WASHINGTON STATE DEPT OF NATURAL RESOURCES

COUNTY OR MUNICIPALITY APPROVAL FOR SURFACE MINING (Form SM-6)

NAME OF COMPANY OR INDIVIDUAL APPLICANT(S)
Same as name of the exploration permit holder. *(Type or print in ink.)*

JJC RESOURCES LLC

MAILING ADDRESS

JJC RESOURCES
P.O. BOX 428
PORT ANGELES, WA 98362

Telephone 360-461-2934

TOTAL ACREAGE AND DEPTH OF PERMIT AREA
(Include all acreage to be disturbed by mining, setbacks, and buffers, and associated activities during the life of the mine.) *(See SM-8A.)*

Total area permitted will be 157.6 acres

Maximum vertical depth below pre-mining topographic grade is 70 feet

Maximum depth of excavated mine floor is 395 feet relative to mean sea level

COUNTY JEFFERSON

No attachments will be accepted. Legal description of permit area:

1/4	1/4	Section	Township	Range
NW		3	26N	12W

Proposed subsequent use of site upon completion of reclamation
COMMERCIAL FORESTRY

RECEIVED
February 7, 2024
Washington Geological Survey

Signature of company representative or individual applicant(s)	Name and title of company representative *(please print)*	Date signed
Justin R Bruch	Justin R Bruch JJC Resources, LLC Owner Partner	Feb 7, 2024

TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY:

Please answer the following questions 'yes' or 'no'.

	Yes	No
1. Has the proposed surface mine been approved under local zoning and land-use regulations?	X	
2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?	X	

When complete, return this form to the Department of Natural Resources.

Name of planning director or administrative official *(please print)*
Greg Ballard

Signature
Greg Ballard

Title *(please print)*
Jefferson County
Development Code Administrator

Address
Jefferson County
Department of Community Development
621 Sheridan Street
Port Townsend, WA 98368

Telephone
(360) 379-4454

Date
2/7/24

FOR DEPARTMENT USE ONLY:

DNR Reclamation Permit No.
70-013295

WASHINGTON STATE DEPT OF NATURAL RESOURCES

APPLICATION FOR RECLAMATION PERMIT AND PLAN (Form SM-8A)

Check appropriate box(es): ☒ new permit ☐ revision of existing permit ☐ transfer of permit ☐ expansion

NOTE: Do not attempt to complete this form until you have carefully read "Instructions for Form SM-8A".

1. NAME OF APPLICANT/PERMIT HOLDER(S)
JJC Resources LLC

2. MAILING ADDRESS
PO Box 428
Port Angeles, WA. 98362

3. Telephone **(360) 461-2934** Email **Jesse@bruchandbruch.com**

4. NAME OF MINE
St. Regis Gravel Pit

5. Street address and milepost of surface mine
Forest Service Road MCL-1000
0.3 miles south of US Highway 101 & HOH Mainline intersection
West Jefferson County, WA

6. Distance (miles)	**7.** Direction from	**8.** Nearest community
16.2 m	**South**	**Forks, WA**

9. COUNTY **Jefferson**
No attachments will be accepted. Legal Description of permit area:

1/4	Section	Township	Range
NW	3	26 N	12 W

10. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? ☒ yes ☐ no
If you answered yes to the above, please list: Black Diamond Quarry (13094), Penny Creek Rock Products (13049), Snider Quarry (013215), Beaver Falls Quarry (11280)

11. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? ☒ yes ☐ no
Have you ever had a surface mine operating or reclamation permit revoked? ☐ yes ☒ no
Have you ever had a reclamation security forfeited? ☐ yes ☒ no
If you answered yes to either of the above, give permit number(s):

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September 16, 2024
Washington Geological Survey

12. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR:
(Include all acreage to be permitted. See Form SM-6.) **157.6** acres

13. Total disturbed acreage (Include all acreage to be disturbed by mining and reclamation during the life of the mine.)
Total area to be disturbed: **64.5** acres.
Area to be disturbed in next 36 months: **10** acres.

14. Maximum vertical depth (thickness) mined below pre-mining topographic grade will be **70** feet.

15. Lowest elevation of excavated mine will be **395** feet relative to mean sea level.
Highest elevation of excavated mine will be **465** feet relative to mean sea level.

16. Type of proposed or existing mine: ☒ pit ☐ quarry

17. Material(s) to be mined: ☒ sand and gravel ☐ rock or stone ☐ clay ☐ metal ☐ limestone ☐ silica ☐ other _____

18. Deposit type: ☒ glacial ☐ river floodplain (alluvial) ☐ river channel deposits ☐ talus ☐ bedrock ☐ lode ☐ other _____

19. Expected start date of mining:	**20.** Estimated number of years:
February 2024	**28**
21. Total quantity to be mined over life of mine (estimated):	**22.** Estimated annual production:
4.3 M ☐ tons or ☒ cu yds	**150,000** ☐ tons or ☒ cu yds

23. Subsequent land use: ☐ industrial ☐ commercial ☐ residential ☐ agricultural ☒ forestry ☐ wetlands and lakes ☐ other
County or Municipality Approval for Surface Mining (Form SM-6) attached? ☒ yes ☐ no

24. Reclaimed elevation of floor of mine: **395** feet relative to mean sea level
Reclaimed elevation is shown on cross sections? ☒ yes ☐ no

25. SEPA Checklist required? ☒ yes ☐ no

26. Application fee for a new reclamation permit is herewith attached? ☒ yes ☐ no

APPLICATION FOR RECLAMATION PERMIT AND PLAN

22. SEGMENTAL RECLAMATION

Permit area has been divided into segments for mining and a mining schedule has been developed? ☒ yes ☐ no

If no, explain:

Permit area has been divided into segments for reclamation and a reclamation schedule has been developed? ☒ yes ☐ no

If no, explain:

23. SITE PREPARATION

23A. Saving Topsoil, Subsoil, and Overburden for Reclamation

Thickness of topsoil is **1** feet Thickness of subsoil is **1** feet Depth to bedrock is **Unknown** feet

Total volume of topsoil is **109,500** cubic yards Total volume of subsoil is **109,500** cubic yards

Volume of stored topsoil/subsoil is **100,430** cubic yards and will require **3** acres for storage. **Site will be reclaimed as mining progresses. Segmental reclamation will cause a fluctuation in the amount of stored topsoil on-site. Per Jefferson County Code the site is allowed a max of 10 acres of new disturbance at a time, due to this the entire site will be mined and reclaimed in small segments which will cause a fluctuation in the amount of topsoil stored at a time. Site will use 1 foot of topsoil to restore slopes and mine floor to forestry use upon reclamation. Excess topsoil and subsoil will be sold.**

Storage areas are shown on maps and will be marked on the ground with permanent boundary markers? ☒ yes ☐ no

Topsoil will be salvaged? ☒ yes ☐ no

If no, explain: **Due to Jefferson County code restrictions of site disturbance, excess topsoil and subsoil will need to be sold.**

Topsoil and overburden will be moved to reclaim an adjacent depleted segment? ☒ yes ☐ no

If no, explain:

Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas? ☒ yes ☐ no

If no, explain:

Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season? ☒ yes ☐ no

If no, explain:

23B. Permit and Disturbed Area Boundaries

Boundary of the permit area will be marked on the ground with permanent boundary markers? ☒ yes ☐ no

Explain boundary markers: **Signs will be posted around the mining limits.**

23C. Setbacks Screens and Buffers

Are Screens required and are shown on maps? ☒ yes ☐ no

The reclamation setback for this site will be **25** feet wide **along the southern and eastern parcel boundary.**

Varied setback from crest of western slope. See Geotechnical Report for details.

300 – ft setback from Wetlands

150 – ft setback from Type F Stream 285382

50 – ft setback from Pond

Is a permanent, undisturbed buffer planned for this site? ☒ yes ☐ no

If no, explain:

Setbacks and buffers are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

If no, explain:

23D. Buffers to Protect Streams and Flood Plains

Will the site include a stream or flood plain? ☒ **yes** ☐ **no**

If yes, see "Additional Requirements for Mines in Flood Plains" in "Instructions for SM-8A".

If no, skip to 23E.

A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

Per County Code a 150 – ft setback will be kept from the Type F stream 285382

A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

If no, explain: **Site does not lie within a flood plain.**

Copy of Shoreline Permit from local government or the Department of Ecology is attached? ☐ yes ☒ no

Hydraulic Project Approval from the Department of Fish and Wildlife is attached? ☐ yes ☒ no

23E. Conservation Buffers

Are there any conservation buffers? ☒ yes ☐ no

If no, skip to 23F

Conservation buffers will be established for the following purpose(s): *(Check all that apply)*

☒ unstable slopes ☐ wildlife habitat ☐ water quality ☐ other

Describe the nature and configuration of the conservation buffer(s): **Per the Geotechnical Report conducted by GeoResources a recommendation of a setback has been established along the crest of the western slope. In addition to stormwater drainage being directed away from the slope and phasing near the slope to be less than 15 acres at a time. See Geotechnical report for details.**

Conservation buffers are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

23F. Ground Water

High water table depth is **190** feet ☒ relative to mean sea level, ☐ below original surface, or ☐ unknown.

Low water table depth is **170** feet ☒ relative to mean sea level, ☐ below original surface, or ☐ unknown.

Annual fluctuation of water table is from **170** feet on **msl** to **190** feet on **msl**.

Are well logs attached? ☒ yes ☐ no

The shallowest aquifer is ☒ confined ☐ unconfined

The site will be mined: ☐ wet ☒ dry ☐ both

Describe mining method: **Open Pit**

The site is in a:

☒ critical aquifer recharge area ☐ sole source aquifer ☐ public water supply watershed

☐ wellhead protection area ☐ special protection area ☐ designated aquifer protection area

If checked above, see "Additional Requirements for Mines in Hydrologically Sensitive Areas" in "Instructions for SM-8A".

Ground water study attached? ☐ yes ☒ no

If no, explain: **Mining will stay above the Groundwater Table.**

23G. Archeology

Are archeological/cultural resource sites present? ☐ yes ☒ no

If yes, describe how you will protect these resources:

24. MINING PRACTICES TO FACILITATE RECLAMATION

24A. Soil Replacement

Topsoil and (or) subsoil will be restored? ☒ yes ☐ no

If "no", explain:

Subsoil will be replaced to an approximate depth of **0** feet on the pit floor and a depth of **0** feet on slopes.

Topsoil will be replaced to an approximate depth of **1** feet on the pit floor and a depth of **1** feet on slopes.

If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? ☒ yes ☐ no

If no, explain:

Topsoil will be moved when conditions are not overly wet or dry? ☒ yes ☐ no

If no, explain:

APPLICATION FOR RECLAMATION PERMIT AND PLAN

Topsoil will be restored to promote effective revegetation and to stabilize slopes and mine floor? If "no", explain:	☒ yes ☐ no
Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? If no, explain:	☒ yes ☐ no
Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? If no, explain:	☒ yes ☐ no
Segmental topsoil removal and replacement is shown on maps? If no, explain:	☒ yes ☐ no
Topsoil will be imported? If yes, describe source. Clean Import soil from approved construction projects will be mixed with reject material and organic debris if required, import to be tested for contaminants by provider. Estimated volume is **100,430** cubic yards. **Jefferson County Code restricts new disturbance to a max of 10 acres at a time. Due to limited space and segmental mining and reclamation, the amount of needed topsoil and space to store the topsoil will fluctuate. If needed Topsoil will be imported from nearby sources for reclamation purposes. On-site resources will be used for reclamation purposes first and site will import only if necessary.**	☒ yes ☐ no
Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil?	☒ yes ☐ no
Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. If yes, explain: Materials on-site will be used in reclamation.	☒ yes ☐ no
Silt from settling ponds or a filter press will be used for reclamation?	☒ yes ☐ no
Settling pond clay slurries will be pumped or hauled to other segments for reclamation? If yes, explain:	☐ yes ☒ no
24B. Removal of Vegetation	
Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? If no, explain:	☒ yes ☐ no
Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? If yes, give details. If no, explain: **Site will be revegetated as part of reclamation.**	☐ yes ☒ no
Wood and other organic debris will be: ☒ recycled ☐ removed from site ☒ chipped ☐ burned ☐ buried ☒ used to synthesize topsoil or mulch ☐ other (*explain*) Solid waste disposal, burning, and land use permits are attached?	☐ yes ☒ no
Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? If yes, give details. If no, explain: **Site will salvage appropriate materials and store with topsoil to be used with Reclamation.**	☒ yes ☐ no
24C. Stormwater and Erosion control for Reclamation	
Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? If yes, give details. If no, explain: **Stormwater will be directed toward on-site ponds and channels.**	☒ yes ☐ no
Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? If yes, give details. If no, explain: **Proper BMP'S will be utilized to protect the site from erosion.**	☒ yes ☐ no

Water control systems used during segmental reclamation will:

- Divert clean water around pit? ☒ yes ☐ no
- Trap sediment-laden runoff before it enters a stream? ☒ yes ☐ no
- Be established to prevent erosion of setbacks and neighboring properties? ☒ yes ☐ no
- Be removed or reclaimed? ☒ yes ☐ no

If any answers are no, explain:

Stormwater system design will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event? ☒ yes ☐ no

(*Data are available at the National Oceanic And Atmospheric Administration (NOAA)*) ☒ yes ☐ no

If yes, are calculations attached?

If yes, give details. If no, explain: **Stormwater ponds are designed for 25yr/24hr calcs provided.**

Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden? ☒ yes ☐ no

If no, explain:

25. RECLAMATION TOPOGRAPHY

25A. Final Slopes

Final slopes will be created using the cut-and-fill method? ☒ yes ☐ no

Explain procedure to be used: **Slopes will be excavated at 1H:1V and backfilled to 2H:1V using guidelines from the provided Geotechnical Report provided by GeoResources.**

Slopes will be created by mining to the final slope using the cut method? ☐ yes ☒ no

Explain procedure to be used:

Slopes will vary in steepness? ☒ yes ☐ no

If no, explain:

Slopes will have a sinuous appearance in both profile and plan view? ☒ yes ☐ no

If no, explain:

Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? ☒ yes ☐ no

If no, explain:

Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? ☒ yes ☐ no

If no, explain:

25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)

If the mine is a quarry or in hard rock, skip to Quarry section (25C).

Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? ☒ yes ☐ no

If no, explain:

For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? ☒ yes ☐ no

Give details: **Temporary slopes will be 1H:1V. Slopes will be reclaimed to 2H:1V and revegetated.**

Review "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".

Slope stability analysis required? ☒ yes ☐ no

If yes, attach analysis. **See attached Geotechnical Report by GeoResources.**

APPLICATION FOR RECLAMATION PERMIT AND PLAN

25C. Slope Requirements for Quarries and Hardrock Metal Mines

If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D

Check the appropriate box(es)

☐ Slopes will not exceed 2 feet horizontal to 1 foot vertical.

☐ Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.

☐ Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.

☐ Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.

Review "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".

Slope stability analysis required? ☐ yes ☐ no

If yes, attach analysis.

Measures will be taken to limit access to the top and bottom of hazardous slopes? ☐ yes ☐ no

Describe measures, or if no, explain:

Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? ☐ yes ☐ no

Blasting plan attached? ☐ yes ☐ no

If no, explain:

Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? ☐ yes ☐ no

Blasting plan is attached? ☐ yes ☐ no

If no, explain:

Access to benches will be maintained for reclamation blasting? ☐ yes ☐ no

If no, explain:

Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds? ☐ yes ☐ no

25D. Backfilling

The site will require backfilling? ☒ yes ☐ no

If no, skip to 25E.

Maximum depth of backfilling is **40** feet.

Backfill will be ☐ onsite materials ☐ imported materials ☒ both ☒ yes ☐ no

Provide a written screening method that ensures importation of acceptable soil for reclamation.

Backfilling plan is attached? ☒ yes ☐ no

If no, explain: **See attached Geotechnical Report for backfilling requirements.**

Backfill stockpiles are shown on maps and will be marked on the ground with markers? ☒ yes ☐ no

All grading/backfilling will be done with non-noxious, non-combustible, and relatively incompactible solids? ☒ yes ☐ no

If no, explain:

Backfill will require compaction? ☒ yes ☐ no

If no, explain:

Will you be backfilling to create slopes? ☒ yes ☐ no

Is slope stability analysis attached? ☒ yes ☐ no

If no, explain.

25E. Mine Floors

Flat areas will be formed into gently rolling mounds? ☒ yes ☐ no

If yes, give details. If no, explain: **Mine floor will be graded to produce uneven/mounded topography and revegetated with overall slope to pond.**

Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? ☒ yes ☐ no

If yes, give details. If no, explain: **Mine Floor will be graded to direct stormwater to channels and infiltration ponds.**

Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? ☒ yes ☐ no

If yes, give details. If no, explain: **Mine floor will be prepared for revegetation according to the Revegetation Plan within the Reclamation Plans.**

25F. Lakes, Ponds, and Wetlands

Is water currently present in the area or will the mining penetrate the water table? ☐ yes ☒ no

If no, go to Section 25G.

Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? ☐ yes ☐ no

If yes, give details. If no, explain:

If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? ☐ yes ☐ no

If yes, give details. If no, explain:

Some parts of pond and lake banks will be shaped so that a person can escape from the water? ☐ yes ☐ no

Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? ☐ yes ☐ no

If yes, give details. If no, explain:

Wildlife habitat will be developed, incorporating such measures as:

- Sinuous and irregular shorelines? ☐ yes ☐ no
- Varied water depths? ☐ yes ☐ no
- Shallow areas less than 18 inches deep? ☐ yes ☐ no
- Islands and peninsulas? ☐ yes ☐ no

Give details:

Ponds or basins will:

- Be located in stable areas? ☐ yes ☐ no
- Have sufficient volume for expected runoff? ☐ yes ☐ no
- Have an emergency overflow spillway? ☐ yes ☐ no
- Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion? ☐ yes ☐ no

If any answers are no, explain:

Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes? ☐ yes ☐ no

If yes, give details. If no, explain:

Written approval from other agencies with jurisdiction to regulate impoundment of water is attached? ☐ yes ☐ no

If no, explain:

25G. Final Drainage Configuration

Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation? ☒ yes ☐ no

Result in essentially natural conditions of volume, velocity, and turbidity? ☒ yes ☐ no

Clean runoff is directed to a safe outlet? ☒ yes ☐ no

If yes, give details. If no, explain: **Mine floor will gently slope to direct all stormwater to on-site channels and infiltration ponds.**

Are these shown on maps? ☒ yes ☐ no

26. SITE CLEANUP AND PREPARATION FOR REVEGETATION

26A. Dealing with Hazardous Materials

Hazardous materials are present at the mine site? ☐ yes ☒ no
If no, go to Section 26B

The final ground surface drains away from any hazardous natural materials? ☐ yes ☐ no
If yes, give details. If no, explain:

Plan for handling hazardous mineral wastes indigenous to the site is attached? ☐ yes ☐ no
If no, written approval from all appropriate solid waste regulatory agencies attached? ☐ yes ☐ no

26B. Removal of Debris

All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site? ☒ yes ☐ no

All sheds, scale houses, and other structures will be removed from the site? ☒ yes ☐ no

If either answer is yes, give details. If no, explain: **All facilities are temporary and will be removed upon reclamation.**

27. REVEGETATION

The mine site is in: ☐ eastern Washington ☒ western Washington

Revegetation area is: ☐ wet ☒ dry ☐ both

The average precipitation is 50-55 inches per year.

Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of mine segments? ☒ yes ☐ no

If yes, give details. If no, explain: **Site will be revegetated according to the Revegetation Plans within the Reclamation Plans.**

The site will not be revegetated because:

☐ It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).

☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Explain:

27A. Recommended Pioneer Species

In the Sections below, check the species that will be planted at your mine site:

**** indicates nitrogen-fixing species***

Western Washington Dry Areas

☐ alfalfa*	☐ lupine*	☒ clover*	☐ orchard grass
☐ cereal rye	☒ perennial rye	☒ colonial bent grass	☐ ponderosa pine
☒ creeping red fescue	☒ red alder*	☒ Douglas fir	☐ shore pine
☐ ground cover	☐ shrubs	☒ other **Western Red Cedar, Western Hemlock, Vine Maple, Salmonberry, Salal, & Sword Fern,**	

Western Washington Wet Areas

☐ birdsfoot trefoil	☐ sedges	☐ cedar	☐ tubers
☐ cottonwood	☐ wetland grasses	☐ creeping red fescue	☐ willow
☐ red alder*	☐ other		

Eastern Washington Dry Areas

☐ alder*	☐ grasses	☐ alfalfa*	☐ juniper
☐ black locust	☐ lodgepole pine	☐ clover	☐ lupine*
☐ deciduous trees	☐ ponderosa pine	☐ shrubs	☐ deep-rooted ground cover
☐ diverse evergreens	☐ other		

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Eastern Washington Wet Areas

☐ alder* ☐ cottonwood ☐ poplar ☐ sedges
☐ serviceberry ☐ tubers ☐ willow
☐ other

Give planting details (stems/acres of trees and shrubs, see Forest Practices manual; lbs/acre of grass, legume, or forb mixture):
Planting details are provided on the Revegetation Plans within the Reclamation Plans.

Describe weed control plan:
Noxious Weeds will be monitored and removed appropriately.

27B. Planting Techniques

Revegetation at this site will require:

Ripping and tilling?	☒ yes	☐ no
Blasting to create permeability?	☐ yes	☒ no
Mulching?	☒ yes	☐ no
Irrigation?	☐ yes	☒ no
Fertilization?	☒ yes	☐ no
Importation of clay- or humus-bearing soils?	☐ yes	☒ no
Other soil conditioners or amendments?	☐ yes	☒ no

Give details: **Site will be properly prepared for revegetation. See Revegetation Plan within the Reclamation Plans for details.**

Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter? ☒ yes ☐ no
If yes, give details. If no, explain: **Site will follow Revegetation Plan within the Reclamation Plans.**

Mulch will be piled around the base of trees and shrubs?	☒ yes	☐ no
High quality stock will be used?	☒ yes	☐ no
Trees and shrubs will be planted while they are dormant?	☒ yes	☐ no
Stock will be properly handled, kept cool and moist, and planted as soon as possible?	☒ yes	☐ no
Seeds will be covered with topsoil or mulch no deeper than one-half inch?	☒ yes	☐ no

If any answers are no, explain:

28. FINAL CHECKLIST

All required maps are attached? (***See "Instructions for SM-8A" for detailed requirements.***)	☒ yes	☐ no
All required cross sections are attached? (***See "Instructions for SM-8A" for detailed requirements.***)	☒ yes	☐ no
Geologic map attached (if required)? (***See "Instructions for SM-8A" for detailed requirements.***)	☒ yes	☐ no
All documents submitted have the date, the name and address of the permit holder, and the application number?	☒ yes	☐ no
Have you completed the SM-6 and has it been signed by the local jurisdiction?	☒ yes	☐ no
Have you provided the SEPA checklist?	☒ yes	☐ no
Have you provided a copy of the SEPA determination (DNS, MDNS, or DS)?	☒ yes	☐ no
Have you attached photographs (as needed)?	☒ yes	☐ no
Are additional supplemental studies included?	☒ yes	☐ no

If yes, check the appropriate box(es) below:

☐ Archeological ☐ Geohydrologic ☐ Backfill ☐ Slope stability
☐ Topsoil ☐ Flood plain ☐ Conservational ☐ Vegetation
☒ Other **Geotechnical Report**

APPLICATION FOR RECLAMATION PERMIT AND PLAN

Other permits required? ☒ yes ☐ no

If yes, check the appropriate box(es) below:

☐ Shoreline Permit	☐ Water Discharge Permit	☐ Solid Waste Permit
☒ Air Quality Permit	☐ NPDS or General Discharge Permit	☐ Hydraulic Project Approval
☐ Special or Conditional Use Permit	☒ Other **DOE Sand and Gravel General Permit**	

APPLICATION FOR RECLAMATION PERMIT AND PLAN

IDENTIFICATION OF LANDOWNER(S)

Identify names and addresses of all landowners. Provide written evidence of landowner approval of the extraction of minerals by surface mining methods and of the reclamation plan and/or provide the signature of all landowners below. If landownership has been severed between surface and mineral rights ownership, identify all affected mineral rights owner(s) and provide their approval. *(Attach signed copies of this page if more than one.)*

Print Name(s): Joel Wilhelm

Address(es): Fruit Growers Supply Company, PO Box 2215, Forks, WA 98331

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September 16, 2024
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APPLICANT ACKNOWLEDGMENT

By signing this application, the applicant acknowledges the following:

- **Application's Information True.** The applicant verifies that all information on this application and reclamation plan is true.
- **Reclamation Plan Contents.** The applicant's reclamation plan consists of this document (SM-8A), SM-6, associated maps, cross sections, reclamation narrative, and other attachments. The department's approval of this application would reflect approval of the applicant's reclamation plan.
- **Applicant/Permit Holder Must Comply.** If the department approves this application, the applicant shall be the permit holder and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the terms and conditions of the permit, and the approved reclamation plan and attachments. ***The permit holder shall comply with the permit and may not significantly deviate from the reclamation plan without prior written approval by the department for the proposed change.*** Revised permits or modified plans might be necessary following significant deviations.
- **Applicant/Permit Holder Consents to Inspection.** All permitted surface mines are subject to regular inspection. See RCW 78.44.161 and WAC 332-18-050. The applicant verifies that it has authority to consent to department inspections on behalf of itself and the landowner(s). ***Applicant authorizes the department to enter and inspect any property covered by this application during any day or time determined necessary by the department to ensure compliance with the Surface Mining Act, Surface Mining Rules, the Reclamation Permit, and the Reclamation Plan.***

APPLICANT Signature of surface mine permit applicant or applicant's company representative	Name and Title of Company Representative (Please print)	Date signed
Jesse Bruch Jesse Bruch (Dec 7, 2023 09:44 PST)	Jesse Bruch	07/12/2023

LANDOWNER(S)

As landowner, I Joel Wilhelm (name) authorize the applicant to extract minerals from my land using surface mining methods and I approve this reclamation plan.

Signature:	Date signed:
Joel Wilhelm	07/12/2023

FOR DEPARTMENTAL USE ONLY

Date accepted	Accepted by:	Title:	Reclamation Permit No.

NORTHWEST MINING SOLUTIONS

St. Regis Gravel Pit Narrative

Date: December 1, 2023

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September 16, 2024
Washington Geological Survey

Applicant/Operator:

JJC Resources LLC
PO Box 428
Port Angeles, WA. 98362

Landowner:

Fruit Growers Supply Company
27770 N Entertainment Dr #3
Valencia, CA 91355

Site:

US Highway 101 & HOH Mainline
West Jefferson County, WA

Parcel ID(s): 612032001 (320.69 Acres), Proposed Permit Acreage (157.6)

Objective:

Acquire DNR Permit for a new site. This site approval would allow JJC Resources to extract all available resources down to 395-ft msl from the site. The site is expected to yield approximately 4.3 MCY with this plan. Mining will occur in nine phases. Reclamation will occur as mining progresses through each phase.

Location:

The St. Regis Gravel Pit is located 16.2 miles south of Forks, Washington. Site access is located 0.3 miles south of the Hoh Mainline and HWY 101 intersection, along private Forest Road MCL-1000. The existing pit is located approximately 0.5 miles up the private Forest Road.

Legal Description:

Township 26 North, Range 12 West, W.M., Jefferson County, Washington. All of the Northwest ¼ of Section 3.

Zoning:

Parcel zoning is CF-80 Commercial Forest. Per Jefferson County Code mining is an allowed use with a maximum new disturbance of 10 acres at a time. Phases will be mined in a progressive manner.

Site History:

The site has been continuously logged and a small gravel pit has been excavated on-site. Aerial imagery shows the gravel pit originating around 1952.

Current Site Conditions:

Currently the site has a small gravel pit that JJC Resources is looking to permit and expand. The pit is surrounded by Commercial Forest. North of the existing pit lies wetlands, streams, and ponds. The site access is through a private Forest Road MCL-1000.

Proposed Plan:

St. Regis Gravel Pit is an old existing gravel pit that does not currently have any permits tied to it. JJC Resources LLC is applying for a DNR Permit to allow for further extraction on this site. The permit will encompass a total of 157.6 total acres, with 64.5 acres to be disturbed by mining and will be mined in 9 phases. Per Jefferson County code mining is an allowed use, with a of maximum new disturbance of 10 acres at a time. Reclamation will occur as mining progresses. Total material to be extracted is 4.3 MCY, with a max annual production of 150,000 CY. Extraction of materials is expected to last approximately 28 years.

Phasing Plan:

Phases will be mined in a progressive manner. As mining is completed in a section, reclamation will immediately follow. This allows for mining to seamlessly progress. Mining may occur in any phasing order. Mining may occur in several phases concurrently as long as total new disturbance does not exceed 10 acres at one time. Mining and reclamation will gradually move eastward.

Setbacks:

Setbacks are based on Geotechnical recommendations and Jefferson County Code.

25-ft Setback from Property Boundary along southern and eastern boundaries.

300-ft from the Wetlands in the northern section of the parcel.

150-ft from Type-F stream 285382

50-ft from small pond on the eastern side of property.

Varied setback from the crest of slope along the western edge of the property. See Geotechnical Report for details.

Groundwater:

The nearest water well or resource protection well reports are located along the Hoh River at approximately the same elevation as Highway 101 west of the subject site. These reports indicate that groundwater is present at depths of 10 to 15 feet below the highway grade, approximately elevation 170 to 190 feet.

Slope Design:

Mine plan is designed based on the GeoResources Geotechnical report recommendations. Temporary Slopes are 1H:1V with a max of 50-ft faces. Upon reclamation slopes will be backfilled to 2H:1V.

Excavation:

Material on-site is mainly sand and gravel deposits. Slopes will be excavated using heavy equipment. Excavators, dozers or loaders will be used to extract the material from the ground. The material will then be conveyed via truck, conveyor or loader to the processing area for processing. Processing and stockpiles will begin in the previously disturbed areas of the site. As disturbance increases the site will be able to manage additional stockpiles, overburden, and waste rock. The stockpiles will be sold or remain for reclamation purposes.

Critical Areas:

The site has several wetlands, streams, and ponds located within the property boundary. Setbacks are marked from each. St. Regis Gravel Pit is within a Critical Aquifer Recharge Area. The site has two infiltration ponds on native soil to allow for proper infiltration to not affect the aquifer.

Signage:

No trespassing mining limits signs are placed around the perimeter of the permit boundary. The site entrance has a safety and no trespassing sign with site contacts listed on it.

Landscaping:

Upon completion of mining the site will be reclaimed and returned to its natural state. Topsoil will be brought on-site upon reclamation. Site will be revegetated according to the Revegetation Plan within the Reclamation Plans.

Protection of Water Quality:

The site will manage stormwater with effective BMP'S and on-site infiltration ponds. Water that doesn't infiltrate immediately into the ground is conveyed via sheet flow, pipes and ditches to points of infiltration. Erosion is prevented by maintaining natural vegetation where possible and on steep slopes maintaining rock and check dams and rock lined ditches. All stormwater will be monitored per an approved Site Management Plan. Stormwater data will be reported to the Department of Ecology per requirements.

Topsoil:

Needed topsoil will be stored within the current mining area for reclamation purposes. Approximately a total of 100,430 CY of topsoil will be required for total site reclamation. Topsoil will be stored in the previously disturbed area once there is enough space to do so. Once topsoil can be stored on-site it will be seeded and managed with proper BMP's. Due to segmental mining and reclamation the amount of stored topsoil and imported topsoil will fluctuate. Segmental mining and reclamation will impact the amount of topsoil that is on-site at a time. On-site resources will be used for reclamation purposes first. If additional topsoil is needed, it will be brought on-site from a nearby source. Topsoil will be used to reclaim each phase's final slopes and mine floor. See attached Revegetation Plans within the Reclamation Plans for further details.

Stormwater:

All slopes and ditches will be graded to direct stormwater to the infiltration ponds. Per the Geotech report conducted by GeoResources all stormwater will be directed away from the western slope. Channels will be rock and grass lined to allow for infiltration and to prevent erosion. Drainages will maintain a minimum 2% slope to direct water to the on-site infiltration pond in the floor of the pit. Ponds will vary in size and grow as

needed and as mining progresses through phasing. See attached Geotech report, stormwater calculations and stormwater details in reclamation plans for further information.

Berms:

Berms half the height of the tires of the haul trucks will be along the outer edge of the haul road. This will help divert drainage, and act as a safety measure.

Archeology:

Site is zoned as CF-80 Commercial Forestry and has been logged for many years. The small Gravel Pit on the site has been an active pit since the 1950's. During activities the no known archaeological sites have been discovered. Review of online databases and GIS data do not show any known cultural sites within the parcel boundary. If at any point any cultural artifacts or sites are discovered mining will cease and the County will be notified.

Removal of Vegetation:

Site will be stripped in phases. As each section is mined all topsoil will be stripped and stockpiled for reclamation purposes. Trees will be logged and debris will be processed and stockpiled for reclamation purposes. Once topsoil can be stored on-site it will be seeded and managed with proper BMP's. Additional topsoil may be needed upon reclamation of each phase. Topsoil will be brought on-site from a nearby source if needed. Topsoil will be used to reclaim each phase's final slopes and mine floor. See attached Revegetation Plans within the Reclamation Plans for further details.

Soil Replacement:

Needed topsoil and backfill stockpiles will be stored in the previously disturbed gravel pit limits. Additional topsoil and backfill may be brought on-site upon reclamation if necessary. It is predicted that approximately 100,430 CY of topsoil and 238,000 CY of clean backfill will be used to reclaim slopes to 2H:1V. See attached Revegetation Plan within the Reclamation Plans for further information.

Erosion Control:

Slopes will be permanently hydroseeded for erosion control. Grass and rock lined channels will help direct water to on-site infiltration ponds. Proper BMP's will be utilized around the site to help control water runoff.

Reclamation Topography:

The site will be mined in nine phases to a final mine floor elevation of 395-ft msl. Slopes will be mined at 1H:1V with a max of 50-ft faces. Mining will occur in each phase and in a max of 10-acre increments. Upon completion of each phase, temporary slopes that lay along the permit boundary within that phase will be finalized using overburden from the next phase. If additional backfill is needed clean fill from nearby sites will be brought in. Once slopes are finalized at a 2H:1V slope, the slope will be revegetated. Once all phases have been mined the mine floor will be revegetated and returned to Forestry use. See Reclamation Plans for further details.

Final Slopes:

Slopes will be backfilled with overburden on-site and clean fill. Slopes will be backfilled to create 2H:1V overall with a max height of 50-ft vertical. Slopes will then be revegetated according to the Revegetation Plan within the Reclamation Plans.

Backfilling:

Backfill will be used to reclaim slopes to 2H:1V. Approximately 238,000 CY of clean backfill will be needed to reclaim the slopes. Backfilling will follow recommendations within the attached Geotechnical Report by GeoResources.

Mine Floor:

Mine floor is approximately 50 acres. Mine floor will be left at 395-ft msl and revegetated according to the Revegetation Plan within the Reclamation Plans. Site will be restored to Forestry use. A Forest Service Road will remain after reclamation to allow for access to surrounding parcels.

Lakes, Ponds, and Wetlands:

Site has wetlands, ponds, and streams. Operations will maintain a 300-ft setback from the wetlands, a 150-ft setback from the Type F stream 285382, and a 50-ft setback from a fresh water pond. See Reclamation Plans for waterbody locations on site.

Final Drainage Configuration:

All slopes and ditches will be graded to direct stormwater to the infiltration ponds. Two infiltration ponds will be left on-site as permanent features. It is expected that as vegetation grows the ponds will naturally become seasonal.

Site Cleanup and Preparation for Revegetation:

As site approaches reclamation the site will be cleaned up and prepared to have all debris and equipment removed from site.

Removal of Debris:

All Debris, vehicles, and storage containers will be removed from the site prior to the completion of reclamation.

Revegetation:

Site will follow the approved Revegetation Plan within the Reclamation Plans. Revegetation will occur as mining progresses and slopes have been backfilled. When permanent slopes have been created slopes will be hydroseeded and revegetated according to the Revegetation Plans.

Clean Soil Acceptance Policy

JJC Resources, LLC is permitted to accept "clean soil" for disposal. We have developed a clean soil pre-screening policy. Clean soil is defined more by what it does *not contain, than by what it does contain*. Clean soil is earthen material that does not contain the following:

- The soil *cannot* contain any construction or demolition waste, broken concrete or asphalt, tires, or other rubber or plastic materials, garbage, rubbish, wood waste or other organic matter.

- The soil *cannot* contain radioactive waste, extremely hazardous waste, hazardous materials, dangerous waste, toxic materials or any petroleum product or by-products (all of which terms are specifically defined and regulated by federal, state and local environmental regulations).

- The soil *cannot* be from any cleanup action whether regulated by environmental laws or not ("problem wastes").

- Representative soil samples of potential fill shall be submitted to the laboratory for testing. If arsenic concentrations exceed the Puget Sound regional background value of 7 mg/kg As, then these soils will not be accepted as fill, unless a licensed engineer reviews the test results and determines the results do not violate anti-degradation regulations.

- Contaminated dredge material will not be accepted. Contaminated dredge material is defined as material resulting from the dredging of surface waters of the state where contaminants are present at concentrations not suitable for open water disposal, and the material is not dangerous waste or regulated by Section 404 of the Clean Water Act.

Soil meeting all these characteristics is "Clean Soil".

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WAC 173-350-100 defines **"Clean soil"** as: *soil that does not contain contaminants from a release. It also includes soil that contains one or more contaminants from a release and when moved from one location to another for placement on or into the ground:*

*(a) Does not contain contaminants at concentrations that exceed a cleanup level under chapter **173-340** WAC, Model Toxics Control Act—Cleanup, that would be established for existing land use at the location where soil is placed; or*

(b) Contains contaminants that affect pH, but pH of the soil is between 4.5 and 9.5 or within natural background pH limits that exist at the location where soil is placed.

Examples of potentially clean soil may include, but are not limited to, soil from undeveloped lands unlikely to have impacts from release of contaminants associated with area-wide or local industrial or historical activities. This includes similar soils over which development may have occurred but land use is unlikely to have led to a release, such as use for residential housing, or over which development provided protection from impacts from a release, such as coverage by pavement. Soil with substances from natural background conditions, as natural background is defined in WAC 173-350-100, is clean soil under this section.

At a minimum, any soil brought onto the site must meet the Model Toxics Control Act (MTCA) Cleanup Level minimums for the property in question based on its zoning and allowed use. Below is the listed cleanup level minimums for an Industrial zoned property. See Table 745-1 below for details.

Additionally, the soil brought to the location will not contain more contaminants than the existing site itself. Testing of the site prior to any dumping activity will be necessary to establish a baseline level of contamination.

MTCA Cleanup Regulation Table 745-1

Method A Soil Cleanup Levels for Industrial Properties

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	20 mg/kg
Benzene	71-43-2	0.03 mg/kg
Benzo(a)pyrene	50-32-8	2 mg/kg
Cadmium	7440-43-9	2 mg/kg
Chromium Chromium VI	18540-29-9	19 mg/kg
Chromium III	16065-83-1	2,000 mg/kg
DDT	50-29-3	4 mg/kg

Method A Soil Cleanup Levels for Industrial Properties Continued

Hazardous Substance	CAS Number	Cleanup Level
Ethylbenzene	100-41-4	6 mg/kg
Ethylene dibromide (EDB)	106-93-4	0.005 mg/kg
Lead	7439-92-1	1,000 mg/kg
Lindane	58-89-9	0.01 mg/kg
Methylene chloride	75-09-2	0.02 mg/kg
Mercury (inorganic)	7439-97-6	2 mg/kg
MTBE	1634-04-4	0.1 mg/kg
Naphthalene	91-20-3	5 mg/kg
PAHs (carcinogenic)		See benzo(a)pyrene
PCB Mixtures		10 mg/kg
Tetrachloroethylene	127-18-4	0.05 mg/kg
Toluene	108-88-3	7 mg/kg

Total Petroleum Hydrocarbons

[Note: Must also test for and meet cleanup levels for other petroleum components--see footnotes!]

Gasoline Range Organics		
Gasoline mixtures without benzene and the total of ethyl benzene, toluene and xylene are less than 1% of the gasoline mixture		100 mg/kg
All other gasoline mixtures		30 mg/kg
Diesel Range Organics		2,000 mg/kg
Heavy Oils		2,000 mg/kg
Mineral Oil		4,000 mg/kg
1,1,1 Trichloroethane	71-55-6	2 mg/kg
Trichloroethylene 7	9-01-6	0.03 mg/kg
Xylenes	1330-20-7	9 mg/kg

Complete and sign the Clean Soil Certification Form describing the soil, and other relevant information. JJC Resources, LLC will require soil sampling to confirm the absence of contamination.

Clean Soil Certification Form

1. General Information

Owner of Soil: _____
Name: _____
Address: _____
Contact: _____Telephone:_____ Fax:_____

Transporter of Soil: _____
Name:_____
Address: _____
Contact:_____ Telephone:_____ Fax :_____

2. Information about Site

Business currently conducted on the site and to the extent possible all information about former businesses on the site (please consult current owner/operator of the site to complete this question):

_____
_____
_____

Identify all hazardous substances and petroleum products produced, stored or used at the site (please consult current owner/operator of the site to complete this question):

_____
_____
_____

Describe the surrounding area as completely as possible, especially identifying all businesses, industrial activity, chemical or petroleum storage and all general uses of the property:

_____
_____
_____

3. Information About Soil

Has there been any geotechnical work performed on the clean soil or soil in the immediate vicinity? If so, please provide a copy of the sample results and report (consult current owner/operator of the site to complete this question):

_____
_____
_____

Is there any other solid material in the soil (construction waste, asphalt, concrete, wood waste, garbage, rubbish, ashes, tires, plastic, rubber)? Describe:

_____
_____
_____

4. Certification

Your company certifies, represents and warrants that the information is complete and accurate to the best of its knowledge.

_____ _____
Signature and Title of Company's Authorized Agent Date

5. Acceptance Agreement

Before JJC Resources, LLC can accept any material for deposit on property owned or leased by JJC Resources, or for a project constructed by JJC Resources, this Agreement must be executed. JJC Resources requires an owner or owners or officer of your firm (the Company) execute this Agreement.

By signing this Agreement, the _____ certifies that it has a good faith belief that the material delivered to JJC Resources does not radioactive wastes, dangerous or extremely hazardous wastes (as defined by WAC 173-340) or any soil removed as part of any clean-up action ("problem waste").

JJC Resources reserves the right to inspect, sample and/or require the Company to sample any and all material before accepting the material. This right does not relieve the Company of its responsibility to tender material that conforms to the foregoing certification.

The company agrees to defend, indemnify, and hold JJC Resources harmless from and against any and all claims, demands, causes of action, damages, liabilities, losses, expenses, penalties and all costs of defense arising from any breach of the certification provided herein.

_____
Signature

_____
Name

_____
Tittle

_____
Company

_____
City, State & Zip

_____
Date of First Delivery

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December 7, 2023
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NORTHWEST MINING SOLUTIONS

St. Regis Gravel Pit
Site Generated Traffic Volumes

Project Summary

St. Regis Gravel Pit is a new operation that will be providing sand and gravel for the Washington State Department of Transportation Fish Passage projects in the immediate area. The site is located on a private Forest Road MCL-1000, 0.3 miles south from the intersection of HWY 101 and Hoh Mainline approximately 16 miles south of Forks, Washington; in Jefferson County.

Trucks approach the site via HWY 101. Trucks follow the private Forest Road MCL-1000 for approximately 0.5 miles to the sites access. Trucks enter the site, load, and return the way they entered. Upon returning to HWY 101 trucks travel northbound or southbound depending on the job's location. See attached figure for local route details.

Trip Generation

The following is a summarization of the max truck trips per day based on expected future export and operation from the St. Regis Gravel Pit. Operations may occur Monday through Saturday from 7:00 a.m. to 7:00 p.m.

Truck Trips

Max Yearly Material Export = 150,000 CY

Truck Haul Capacity = 22 CY

Total Yearly Trucks = 150,000/22 = 6,818 outbound trips x 2 (to account for inbound) = 13,636

Operating 52 weeks per year between 5-6 days per week yields:

13,636/52 = 262 trips per week

262/5 = 52

262/6 = 44

On average the site produces 44 – 52 truck trips per day. This represents the max truck trips with potential higher activity during peak demands and lower activity during off-peak season. For conservative purposes we will use 52 truck trips daily to account for 26 inbound and 26 outbound movements.

Vehicle Trips

Employee Trips = 2 – 4 employees on-site daily

2 x 5 = 10 x 2 (inbound and outbound trips per week) = 20

4 x 5 = 20 x 2 (inbound and outbound trips per week) = 40

2 x 6 = 12 x 2 (inbound and outbound trips per week) = 24

4 x 6 = 18 x 2 (inbound and outbound trips per week) = 36

Inbound and outbound trips per week from employees fluctuates from 20 – 40. For this estimate we will use 40 which is the max number of trips seen by employees on a weekly basis. We will use 5 days a week to get the max number of trips in a given day.

40/5 (days per week) = 8 total vehicle trips per day by employees inbound and outbound

Total Average Daily Trips

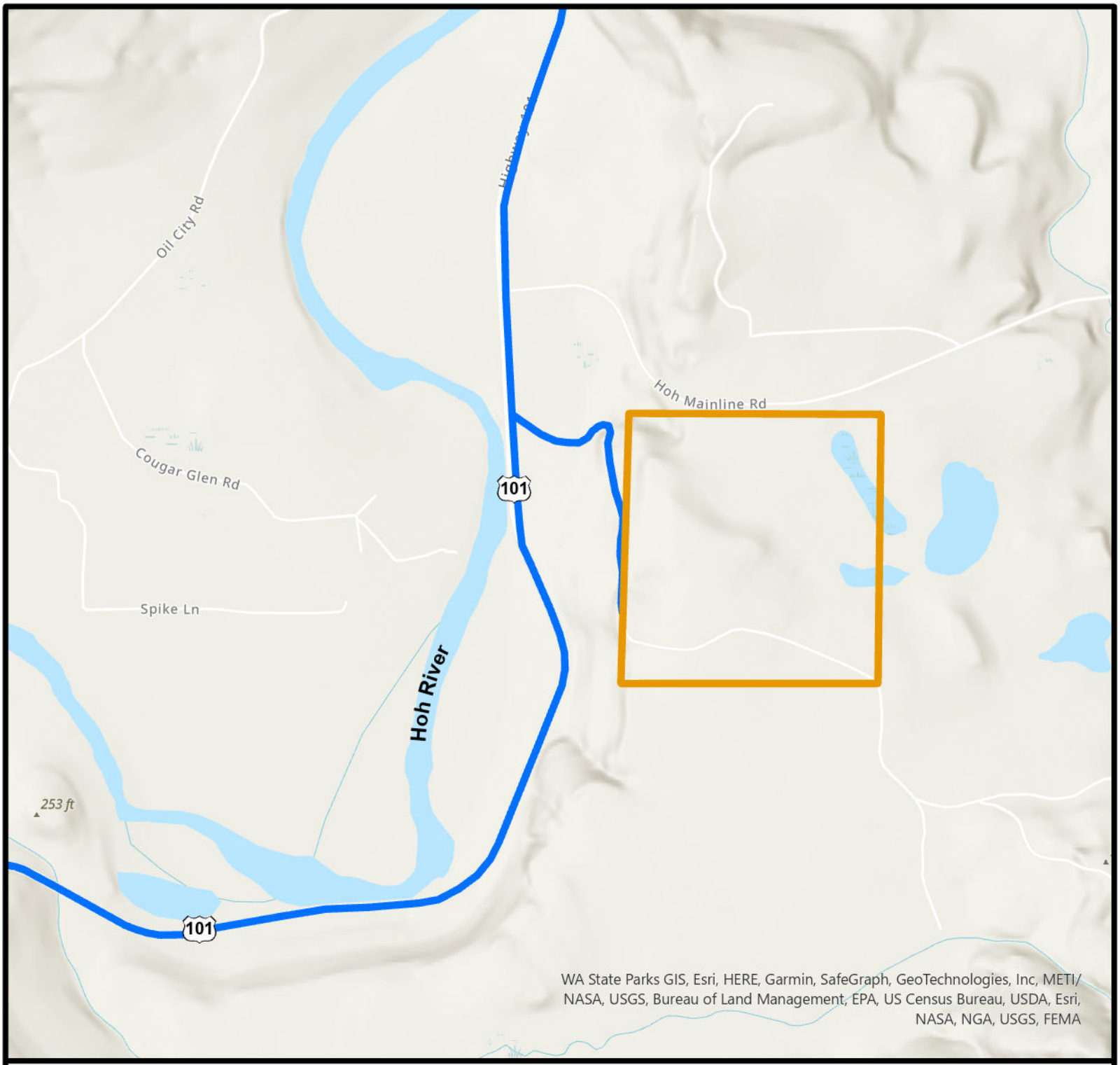
Truck daily trips (up to 52) + employee trips (up to 8) = 60 total daily trips

The site is estimated to yield approximately 60 trips per day. This value accounts for all inbound and outbound traffic from the site in a given day at peak times.

Conclusion

St. Regis Gravel Pit is estimated to yield at a maximum output of approximately 60 inbound/outbound trips per day at peak times of the year. This value represents the max truck trips expected from the site. This is based on an expected production rate of 150,000 CY per year. These rates are approximate and may not be consistent throughout the year. These rates are representative of peak production rates which are governed by the market.

Site operators will regularly maintain the private Forest Road MCL-1000 leading up to the western boundary of the property line. Maintenance includes but is not limited to, fixing potholes, laying fresh gravel, maintaining the brush along the road, maintaining a safe line of site, regularly spraying the road with water to control dust, and maintaining the drainages along the roads to help control erosion. Maintenance occurs on a regular basis and is done as needed.



Legend

- Project Boundary
- Truck Route

ST. REGIS GRAVEL PIT TRAFFIC PATTERN

Site:

St. Regis Gravel Pit
Private Forest Road MCL-1000
Forks, WA 98331

DATE: 12/01/2023
Scale: 1:24,000
Print Size: 8.5 x 11

N

0 0.3 0.5 1

Miles

Created By:

NORTHWEST MINING SOLUTIONS
Lisa Mahr * Project Engineer * 619-328-7917
PO BOX 561, Black Diamond, WA 98010