty percent (60%) of the area within one thousand (1000) feet of the proposed mineral resource land is characterized by parcels of five (5) acres or larger.
2. Amendments to the plan map to remove the Surface Mining Overlay shall demonstrate that one of the following conditions is met:
 - a. The mineral resources have been depleted;
 - b. There is evidence that the mining of the mineral resource is not economically feasible based on the factors listed in Section 40.560.010(S)(1)(b);
 - c. Environmental or access constraints make it impractical to mine the resource; or
 - d. The area has been brought into an urban growth boundary or adjacent land uses or developments are incompatible with mineral extraction.

Comment [VU1]: Not in favor of this but will let Storedahl address this.

C. Draft Surface Mining Overlay Standards

Rationale: This draft restores the conditional use permit requirement for rock crushers, asphalt plants and concrete plants to allow for site specific mitigation and monitoring measures. The revised standards reflect or respond to many of the comments and suggestion submitted to date.

40.250.020 SURFACE MINING OVERLAY DISTRICT

(Repeal current 40.250.020 and replace)

A. Purpose.

The purpose of the surface mining overlay district is to ensure the continued availability of rock, stone, gravel, sand, earth and mineral products without disrupting or endangering adjacent land uses, while safeguarding life, property and the public welfare.

B. Applicability.

1. The provisions in this section shall apply to parcels designated with the surface mining overlay.
2. The provisions of this section shall apply only to new applications for surface mines and related uses. Operation of existing surface mines and related uses shall conform to the

Ustowski 5/18

conditions of approval adopted with their site plan and/or conditional use approval. [CALM + Turner]

3. Provisions of Chapter 78.44 RCW and Chapter 332-18 WAC pertaining to surface mining that are applicable to Clark County are adopted by reference.

C. Uses.

1. Permitted uses. In addition to uses allowed in the underlying zoning district, the following uses are permitted in the surface mining overlay district:
 - a. Extractions from deposits of rock, stone, gravel, sand, earth and minerals.
 - b. Temporary offices, shops or other accessory buildings and structures used for the management and maintenance of onsite mining and processing equipment.
2. Conditional uses. In addition to uses allowed conditionally in the underlying zoning district, the following uses are allowed in the surface mining overlay district, subject to conditional use approval:
 - a. Asphalt mixing
 - b. Concrete batching;
 - c. Clay bulking;
 - d. Rock crushing, ~~processing and stockpiling~~. [CALM]

Comment [VU2]: Rock crushing should also be stricken from here but will allow Storedahl to comment.

Comment [VU3]: It is not possible to extract mineral without stockpiling and processing.

Comment [VU4]: It is not possible to extract mineral without stockpiling and processing based on the changes above.

Comment [VU5]: Storedahl will likely provide additional comment

D. Standards.

1. Site area. When the activity includes both extraction and any one of the uses listed on Section 40.250.020(C)(2), the total site area shall be a minimum of twenty (20) acres. Activities which are limited to extraction only shall not have a minimum site size. [Retains existing language.]
2. Setbacks.
 - a. A minimum 200-foot setback shall be required for all mining uses abutting ~~existing~~ residential ~~uses~~ structures or adjacent rural residential zoning. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback. The setback area shall be used only for roads, berms, landscaping, signs, fencing and reclamation activities. [similar to CALM proposal]
 - b. Adjacent properties shall maintain a 100-foot setback from designated mineral resource land. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback or if it is not feasible to meet the setback due to site constraints. Setbacks shall not apply to existing structures. [similar to CALM proposal]
3. Access. Roads into the site shall be gated and the site or mining area shall be fenced and posted "No Trespassing". [similar to Storedahl proposal]
4. Noise. Maximum permissible noise levels must be in accordance with the provisions of Chapter 173-60 WAC or as identified in the SEPA document.
5. Hours and days of operation.
 - a. ~~No operations shall take place on Sundays or on the following legal holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.~~
 - b. All operations and activities other than blasting and maintenance are restricted to the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday. [Turner - format]
 - c. Blasting is restricted to the hours of 9:00 a.m. to 4:00 pm Monday through Friday.
 - d. Maintenance activities may be performed outside the normal hours of operation, provided that no equipment with narrow-band (beeping) back-up alarms is used.

USKOSKI 6/8

- e. Loading and hauling outside of normal hours of operation may be approved by the responsible official provided that:
- (1) the applicant provides at least fourteen (14) days notice to the county prior to the event such that the county can provide at least ten (10) days notice to property owners within one-half (1/2) mile of the site boundary and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as connectors, arterials, or State highways;
 - (2) the applicant provides evidence that the contract requires delivery of rock or rock products outside of normal operating hours; and
 - (3) all equipment shall utilize broadband back-up alarms or reverse-activated strobe lights conforming to Mining Safety and Health Administration (MSHA) requirements.

In an emergency, the responsible official may waive the requirements of this subsection.

6. Stormwater and erosion control must meet the standards of Chapter 40.385.
7. Blasting and mining activities must not adversely affect the quality or quantity of groundwater or groundwater wells or cause damage to offsite structures. *[Turner]*
8. Notice of blasting events shall be provided by the operator to property owners within one-half (1/2) mile of the mining limits by mail at least seven (7) days prior to blasting or by electronic communication at least twenty-four (24) hours prior to blasting.
9. Mining activities must meet applicable Federal, State and county standards governing odors, dust, smoke, blasting and vibration. Lighting shall not cast significant light or glare on adjacent properties. *[Storedahl and 40.340.010(7)]*
10. The director of public works may require pavement wear agreements for public roads used to access the site. ~~Public access roads to mining sites must be maintained to the satisfaction of the director of public works, to minimize problems of dust, mud, potholes, runoff and traffic safety. All vehicles shall comply with RCW 46.61.655 (escape of load materials and cleaning of vehicles). Where there is evidence that the use of County roads is the direct cause of undue dust, mud, runoff, potholes or traffic safety, the director of public works, may require reasonable conditions to reduce, control or minimize problems of dust, mud, potholes, runoff and traffic safety such issues. [CALM]~~
11. Internal access roads shall be paved within one hundred (100) feet of a paved county road or state highway to reduce tracking of dirt, mud and rocks. ~~Wheel washes or other methods may also be used to control these impacts. [similar to Storedahl]~~
12. The applicant shall identify the source or potential source and approximate amount of water anticipated to be used on the site. If this amount exceeds the exemption provided for under RCW 90.44.050, the applicant must present evidence that adequate water can be made available. *[similar to Storedahl]*

Comment [VU6]: County understood that a good faith effort for notification was sufficient and there would likely be some missed periodically due to changes in ownership, email addresses, etc.

E. Approval Process.

1. Plans shall be drawn to an engineer's scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this section and all other relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work, the names and addresses of the owner, and the person by whom they were prepared. The plans shall include the following minimum information: *[Turner]*
 - a. General vicinity maps of the proposed site;
 - b. Property boundaries and accurate contours of existing ground, details of existing terrain, and details of existing area drainage; *[Turner]*
 - c. Proposed elevations and contours of the greatest extent of the proposed mining and proposed drainage channels and related construction;

Ustoski 7/8

- d. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, berms, settling ponds and other protective devices to be constructed with or as a part of the proposed work, together with the maps showing the drainage area and the estimated runoff of the area served by any drains;
 - e. Location of any buildings or structures on the property where the work is to be performed, and the location of any buildings or structures on land of adjacent property owners which are within two hundred (200) feet of the property; [Turner]
 - f. Location of ~~internal~~ access roads and primary haul routes. [CALM]
 - g. Stormwater calculations and proposed treatment facilities for runoff from access roads and impervious areas; and
 - h. A hydrogeology report which characterizes the groundwater and surface water and identifies wells within one-half (1/2) mile of the proposed mining limits and a monitoring and mitigation plan if impacts are anticipated to offsite properties.
2. Site plan approval is required prior to any surface mining use.
 3. For those uses permitted under Section 40.250.020(C)(1), the responsible official shall review and approve plans, specifications, and other supporting data through a Type II-A process pursuant to Section 40.510.025. [CALM]
 4. Conditional uses permitted under Section 40.250.020(C)(2) shall be reviewed through a conditional use process pursuant to Section 40.520.030. [CALM]
 5. For temporary uses permitted under Section 40.250.020(C)(1)(b) that are not exempt from review per Section 40.260.220(C)(3)(b), the responsible official shall review and approve plans and specifications through a Type I process pursuant to Section 40.510.010. [CALM]
 6. Notice required by Sections 40.250.020(E)(3) and (4) above shall be sent to owners of property within a radius of one (1) mile of the site and to owners of all parcels abutting local access roads ~~to be used for hauling that are identified in the primary haul route~~ between the site and roads designated in the Arterial Atlas as collectors, arterials or State highways. [Turner]

Comment [VU7]: This should be removed as mining is a dynamic activity over time. Internal road system change as the mining progress. The county will be in the position of trying to determine compliance if an internal road has to change to achieve the approved use. By removing "internal" we are just showing access roads.

Comment [VU8]: Storedahl will likely provide additional comment on this.

40.260.120 Mines, Quarries and Gravel Pits

~~Extractions from deposits of rock, stone, gravel, sand, earth, minerals, or building or construction materials shall not be construed to be permitted uses in any district established by this title except as provided in specific districts, unless a surface mining overlay district has been obtained, as provided for in Section 40.250.020, except for on site excavation and grading in conjunction with a specific construction or improvement project. Odor, dust, noise or drainage shall not be permitted to create or become a nuisance to surrounding property. The responsible official may approve a request for an aggregate extraction for a single construction project for a period not to exceed ten (10) days in operation and not requiring a state permit, in accordance with Section 40.260.220, Temporary Uses.~~

U. Skoski 8/8



November 21, 2013
Project No. 9045.14

Mike Mabry
Clark County Community Planning
1300 Franklin Street
Vancouver, WA 98660

Re: Surface Mining Overlay

Dear Mr. Mabry:

J. L. Storedahl & Sons, Inc. (Storedahl) would like to address erroneous testimony in the surface mining overlay record. Maul Foster & Alongi, Inc. (MFA) has prepared the following discussion to provide additional information to the planning commission.

GROUNDWATER MONITORING

Storedahl conducts groundwater monitoring at a number of their facilities. While the groundwater monitoring programs do vary between sites there is a commonality between the sites with establishing a baseline measurement and ongoing monitoring of groundwater elevations.

Prior to the commencement of mining, a baseline of groundwater elevations is established in wells adjacent to the permitted mine boundary. The wells included in monitoring plan are based on a groundwater report prepared by a licensed hydrogeologist. The wells identified within the report are monitored in accordance with the approved plan with the homeowners' permission. The baseline assessment typically includes measuring the depth-to-water in nearby domestic wells and collecting one water quality sample from each well at the beginning of the baseline program.

Mountain Top Quarry

Storedahl is currently conducting groundwater monitoring at the Mountain Top Quarry. Baseline depth-to-water measurements were conducted on a monthly basis for a period of one year prior to the commencement of mining. Water quality samples were also taken during the baseline monitoring. At the conclusion of baseline monitoring, Storedahl continued monitoring groundwater elevations on a quarterly basis. The quarterly results are compiled and forwarded on to Clark County. The monitoring results show the expected seasonal variations in groundwater without any anomalies. Storedahl began mining operations on September 4, 2008.

Selected copies of the baseline monitoring water quality testing were submitted by Mr. Rogers during earlier testimony. These results show pre-mining background water quality and not impacts to water quality from mining as mistakenly testified by Mr. Rogers.

Since mining began Storedahl has received complaints from two landowners regarding their wells. Storedahl has addressed the issues with the land owners in conjunction with Clark County Public Health. Complaints have been received by Mr. Dave Rogers and Mr. Jeffery Ford.

Mr. Roger's residence is located approximately two miles from the mine and is significantly down gradient of the mine. Well logs from Ecology show that Mr. Rogers has drilled at least three separate wells for water. The first well was constructed in May 1978 and tested at 24 gallons per minutes. Subsequent wells drilled in May 1980 and January 2004 were tested at 1.5 and 2 gallons per min respectively. Clark County Public Works has been in discussions with Ecology regarding the availability of groundwater in Mr. Roger's neighborhood. They have concluded that the initial well producing 24 gallons per minute was an anomaly with most wells in this area producing only a few gallons per minute. In addition, records show that since 1975 a significant number of wells have been drilled in the immediate vicinity impacting the recharge ability of the aquifer. At this time Clark County Public Health is not seeing any correlation between the mining activities and Mr. Roger's well problems.

Storedahl has also received complaints from Mr. Ford on September 15, 2008. Mr. Ford informed Storedahl that his spring-fed well had gone dry. His concern was that activities associated with the Mountain Top Quarry had impacted the water level in his well, such that he no longer had water available for domestic use in his residence. Storedahl responded to Mr. Ford's residence that same day and noted the depth to the surface of the water was approximately 10-15 feet below the top of the well casing. The bottom of the well appeared to be two to three feet below the water surface. The water level surface elevation appeared to be at or near the elevation of the bottom of a nearby shallow stream. Mr. Ford stated that the stream flows year-round, and that the current stream depth was less than normal. Due to the near-surface location of the well, its water levels are susceptible to seasonal fluctuations, as well as to any upstream man-made or natural changes that may occur. It is MFA's understanding that no record of water levels in Mr. Ford's well have been kept, thus making it difficult to compare the current water level with previous levels. Mr. Ford's well was not included in the monitoring program in part due to the lack of a well log with the Department of Ecology. Recorded data collected from surrounding wells since prior to commencement of mining activities shows no changes in groundwater elevations beyond normally-expected fluctuations.

On June 29, 2011, MFA received a call from Axel Swanson, Clark County Commissioners Office, regarding Mr. Ford's well and pond. Mr. Ford had contacted Mr. Swanson after seeing an article in The Reflector about the alleged impacts to a neighbor's well (Mr. Rogers)

in the general vicinity due to mining. Mr. Ford is concerned that the blasting associated with mining activity has caused siltation of his pond and has impacted the pH of the water in his well which he suspects has caused his copper pipes to leak.

MFA was granted access to Mr. Ford's property on July 7, 2011 to conduct sampling of the groundwater. Groundwater at Mr. Ford's shallow well had pH in the range of 5.22 to 6.34 standard units. The pH level of shallow groundwater and surface water can be impacted by a variety of environmental influences including wildlife and decomposition of organic matter.

Mr. Ford stated that the County had conducted a site visit regarding the siltation of the pond at an earlier date. At that time, the neighbors directly upstream of the pond were engaged in construction activities which Mr. Ford assumed to be the source of the siltation. The County inspection found the neighbors in question were complying with sediment control measures and were not responsible for the excess sediment found in Mr. Ford's pond. During the site visit, Mr. Ford pointed out recent beaver activity. Beaver markings on trees, recent fallen wooded material and other signs of beaver activity were found near the inlet of the pond. Beaver activity at the inlet of the pond could be a possible source of sedimentation and debris being found in the pond.

Current mining activities are limited to the south side of the mountain approximately one-half mile from the Ford residence. Based on topography and drainage patterns, it is highly unlikely that surface runoff from mining activities could have impacted Mr. Ford's property as he is located on the north side of the mountain. Recorded data collected from wells in the groundwater monitoring program dating from pre-mining activities to present show no changes in groundwater elevations beyond natural expected seasonal fluctuations.

Tebo Mine

Storedahl discontinued the monitoring of water levels in domestic wells located near the Tebo Sand and Gravel Surface Mine site on August 8, 2011, after active mining ceased. MFA began taking periodic depth-to-water measurements in selected wells inferred to be upgradient of the mine in April 2000, to help evaluate the influence of mining activities on the local groundwater levels. As a condition of the site plan approval for the mine expansion project, the County required that a groundwater monitoring program be developed to monitor the potential effect of mining on groundwater levels. The monitoring program committed Storedahl to continue to monitor water levels in six wells on a quarterly basis for three years starting in 2000, to the extent that neighboring property owners allow. The program also committed Storedahl to monitoring water levels until mining of the southern edge of the site was completed. As active mining of the quarry has been completed, discontinuation of the groundwater monitoring was warranted per the program. The groundwater monitoring completed to date has shown that water levels in the area are stable.

Livingston Quarry

The Livingston Quarry groundwater monitoring program consisted of collecting water samples from a number of wells and conducting baseline groundwater measurements on a monthly basis for eight months prior to the commencement of mining. Groundwater measurements are taken on a quarterly basis. Clark County is responsible for all groundwater monitoring associated with the Livingston Quarry. Neither Storedahl nor MFA have been notified by Clark County of any groundwater issues.

STORMWATER DISCHARGES

Testimony was entered into the record regarding the stormwater from mining facilities, including the perception that runoff from the mines was destroying habitat. Stormwater discharges from the mines are regulated by Washington State Department of Ecology (Ecology). Each mine is required to obtain coverage under the Sand & Gravel General Permit. This permit regulates process water, stormwater and mine dewatering discharges associated with sand and gravel operations and rock quarries, including stockpiles of mined material. This permit complies with the water pollution control law (RCW 90.48) and the federal clean water act. Storedahl has coverage under this permit at each of their facilities. Storedahl is required to do extensive monitoring of their operations through daily, weekly, monthly, and quarterly inspections. Monitoring records are submitted to Ecology every quarter in accordance with the permit. In the event there is a discharge that exceeds the permitted discharge limits, actions are taken to remediate the exceedance including the notification of Ecology in accordance with the permit.

BLASTING & SEISMIC MONITORING

Prior to the commencement of mining operations that involve blasting, Storedahl conducts structural assessments for property owners within a predetermined distance of the mining permit boundary as determined by the permitting authority. Property owners have the option to participate in the assessment to document pre-blasting conditions, consistent with the Clark County conditions of approval for the final site plan. This assessment is conducted by an independent third party.

The assessment is offered by Storedahl at no cost to the homeowners and they receive copies of the report and any photographs taken. This structural inspection establishes the homes pre-blast condition and, should there later be questions about the effect of blasting on their home, this inspection report will document conditions prior to the start of quarrying operations.

The assessment documents existing cracks and separation of the exterior of foundations. Any homes with a basement (not crawlspaces) would be accessed if permission is granted, to

Mike Mabry
November 21, 2013
Page 5

Project No. 9045.14

document cracks and separations. Assessment of structures consists of visual exterior documentation of existing problems (roof sagging, tilt, etc.).

Blasting activities are regulated by the Department of Labor and Industries in Washington State. The regulations limit the vibrations that may be created by blasting. Storedahl blasting records show that all blasting has conformed to regulatory standards.

MINE PERMITS & URBAN GROWTH

Storedahl currently operates five mines in Clark County. All mines are bonded for reclamation as required by state regulations. Reclamation bond amounts are determined by the cost to reclaim the site after mining is completed. The bonds are forfeited to the DNR if reclamation is not completed in accordance with the approved reclamation permit. Storedahl is very active in maintaining all permits and has not "abandoned" any of their facilities as alleged during previous testimony.

Testimony was provided by the public during the October 19th hearing that the Tebo mine was closed by the County due to carcinogenic material production. The mine was not closed by the County nor has the site produced carcinogenic material at any time. Storedahl has completed mining of the site and is currently reclaiming the existing pit.

The Livingston Quarry has been operational since at least 1947 (Attachment A). In 1973, the closest residence noted by DNR was approximately one-half mile away. Since that time, the area has been developed to provide residential developments directly adjacent to the DNR properties. Based on the available information, it is clear the mining at Livingston predates all residential development in the area closer than a half mile.

Sincerely,

Maul Foster & Alongi, Inc.



Neil Alongi, PE
Principal Engineer

Attachments: Livingston DNR Records

ATTACHMENT A

LIVINGSTON DNR RECORDS



6135 Alongi

Surface Mining Permit No. 10930 (Livingston Mountain Pit)

SE 1/4 NW 1/4, NE 1/4 SW 1/4, and N 1/2 SE 1/4 of Section 11,
Twp 2 N, Rge 3 E., W.M., Clark County, Washington

On July 2, 1947 Clark County received a letter from the Dept. of Public Lands giving them temporary permission to remove from this location up to 35,000 cu. yds. of rock in a one-year period. From this letter I deduct that this is the birth date of Livingston Crusher Pit.

This pit is State-owned and surrounded by State school land, except for the southwest quarter of the northeast quarter of said section, which is owned by Clark County.

Safety - The County has a watch person in residence at this site, and ingress and egress is governed by this person at nights and on weekends, so there is little unauthorized entry. Therefore there is not much danger of any person falling from the pit face; nevertheless this is a possibility. The crusher used here is portable and is on the site a month or two, probably every two years, and no unauthorized persons are allowed to play with the machinery.

Screening - As stated above, this is State-owned property at the end of a deadend road and approximately one-half mile from the nearest residence. It is screened naturally to the north, east and west. The exposure from the south is visible from State Highway 500, which is located in excess of one mile to the south and west. When the crusher is running there are times when dust from the operation is visible from this highway. A nominal amount of water is used during crushing operations which suppresses this considerably. However, this is for the benefit of the men involved in this operation more than from the ecological standpoint.

Pollution - There are no streams in this area, so pollution of water resources is no problem. The pit drains naturally to the south and there is no chance of water standing in the pit area.

7/35 Alongi

Ultimate use - As stated above, this is the property of the State of Washington, administered by the Dept. of Natural Resources, and the ultimate use of this property lies within their jurisdiction. I would assume that the scarcity of good pit sites, those such as this with good rock, will become more and more valuable as time goes by, and this will continue to be operated as a source of rock for the production of aggregates well into the twenty-first century.

It is hoped that eventually the County can move onto their own property (the SW 1/4 of the ^{NE}~~SW~~ 1/4) of this section, and rent from the Dept. of Natural Resources the crushing and stockpile sites and return the existing pit site to their operation.

Submitted June 14, 1973

8/35 Abungi



SEC 11 T2N - R3E
SW-68 FLT 40A-14 7-1-68
SCALE 1"=400'

9/35 Mon 81

* BLANK PAGE *

10/35 Alongi

SILICA EXPOSURE ASSESSMENT REPORT

MOUNTAIN TOP QUARRY



Prepared for
J.L. STOREDAHL & SONS, INC.
November 20, 2013
Project No. 9045.14.01

Prepared by
Maul Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200, Portland OR 97209

11/35 Alongi

SILICA EXPOSURE ASSESSMENT REPORT
MOUNTAIN TOP QUARRY

*The material and data in this report were prepared
under the supervision and direction of the undersigned.*

MAUL FOSTER & ALONGI, INC.



*Bill Beadie, CIH
Principal Industrial Hygienist*

12/35 Alongi

CONTENTS

ACRONYMS AND ABBREVIATIONS	IV
SUMMARY	V
1 INTRODUCTION	1
2 ASSESSMENT METHODOLOGY	1
3 ASSESSMENT CONDITIONS	2
3.1 WEATHER CONDITIONS	2
3.2 TRUCK TRAFFIC	2
3.3 DUST SUPPRESSION	3
3.4 PERSONAL SAMPLING	3
4 ASSESSMENT CRITERIA	3
4.1 OCCUPATIONAL EXPOSURE LIMITS	3
4.2 RESIDENTIAL EXPOSURE CRITERIA	4
5 RESULTS	4
5.1 PERSONAL EXPOSURE MONITORING	4
5.2 AREA MONITORING	5
5.3 BULK SAMPLE RESULTS	5
6 DISCUSSION	5
6.1 PREVIOUS RESEARCH	5
6.2 ASSESSMENT CONCLUSIONS	6
LIMITATIONS	
REFERENCES	
TABLES	
FIGURE	
APPENDIX	
LABORATORY REPORT	

ACRONYMS AND ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
LOQ	limit of quantitation
MFA	Maul Foster & Alongi, Inc.
mg/m ³	milligrams per cubic meter
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
PEL	permissible exposure limit
REL	recommended exposure limit
Storedahl	J.L. Storedahl & Sons, Inc.
TLV	threshold limit value
TWA	time-weighted average
USEPA	U.S. Environmental Protection Agency

SUMMARY

This summary is not intended as a stand-alone document and must be evaluated in context with the entire document.

Maul Foster & Alongi, Inc. (MFA) assessed occupational and residential exposure to airborne respirable dust and crystalline quartz (silica) during operation of the Mountain Top Quarry operated by J.L. Storedahl & Sons, Inc. The assessment included personal sampling from the breathing zone of the loader operator during normal activities. Area samples were collected from three locations alongside the gravel haul road from the quarry and from two locations alongside the paved roads on the transport route from the quarry. Air samples were collected and analyzed consistent with the National Institute for Occupational Safety and Health (NIOSH) Methods 0600 and 7500, which are established methods for measuring occupational exposure to dust and silica. MFA collected bulk samples of the quarry material and road dust along the transport route for silica analysis consistent with NIOSH Method 7500. All sampling was conducted during an approximately eight-hour period on Wednesday, October 23, 2013. According to observations and interviews, conditions during the assessment are expected to represent upper-end dust concentrations and therefore, exposure potential, because of the higher-than-average amount of truck traffic and dry weather.

Silica was not detected in any of the air samples collected during the assessment. The estimated limit of quantitation (LOQ) for all silica samples was approximately 0.004 milligram of silica per cubic meter of air (mg/m^3). LOQ represents the lowest amount that a laboratory method can detect for the material being analyzed. Respirable dust, with an LOQ of approximately $0.04 \text{ mg}/\text{m}^3$, was not detected in samples collected alongside the paved roads during the assessment. Respirable dust was detected in the breathing zone of the loader operator ($0.10 \text{ mg}/\text{m}^3$) and in one location alongside the gravel haul road ($0.096 \text{ mg}/\text{m}^3$). Dust and silica results for the loader operator were significantly lower than occupational limits established by the Mine Safety and Health Administration (MSHA) and limits recommended by NIOSH and the American Conference of Governmental Industrial Hygienists (ACGIH). The MSHA permissible exposure limit for respirable dust with the silica content of the quarry material is $1.19 \text{ mg}/\text{m}^3$. The NIOSH recommended exposure limit for silica is $0.05 \text{ mg}/\text{m}^3$ and the ACGIH threshold limit value is $0.025 \text{ mg}/\text{m}^3$. All limits are eight-hour time-weighted average concentrations. These limits are approximately five to ten times higher than the LOQ for silica or measured results for dust.

Published background concentrations of silica range from approximately 0.001 to $0.008 \text{ mg}/\text{m}^3$, with an average reported value of $0.0032 \text{ mg}/\text{m}^3$. Results indicate that the airborne silica concentration along the transport route during the assessment was consistent with published background values.

Bulk sample results show that quarry material is approximately 6.4 percent crystalline quartz, which is similar to the measured quartz content of road material along the transport route (5.0% to 7.3%). The results indicate that the quarry material does not have significantly higher silica content than other materials along the transport route.

15/35 Alongi

1 INTRODUCTION

Maul Foster & Alongi, Inc. (MFA) assessed occupational and residential exposure to airborne respirable dust and crystalline quartz (silica) during operation of the Mountain Top Quarry (formerly known as the Yacolt Mountain Quarry) operated by J.L. Storedahl & Sons, Inc. (Storedahl). Concerns raised by local residents about potential silica exposure prompted the assessment. Quartz is the only form of crystalline silica presumed to be present in the quarry materials, and other materials, along the transport route. Other forms of crystalline silica, e.g., cristobalite and tridymite, generally are formed under conditions that are not associated with the quarry rock mineralogy. Therefore, for the purposes of this assessment, crystalline quartz concentrations are presumed to be synonymous with silica concentrations.

The evaluation was designed and managed by a certified industrial hygienist (CIH) at MFA. Fieldwork was conducted on Wednesday, October 23, 2013, between approximately 7:00 a.m. and 3:30 p.m. by an MFA staff environmental scientist and CIH. Access to the site was coordinated with Mr. Kimball Storedahl.

The scope of the assessment included:

- Personal exposure monitoring for respirable dust and silica in the breathing zone of the loader operator during normal activities, which included using a loader to place quarry material into transport trucks (one full-shift sample).
- Area sampling for respirable dust and silica along the transport route from the quarry. Three samples were collected alongside the gravel haul road and two samples alongside the paved road beyond the gravel haul road. See the attached figure for sampling locations.
- Bulk sampling to assess the silica content of quarry material and road materials along the transport route (five samples).

2 ASSESSMENT METHODOLOGY

Exposure monitoring for respirable dust and silica was conducted with personal sampling pumps and preweighed polyvinyl chloride filter cassettes with SKC aluminum cyclones. The pumps were pre- and postcalibrated to confirm a flow rate of 2.5 liters per minute. One blank cassette was submitted for quality assurance. Samples were sent to Galson Laboratories, an American Industrial Hygiene Association-accredited laboratory, for analysis by the National Institute for Occupational Safety and Health (NIOSH) Methods 0600 for respirable dust and 7500 for silica.

The laboratory's validated limit of quantitation (LOQ) for silica is 0.010 milligram. Given that the air volume for each sample collected during the assessment was approximately 1,200 liters, the validated LOQ is approximately 0.008 milligram of silica per cubic meter of air (mg/m^3). At MFA's request, the laboratory conducted a more sensitive analysis, down to an estimated LOQ of 0.005 milligram, which provided an estimated LOQ of approximately $0.004 \text{ mg}/\text{m}^3$ for the samples collected during this assessment.

Personal exposure monitoring was conducted by placing the filter cassette/cyclone in the breathing zone of the loader operator during the sampling session. Area samples were collected from stands placed along the transport route approximately 4 to 6 feet above the ground and approximately 5 to 10 feet back from the edge of the road (see the attached figure).

Galson Laboratories analyzed bulk samples for silica, using NIOSH Method 7500. The bulk samples were collected to identify sources of silica and to characterize the composition of materials along the transport route. Bulk samples were collected from the following locations:

- Quarry material loaded into the transport trucks (two samples)
- Settled dust adjacent to the gravel haul road (one sample)
- Material from the gravel haul road (one sample)
- Material from the residential gravel road near area sample 102313-6, which is approximately 0.75 mile from the gravel haul road exit.

3 ASSESSMENT CONDITIONS

3.1 Weather Conditions

Conditions during the October 23 assessment were sunny with a high of 69 degrees, no precipitation, and mild winds from the west ranging from 0 to 5 mph, with limited gusts up to approximately 10 mph. Weather conditions during the week leading up to the assessment were generally sunny and warm, and there had been no precipitation at the site since October 14.

3.2 Truck Traffic

One hundred fourteen truck tickets were issued during the sampling session, representing 228 trips along the gravel haul road; this means that a truck travelled along the transport route approximately once every two minutes. Storedahl representatives estimated that this volume of truck traffic was two or three times higher than average.

17/35 Alongi

3.3 Dust Suppression

Storedahl dispatched a water truck periodically throughout the sampling session to spray the gravel haul road and some roads within the quarry. Although the precise number of times the water truck was dispatched during the sampling session is unknown, MFA staff observed the truck applying water three times. Storedahl personnel stated that the frequency of the water truck usage is based on the weather conditions and the volume of truck traffic, so there is no defined schedule.

3.4 Personal Sampling

The loader operator spent most of the sampling sessions working in the cab of the loader with at least one window open. Conditions during the assessment were reported to be normal, except that the volume of material loaded into transport trucks was estimated to be two or three times more than average.

4 ASSESSMENT CRITERIA

4.1 Occupational Exposure Limits

4.1.1 MSHA PEL-TWA

The Mine Safety and Health Administration (MSHA) has established permissible exposure limits (PELs) to protect worker health from airborne exposure to hazardous materials. PELs are legally enforceable limits. The PEL is expressed as an eight-hour time-weighted average (TWA), which is an average airborne exposure that shall not be exceeded in any eight-hour work shift of a 40-hour workweek.

The applicable limits for silica are determined by type of silica (i.e., crystalline quartz, cristobalite, or tridymite) and the size fraction of the dust (i.e., respirable dust or total dust). The PEL-TWA for respirable dust containing crystalline quartz is calculated using the following formula:

$$\text{PEL-TWA} = (10 \text{ mg/m}^3) / (\text{percentage of crystalline quartz} + 2)$$

Given that the bulk sample results show that the quarry material contains 6.4 percent crystalline quartz, the PEL-TWA for the respirable dust in the quarry is $10 / (6.4 + 2) = 1.19 \text{ mg/m}^3$.

4.1.2 NIOSH REL-TWA

In addition to the criteria mentioned above, the results have been compared to nonmandatory recommended exposure limits (RELs) established by NIOSH. The NIOSH REL for respirable crystalline quartz is 0.05 mg/m^3 as an eight-hour TWA.

4.1.3 ACGIH TLV-TWA

Results have been compared to nonmandatory threshold limit values (TLVs) recommended by the American Conference of Governmental Industrial Hygienists (ACGIH). The ACGIH is a professional organization that recommends TLVs for the protection of worker health. The TLV for respirable crystalline quartz is 0.025 mg/m³ as an eight-hour TWA.

Applicable exposure limits are summarized as follows:

Occupational Exposure Limits

Exposure Limit	Respirable Dust Containing 6.4% ¹ Crystalline Quartz (mg/m ³)	Respirable Crystalline Quartz (mg/m ³)
MSHA PEL-TWA	1.19	NE
NIOSH REL-TWA	NE	0.05
ACGIH TLV-TWA	NE	0.025

NOTES:
NE = not established.
¹Bulk sampling results indicate that the quarry material contains 6.4% crystalline quartz.

4.2 Residential Exposure Criteria

There are no clearly established silica exposure limits that are applicable to residential populations. In the absence of a clearly established non-occupational standard, results have been compared to background silica concentrations. Published background concentrations of silica range from approximately 0.001 to 0.008 mg/m³, with an average reported value of 0.0032 mg/m³ (Davis et al., 1984).

5 RESULTS

Results are summarized in Table 1 (Air Sampling Data) and Table 2 (Bulk Sampling Data). A laboratory report has also been provided for reference (see the appendix).

5.1 Personal Exposure Monitoring

5.1.1 Silica

Silica was not detected in the sample collected from the breathing zone of the loader operator, with an estimated LOQ of 0.0043 mg/m³. The estimated LOQ is less than 9 percent of the ACGIH TLV and less than 5 percent of the NIOSH REL.

5.1.2 Respirable Dust

Respirable dust was measured in the breathing zone of the loader operator (0.10 mg/m^3), which is less than 9 percent of the MSHA PEL-TWA calculated for respirable dust containing 6.4 percent crystalline quartz.

5.2 Area Monitoring

5.2.1 Silica

Silica was not detected in any of the area samples, with estimated LOQs of approximately 0.0041 to 0.0042 mg/m^3 .

5.2.2 Respirable Dust

Respirable dust was measured in one of the three area samples collected along the gravel haul road, with a result of 0.096 mg/m^3 . Dust was not detected in any of the other area samples, with the LOQ ranging from 0.041 to 0.042 mg/m^3 .

5.3 Bulk Sample Results

Bulk sample results show that quarry material is approximately 6.4 percent crystalline quartz, which is similar to the measured quartz content of road material along the transport route (5.0 percent to 7.3 percent).

6 DISCUSSION

6.1 Previous Research

Between 1974 and 1977, the U.S. Environmental Protection Agency (USEPA) commissioned research to study the source of silica emissions produced during the transport of sand and gravel (USEPA, 1978). The researchers concluded that vehicular movement on unpaved roads was the only significant source of silica emissions; wind erosion from the material in the transport truck was considered to be insignificant. Furthermore, measurements indicated that as little as 4 percent to 10 percent moisture content in the unpaved roads reduced silica emissions by 99 percent. Paved roads and increased moisture content of unpaved roads were considered to be effective controls for limiting silica exposure during the transport of sand and gravel.

Background concentrations of silica have been reported between 0.001 and 0.008 mg/m^3 (Davis et al., 1984), and non-occupational silicosis is not generally observed in populations exposed to background concentrations of silica (Bhagia, 2012). Therefore, it appears reasonable to conclude that exposures consistent with reported background concentrations are considered acceptable.

20/35 Alongi

6.2 Assessment Conclusions

Results indicate that truck traffic from the Mountain Top Quarry was not a significant source of silica exposure along the transport route during the assessment, as evidenced by measured silica concentrations that were consistent with published background values. These results are consistent with the USEPA's previous research indicating that the use of a water truck on the gravel haul road and the presence of paved roads near residential areas effectively control silica exposure.

LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

REFERENCES

Davis, B. L., L. R. Johnson, R. K. Stevens, W. J. Courtney, and D. W. Safriet. 1984. The quartz content and elemental composition of aerosols from selected sites of the EPA inhalable particulate network. *Atmospheric Environment* 8:771-82.

Bhagia, L. J. 2012. Non-occupational exposure to silica dust. *Indian Journal of Occupational and Environmental Medicine* 16, no. 3 (September-December): 95-100.

USEPA. 1978. Source assessment: transport of sand and gravel. EPA-600/2-78-004y. Industrial Environmental Research Laboratory. U.S. Environmental Protection Agency. Cincinnati, Ohio. October.

TABLES



24135 Alongi

Table 1
Air Sampling Data
Mountain Top Quarry
Yacoff, Washington

Sample ID	102313-1	102313-2	102313-3	102313-4	102313-5	102313-6	102313-7
Sample Date	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013
Lab Sample No. (e.g., Gabsen filter no.)	13-4984467	13-4984481	13-4984474	13-4984472	13-4984470	13-4984480	-
Analyte	Respirable Crystalline Silica	Respirable Crystalline Silica	Respirable Crystalline Silica	Respirable Crystalline Silica	Respirable Crystalline Silica	Respirable Crystalline Silica	Respirable Crystalline Silica
Media	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone	5-µm, preweighed PVC filter with aluminum cyclone
Method Reference	NIOSH 0600/7500	NIOSH 0600/7500	NIOSH 0600/7500	NIOSH 0600/7500	NIOSH 0600/7500	NIOSH 0600/7500	NIOSH 0600/7500
Sample Type (P-personal or A-area)	Personal	Area	Area	Area	Area	Area	BLANK
Number of Samples in TWA	1	1	1	1	1	1	1
Employee Name/Area	Dan Quast	Area	Area	Area	Area	Area	BLANK
Shift Length (hrs)	8	NA	NA	NA	NA	NA	NA
Job Position [NA: if area sample]	Loader Operator	NA	NA	NA	NA	NA	NA
Facility Type	Mining Site	Mining Site	Mining Site	Mining Site	Mining Site	Mining Site	Mining Site
Location or Department	Inside loader truck	Along gravel haul road—turn	Along gravel haul road—straightaway	Inside main gate to gravel haul road	Water tower fence off of Kelly Road	Intersection of Kelly Road and NE Silvan Drive	
Workplace conditions	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	Outdoors, cool AM (50F), warm PM (70F), clear skies, mild breeze (0-5 mph)	
Job Description(s)	Operating heavy equipment. Loading trucks with gravel/rock materials for transport off site						
Respirable Dust Mass Result (mg/m ³)	0.10	<0.042	0.076	<0.042	<0.041	NA	NA
Respirable Quartz Mass Result (mg/m ³)	<0.0085	<0.0084	<0.0084	<0.0083	<0.0082	<0.042	NA
Controls in Place	Water truck on gravel roads	Water truck on gravel roads	Water truck on gravel roads	Water truck on gravel roads	None	None	
Pump number	P1083	P159	P174	P417	P310	P276	
Start time	7:06	7:12	7:16	7:22	7:28	7:35	
Stop time	14:56	15:09	15:15	15:24	15:30	15:35	
Total Time (min, unadjusted)	470	477	479	482	482	480	
Amount Subtracted	0	0	0	0	0	0	
Total Sampling Time (min)	470	477	479	482	482	480	
Flow rate, pre (lpm)	2.49	2.47	2.54	2.48	2.53	2.54	
Flow rate, post (lpm)	2.51	2.44	2.51	2.49	2.51	2.48	
Average flow rate (lpm)	2.50	2.490	2.490	2.485	2.520	2.51	
Total volume (liters)	1175.00	1187.73	1192.71	1197.77	1214.64	1204.80	0.00

25/35 Along

26/35 Alongi

Table 1
Air Sampling Data
Mountain Top Quarry
Yacolt, Washington

Sample ID	102313-1	102313-2	102313-3	102313-4	102313-5	102313-6	102313-7
Sample Date	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013
PPE	None	NA	NA	NA	NA	NA	NA
Respirator Use (Y/N)	N	NA	NA	NA	NA	NA	NA
Respirator Type	None	None	None	None	None	None	None
Sample collected by	BB	BB	BB	BB	BB	BB	BB
Comments: (included with report)	Employee is working in an enclosed cab with the windows open.	Truck traffic is significantly higher than usual because of material needs in Ridgelfield, WA. Bulk samples 4 and 5 were collected near this sampling location. Bulk sample 4 represents dust accumulating on top of equipment next to the gravel road. Bulk sample 5 represents material making up the gravel road.	Truck traffic is significantly higher than usual because of material needs in Ridgelfield, WA.	Truck traffic is significantly higher than usual because of material needs in Ridgelfield, WA.	Truck traffic is significantly higher than usual because of material needs in Ridgelfield, WA.	Truck traffic is significantly higher than usual because of material needs in Ridgelfield, WA.	BLANK

NOTES:

- lpm = liters per minute.
- mg/m³ = milligrams per cubic meter.
- µm = micrometer, micron.
- NA = not applicable.
- NIOSH = National Institute for Occupational Safety and Health.
- PPE = personal protective equipment.
- PVC = polyvinyl chloride.
- TWA = time-weighted average.

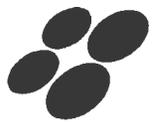
27/35 Alonger

Table 2
Bulk Sampling Data
Mountain Top Quarry
Yacolt, Washington

Sample No.:	B-1	B-2	B-4	B-5	B-6
Sample Date:	10/23/2013	10/23/2013	10/23/2013	10/23/2013	10/23/2013
Location:	Raw Material	Raw Material	Near air sample 102313-2, on just off gravel road	Near air sample 102313-2, on gravel haul road	Near air sample 102313-6, on Silvan Drive
Media:	Plastic bulk sample vial	Plastic bulk sample vial	Plastic bulk sample vial	Plastic bulk sample vial	Plastic bulk sample vial
Sample collected by:	BB	BB	BB	BB	BB
Material:	Sample represents quarry material being loaded into and transported by gravel haul trucks	Sample represents quarry material being loaded into and transported by gravel haul trucks	Sample represents dust accumulating on equipment located just off of the gravel road	Sample represents gravel road material	Sample represents Silvan Drive road material
Quartz %:	6.4	6.4	7.3	6.4	5.0

Note: Bulk sample B-3 was never collected.

FIGURE



28/35 Alongi

Figure
Airborne Respirable Dust
and Silica Sampling

Mountain Top Quarry
 J.L. Stordahl & Sons
 Yacolt, Washington

- Legend**
- Air Sampling Location with Associated Respirable Quartz Result
 - Bulk Sampling Location

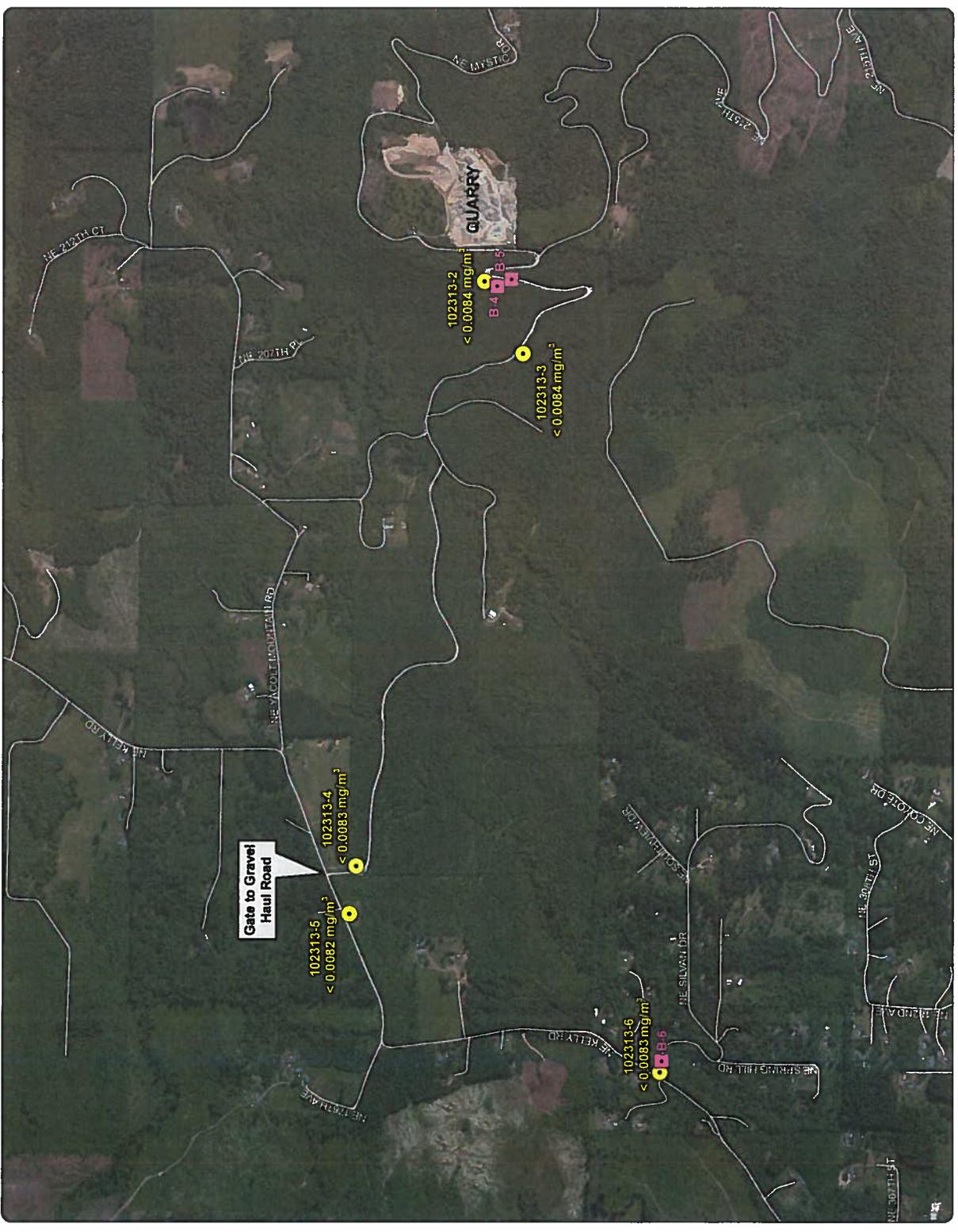
Note: mg/m^3 = milligrams per cubic meter



Source: Aerial photograph obtained from Esri
 ArcGIS Online

MAUL FOSTER ALONGI
 P. 571.544.2131 | www.maulfooster.com

This product is for informational purposes only and has been prepared by us for use in the field for high engineering or surveying purposes. Users of this information should exercise caution and do not rely on this information to determine the accuracy of the information.



29/35 Alongi

APPENDIX

LABORATORY REPORT





Mr. Bill Beadie
Maul Foster & Alongi, Inc
2001 NW 19th Avenue
Suite 200
Portland, OR 97209

November 04, 2013

DOH ELAP# 11626
AIHA # 100324

Account# 23108

Login# L303479

Dear Mr. Beadie:

Enclosed are the analytical results for the samples received by our laboratory on October 28, 2013. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

We did not analyze sample B-1 due to a sampling issue.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact Heidi Fruhlinger at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Maul Foster & Alongi, Inc
Site : Yacolt Mountain
Project No. : 9045.14.01
Date Sampled : 23-OCT-13
Date Received : 28-OCT-13
Date Analyzed : 31-OCT-13 - 01-NOV-13
Report ID : 805303

Account No.: 23108
Login No. : L303479

Silica: Quartz

Table with 4 columns: Sample ID, Lab ID, Analyte, %

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:0.50%
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
OSHA PEL (TWA) : NA
Collection Media : Bulk
Submitted by: AJD
Approved by : KRK
Date : 04-NOV-13
QC by: Tom Burgess
NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million
mppcf -Million Particles per Cubic Foot

32/35 Alongi



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
 East Syracuse, NY 13057
 (315) 432-5227
 FAX: (315) 437-0571
 www.galsonlabs.com

Client : Maul Foster & Alongi, Inc
 Site : Yacolt Mountain
 Project No. : 9045.14.01
 Date Sampled : 23-OCT-13
 Date Received : 28-OCT-13
 Date Analyzed : 29-OCT-13 - 30-OCT-13
 Report ID : 804656

Account No.: 23108
 Login No. : L303479

Respirable Dust and Crystalline Silica: Quartz

Sample ID	Lab ID	Analyte	Air Vol		%	mg/m3	Dust
			l	mg			PEL
102313-1	L303479-1	Dust	1175	0.12	ND	0.10	5.0
		Quartz	1175	<0.010			
102313-2	L303479-2	Dust	1187.73	<0.050	ND	<0.042	5.0
		Quartz	1187.73	<0.010			
102313-3	L303479-3	Dust	1192.71	0.12	ND	0.096	5.0
		Quartz	1192.71	<0.010			
102313-4	L303479-4	Dust	1197.77	<0.050	ND	<0.042	5.0
		Quartz	1197.77	<0.010			
102313-5	L303479-5	Dust	1214.64	<0.050	ND	<0.041	5.0
		Quartz	1214.64	<0.010			
102313-6	L303479-6	Dust	1204.8	<0.050	ND	<0.042	5.0
		Quartz	1204.8	<0.010			
102313-7	L303479-7	Dust	NA	<0.050	ND	NA	NA
		Quartz	NA	<0.010			

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Dust 0.050mg Q:0.010mg
 Analytical Method : mod. NIOSH 0600/7500/mod. OSHA ID-142; Gr Approved by : CRI/KRK
 OSHA PEL (TWA) : see 1910.1000 (Table Z-3) Date : 04-NOV-13 NYS DOH # : 11626
 Collection Media : PVC PW QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
 > -Greater Than ug -Micrograms l -Liters NS -Not Specified
 NA -Not Applicable ND -Not Detected ppm -Parts per Million
 mppcf -Million Particles per Cubic Foot

33/35 Alongi



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client Name : Maul Foster & Alongi, Inc
Site : Yacolt Mountain
Project No. : 9045.14.01
Date Sampled : 23-OCT-13
Date Received: 28-OCT-13
Date Analyzed: 29-OCT-13 - 01-NOV-13
Account No.: 23108
Login No. : L303479

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L303479 (Report ID: 805303):

SOPs: ix-calibrate(8), ix-xrdbulkprep(15), ix-xrdreview(9), ix-xrdstdprep(20)
Bulk silica results are considered approximate, per OSHA ID-142 section 7.5.5.

L303479 (Report ID: 805303):

Silica results are reported on a dry weight basis. % solids = 93.5%.

L303479 (Report ID: 804656):

Dust analytical accuracy is within +/- 0.010 mg (95% confidence interval or k=2). The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.
The Quartz results are considered accurate to within +/-13.4% based on a 95% confidence interval (k=2). This method has an average recovery of 95.1%. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.
SOPs: GRAV-SOP-7(2), ix-calibrate(8), ix-xrdshprep(18), ix-xrdreview(9), ix-xrdstdprep(20)
Results, as follows, are reported to a lower level per client request. Laboratory has not validated the lower 5 ug level. Reported results are estimated:
102313-1, <5 ug Quartz
102313-2, <5 ug Quartz
102313-3, <5 ug Quartz
102313-4, <5 ug Quartz
102313-5, <5 ug Quartz
102313-6, <5 ug Quartz
102313-7, <5 ug Quartz

Table with 4 columns: Symbol, Unit, Symbol, Unit. Rows include: < -Less Than, mg -Milligrams, m3 -Cubic Meters, kg -Kilograms; > -Greater Than, ug -Micrograms, l -Liters, NS -Not Specified; NA -Not Applicable, ND -Not Detected, ppm -Parts per Million.

34/35 Alongi

John L. Dentler
Attorney-at-Law
8920 Franklin Avenue
Gig Harbor, WA 98332

November 21, 2013

Clark County Planning Commission
Attn: Michael Mabrey,
P.O. Box 9810,
Vancouver, WA 98666

BY ELECTRONIC TRANSMISSION & PERSONAL DELIVERY

Dear Commissioners and Staff

This letter is submitted on behalf of J.L. Storedahl & Sons, Inc.(Storedahl). Let me begin by thanking you all for all the hard work and the many hours spent on the new designation and protection of mineral resource lands, and consideration of amendments of the Comprehensive Plan policies and amendments to the Surface Mining Overlay Code.

As noted in previous letters, we all need and use aggregate materials. These materials just don't arrive at a building site or public road with the snap of a finger but are the result of long-term planning by government and by businesses like ours. Further, extracting those resources in a cost-effective manner is not easy. The designation and protection of multiple mineral resources sites in various parts of the County is essential to long term viability of not just the mining industry but all the downstream industries essential to a modern society -- contractors, paving and asphalt industry, concrete works, etc. Affordable aggregate resources are essential to constructing and maintaining roads, and aggregate resources are fundamental to essential public infrastructure like schools, sidewalks, as well as the footings and foundations of every home and apartment in the County. As noted previously, although we all use, want or need these resources, no one wants an aggregate mine next door -- but they must be sited somewhere.

Much evidence has been provided and will be provided to demonstrate that our industry in general and Storedahl, in particular, has not disregarded our community. We donate aggregate resources to many community and

1/11 Dentler

environmental projects and Storedahl is in the process of mining in a manner that is establishing nearly 300 acres of fish and wildlife habitat and parkland near the East Fork Lewis River. We do monitor groundwater levels and where there is evidence mining has adversely affected wells, we have taken remedial actions. We do not and will not replace wells where there is no evidence that we are the cause of well problems. Further, the Commission and the public may have read of allegations of violations of the Clean Water Act but we remind you that these are allegations only and Storedahl will defend itself against these allegations as we believe they are unfair and unfounded. While we are not infallible, we devote significant resources to compliance with all applicable laws.

I will next move to the specifics of the recommendations prepared by the Community Development staff. Overall, these recommendations are thoughtful and an improvement over many of the provisions in the prior documents. The recommendations take into consideration some of the many federal, state, interregional and Clark County laws, regulations, rules and standards under which the mining industry must operate.

A. Comments on Recommended Comprehensive Plan Policies

1. Designation of MRL.

The recommended revision to CP Policy 3.5.2 provides:

CP Policy 3.5.2 *Designate mineral resource lands based on the following:*

- a. geological, environmental, and economic factors;*
- b. surrounding land uses, zoning, and parcel size; and*
- c. the suitability of access roads to be used as haul roads.*

Comment: The policy should, at a minimum, refer to or incorporate the minimum standards and guidelines identified under the GMA for designating and protecting Mineral Resource Lands (MRL). RCW 36.70A.170, 131, 030; WAC 365-190-070; see also, Weyerhaeuser v. Thurston County, Western Washington Growth Management Hearings Board, p. 20, No. 10-2-002c (2011).

These factors should include the quality and quantity of the mineral resources, its proximity to the point of use, etc. Storedahl's prior letter set out these requirements in detail.

Moreover, *existing* road conditions should not necessarily preclude the designation and protection of MRL. We urge the Commission to keep in mind that the GMA includes provisions for and, indeed, requires plans for capital improvements necessary to meet identified Level of Service Standards for public infrastructure. Moreover, the GMA concurrency requirement would limit or prohibit specific

2/11 Dentler

developments, including mining from proceeding at the project level unless or until the concurrency requirements for public infrastructure, including safety considerations, can be met. This process would come into play by applying development regulations under the County's Transportation code and through conditions of approval for site plan or conditional use or both.

Failing to identify and protect mineral resources as provided under the GMA, solely on the basis that a road *as currently configured and engineered*, is short-sighted, will ultimately lead the failure to designate and protect mineral resources of long term commercial significance and exposes the County to challenges on the basis of GMA non-compliance. E.g., Weyerhaeuser, supra

2. Minimization of Conflict

CP Policy 3.5.4 would provide:

CP Policy 3.5.4 Ensure that land use activities adjacent to designated mineral resource lands and mining activities are located and designed to minimize conflicts with each other.

Comment: This policy statement is certainly more balanced than prior statements; however, the GMA requires Counties to adopt development regulations to protect designated MRL. Further, the GMA states: "Such regulations shall assure that the use of lands adjacent to agricultural, forest, or mineral resource lands shall not interfere with the continued use, in the accustomed manner and in accordance with best management practices, of these designated lands for the production of food, agricultural products, or timber, or for the extraction of minerals" RCW 36.70A.060(1)(a). We believe the policy would be consistent with the requirements of the GMA if it simply stated:

"The County should adopt Development Regulations to assure that the use of lands adjacent to mineral resource lands shall [should] not interfere with the continued use, in the accustomed manner and in accordance with best management practices, of designated Mineral Resource lands for extraction of minerals."

Without adopting such CP policies and Development Regulations, the County's CP and DRs will likely be non-compliant with the GMA.

3. Comments on Type III and Type IV Notification

The County should carefully consider the manner in which it provides notice in the context of zoning and overlays. Generally, County-wide zoning changes or the adoption of zoning ordinances are considered legislative decisions for which Type III notice may be appropriate whereas site-specific additions or removal of the

3/11 Dentler

Surface Mining Overlay may be quasi-judicial in nature and necessitate more specific notification requirements.

4. Comments on Additional Criteria for Surface Mining Overlay Changes

The Staff has recommended changing the criteria for including additional areas for inclusion in the Surface Mining Overlay as follows:

S. Additional Criteria for Surface Mining Overlay Changes.

Amendments to the plan map to designate additional areas with the Surface Mining Overlay shall demonstrate that the following criteria have been met:

- a. The quality of the resource meets applicable specifications for the intended uses;*
- b. The quantity of the resource is sufficient to economically justify development based on the size of the deposit, the depth of overburden, the distance to market, the cost of transport and resource availability in the region;*
- c. The site is accessible and haul road conditions are suitable for safe truck travel or will be improved to meet County standards;*
- d. At least sixty percent (60%) of the area within one thousand (1000) feet of the proposed mineral resource land is characterized by parcels of five (5) acres or larger.*

Inasmuch as these are *policies* we recommend substituting “should” in lieu of the word “shall” in the first sentence. In subparagraph (b) above, the Planning Commission should note that it goes without saying that no mining company would seek to develop a site for mining unless it contained sufficient quantity and quality of aggregate resources to result in a profitable operation. Paragraph (c) above, regarding accessibility and haul road conditions may be better left to specific development regulations. Mineral Lands should not be deleted for consideration because it may *currently* lack appropriate haul roads.

Finally, the basis for the requirement that 60% of the parcels within 1000 feet be rural residential lots of five acres or more is not clear. Why 1000 feet? Is there a record to support this requirement? Development regulations at the site specific level should be used to address impacts to adjacent properties.

In the alternative, we recommend that paragraph be rewritten as follows:

Amendments to the plan map to designate additional areas with the Surface Mining Overlay ~~shall~~ should demonstrate ~~that~~ the following ~~criteria have been met:~~

4/11 Dentler

- a. The quality of the mineral resource ~~meets applicable specifications~~ is sufficient for the intended uses;
- b. The quantity and characteristics of the resource ~~is sufficient to economically justify development based on the~~ including the size of the deposit, the depth of overburden, the distance to market, the cost of transport and resource availability in the region suggest that mining is economically viable;
- c. ~~The site is accessible and haul road conditions are suitable for safe truck travel or will be improved to meet County standards;~~
- d. ~~At least sixty percent (60%) of the area within one thousand (1000) feet of the proposed mineral resource land is characterized by parcels of five (5) acres or larger.~~

B. Comments on Proposed Changes to the Surface Mining Overlay Code

Part C of the staff recommendations relating to the Surface Mining Overlay Code is especially troublesome.

1. Permitted Uses and Conditional Uses

As amended the SMO Code would read as follows:

C. Uses.

1. ***Permitted uses.*** *In addition to uses allowed in the underlying zoning district, the following uses are permitted in the surface mining overlay district:*

- a. *Extractions from deposits of rock, stone, gravel, sand, earth and minerals.*
- b. *Temporary offices, shops or other accessory buildings and structures used for the management and maintenance of onsite mining and processing equipment.*

2. ***Conditional uses.*** *In addition to uses allowed conditionally in the underlying zoning district, the following uses are allowed in the surface mining overlay district, subject to conditional use approval:*

- a. *Asphalt mixing*
- b. *Concrete batching;*
- c. *Clay bulking;*
- d. *Rock crushing, processing and stockpiling. [CALM]*

5/11 Dentler

The current code allows mining in the Surface Mining Overlay zone, subject to Site Plan Review. Site Plan Review, in turn, requires the application of County code, SEPA review and application of mitigation conditions under SEPA, etc. Mining of course, requires "extraction." Clearly, once rock, sand or aggregate is excavated it must be deposited in some location. This "placing" of rock or aggregate is known as "stockpiling". In fact, "stockpiling" is also required for many grading applications. This exercise shows that all excavation implies "stockpiling." Further, mining cannot be conducted, unless the material is graded for various uses, which presumably includes "processing". Moreover, it is rare that any mine will not include a rock crusher to ensure that the materials mined are properly sized for the needed end use.

Thus, as a practical matter, the recommended amendment, if implemented, would require a CUP for ALL mining. Is this the intent of the amendment? Before proceeding with this proposed amendment, we recommend consideration of the following question: "What issues or impacts associated with (a) extraction of sand or gravel, (b) placing the material into a pile (stockpiling) (c) sorting the sand or gravel by size (processing), and (d) rock crushing, would not be addressed through the application of the panoply of federal, state, interregional and County laws, rules, regulations and standards that govern mining and through conditions of approval adopted through SEPA review?" What is gained from requiring a CUP from the requirement for Site Plan Review?

The requirement of obtaining a CUP *for all mining operations* will, in our opinion, simply another costly procedural hurdle and is unlikely to yield any changes to mining conditions or operations. For this reason, Storedahl recommends that the proposed amendment be stricken and, moreover, the County consider allowing excavation, stockpiling, sorting and crushing as a permitted use in areas with the Surface Mining Overlay, subject to a Site Plan Review, all related County permits and approvals and, provided that all applicable laws, rules, regulations and standards and conditions of approval adopted pursuant to SEPA are met. On the other hand, asphalt and concrete production are significant industrial processes requiring the mixing of chemicals, tars, oils, heating materials, etc. Consequently, we recommend the provisions recommended by staff be amended as follows:

1. **Permitted uses.** In addition to uses allowed in the underlying zoning district, the following uses are permitted in the surface mining overlay district:
 - a. Extractions ~~from deposits~~ of rock, stone, gravel, sand, earth and minerals and the sorting, crushing and stockpiling of such materials.

6/11 Dentler

- b. Temporary offices, shops or other accessory buildings and structures typically or customarily used for the mining and management and maintenance of onsite mining and processing equipment.
2. **Conditional uses.** In addition to uses allowed conditionally in the underlying zoning district, the following uses are allowed in the surface mining overlay district, subject to conditional use approval:
 - a. Asphalt mixing
 - b. Concrete batching; and
 - c. Clay bulking
 - d. ~~Rock crushing.~~

2. Minimum Lot Size Standards (Part D)

The standard for minimum lot size as recommended by staff provides:

D. 1. **Site area.** When the activity includes both extraction and any one of the uses listed on Section 40.250.020(C)(2), the total site area shall be a minimum of twenty (20) acres. Activities which are limited to extraction only shall not have a minimum site size. [Retains existing language.]

Notwithstanding the staff's statement the proposed staff change *would not* retain existing language of the Code. Because the staff recommendation would require a CUP for all "stockpiling" and "processing" and because all mining requires at a minimum stockpiling, then in all cases mining may only occur in site areas were a minimum of 20-acres. If all other laws, standards and requirements are met, and these address noise, dust, traffic, etc., there is no clear basis for a minimum lot size of 20-acres. As noted above, simple grading of a site often includes the need to "stockpile" materials in a manner that is very similar to that which occurs when mining. Would it be appropriate to limit grading to lots of twenty acres or more in size? We doubt it.

3. Minimum 200-foot setbacks

Section D(2) regarding Setbacks would provide as follows.

A minimum 200-foot setback shall be required for all mining uses abutting residential uses. The setback may be reduced by the approval authority if the purposes of this chapter can be met with the reduced setback. The setback area shall be used only for roads, berms, landscaping, signs, fencing and reclamation activities. [similar to CALM proposal]

7/11 Dentler

The basis for this prescriptive, one-size-fits-all approach is not clear. Standards governing noise, dust, etc, as well as conditions of approval under SEPA should be adequate to ensure that all significant adverse effects are addressed. Even assuming current laws are inadequate, the unitary prescriptive standard is irrational where a residence is located on a large parcel and is not near the property boundary. Moreover, mining setbacks are within the purview of the Department of Natural Resources under the Washington Surface Mining Act. RCW 78.44.121 ("Reclamation setbacks shall be as follows unless waived by the department...") Foreclosing all mining within 200 feet of a property boundary may also cause the significant loss of mineral resources and could make extraction at any particular site economically unviable. Finally, the GMA requires that mineral resource lands be protected from adjacent uses that are incompatible with mineral extraction. For the above reasons, we suggest that this provision be stricken in its entirety or at a minimum be rewritten as follows:

D.2. Setbacks: Where the hearings examiner determines, based on the preponderance of evidence, that applicable laws, rules, ordinances, and standards and other conditions of approval adopted under SEPA are insufficient to protect adjacent residences from significant adverse impacts, setbacks may be established to reduce such impacts.

4. Days and Hours of Operation

Storedahl remains opposed to the County's attempts to dictate to any industry, including ours, on what days it may operate. As we noted in prior letters, Storedahl typically neither operates on Holidays nor Sundays. Moreover, Storedahl does not wish to operate on Sundays and Holidays. However, prohibiting operations on Sundays is religious in nature and is unlawful under the U.S. Constitution. Beyond that, does the County really wish to begin dictating on what days a carpenter may work or what days concrete or asphalt may be laid? We think this is fundamentally wrong. The same applies with regard to certain Holidays. If the basis of prohibiting mining on certain holidays is due to noise considerations, is this the case for July 4th, a day when pyrotechnics are the order of the day? Is there any basis to conclude that applicable noise standards are insufficient to address such noise on holidays? We do not believe the record supports the limitations on days and hours of operations and Storedahl reiterates its prior comments on this matter. We believe the current code is adequate for days and hours of operation and we urge the Commission to rely on the current code.

5. Back-up alarms

The County should not attempt to regulate back up alarms as staff has recommended under Section D.5.d as such alarms are within the exclusive

8/11 Dentler

jurisdiction of the federal Mining Safety and Health Administration. Moreover, any mining operation, whether during extraction or vehicle maintenance must also abide by State noise standards. Storedahl typically uses strobe lights to achieve back-up notification when the use is in accordance with MSHA requirements.

6. Notification if blasting is used

Section D.8 would require notification of blasting by the mine operator either 7 days prior to blasting or 24 hours prior to blasting if notification is by electronic means. It is simply not clear what the County is attempting to achieve here. Where a site plan or conditional use permit has been approved and blasting is included, then property owners within 1/2 mile of the site should expect that blasting will occur with some regularity. Notification issues will surely arise as properties are bought and sold or an email is changed, or it ends up in a spam file. In keeping with the concept of electronic communication, we suggest that notice of blasting be placed on a dedicated portion of the County web site where any interested person may inspect the web site for expected blasting dates and times.

7. Wear Agreements

Section D.10 would authorize the Director of Public Works to require mine operations to enter into pavement wear agreements and authorizes the Public Works Director to require maintenance of public roads to the "satisfaction of the director of public works, to minimize problems of dust, mud, potholes, runoff and traffic safety.

The Commission is urged to keep in mind that the mining industry already pays substantial fuel taxes that support public roads in Clark County. Moreover, Section D.10 addresses issues, mud, runoff, and traffic safety that are already addressed in federal, state and local Clark County Codes (stormwater runoff) and Level of Service Standards, etc. Further, the provision, as drafted, is void of any objective standard. What would be sufficient? For these reasons, we believe this section should be revised as follows:

Pavement wear agreements may be required for County roads used to access the site. Where there is evidence that the use of County roads is the undue and direct cause of dust, mud, runoff, potholes or traffic safety, the director of public works, may require reasonable conditions to reduce, control or minimize such issues.

C. Comments on the Approval Process

1. Internal Access Roads

9/11 Dentler

Section E.1.f addresses the identification on site plan drawings of the location of internal access roads. Meeting this requirement can be very problematic for mining operations as the internal access roads change as mining progresses and reclamation occurs. For that reason, we believe that the words "internal access roads" should be stricken.

2. Notice Requirements

Sections E.3, 4, 5 and 6 would govern notice requirements under various scenarios and is overly complicated and overly burdensome. Storedahl suggests that as under the current code, all permitted uses should be through a Type II review process and all conditional use permit approvals would proceed under Type III review.

Moreover, paragraph 6 provides as follows:

Notice required by Sections 40.250.020(E)(3) and (4) above shall be sent to owners of property within a radius of one (1) mile of the site and to owners of all parcels abutting local access roads to be used for hauling that are between the site and roads designated in the Arterial Atlas as collectors, arterials or State highways

The current code provides that Type II and III notice is provided to all adjoining owners within *500 feet* of the proposed development as well as to neighborhood associations, and agencies with jurisdiction and any other person that the County believes may be affected by the proposal. CCC 40.510.020.E, 40.510.030.E

Providing notice to all property owners *within a one (1) mile radius* of a proposed mine is exceedingly costly and burdensome. This is -- at a minimum -- an order of magnitude larger than the notice requirements of the current code. As evidenced by public participation in the hearings process, there has been no shortage of notice for any mining project in which Storedahl has been involved.

As the number of parties who require notice increases, the likelihood that a notice error will occur also increases. Moreover, the further distant a party is from the activity, the less interest the party has in the proposed development.

Further, extending the notice requirement to *all haul routes* is simply impractical if not impossible. Haul routes may change depending on where aggregate materials are needed. The County should consider the estimated cost for providing notice under the draft provision. This should include a simulated cost for actual materials and labor involved in establishing the data base, verifying the database, and the actual cost of giving the notice. We believe there is no basis to indicate that the current notice requirements are inadequate or for increasing the current notice requirements by more than an order of magnitude. The extensive notice

10/11 Dentler

requirements that would be established under this provision is unduly burdensome and costly and should be stricken in its entirety.

Thanks again for your attention and your time.

Sincerely,


John L. Dentler
Attorney at Law

cc: via email

John Blom
Steve Morasch
Eileen Qutub
Ron Barca
Valerie Uskoski
Karl Johnson

Clark County Board of Commissioners
David Madore
Tom Mielke
Steve Stuart

Don Benton
Marty Snell
Oliver Orjiako
Pete Capell

11/11 Dentler



October 15, 2013

Michael Mabrey
Planner III
Clark County Community Planning
1300 Franklin St
PO Box 9810
Vancouver, WA 98666-9810

Dear Mr Mabrey,

This letter pertains to the proposed changes on the Surface Mine Overlay Map for Clark County. Thank you for the opportunity to comment.

As you probably are aware, the State Trust funds the construction of public schools, colleges, and other state buildings as well as supporting certain state services by managing 2.6 million acres. As a result, it necessarily issues permits, leases land, and sells timber for revenue. One type of leasing is for mining as the Trust cannot afford to overlook income from such royalties.

The Livingston quarry located close to major markets such as Vancouver, WA and Portland, OR, is promising to be a very lucrative investment for the State. Within the first 5 months of removals in 2013 the Trust has gained nearly \$123,000 and it is likely that the Trust will receive nearly \$7M over the remaining life of the lease. A lease renewal in 14 years will garner even more earnings for the Trust. The expansion of the Surface Mine Overlay to encompass State Lands around the Livingston quarry is critical to achieving these financial goals.

It is reasonable to assume that the Rock Aggregate Resource Lands Inventory Map for Clark County published by the Division of Geology and Earth Resources in 2005 could be used to outline rock potential as you have done on the proposed overlay. I ask that you retain the newly proposed areas around the Livingston quarry on the final overlay map.

Additionally I ask that you retain the SW ¼ of Sec 32, T4N, R4E within the proposed overlay as we recently discussed. That area is underlain by alpine glacial deposits that may be possible to mine for sand and gravel; however, until detailed field mapping occurs we will not know the value.

Please assure your constituents that all mining in the State of Washington is strictly regulated and all work on mining leases is checked through reporting of accomplished work, signed affidavits by lessees, and on-the-ground inspections by a licensed geologist. We keep a close watch on all mining activities in accordance with our federal mandates of the Clean Water Act and the Endangered Species Act. We also try to be very conscientious about not disturbing our neighbors.

Again, thank you for the opportunity to comment.

Sincerely,

A handwritten signature in blue ink, appearing to read "Venice Goetz". The signature is fluid and cursive, with the first name "Venice" being more prominent than the last name "Goetz".

Venice Goetz

State Lands Minerals Geologist, LEG #468

Product Sales and Leasing Division

Washington Department of Natural Resources

360-902-1056

venice.goetz@dnr.wa.gov



November 19, 2013

Clark County Planning Commission

Attn: Marilee McCall
Clark County Community Planning
PO Box 9810
Vancouver, WA 98666-9810

Dear Commissioners,

This is my second letter pertaining to the proposed changes on the Surface Mine Overlay Map for Clark County. I am writing again for two reasons. First to reiterate the vital importance not only to the State Lands Trust but to Clark County itself of expanding the surface mining overlay map to include the state lands around the present Livingston quarry as was formerly proposed; and second to make comments with respect to the proposed changes to the Mineral Lands Comprehensive Plan Policies. I am aware that comments are closed for the overlay extension, but I would still like to discuss this topic for the record.

In my last letter I requested that Clark County retain the SW $\frac{1}{4}$ of Sec 32, T4N, R4E within the proposed overlay. However, I would rather focus on the Livingston quarry area as it has proven reserves while this other area does not. Additionally the other area is not as economically valuable as it is not especially close to a good market as is the Livingston quarry.

The rock at the Livingston quarry is of exceptional quality and the reserves to the north of the mine have been proven by drilling and testing. A resource such as this within close proximity to an excellent market (cities along the I-5 corridor) is not found anywhere else within Clark County. Natural resources of this quality and quantity are rare within close range of such a large urban market and should be made accessible to that market. Clark County and the State Lands Trust and its beneficiaries would benefit greatly from the sale of rock from the Livingston quarry. As Washington State prides itself on its outstanding educational system, financial support of its schools is of critical importance in maintaining this status.

The Livingston quarry has been mined continuously since 1947 and likely preceded most of the rural dwellings in the neighborhood. The location of the mine is backed by timberland, and there are no housing developments nearby as it should be in keeping within the Growth Management Act (GMA) guidelines of protecting mineral resources from urban sprawl.

I am in receipt of the letter Mr. John Dentler on behalf of J.L. Storedahl & Sons in regard to business at the Livingston quarry and mining in general in Clark County. I am in agreement with everything stated

DNR 11/19/2013 1/2

especially Mr Dentler's suggested amendment to Policy 3.5.10 where it reminds us of the mandate of the GMA to protect mineral resource land uses "from land uses on adjacent lands that would restrict resource production....". Excerpt from RCW 36.70A.060 "...Such regulations shall assure that the use of lands adjacent to agricultural, forest, or mineral resource lands shall not interfere with the continued use, in the accustomed manner and in accordance with best management practices, of these designated lands for the production of food, agricultural products, or timber, or for the extraction of minerals."

My concerns about some of the proposed changes in the MRL policy are as follows:

- I am concerned about the inclusion of policy 3.5.1 with the exclusion of the last line that refers to a stance consistent with the 20 yr planning horizon mandated by the GMA. Why was that deleted?
- I am concerned that 3.5.7 is removed as I think it should be retained. Eliminating 3.5.7 seems to allow the other policies regarding protecting mineral lands to be easily interpreted against the support of mining. I believe it is critical to reinstate 3.5.7 because it specifically protects mineral resources and the authorization to mine them. Policy 3.5.7 should be amended to read "Mineral resource land shall not be used for any other activity other than surface mining or uses compatible with mining until the gravel or mineral resource is commercially depleted, reasons for not mining the site are clearly demonstrated, or the site has been reclaimed."
- As stated above I agree with Mr Dentler's comments on Policy 3.5.10
- Lastly I appreciate the addition of the new 3.5.11 as it easily could correlate to a Livingston quarry site expansion.

Many people do not realize that if a commodity is not grown, it is most certainly mined. Mining can only occur wherever the resource exists and likewise, the resource cannot be moved to a more convenient location to be mined. We must consider the societal value of the resource in the present and for the future. Road aggregate is what we drive on every day. Having an excellent source close to a market is a way to keep infrastructure costs (and taxes) under control. The Livingston quarry contains proven exceptional quality road aggregate and not only is the mine socially valuable now, but the land around it with high resource potential should be part of the Surface Mining Overlay for future generations.

Thank you for the opportunity to comment.

Sincerely,



Venice Goetz
State Lands Minerals Geologist, LEG #468
Product Sales and Leasing Division
Washington Department of Natural Resources
360-902-1056
venice.goetz@dnr.wa.gov

November 17, 2013

To: Christine Cook, Deputy Prosecuting Attorney
Clark County

Cc: Clark County Commissioners

Tom Mielke

Steve Stuart

David Madore

Clark County Planning Commissioners

Ron Barca

Valerie Uskoski

Steve Morasch

Eileen Quiring

James Gizzi

Karl Johnson

John Bloom

Dear Ms. Cook:

I'm writing concerning the Hearings Examiner's Final Order concerning Livingston Quarry from August 19, 2009. (CUP2009-00004) I'm enclosing a copy of the Conditions of Approval and of the Memorandum of Understanding between Tower Rock and Clark County dated 7/8/09.

In researching documents relating to the current Surface Mining Overlay discussions, I reviewed the Conditional Use Permits for both the Livingston Mountain quarry and the Livingston quarry. I am a neighbor of both quarries, so am directly affected.

My concern is with the Memorandum of Understanding between Tower Rock and the County that was to be filed prior to the start of operations of Livingston Quarry.

Rectanus 1/17

Page 2

I sent for a copy of the MOU which was actually filed, and was shocked and alarmed that it does not comply with the Hearings Examiner's order.

The first four items of the MOU are consistent with what the HE ordered, but the following three have been omitted. The last item is incomplete.

The omitted items are of great concern to me, as they were intended to give some protection to the neighbors of the quarry.

These items are:

- "The parties shall agree on and publish an expedited process, which may include arbitration or mediation, to resolve any disagreement between the parties as to the responsibility for any damage to the neighbor's property or violation of the noise standards."

- "The parties will coordinated (sic) any activities, especially short-term peak activities, so as not to jointly exceed any applicable L25 for both operational (crushing and drilling) and truck noise."

- "The parties agree to coordinate any future request for an increase in operating hours."

The last item is incomplete. I have put in brackets the omitted parts.

"This MOU is not a legally enforceable contract [except for the purposes of the County's enforcement of the conditional use conditions.] It is not intended to create, and shall not be construed as creating any third party beneficiary, [but will give third party standing to ask the county to enforce its terms through the conditional use enforcement process.] It documents the parties' understandings on cooperation to minimize the potential for well and foundation damage, and to address damages that might occur."

In addition, regarding the third item, which was included, ("Each party will notify the public of its contact information for complaints and dispute resolutions") I want to ask if this was done. How and when was the public notified?

Rectanus 2/17

Page 3

I volunteered to serve on the Mineral Lands Task Force, as one of three non-industry members. I tried to keep an open mind and maintain a balanced approach. But now I feel betrayed and disappointed. I feel that if we the neighbors do have damages to our properties or if there is exceeding of the noise limits, neither Tower Rock nor the County will accept responsibility.

I would like to know why the Hearings Examiner's condition was not carried out as ordered, and why we as neighbors need to be the watchdogs. To my understanding, the County quarry should not be operating, as this condition was to be fulfilled prior to the start of operations.

What can be done now to correct the situation?

Linda Rectanus

Thank you, Linda Rectanus (property owner and resident, 7404 NE 269th Ave, Vancouver, WA)

PO Box 822199

Vancouver, WA 98682

flora_linda@rocketmail.com

(360) 903-6751

Enclosed: Page 1 and 2, and pages 60-70 of CUP2009-00004, Livingston Quarry

Memorandum of Understanding Dated July 8, 2009, between Clark County, Washington and Tapani Underground dba Tower Rock

Rectanus 3/17

MEMORANDUM OF UNDERSTANDING DATED July 8, 2009 BETWEEN
CLARK COUNTY, WASHINGTON AND Tapani Underground Inc. dba TOWER ROCK

Recitals:

1. Tower Rock (OPERATOR) currently operates a rock production plant at the Livingston Mountain Quarry. Clark County, Washington (COUNTY) has applied for permits to operate a similar plant at the Livingston Quarry. If the County is successful in obtaining the required permit(s), both quarries will conduct rock blasting.
2. Residents in the perimeter areas of these quarries have expressed concerns that property damage might be caused by the blasting and have asked how either party would respond to those circumstances. Each party will operate pursuant to the requirements of its own permit or permits, and neither party is obliged to formally agree to an advance apportionment of potential liability. However, both parties recognize the benefits of cooperating to reduce the likelihood of property damage from blasting activities, and of creating and maintaining information about the conditions of nearby properties and a log of blasting activities.

3. This Memorandum of Understanding (MOU) concerns damage to structure foundations and water wells, only.

Therefore, each party agrees as follows:

- Each party will perform well and foundation inspections and assessments for area properties as required by its respective permits, and will maintain records of the inspections and assessments;
- The parties will create, maintain, and make available to the public upon request records of seismographic monitoring of blasting, including dates and times of blasting;
- Each party will notify the public of its contact information for complaints and dispute resolution;
- The parties will share with each other information regarding minimizing the risk of property damage from rock blasting; and
- This MOU is not a legally enforceable contract. It is not intended to create, and shall not be construed as creating any third party beneficiary. Rather, it documents the parties' understandings on cooperation to minimize the potential for well and foundation damage, and to address damage that might occur.

Tapani Underground Inc. dba TOWER ROCK
Signed [Signature]
Title President
Date 7/8/09

CLARK COUNTY
Signed [Signature]
Title Deputy Public Works Director
Date 7-8-09

Approved as to form only:

ARTHUR D. CURTIS,
Prosecuting Attorney

By [Signature]
Christine M. Cook,
Deputy Prosecuting Attorney

Office of the
CLARK COUNTY LAND USE HEARING EXAMINER

1300 Franklin Street
P.O. Box 9810
Vancouver WA 98668-9810
Phone (360) 397-2375

*Final Order
Hearing Examiner
8/13/2009*

NOTICE TO PARTIES OF RECORD

Project Name: LIVINGSTON QUARRY

Case Number: CUP2009-00004; PSR2009-00014; CPZ2009-00024; HAB2009-00016; SEP2009-00028

The attached decision of the Land Use Hearing Examiner will become final and conclusive unless a written appeal is filed with the Board of Clark County Commissioners, 6th floor, Public Service Center, 1300 Franklin Street, Vancouver, Washington, no later than 5:00 p.m. on, **September 2, 2009** 14 calendar days after written notice of the decision is mailed).

The Hearing Examiner's procedural SEPA decision is final and not appealable to the Board of County Commissioners.

All other appeals must be written and contain the information required under CCC 40.510.030(H), and placed in the following preferred format:

1. Project Name
2. Case Number
3. Name and signature of each petitioner: The name and signature of each petitioner and a statement showing that each petitioner is entitled to file the appeal under Section 40.510.030(H)(1). If multiple parties file a single petition for review, the petition shall designate one (1) party as the contact representative for all contact with the responsible official.
4. Introduction:
Provide a brief history of the case. This should include a chronology of dates of related applications, cases numbers, and a description of the proposal as it relates to the decision being appealed
5. Standard of Review:
Describe what standard of review (i.e., board's discretion to reverse the examiner's decision) you believe applies to board's review of the alleged errors (e.g., substantial evidence for challenges to findings of fact; de novo review for code interpretation; or, clearly erroneous for issues involving application of code requirements to particular facts).
6. Alleged Errors/Response to Alleged Errors:
Identify the specific aspect(s) of the decision being appealed, the reasons why each aspect is in error as a matter of fact or law, and the evidence relied on to prove the error (i.e., reference the relevant exhibits and passages, court cases, etc.).

The appeal fee is \$716

Rectanus 5/17

The Board of Commissioners shall hear appeals of decisions based upon the written record before the examiners, the examiner's decision, and any written comments received in the office of the Board within the following submittal deadlines measured from the date of the filing of the appeal:

- Fourteen (14) calendar days for the appellant's initial comments;
- Twenty-eight (28) calendar days for all responding comments; and,
- Thirty-five (35) calendar days for appellant reply comments, which are limited to the issues raised in the respondent's comments.

Written comments shall be limited to arguments asserting error in or support of the examiner decision based upon the evidence presented to the examiner.

Unless otherwise determined by the Board for a specific appeal, the Board shall consider appeals once a month, on a reoccurring day of each month. The day of the month on which appeals are considered shall be consistent from month to month as determined by Board.

The Board may either decide the appeal at the designated meeting or continue the matter to a limited hearing for receipt of oral argument. If continued, the Board of Commissioners shall designate the parties or their representatives to present argument, and permissible length thereof, in a manner calculated to afford a fair hearing of the issues specified by the Board of Commissioners. At the conclusion of its public meeting or limited hearing for receipt of oral legal argument, the Board of Commissioners may affirm, reverse, modify or remand an appealed decision.

Mailed on: **August 19, 2009**

Rectanus 6/17

DECISION

Based upon the proposed plan (identified as Exhibits 6 and 19), and the findings and conclusions stated above, the Hearings Examiner **DENIES** the request to rezone and **APPROVES** the conditional use request for the existing 50 acres surface mining overlay area, subject to the understanding that the applicant is required to adhere to all applicable codes and laws, and is subject to the following conditions of approval:

Conditions of Approval

A Final Construction/Site Plan Review Review & Approval Authority: Development Engineering

Prior to construction, a Final Construction / Site Plan shall be submitted for review and approval, consistent with the approved preliminary plan and the following conditions of approval:

- A-1 The applicant/operator shall provide documentation that the project can comply with any conditions required by the state Department of Ecology pursuant to the *Prospective Purchaser's Consent Decree and Camp Bonneville Re-use Plan*. A copy of any conditions shall be provided. *(See Land Use Finding 16)*
- A-2 If required, the applicant shall implement the habitat mitigation plan prepared by Maul, Foster, Alongi and dated February 9, 2009, except as amended herein. Any revisions to the proposed mitigation plan may be subject to additional habitat review. *(See Habitat Findings 1 and 3)*
- A-3 No part of the overall slope will exceed a ratio of 1:1. Benches shall not be more than 40 vertical feet apart, and swales or ditches on benches shall have a maximum gradient of five percent (5%). *(See Land Use Finding 7)*
- A-4 An approved reclamation plan from the Department of Natural Resources shall be submitted. A separate narrative or plans as necessary shall accompany the DNR reclamation plan, referencing how the provisions of 40.250.020.H are met through the DNR reclamation plan. *(See Land Use Finding 9)*
- A-5 The applicant shall provide evidence that the applicant has complied with applicable Department of Ecology stormwater and process water discharge requirements. *(See Land Use Finding 7)*
- A-6 The driveway shall be paved to at least 24 feet wide for a distance of at least 300 feet from 262nd Avenue to allow for two way truck traffic from NE Highland Meadows Drive to the site and to minimize dust. The driveway shall be maintained in good repair. *(See SEPA condition 1 and Land Use Finding 8)*

- A-7 The following notes shall be placed on the face of the final site plan:
- a. "No clearing or development for purposes of mining shall occur within the habitat preservation areas as delineated in Exhibit 14." (*See Habitat Finding 1*)
 - b. "Fencing and setbacks are required by the Department of Natural Resources shall be maintained at all times." (*See Land Use Finding 5*)
 - c. "The hourly L₂₅ noise levels from the county's quarry operation shall not exceed 10 dBA over ambient noise levels near the south property line, as monitored at the locations shown as M1, M2, and M3 on Figure 8 in the DSA noise study, Exhibit 7. Monitoring at M3 shall not be required if the property owner does not consent. Monitoring shall be continuous for a period of 30 days after crushing and mining activities begin, and subsequently thereafter when there is a significant change in the number, type or location of mining and crushing-related equipment used on the site. If the 30 day monitoring results indicate that the hourly L₂₅ sound levels are more than 7 dBA over the ambient noise level, continuous monitoring shall continue until the next significant change of mining or crushing circumstances. (*See Land Use Finding 10*)"
 - d. "The hourly L₂₅ noise levels from the county's quarry operation shall not exceed 10 dBA over ambient sound levels near the east property line of the Tower Rock site. When the county's quarry and the Tower Rock site are operating simultaneously, the hourly L₂₅ noise levels shall not exceed 13 dBA over ambient noise levels near the east property line of the Tower Rock site. In addition to the existing Tower Rock monitor, a continuous noise monitor shall be installed either along the eastern property line of the Tower Rock site or on tax lot 170424-000. The final location of the monitor shall be approved by the county. (*See Land Use Finding 10*)
 - (1) If the hourly L₂₅ noise level from the two quarries exceeds 13 dBA over ambient noise levels at either continuous noise monitor along the Tower Rock east property line, the county will coordinate with Tower Rock to determine which quarry's operation is causing the noise level to be exceeded as provided in the MOU.
 - (2) The county shall maintain a public record of the days when operations are, and are not occurring at the county's quarry. The county shall also document the weather conditions present during the days of operation and any other events that may have an impact on noise levels recorded by their noise monitors when the quarry is operating."
 - e. "Discriminating backup alarms shall be used on all equipment under control of the operator, except that after two years of operation they shall be required on all equipment using backup alarms, without exception." (*See Land Use Finding 10*)
 - f. "Overall hours of operation are 8:00 A.M. to 5:00 P.M., Monday through Fridays, and up to 25 Saturdays per year, except that there shall be no crushing or drilling on Saturdays. Any future request to modify such hours shall be coordinated with Tower Rock operation to address cumulative impacts of operational and truck noise." (*See Land Use Finding 11*)

g. "Blasting-

(1) A program of pre-blasting structural surveys shall be conducted by an independent third party for all residents requesting one whose homes lie within the 2,000-foot radius from active phase limits of the quarry operation. This survey shall be offered by the operator at no cost to the homeowners and they shall receive copies of the report and copies of any photographs taken. This structural inspection will establish the homes pre-blasting condition and, should there later be questions about the effect of blasting upon their home, this inspection report will document conditions prior to the start of quarrying operations.

(2) A program utilizing registered or certified mail with return receipt shall be implemented to inform people living within 2,500-foot of the 170 acre site boundary with information regarding blasting parameters and proposed blasting schedules. Individuals residing within 1,500-feet of the active phase limits of the quarry operation shall also be contacted 72 hours prior to blasting.

(3) Seismographs shall be placed at the two residences closest to the blasting area south of the site; provided, that if permission from the owner or resident cannot be obtained, the seismographs shall be located on the county's site, between the two closest residences and the blast site. Two additional monitors shall be placed either at two separate locations along the northeast and southeast property corners of the Tower Rock site, tax lot 170400-000, or at the residences located on tax lots 170424-000 (Repman) or 170421-000 (Stiff), as permission is allowed. Information generated from the blast-monitoring program shall be given to all residents requesting this data." (See *Land Use Finding 12*)

h. "Quarry production shall not exceed an average of 70-loaded truck trips/day during normal operations. Short-term peak production periods shall not exceed a maximum of 140-loaded truck trips/day for periods longer than 10 consecutive days and coordinated with Tower Rock per MOU to prevent or manage overlapping peaks." (See *Transportation Concurrency Finding 1*)

A-8 **Final Construction Plan** – The applicant shall submit and obtain County approval of a final construction plan in conformance to CCC 40.350 and the following conditions of approval:

a. The following notes shall be placed on the face of the final construction plans as follows:

(1) "If any cultural resources and/or human remains are discovered in the course of undertaking the development activity, the Office of Archaeology and Historic Preservation in Olympia and Clark County Community Development shall be notified. Failure to comply with these State requirements may constitute a Class C Felony, subject to

Rectanus 9/17

imprisonment and/or fines." (*See Archaeology Finding 1*)

(2) "Prior to any groundbreaking activities for each phase, the applicant shall place habitat signage along the habitat preservation boundaries that will be adjacent to the project boundaries." (*See Habitat Findings 1 and 4*)

(3) "No clearing or development for purposes of mining shall occur within the habitat preservation areas as delineated in Exhibit 19." (*See Habitat Finding 4*)

(4) "Habitat signs shall read "habitat conservation area-- please leave in a natural state." (*See Habitat Finding 1*)

b. The locations of habitat signage shall be clearly shown on the Engineering Construction Plans set. (*See Habitat Finding 1*)

c. All proposed habitat mitigation shall be shown on the Engineering Construction Plans set. (*See Habitat Finding 1*)

A-9 The county shall evaluate the condition of the asphalt in the five small radius 90 degree corners, three to the north and two to the south of the intersection of SR 500 and NE 53rd Street, and determine the need to place additional asphalt to prevent the deterioration of the roadway surface. If deemed necessary, the county shall pave the additional paved area. (*See WSDOT Finding*)

A-10 **Final Transportation Plan/On-Site** - The applicant shall submit and obtain County approval of a final transportation design in conformance to CCC 40.350 and the following conditions of approval:

a. The access from the site onto NE 262nd Avenue shall be realigned such that the angle of intersection is greater than 60 degrees (less than 120 degrees). (*See Transportation Finding 1*).

b. The access shall be paved from NE 262nd Avenue's edge of pavement to the property line or for 20 feet, whichever is greatest. SEPA condition 1 and Condition A-6 may impose a greater length and width of pavement. (*See Transportation Finding 1, Land Use Finding 8, and SEPA condition 1*)

c. Vegetation shall be cleared to maintain minimum sight distance at the intersection with 53rd Street for northbound traffic on SR 500. (*See Transportation Finding 2*)

d. The applicant shall provide a speed study at time of final review confirming that adequate sight distance exists at the intersection of 53rd and SR 500 for southbound traffic on SR500 (*See Transportation Finding 2*).

A-11 **Final Transportation Plan/Off Site (Concurrency)** - The applicant shall enter into an agreement with Clark County Transportation regarding a yearly maintenance cost transfer based on a structural overlay requirements for the identified primary haul route, NE

262nd Avenue and NE 53rd Street consistent with Exhibit 56. (*See Transportation Concurrency Finding 6*)

A-12 Final Stormwater Plan - The applicant shall submit and obtain County approval of a final stormwater plan designed in conformance to CCC 40.380 and the following conditions of approval:

- a. The project shall not materially increase or concentrate stormwater runoff onto an adjacent property. (*See Stormwater Finding 2*)

A-13 Erosion Control Plan - The applicant shall submit and obtain County approval of a final erosion control plan designed in accordance with CCC 40.380.

A-14 Groundwater-

A water well baseline assessment program will be implemented for wells recommended for testing in the MFA groundwater assessment exhibit. Anyone within 2000 feet of the overlay area or Mr. Inoyoue's community well may request an assessment. The baseline assessment will be initiated at least one year prior to operations beginning at the county's quarry. Baseline assessment will include collecting one pre-mining water quality sample from each well and monitoring of water levels in the wells. Applicant will include the following parameters in the baseline groundwater analysis:

- NWTPH-Dx and a scan for SVOCs
- Beryllium, chromium, copper, selenium, cadmium, barium, antimony, mercury, thallium, lead, sodium cyanide, and nitrite-n

Water levels will be measured monthly for the first twelve months for the first year, and quarterly thereafter until the county's mine begins operating, or for up to two years, whichever is less. Measurements and quality samples shall be conducted according to the procedures noted on page 6 of the MFA groundwater assessment, Exhibit 22. Additional assessment will occur after operations begin if a nearby well experiences a significant change in conditions. These records shall be maintained by the Public Works department, and available at the public's request. (*See Land Use Finding 13*)

A-15 Other Documents Required - The following documents shall be submitted with the Final Construction Plan:

- a. The applicant shall record a Habitat Conservation Covenant with the Auditor's Office for all remaining habitat areas on the site. (*See Habitat Finding 1*)
- b. Developer's Covenant: - A "Developer Covenant to Clark County" shall be submitted for recording that specifies the following Responsibility for Stormwater Facility Maintenance: For stormwater facilities for which the county will not provide long-term maintenance, the developer shall make arrangements with the existing or future (as appropriate) occupants or owners of the subject property for assumption of maintenance to the county's

Stormwater Facilities Maintenance Manual as adopted by Chapter 13.26A. The responsible official prior to county approval of the final stormwater plan shall approve such arrangements. The county may inspect privately maintained facilities for compliance with the requirements of this chapter. An access easement to the private facilities for the purpose of inspection shall be granted to the county. If the parties responsible for long-term maintenance fail to maintain their facilities to acceptable standards, the county shall issue a written notice specifying required actions to be taken in order to bring the facilities into compliance. If these actions are not performed in a timely manner, the county shall take enforcement action and recover from parties responsible for the maintenance in accordance with Section 32.04.060. (See *Stormwater Finding 2*)

A-16 **Excavation and Grading** - Excavation / grading shall be performed in compliance with CCC Chapter 14.07.

A-17 Transportation Impact Fees of \$8,687 shall be paid prior to final site plan approval. (See *Impact Fees Finding 1*)

B	Prior to Commencement of Operations Review & Approval Authority: Development Inspection
----------	--

Prior to quarrying or crushing operations, the following conditions shall be met:

B-1 **Infiltration testing** - Infiltration testing for the infiltration basins shall be tested, and shall attain at least 60 inches per hour. (See *Stormwater Finding 2*)

B-2 **Erosion Control** - Prior to ground disturbance, erosion/sediment controls shall be in place. Sediment control facilities shall be installed that will prevent any silt from entering infiltration systems. Sediment controls shall be in place during construction and until all disturbed areas are stabilized and any erosion potential no longer exists.

B-3 **Erosion Control** - Erosion control facilities shall not be removed without County approval.

B-4 Prior to the set up of the crusher, the operator shall submit a letter from an acoustical engineer stating the combination of proposed mitigations should be sufficient to meet SEPA noise levels. (See *Land Use Finding 10*)

B-5 A Blasting Permit, issued by the Fire Marshal, is required prior to blasting operations begin. (See *Fire Protection Finding 3*)

B-6 The site shall be inspected by the Fire Marshal's Office prior to blasting. (See *Fire Protection Finding 5*)

B-7 A program of pre-blasting structural surveys shall be conducted by an independent third party for all residents requesting one whose homes lie within the 2,000-foot radius from active phase limits of the quarry operation. This survey shall be offered by

Rectanus 12/17

the operator at no cost to the homeowners and they shall receive copies of the report and copies of any photographs taken. This structural inspection will establish the homes pre-blasting condition and, should there later be questions about the effect of blasting upon their home, this structural inspection will document conditions prior to the start of quarrying operations. Once blasting has taken place on the site the radius may be enlarged, as reviewed and approved by Clark County, if homes are found to be affected by the blasting. (See Land Use Finding 12)

B-8 The applicant shall transfer, from the Livingston Quarry account, a lump sum of \$19,318 to the Clark County Pavement Preservation Fund prior to starting operations. (See Transportation Concurrency Finding 6)

B-9 The crusher will require a permit from the Southwest Clean Air Agency to control dust from the crushing operations. Dust control for roads will also need to meet SWCAA requirements. (See Land Use Finding 14)

**C Provisional Acceptance of Development
Review & Approval Authority: Development Inspection**

Prior to provisional acceptance of development improvements, construction shall be completed consistent with the approved final construction/site plan and the following conditions of approval:

C-1 None

**D Operational conditions
Review & Approval Authority: Various departments**

The following conditions shall be met on an ongoing basis:

D-1 The periphery of all sites within the gross site area being actively mined or reclaimed shall be fenced according to the Department of Natural Resources' standards. (See Land Use Finding 5)

D-2 The tops and toes of cut and fill slopes shall be set back from property boundaries according to the Department of Natural Resources' standards for safety of the adjacent properties, and to prevent damage resulting from water runoff or erosion of slopes. (See Land Use Finding 6)

D-3 The bench/slope ratio shall not exceed 1:1, and meet the requirements of Section 40.250.020. (See Land Use Finding 7)

D-4 Noise

- a. The hourly L₂₅ noise level radiating from the County quarry operating by itself shall not exceed a limit of 10 dBA over ambient noise levels near the south property line, as monitored at the locations shown as M1, M2, and M3 on Figure 8 in the DSA noise study, (which is currently 37 dBA at M1 for a noise limit of 47 dBA, and 38 dBA at M2 for a noise limit of 48 dBA)

Rectanus 13/17

Exhibit 7. Monitoring at M3 shall not be required if the property owner does not consent. Monitoring shall be continuous for a period of 30 days after crushing and mining activities begin, and subsequently thereafter when there is a significant change in the number, type or location of mining and crushing-related equipment used on the site. If the 30 day monitoring results indicate that sound levels are more than 7 dBA over the ambient noise level, continuous monitoring shall continue until the next significant change of mining or crushing circumstances. (See Land Use Finding 10 and Ex 56)

- b. NONE
- c. The County shall continuously monitor noise at one location along the east property boundary of the Tower Rock Products Livingston Mountain Quarry and at tax lot 170424-000 or at tax lot 170421-000.
- d. To help in assessing the noise radiating from the County's quarry independently of that radiating from the Livingston Mountain Quarry when both quarries are operating simultaneously, the worst-case noise levels at any noise receptor on the east side shall be no more than 3 dBA above the hourly L₂₅ noise limit specified for the receptor (the change in sound level when two sources operate simultaneously at the same level). Therefore, when both quarries are operating simultaneously, the hourly L₂₅ noise level at a receptor on the east side of the Livingston Mountain Quarry shall not exceed the existing ambient noise level by more than 13 dB, currently 33 dBA (for a noise limit of 46 dBA). If the hourly L₂₅ noise level radiating from the two quarries exceeds 46 dBA at any noise receptor on the east side of Livingston Mountain Quarry, the County will coordinate with Tower Rock Products to assess each operation individually to determine which quarry resulted in a noise limit exceedance.
- e. When the County quarry is operating without operations at the Livingston Mountain Quarry, the hourly L₂₅ noise level along the east property boundary of the Livingston Mountain Quarry shall not exceed 10 dBA above the ambient level, currently 33 dBA (for a noise limit of 43 dBA).
- f. As the neighborhood continues to grow and residence density increases, background ambient noise levels may increase over time. As a result, the County may, on an annual basis, raise the maximum noise level limit allowed at any residence based upon a demonstration that the ambient hourly L₂₅ noise levels have increased authorized above. The ambient noise level means the hourly L₂₅ noise level measured at a receptor location without either the County quarry or the Tower Rock Products Livingston Mountain quarry in operation.
- g. The County shall maintain a record of the days when operations are and are not occurring at the County quarry. The County shall also document the weather conditions present during the days of operations and any other events that may have an impact on noise levels recorded by their noise monitors when the quarry is operational.
- h. Discriminating backup alarms shall be used on all equipment under control of the operator and after two years of operation shall be required on all equipment using back up alarms, without exception. (See Land Use Finding 10)

Rectanus 14/17

- D-5 Overall hours of operation are 8:00 A.M. to 5:00 P.M., Monday through Fridays, and up to 25 Saturdays per year. Extraction and crushing activities shall be limited to weekdays. The operational hours maybe reviewed one year after start of operations in coordination with Tower Rock taking under consideration cumulative impacts of operational and truck noise. *(See Land Use Finding 11)*
- D-6 **Blasting-**
- (a) Once blasting has taken place on the site the radius of the pre-blast structural surveys in **Condition A-6.g(1)** may be enlarged, as reviewed and approved by Clark County, if homes are found to be affected by the blasting.
- (b) Seismographs shall be placed at the two residences closest to the blasting area south of the site; provided, that if permission from the owner or resident cannot be obtained, the seismographs shall be located on the county's site, between the two closest residences and the blast site. Two additional monitors shall be placed either at two separate locations along the northeast and southeast property corners of the Tower Rock site, tax lot 170400-000, or at the residences located on tax lots 170424-000 (Repman) or 170421-000 (Stiff), as permission is allowed. Information generated from the blast-monitoring program shall be given to all residents requesting this data. *(See Land Use Finding 12)*
- (c) Blast monitoring results shall be sent to the Fire Marshal's office. *(See Fire Protection Finding 6)*
- (d) Explosives shall not be stored overnight on site. *(See Fire Protection Finding 4)*
- D-7 The county shall modify or replace those monitored wells determined to be significantly affected by the county's quarry operations. *(See Land Use Finding 13)* ←
- D-8 The operation and crusher shall comply with the requirements of the Southwest Clean Air Agency. *(See Land Use Finding 14)*
- D-9 Quarry production shall not exceed an average of 70-loaded truck trips/day during normal operations. Short-term peak production periods shall not exceed a maximum of 140-loaded truck trips/day for periods longer than 10 consecutive days. ←
- D-10 Quarry operations shall notify Clark County Transportation in writing within 5 days of each occurrence of short-term peak production periods and the anticipated duration. *(See Transportation Concurrency Finding 1)*
- D-11 Subsequent annual payments noted in Condition B-8 shall be adjusted from the \$19,318 baseline amount -based on the Seattle Engineering News Record (ENR) - Construction Cost Index (CCI) for the remainder of the anticipated 30-year life of the quarry. The recalculated amount shall then be transferred to the Clark County Pavement Preservation Fund by December 31 of each year. *(See Transportation Concurrency Finding 6)*

Rectanus 15/17

- D-12 **Infiltration testing** - As infiltration basins are relocated, infiltration testing for the infiltration basins shall be tested, and shall attain at least 60 inches per hour. (See *Stormwater Finding 2*)
- D-13 The condition of the asphalt noted in the WSDOT Finding shall be evaluated as needed by the county to help ensure that damage to the corners caused by the county's contribution of truck traffic is minimized.
- D-14 Prior to the start of operations the applicant shall file with Planning Department a memorandum of understanding (MOU) with Tower Rock as follows:
- Each party will perform well and foundation inspections and assessments for area properties as required by its respective permits, and will maintain records of the inspections and assessments;
 - The parties will create, maintain, and make available to the public upon request records of seismographic monitoring of blasting, including dates and times of blasting;
 - Each party will notify the public of its contact information for complaints and dispute resolution;
 - The parties will share with each other information regarding minimizing the risk of property damage from rock blasting;
 - The parties shall agree on and publish an expedited process, which may include arbitration or mediation, to resolve any disagreement between the parties as to the responsibility for any damage to the neighbor's property or violation of the noise standards.
 - The parties will coordinated any activities, especially short-term peak activities, so as not to jointly exceed any applicable L₂₅ for both operational (crushing and drilling) and truck noise.
 - The parties agree to coordinate any future request for an increase in operating hours.
 - This MOU is not a legally enforceable contract except for the purposes of the County's enforcement of the conditional use conditions. It is not intended to create, and shall not be construed as creating any third party beneficiary, bur will give third party standing to ask the county to enforce its terms through the conditional use enforcement process. It documents the parties' understandings on cooperation to minimize the potential for well and foundation damage, and to address damage that might occur.

E Development Review Timelines & Advisory Information
Review & Approval Authority: None - Advisory to Applicant

- E-1 **Commencement of operations** - Within 5 years of site plan approval, quarrying operations at the site shall commence.
- E-2 **Building and Fire Safety**
 Building, Fire, Life, and Safety requirements must be addressed through specific approvals and permits. This decision may reference general and specific items related to structures and fire, life, and safety conditions, but they are only for reference in regards to land use conditions. It is the responsibility of the owner, agent, tenant, or applicant to insure that Building Safety and Fire Marshal requirements are in compliance or brought into compliance. Land use decisions do not waive any building or fire code requirements.

Recharms 11/6/17

F Post Development Requirements
Review & Approval Authority: As specified in...

H-1 Reclamation of the site shall meet DNR standards.

Dated this 19th day of August, 2009



J. Richard Forester
Hearing Examiner

NOTE: *Only the decision and the condition of approval are binding on the applicant, owner or subsequent developer of the subject property because of this order. Other parts of the final order are explanatory, illustrative and/or descriptive. There may be requirements of local, state, or federal law, or requirements, which reflect the intent of the applicant, the county staff, or the Hearings Examiner, but they are not binding on the applicant as a result of the final order unless included as a condition.*

Appeals:

Only a party of record may appeal an appeal of any aspect of the Hearing Examiner's decision, except the SEPA determination, to the Board of County Commissioners. A party of record includes the applicant and those individuals who signed the sign in sheet or presented oral testimony at the public hearing, and/or submitted written testimony prior to or at the Public Hearing on this matter.

The appeal shall be filed with the Board of County Commissioners, 1300 Franklin Street, Vancouver, Washington, 98668, within fourteen (14) calendar days from the date the notice of final land use decision is mailed to parties of record.

Any appeal of the final land use decisions shall be in writing and contain the following.

1. The case number designated by the County and the name of the applicant;
2. The name and signature of each person or group (petitioners) and a statement showing that each petitioner is entitled to file an appeal as described under Section 40.510.030 (1) of the Clark County Code. If multiple parties file a single petition for review, the petition shall designate one party as the contact representative with the Development Services Manager.
3. The specific aspect(s) of the decision and/or SEPA issue being appealed, the reasons why each aspect is in error as a matter of fact or law, and the evidence relied, on to prove the error; and,
4. If the petitioner wants to introduce new evidence in support of the appeal, the written appeal also must explain why such evidence should be considered, based on the criteria in subsection 40.510.030(H)(3)(b);

Rectanus 17/17

September 19, 2013

Clark County
Community Planning
Mr. Mike Mabrey
PO Box 9810
Vancouver, WA 98666

RE: Comment on Clark County Surface Mining Overlay Map and Proposed Mining Overlay Code

Thank you for the opportunity to provide comment regarding Clark County's proposed changes to the Surface Mining Overlay map and supporting code. We own two properties that are adjacent to the Washougal Pit mine east of Washougal WA (Taxlots 133034-000, 133046-000, which has our home on it).

We recognize the current existence of this mine adjacent to our home; we are not challenging the existence of the mine, nor the operator's right to operate the mine. However, we are concerned about the County's ability and interest in ensuring compliance with the proposed mining overlay code for the portions that apply to noise and visual impacts, as well as water quality impacts to Gibbons Creek, a perennial, salmon-bearing stream. Note that County biologists, Brent Davis and Dave Howe (now a manager at the Washington Department of Fish and Wildlife) were invited to visit our property to view the spawning coho salmon in Gibbons Creek a couple of years ago. They have photos of the fish (as do we) validating the use of Gibbons Creek by these sensitive fish species.

However, we have a right to protect the rural character of our property. One of the defining characteristics of rural properties is that it's generally quiet, lacking the standard noise associated with cities. This is certainly the case at our home in the Columbia River Gorge Scenic Area.

Last summer, the Washougal pit operated for a period of several weeks to accept excavated material from a WSDOT project on Highway 14. Continual activity during the day and early evening of truck-and-pup dump trucks, excavators, and bulldozers/heavy equipment resulted in continuous, significant noise pollution that could be heard clearly within our home (in the kitchen, in our home office (Mr. Streeter works from home), in our kids bedrooms) and outside on our patio and deck. It was highly disruptive to everyone in our family—we could not escape the backup beepers, the banging of the equipment, and the constant engine and heavy equipment sounds. Since no notice had been given about the new operation of the mine, ourselves and our neighbors were highly displeased and irritated. Complaints were filed with the appropriate agencies (including the County), lawyers were consulted with, consultants hired. Fortunately for us, the work ceased once the project down Highway 14 reached a point where there was no more dirt to move, but we now have a taste for what could be a permanent condition at our house. We are highly sympathetic with other County landowners who have experienced similar actions from these mining activities.

We are noting that the County is proposing to add the Washougal Pit mine to the Surface Mining Overlay map. What is the benefit/purpose of doing this for an 'active' mine (also as designation on the map)? Please respond to this question in writing.

Comments/Proposed Amendments to Surface Mining Overlay District Code

Streeter 113

We have reviewed the proposed code, and have the following clarifications to suggest. These clarifications, we feel, will help the County implement and determine compliance for the situations that are likely to develop for active mines.

40.250.020.D.2 Maximum Noise Levels

This code references a SEPA document. In the case of the mine adjacent to our property, a Project SEPA document for mine operation was not processed (a non-project SEPA is all that is on the record, which does not cover specific mine activity evaluation and impacts). We propose that the County amend this language to ensure that a correct SEPA process is followed, or reference the SEPA part of County code.

40.250.020.D.3 Hours of Operation

a. Holidays: Please add the following federal holidays to this list: Easter, MLK Day, Veterans Day.

b. Please amend the Saturday start time to 9am. We feel as adjacent landowners that we should be able to enjoy morning hours quietly; an 8am start time for the beepers and loud activities is inappropriate.

e.ii. We have a comment on the measurement "at the property line". In our case, the property line is in a deep canyon, and noise measurements "at the property line" are lower than noise measurements "at our dwelling unit", which is interior to our property line up the hill and in a direct line of sight of the pit. Amend the code to state that noise measurements shall not exceed 50dBA at the property line, AND INTERIOR TO THE PROPERTY LINE ON ADJACENT PROPERTIES.

This clarifies that the 50dBA limit applies, as assumed, at the property line and beyond on adjacent properties.

40.250.020.D.6 Notice of Blasting

Please strike the statement regarding public notice of blasting shall be provided "... by electronic communication at least 24 hours prior to blasting." I do not know how the operators of these mines will acquire accurate and current email addresses of all parties within ½ mile of their mine, and it seems like a very poor method of communication. The 7 day notice is standard and sufficient.

40.250.020.D.7 Offsite Effects Prohibited

Please amend this section to read as follows:

"Mining activities must not cause..... offensive odors, NOISE, increased lighting.... detectible to normal sensory perception at the property line, OR AS MEASURED/OBSERVED ON ADJACENT PROPERTIES INTERIOR TO THE PROPERTY LINE."

40.250.020.F Information on Plans and Specifications

Please add the following requirement for Plans and Specifications:

"The operator shall provide a noise analysis that includes ambient noise levels, measured in decibels (dBA) documenting pre-mining activity noise levels. Also include a proposal to estimate cumulative noise levels at full operation, and measures that can be considered to reduce noise pollution if necessary."

Background: We learned through our experience that the backup beepers, which are an important safety requirement, can be substituted for other methods of back up notification. Use of these alternate methods can alleviate the noise pollution that occurs from the back up beepers, alleviating the potential for problems, complaints, and compliance issues.

In addition to these code comments, we have concerns of the County's interest and ability to ensure mine operators comply with County code. The burden will be on the County to apply this code consistently and fairly, and to respond quickly to landowner complaints. In our experience, we learned that the responsibility was placed heavily on us to prove there was a problem. We faced paying noise consultants \$10,000 to \$15,000 to conduct a noise analysis sufficient for legal or code compliance action. We learned that because the noise was pretty much constant during the day, that we could not get pre- mine/ambient background noise levels measured (it was never quiet enough) in order to determine the amount of noise increase being generated by solely the mine activity. We would like some of these costs to be borne by the mine operators, who make significant profit from the material they are selling, and for the operators to fulfill their community responsibility and recognize the negative impact that their operations have on adjacent landowners.

We will be looking to Clark County to fairly and responsively apply and ensure compliance of the County code related to surface mining activity.

Also note that we wish to be formally noted as a Party of Record for all actions related to the Surface mining overlay code, the surface mining committee and specifically permits and actions of the Washougal Pit mine. Please acknowledge this request in writing.

Thank you again for the opportunity to comment, we look forward to your response.

Respectfully,

Sean and Karen Streeter
36861 SE Woodings Road
Washougal, WA 98671
360-835-3806

Streeter 3/3