

## ENVIRONMENTAL ASSESSMENT

On an Application for an

### OPENCUT MINING PERMIT or AMENDMENT

This Environmental Assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted hereunder place operational guidance and limitations on a project during its lifetime, and provides for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act, the Rules adopted hereunder, and local laws and regulations.

**Applicant:** Mike Chapman – Kurt Spencer

**SITE NAME:** Chapman

**LOCATION:** SESE, Sec 17, T 30N, R 31W

**COUNTY:** Lincoln

**DATE:** June, 2009

**Type and Purpose of Action:** The proponent has submitted an application under the Opencut Mining Act that if approved, would allow the mining and require reclamation on 13.03 acres of land south of Libby with the initial mining and facility area encompassing 4.7 acres. Until the remaining lands are bonded, this will be the maximum disturbance. The applicant would excavate and process up to 104,000 cubic yards of gravel to be utilized for various projects around the Libby area for the next 20 years. Crushing would normally be done by contract and not continuous. Pit run materials could be hauled frequently.

The applicant has submitted a Plan of Operations that indicates how they will mine and reclaim the affected lands. A reclamation bond has been provided that will guarantee reclamation for a post-mine land use of grassland should the operators be unable to do such. The Opencut Mining Act and Rules and Regulations promulgated there under provide a certainty of oversight.

#### IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	<p>The site is located in mountainous terrain above the Libby Valley among relatively steep slopes that also contain more moderate hillsides as is the case for this location. This area is part of the overthrust that has been scoured by glaciers leaving significant debris that has been further reworked by fluvial processes. Materials are relatively fractured and angular and haven't traveled long distances.</p> <p>Removal of the gravels will result in the irreversible and irretrievable loss of the resource from the site. Small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities, but this would not impair the capacity of the soils to support full reclamation.</p> <p>There is not any unusual topographic, geologic, soil, or special reclamation considerations that would lead to reclamation failure.</p>

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b>	<p>There are no surface water features in the immediate vicinity – only small, dry ephemeral drainages.</p> <p>The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources as the applicant will maintain negative drainage of the site.</p>
<b>3. AIR QUALITY</b>	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules which are administered by the DEQ Air Resources Management Bureau. That program is approved by the Environmental Protection Agency (EPA) and maintains some standards more stringent than the federal counterpart. These rules and standards are designed to be protective of human health and the environment.</p> <p>Air quality permits would be required on the processing equipment before operating. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.</p> <p>Fugitive dust that blows off the pit floor, stockpiles, gravel roads, etc. is considered to be a nuisance but not harmful to health at specific opacity levels which may not be exceeded over specified time.</p> <p>Air quality standards as set by the state and federal government and enforced by the ARMB would allow minimal, detrimental air impacts such as increased particulate matter and carbon monoxide. If necessary, a portable water truck with spray bars will be used to control dust.</p>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p>This area was logged 15 – 20 years ago and the new overstory consists of Ponderosa Pine, Western Larch, Fir and Cedar. The understory is dominated by kinnikinic, Oregon grape, pine grass and fescues. Other unidentified forbs and grasses survive in low numbers.</p> <p>All vegetation will be destroyed during operations. Some seed will remain viable in the soil stockpiles and could germinate when soils are respread. The affected lands will be revegetated to an appropriate mixture of grasses when mining is complete.</p>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b>	<p>Although the area is has been logged, regrowth has created habitat useful for elk, moose, deer, bear, rodents and avian species. Moose spore was noted and turkeys were seen off site. Population numbers for these species are not known. No aquatic habitat exists.</p> <p>The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat. However, the planned, adjacent subdivision would likely impact the repopulation.</p>
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>The Montana Natural Heritage Program has identified grizzly bears, wolverine, Canada Lynx and the gray wolf as potentially inhabiting or passing through the area. None of these species, nor sign was noted.</p> <p>Even if suitable habitat did exist on this site, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. The possible impact to these species would be minimal.</p>

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<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	<p>The Montana State Historic Preservation Office was provided a copy of the application materials. Their records do not indicate any sites discovered previously on this property. A walkover of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs were evident at depth in the previously disturbed area.</p> <p>If during operations, resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.</p>
<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	<p>Minimal water will be used for dust control and there will be diesel fuel consumed for crushers, dozers, loaders and trucks. It is probable that demand for gravel would cause such to be extracted from other locations and the energy resources would likely be consumed elsewhere.</p>

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	This area is not zoned.
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	This operation would not have an effect on these resources.
<b>11. AESTHETICS</b>	There are no current residents within one mile of this site although the operators are subdividing the adjacent property. Should those lots develop while the gravel mine is operating, the applicant will stockpile soils between the areas of differing land uses to provide noise and visual buffers.
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	The applicants anticipate use of local contractors for this operation and therefore, no new employment will be created.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	The area is currently idle forest properties and silvicultural production would be reduced on the site for the life of the permit. Following the mining, the site would be reclaimed to grassland with the potential for a home site. A limited amount of trees, shrubs and forbs would naturally invade the site.
<b>14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME</b>	Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes etc., from the companies, employees, or landowners benefitting from this operation. Long-term land use changes with residential development would increase the tax base from its existing level.
<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	The permitted area would be periodically monitored and evaluated by state employees; generally in conjunction with other similar area operations. Unless problems were identified, demand for these resources would not significantly expand.
<b>16. HUMAN HEALTH AND SAFETY</b>	Machinery activity will increase the potential for safety hazards.

IMPACTS ON THE HUMAN POPULATION	
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	However, the operator must comply with regulations enforced by the OSHA and MSHA which are designed to reduce accidents.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES</b>	This is a private, dead-end road that is not available for public use.

**18. Alternatives Considered:**

- A. Denial Alternative: The Department would deny an incomplete application or one that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.
- B. Proposed Action:

**19. Public Involvement, Agencies, Groups or Individuals contacted:** Montana State Historical Preservation Office, Montana Natural Heritage Program, Lincoln County planning department and weed control district.

**20. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction:** Required: Lincoln County Commission or County Planning Department and the County Weed Control Board, as well as MSHA and OSHA regarding mine safety.

Possible permits required from other programs or agencies: DEQ's Air Resources Management Bureau regarding air quality.

**21. Regulatory Impact on Private Property:** The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property.

**22. Magnitude and Significance of Potential Impacts:**

**23. Recommendation for Further Environmental Analysis:** [ ] EIS [ x ] No Further Analysis

EA Prepared By: Steve Welch Opencut Mining Program  
Name Title

EA Approved By: Chris Cronin Opencut Mining Program Supervisor  
Name Title

**Signature**

**Date**

Chris Cronin, Opencut Mining Program Supervisor, DEQ