ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring the preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the question from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe the your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or to provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (Part D). For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:
   Scatter Creek Quarry Expansion

2. Name of applicant:
   James Hardie Building Products, Inc.

3. Address and phone number of applicant and contact person:
   Mr. Ryan Stearns
   James Hardie Building Products, Inc.
   18200 50th Avenue East
   Tacoma, Washington 98446-3735
   Phone: (949) 356-8923

4. Date checklist prepared:
   June 2023

5. Agency requesting checklist:
   King County Department of Local Services

6. Proposed timing or schedule (including phasing, if applicable):
   The project is an industrial silica quarry that has operated continuously for the past 25 years. The original mine lease area was limited to 40-acres, which was later expanded to 86 acres in 2014. However, demand for silica has nearly doubled since the last expansion, requiring increased reserves. Under this proposal the permit area will be expanded to increase silica reserves for an additional 20 years.

   The project area is a heterogeneous, volcanic deposit that must be selectively mined in phases. As shown in Table 1, a total of 4 mine phases are proposed, each between approximately 16 and 28 acres.

Estimated Volumes for the Expanded Mine
Table 1

Mine Phase	Acres	Total Cubic Yards Mined	Total Cubic Yards Silica	Cubic Yards White Silica	Cubic Yards Red Silica	Cubic Yards Waste Rock
1.0	28	8,093,166	4,046,583	2,670,745	1,375,838	4,046,583
2.0	16	3,975,283	1,987,642	1,311,843	675,798	1,987,642
3.0	28	8,308,918	4,154,459	2,741,943	1,412,516	4,154,459
4.0	25	6,836,592	3,418,296	2,256,075	1,162,221	3,418,296
Total	97	27,213,959	13,606,979	8,980,606	4,626,373	13,606,979

Some of the proposed mine phases overlap with James Hardie's existing areas of operation. Overall, James Hardie Building Products, Inc. (James Hardie) is requesting approval for approximately 80 acres of additional disturbed area beyond its existing footprint, which includes a new stockpile area of approximately 12 acres. The expanded mine will require excavating non- or low-mineralized rock to access silica in the deeper portions of the mine. Based on past mine production, each mine phase will

yield between 1.3 and 2.7 million cubic yards of silica suitable for James Hardie, between 0.68 and 1.4 million cubic yards of high iron silica for the cement companies, and between 1.9 and 4.1 million cubic yards of non- or low-mineralized "waste" rock.

Space restrictions for the anticipated volume of "waste rock" will require backfilling as mining proceeds. As planned, Phase 1 will be mined down to a final elevation of 1,750 feet above sea level. The mineralized silica rock will be processed and stored in the current processing/stockpile area; non- or low-mineralized rock will be moved temporarily to the Phase 2 portion of the mine and when Phase 1 is depleted, it will be used to backfill Phase 1. Segmental mining and backfilling will continue in this manner until all four phases have been depleted down to the 1,750-foot elevation. While James Hardie anticipates that each phase will be generally mined sequentially, there will be some phases that may overlap and be mined concurrently. This is particularly likely in Phases 1 and 2 given that Phases 1 and 2 include areas that are already part of the existing mined footprint.

In total, the proposed expansion is anticipated to yield a total of 8.9 million cubic yards of James Hardie grade silica, 4.6 million cubic of high iron silica for cement production, and 13.6 million cubic yards of non-mineralized rock for backfilling. Additional non- or low-mineralized rock stockpiled from previous mining will also be available for backfilling Phase 4.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Not at this time.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Wildlife and Habitat Inventory Report, prepared by Ecological Land Services, Inc.
Technical Information Report for Storm Water Management, prepared by Barghausen Engineers.
Hydrogeologic Analysis, prepared by Bennett Consulting, PLLC.
Geotechnical Narrative, prepared by Bennett Consulting, PLLC

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

Washington State Department of Natural Resources (DNR)
Update of Surface Mine Reclamation Permit No. 70 012879

King County Department of Local Services (KCDLS)
Revision of Clearing and Grading Permit No. GRDE12-0008

Washington State Department of Ecology (DOE)
Update of Sand and Gravel General (NDPES) Permit No. WAG 50 1392

11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agency may modify this form to include additional specific information on project description.)

The quarry was opened in May 1998 and since that time has produced 3.5 million tons of crystalline silica, providing raw materials to the James Hardie manufacturing plant in Tacoma, the Ash Grove Cement plant in Seattle and two cement plants in British Columbia. The original 1998 operation was permitted for a 40-acre footprint, with an anticipated production rate of 100,000 tons per year and an estimated 20-year mine life. In 2004, the Superior silica quarry, located 1-½ miles southwest of Scatter Creek closed and was reclaimed. This closure increased the demand for Scatter Creek silica, reducing the anticipated mine life of the permitted reserves.

In 2012, Weyerhaeuser agreed to an expanded 86-acre lease area that was anticipated to add an additional 20-years of mine life at the increased production rate of 140,000 tons per year. KCDLS approved an expanded grading permit in 2014. James Hardie also obtained a Surface Mine Reclamation Permit from DNR (Permit No. 70012879) and a Sand and Gravel General NPDES Permit DOE (Permit No. WAG 501392).

The mine is supervised by the James Hardie plant controller in Tacoma who manages a private mining contractor, a drilling and blasting contractor, a consulting mine geologist, and a trucking contractor. The process is as follows:

1. **Every few years, new areas to be developed are stripped of topsoil and overburden with organic material separated from mineral soil and stored in separate stockpiles for future reclamation. This work is performed by the mining contractor.**

2. **The exposed rock is drilled on a tightly spaced 6'x6' grid and when drilling is complete the holes are filled with explosives and the material is shot to form mineable shot rock. This work is performed by the drilling and blasting contractor. The drilling and blasting contactor also drills test holes at the direction of the mine geologist to determine future areas to be mined.**

3. **The shot rock is sorted with an excavator by the mining contractor at the direction of the mine geologist. Mineralized rock is loaded into haul trucks and transported to modular crushing plants. Non- or low-mineralized rock is set aside for later backfilling depleted portions of the mine for subsequent reclamation.**

4. **The sorted, mineralized rock is fed into crushing and screening plants with a wheel loader which reduces the shot rock to a minus 3/8-inch particle size (sand).**

5. **The crushed, minus 3/8-inch sand is placed in a stockpile for later transport to the Tacoma manufacturing plants.**

6. **The trucking contractor loads material from the sand stockpile with a wheel loader into tandem highway dump trucks with a 35-ton capacity and transports**

the sand to the Tacoma plants. The trucking contractor operates seven days per week, year-round.

7. **No water is used on the project site other than water provided by trucks for dust and particulate suppression as needed during operations.**

8. **Minor vehicle and equipment maintenance and equipment refueling are performed in the maintenance area. Major maintenance work is performed at James Hardie's Tacoma facility.**

In the process of sorting mineralized from non-mineralized rock to make silica sand, material is also generated that is too high in iron to meet Hardie's quality specifications. The high iron material is processed in the same manner described above for Hardie sand and placed in separate stockpiles. This high iron material is sold on an as-needed basis to cement manufactures in Seattle and British Columbia, Canada.

James Hardie has constructed a second manufacturing plant in Tacoma, which has nearly doubled the demand for industrial silica from the mine. The proposed mine expansion is required to meet this demand. Figure 2 displays how the expanded mine will be developed and where the access road will be relocated. The primary requested changes as compared to James Hardie's existing permitted operation are described in Table 2.

Table 2 Summary of Changes to Permitted Operation

	Permitted	Requested
Lease Area (Acres)	86	230
Max Active Mine Footprint (Acres)	27	60
Total Disturbed Area (including staging areas)	46	126
Maximum Mining Depth (Elevation MSL)	1900	1750
Maximum Mining Depth (Vert. Ft from Original topo)	220	370
Production (Tons/Year)	140,000	250,000
Anticipated Mine Life	2030	2050
Truckloads (Per Day)	10	20

The increase in the lease area is required to access deeper portions of the deposit; allow for access road realignments; and allow silica stockpiles and staging areas to move as various portion of the deposits are developed.

Through test drilling, James Hardie has identified areas that have deeper silica deposits. The requested mining depth is required to access deeper silica deposits located within the expanded lease area. While the total extent of the deposits and depth of the deposits is not yet known, the operations will not exceed the maximum disturbed area and maximum mining depth identified in Table 2. As further described below, the mine will be developed in phases, with an active mine footprint of approximately 60 acres at any given time.

A portion of Forest Road 5200 will be rerouted to the west to permit excavation of Phases 3 and 4. Following reclamation, the rerouted portion of the road will be 25 feet wide and 2,800 feet long, with an overall gradient of 9%. Most of the road materials will be provided from on-site materials; however, James Hardie will use 2,000 cubic yards of 3" minus crushed rock that will be imported from off-site sources to create a 6"-8" thick driving surface. As shown on Figure 2, the rerouted portion of Forest Road 5200 will connect to the existing Forest Road 5200 at points to the north and south of the project area within the expanded lease boundary. The road construction will comply with all forest practices best management practices applicable to construction of forest service roads.

Segmental reclamation will take place in which depleted portions of the mine will be reclaimed as new areas are developed. Reclamation will be governed by James Hardie's Surface Mine Reclamation Permit issued by DNR and will comply with the statutory requirements for mine reclamation provided in RCW 78.44 and WAC 332-18.

Other than the changes identified above, all other aspects of the mining operation will remain unchanged.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographical map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any applications related to this checklist.

The Scatter Creek Silica Quarry is located in Sections 5 and 6, T19N, R8E, about 8 miles east of the City of Enumclaw, in King County, Washington (Figure 1). The site consists of 86 acres of land leased by James Hardie from the Weyerhaeuser Company. The operation lies within the White River tree farm and is surrounded on all sides by active commercial forestland owned by the Muckleshoot Indian Tribe and managed by Manulife Forest Management. The nearest residential developments are about five miles away to the west. Access to the project site is provided via Forest Access Road 5200, a gated private road, which connects to State Route 410.

The existing 86-acre lease area is owned by Weyerhaeuser Company, parcel number 0619089002. The proposed lease expansion area is owned by the Muckleshoot Indian Tribe on portions of parcels 0619089001 and 0519089001. Weyerhaeuser, the former owner of these parcels, retained the mineral rights on the parcels. Both Weyerhaeuser and the Tribe are aware of the project and are in negotiations to lease the surface rights to James Hardie.

There are no permanent structures, and all mining and processing activities are carried out using modular equipment. Unlike most commercial silica operations that extract sand, sandstone, or quartzite (metamorphosed sandstone), the Scatter Creek quarry is developed over an ancient volcanic hot springs. This origin has created a rather heterogenous silica deposit that requires selective mining over a larger than typical mine footprint.

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountains, other _.
The quarry lies at an elevation of 2,030 feet and is situated at the intersection of an east-west trending ridge with a northeast-southwest trending ridge. The ridge crest areas have hummocky topography with exposed bedrock knobs that are bounded by steep slopes. The site topography slopes moderately down to the north and to the south at gradients between 25 and 65 percent. Total topographic relief across the expanded permit area is about 620 feet with elevations ranging from 1,520 feet on the lower southeast corner to about 2,140 feet at the top of proposed Phase 6.

The original topography has been modified by 25 years of quarrying. The current quarry footprint consists of a broad level terrace, at an elevation of 2,030 feet above sea level that extends about 1,800 feet in an east-west direction by up to 1,000 feet in a north-south direction. At the south-central portion of this terrace is the main pit which extends 400-feet east-west by 400-feet north south and lies at an elevation of 1930 feet. To the north and west of the main pit is a mid-level mine bench which extends 200 feet north and 600 feet west of the main pit and is undergoing active excavation at an elevation of 1,980 feet. At the western end of the main terrace the remnants of an upper bench at elevation 2,080 is also undergoing final excavation.

Silica crushing activities, stockpiling, weighing and offsite transport all take place at the eastern end of the main terrace. East of the main terrace is a northeast trending ridge, at an elevation of about 2100 feet where unmined silica reserves occur that are the focus of the proposed mine expansion.

b. What is the steepest slope on the site (approximate percent slope)?
The steepest natural slopes are located in the southeastern portion of the lease area with gradients of about 70 percent. Temporary, near vertical mine slopes are present in the active quarry areas and are up to about 50 feet tall.

b. What general types of soils (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
Two soil types have been mapped at the project area, consisting of Jonas and Zynbar soil. Both soil types are a well-drained mixture of volcanic ash and bedrock colluvium/residuum. Jonas soil forms atop andesite bedrock and Zynbar soil forms atop felsic igneous bedrock. There is no farmland at this site.

d. Are there surface indications or history of unstable soils in the immediate vicinity?
If so, describe.
No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
The proposed expansion could add up to about nine million tons cubic yards of high grade silica reserves suitable for James Hardie, 4.6 million cubic yards of iron silica suitable for cement production, and up to 13.6 million cubic yards of non-mineralized

rock which will used to backfill and reclaim depleted portions of the mine during phased reclamation.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Over the past 25 years the site has seen little to no erosion as a result of quarrying activities. Stockpiles of overburden and topsoil are stored on level ground away from drainage channels and are surrounded by thick natural vegetation.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
There will be no impervious surfaces constructed at the site.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
Internal drainage is maintained within the quarry area where storm water readily infiltrates into the naturally fractured bedrock. Stockpiles of overburden and topsoil areas are located on level areas surrounded by thick natural vegetation and away from drainages. Natural brush filtration barriers are maintained around the perimeter of the mine's disturbed footprint. The bedrock exposed by quarrying activities has little potential for erosion.

2. Air

a. What types of emissions to the air would result from this proposal (i.e. dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
The proposed expansion will likely increase emissions of diesel exhaust from mobile mining and modular crushing equipment, as well as emissions from highway transport trucks. This increase of emissions is expected because silica production will increase from 140,000 to 250,000 tons per year which will require more production hours from existing mine equipment. In addition, the increase in production will also require a greater number of truck trips to transport silica, resulting in an increase from 10 to 20 truckloads per day. Therefore, total emissions from all sources could nearly double with the expansion. Emissions are quantified on the Greenhouse Gas Worksheet.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
Watering of the roadway and stockpile areas is done for dust suppression on an as-needed basis with an onsite water truck. Spray bars are installed on the crushing equipment to suppress dust during the dry season. These practices will continue with the proposed expansion. Because the site is remote with equipment maintenance done offsite, only new or low hour mining and processing equipment is used to minimize maintenance and downtime. Diesel powered equipment typically includes three offroad articulating haul trucks, two 5-yard track excavators, two 7-yard wheel loaders, one D-10 (or equivalent) bulldozer, as well as a jaw and cone crusher with power screens and belt stacker. All of this equipment is equipped with Tier 4 exhaust gas recirculation devices as well as diesel particulate filters and diesel

exhaust fluid to reduce emissions.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
Yes. The east fork of Scatter Creek, a perennial fish-bearing (FP) stream lies along the northern perimeter of the proposed expansion area. Scatter Creek flows into the White River about 2-½ miles southwest of the site. Cady Creek, and perennial non-fish-bearing (NP) stream lies along the southwestern corner of the proposed expansion area. On the west central perimeter of the proposed expansion area an unnamed NP stream (Stream A) drains into the east fork of Scatter Creek about 800 feet northwest of the project area. Both Cady Creek and the unnamed drainage (Stream A) have small category 3 wetlands associated with their initiation points.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
No. The project proposes a 300-foot buffer from Stream A and its associated wetland; a 165 foot buffer from Scatter Creek; and is located over 400 feet away from Cady Creek and its associated wetland area.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of the fill material.
None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No.

5) Does the proposal lie within a 100-year floodplain? If so, note the location on the site plan.
No.

6) Does the proposal involve any discharge of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No.

b. **Ground**:

1) Will groundwater be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals.

agricultural; etc.). Describe the general size of the system, the number such systems, the number of houses to be served (if applicable), or the number animals or humans the system(s) are expected to serve.
There will be no waste material discharged by this project.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities if known). Where will this water flow? Will this water flow into other waters? If so, describe.
For the past 25 years storm water runoff has been directed into the active mining areas where it readily infiltrates into fractured bedrock. This practice will be continued for the life of the project. However, following Phase 1 of the project, a new processing area will be constructed at a lower elevation than the quarry excavation. Runoff from this area will not be able to drain into the quarry and thus runoff will be managed by a storm water detention facility designed by Barghausen Engineers. Following treatment in the detention facility, storm water will be discharged through spreaders to the forest floor about 500 feet upslope of the initiation point of Cady Creek. Here it will infiltrate into the soil zone ground water known as "interflow" more than 200 feet above the regional bedrock water table. Additionally, infiltration detention ponds will be implemented for each of the four phases of the mine. One or more pond will be constructed for each phase and will be sized to accommodate a 100-year storm event using a design infiltration rate of two inches per hour. Please refer to Sections 3.0 and 4.0 of the Technical Information Report and the Hydrogeologic Assessment submitted with this application for further information.

2) Could waste material enter ground or surface waters? If so, generally describe.
No waste material will be generated by this project. All processing will be done using dry methods. The only water used in this project is for dust control during the dry season. Water used for dust control will be implemented in accordance with the Best Management Practices set out in James Hardie's NPDES Sand and Gravel General Permit. The BMPs include maintaining the vegetated buffer around the site perimeter, sprinkling area of the site as necessary to control dust, and stabilizing roads, parking and loading areas with gravel.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
The existing project site is subject to an NPDES Industrial Sand and Gravel General Permit (Permit # WAG 501392), last updated in November 2022, which incorporates a Stormwater Pollution Prevention Plan (SWPPP). This permit will be updated to reflect the modified project and expanded project area. Storm water in the quarry will continue to be routed toward the active excavation areas where it readily infiltrates into fractured bedrock. The new processing area will utilized engineered stormwater detention that will discharge collected stormwater runoff through infiltration. In addition, the entire site is surrounded by thick forest vegetation, which acts as a natural filtration barrier to prevent offsite sediment transport. Further, the detention pond for the proposed processing and product storage area is equipped with a riser pipe which will prevent sediment and floating materials from discharging downstream. The SWPPP includes Best Management Practices that require, among other things, visual monitoring for oil sheens; source control best management practices for containment of fuel and petroleum products; incorporation of a retention

pond to control potential runoff; and a spill control plan.

4. Plants

a. Check or circle types of vegetation found on the site:
_**X** deciduous tree: alder, maple, aspen, other
_**X** evergreen tree: fir, cedar, pine, other
_**X** shrubs
_**X** grass
__ pasture
__ crop or grain
__ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
__ water plants: water lily, eelgrass, milfoil, other
__other types of vegetation

b. What kind and amount of vegetation will be removed or altered?
The expansion area was clear-cut in 2004 as part of a commercial timber harvest and vegetation now consists of replanted immature timber, low brush, and field grasses. Where this vegetation occurs within a proposed active mine area it will be removed, the underlying topsoil stripped, and these materials will be stored around the perimeter of a given mine phase for later reclamation.

c. List threatened or endangered species known to be on or near the site.
There are no federal or state threatened, endangered, or sensitive plant species identified during the recently completed investigation for the Wildlife and Habitat Inventory Report.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
None. The site will be reforested for commercial timber as part of the reclamation plan.

5. Animals

a. Circle any birds and animals, which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.
The Washington Department of Fish and Wildlife identifies the following priority habitats and species within or near the study area:

- **Regular concentration of Roosevelt elk and**
- **Occurrence of northern spotted owl.**

The Statewide Washington Integrated Fish Distribution does not identify fish species within the onsite portion of East Fork Scatter Creek. Coho and winter steelhead

presence (transported) and fall chinook (gradient accessible) are identified about 2.5 miles downstream at the lower reach of mainstem Scatter Creek and within the White River.

c. Is the site part of a migration route? If so, explain.
The site is located within what is commonly referred to as the Pacific Flyway. The flyway refers to a bird migration route that stretches from Alaska to Mexico and from the Pacific Ocean to the Rocky Mountains. The site is also identified as an area with a regular concentration of Rocky Mountain elk.

d. Proposed measures to preserve or enhance wildlife, if any:
To protect valuable wildlife areas associated with wetlands and streams, the proposed mine expansion has been designed to avoid all on-site wetlands and streams and their standard buffers. To avoid hydrological and water quality impacts to wetlands or streams and the wildlife habitat they provide, stormwater within the active mine area will infiltrate into bedrock fractures, with mine floor areas sloped to contain runoff. Stormwater within the new stockpile area will be detained within detention facilities, as further described above.

6. Energy and Natural Resources

a. What kinds of energy (electrical, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Diesel fuel will be used to operate mobile mining equipment and the highway dump trucks that transport silica sand. Petroleum products will be used for service vehicles.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
Not Applicable

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
Equipment would be maintained in good working order to maximize fuel efficiency.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.
The risks of fire and explosion would be those typically associated with handling diesel fuel while loading fuel tanks on equipment. Small amounts of petroleum products for service vehicles may be stored on site.

Drilling and blasting is conducted on a regular basis with "shots" or blasting of the drilled rock done about every two weeks. The blasting is carried out by an independent contractor licensed through the State of Washington and regulated by the Federal Mine Safety and Health Administration (MSHA). Blasting must be done during the day per MSHA guidelines and all personnel must be cleared to a safe distance as determined by

the licensed Blaster in Charge.

1) Describe any emergency services that might be required.
There is no anticipated need for expansion of emergency services. Emergency services may be needed if there is an accident at the mine that requires County ambulance or fire services.

2) Propose measures to reduce or control environmental health hazards, if any:
To minimize impacts for fuel spills caution will be used during refueling of vehicles and equipment. Fuel area will include adequate containment to prevent release of contaminants, equipment is maintained in good working order and all major equipment maintenance is done offsite.

No blasting materials are stored onsite and they are all under the supervision of the Blaster in Charge, who is an independent contractor experienced in the management and operation of such materials. During the day of a blast, all needed materials are trucked in by secure tractor-trailer trucks. Following the blast, all excess blasting materials are removed from the site. Blasting supplies are tightly regulated by the Federal Government and, as noted above, all blasting activity is conducted in compliance with MSHA guidelines.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
The current ambient noise levels include private logging road traffic, light aircraft, wind in trees, rainfall, and helicopter operations. Existing noise levels are likely within all applicable federal, state, and county noise level requirements and should not adversely affect the project.

2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
The mobile mine equipment, rock drill, and truck traffic all generate noise. Mining operation noise will be generated during daylight hours only and there should be no increase in noise levels with the proposed expansion as mining operations will remain unchanged. Because the site is several miles from the closest residential receiver and any recreational areas, there should continue to be negligible noise impacts from this project.

3) Proposed measures to reduce or control noise impacts, if any:
All equipment will be maintained in good working order with appropriate muffler systems. Mining operations will be conducted during daylight hours only.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?
A portion of the site is used for James Hardie's existing mine. The current use of the proposed expansion area and surrounding properties is commercial timberland owned by the Muckleshoot Indian Tribe and managed by Manulife Forest Management. James

Hardie operates the only commercial mine in the local area however other "woods pits" used for Forest Practices are present within a few miles of the site. In addition, other silica quarries have operated in the past within a few miles of this site and are now reclaimed.

b. Has the site been used for agriculture? If so, describe.
No.

c. Describe any structures on the site.
There are no structures on this site.

d. Will any structures be demolished? if so, what?
No structures will be demolished.

e. What is the current zoning classification of the site?
The current zoning classification of the site is Forest Resource.

f. What is the current comprehensive plan designation of the site?
Forest Resource Land

g. If applicable, what is the current shoreline master program designation of the site?
No part of the project area is within a shoreline environment.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No.

i. Approximately how many people would reside or work in the completed project?
No one will reside on the site. Up to about 8 people will work at the site during active mining operations.

j. Approximately how many people would the completed project displace?
None

k. Proposed measures to avoid or reduce displacement impacts, if any:
Not applicable

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
The current land designation is Forest Resource according to the King County Comprehensive Plan. The project does not propose any change to the existing use of the property for mining activity. The project site is located in a rural area and is surrounded by commercial forestland on all sides. The distance of the project from nearby residential communities makes it a suitable site for this project.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.
Not applicable

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Not applicable

c. Proposed measures to reduce or control housing impacts, if any:
Not applicable

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Not applicable. No structures will be constructed for this project.

b. What views in the immediate vicinity would be altered or obstructed?
Not applicable. As the project site already includes an active mine, the proposed project will not alter the visual characteristics of the area.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Not applicable, the site will revert to commercial forestry upon reclamation.

11. Light and Glare

a. What kind of light or glare will the proposal produce? What time of day would it mainly occur?
Not applicable. The site will operate only during daylight hours

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No

c. What existing off-site sources of light or glare may affect your proposal?
None

d. Proposed measures to reduce or control light and glare impacts, if any:
No measures are necessary

12. Recreation

a. What designated and informal recreation opportunities are in the immediate vicinity?
Weyerhaeuser and Manulife Forest Management have permitted the general public to use their lands for recreational purposes. Horseback riders, hikers, and hunters are permitted on their property with the proper recreation access permit. The existing quarry area is closed to recreation with the nearest recreation access point located about 3-miles west of the quarry at the Grass Mountain gate.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No. The proposed expansion area is located several miles from the nearest recreational access point. While there is a possibility that some recreational users may use the proposed expansion area, there are no hiking trails, horseback trails, or other areas commonly utilized in the proposed expansion area for recreational purposes. There are several thousand acres of commercial forest in the surrounding land that will remain accessible for recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:

None required.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None known.

b. Generally, describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site? If so, generally describe.

None known. The project applicant is in the process of consulting with the Muckleshoot Tribe to confirm that there are no landmarks or items of cultural importance to the Tribe within the project area.

c. Proposed measures to reduce or control impacts, if any:

If elements of cultural or archaeological significance were discovered, the project would be halted, and appropriate government agencies notified. The applicant will incorporate protocols acceptable to the Muckleshoot Tribe in the event of unanticipated discovery of historic or cultural resources.

14. Transportation

a. Identify public streets and highways serving the site and describe proposed access to the existing street system. Show on site plans if any.

There is no public access to the site. Access to the project site is via SR 410 to the Scatter Creek Road (5200 road), which is a gated road not open to the general public

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Not applicable

c. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes. Forest Road 5200 will be re-routed through the lease area from approximate Milepost 2.25 to Milepost 3.25. Following reclamation, the rerouted portion of the road will be 25 feet wide and 2,800 feet long, with an overall gradient of 9%. Most of the road materials will be provided from on-site materials; however, James Hardie will use 2,000 cubic yards of 3" minus crushed rock that will be imported from off-site sources to create a 6"-8" thick driving surface. As shown on Figure 2, the rerouted portion of Forest Road 5200 will connect to the existing Forest Road 5200 at points to the north and south of the project area within the expanded lease boundary. The road construction will comply with all forest practices best management practices applicable to construction of forest service roads. Please refer to the Geotechnical Narrative for further details.

d. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

e. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The project will generate up to 40 truck trips per day (20-in and 20-out), or about twice the existing truck traffic (10-in and 10-out). The majority to truck traffic takes place at off-peak nighttime hours to maximize transport efficiency. James Hardie coordinates with its trucking independent contractor to attempt to facilitate efficient transport in off-peak hours to reduce transport time and traffic impacts.

g. Proposed measures to reduce or control transportation impacts, if any:

County staff did not request a traffic analysis as no County roads will be involved with this project. Truck traffic associated with the project travel from a private road to State Route 410 at a rate of about 2 truck trips per hour (1 truck in and 1 truck back out). This traffic level did not warrant a traffic impact analysis.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Not applicable

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

No utilities are available at the site

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.

No utilities are required for this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Date Submitted: November 13, 2023

Approved by: _____

Title: _____

Date: _____