

## 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 and the Rules adopted hereunder.

**Applicant:** Leighty Brothers Construction

**SITE NAME:** Foxhill Estates Phase 4

**LOCATION:** E2NW4, Sec 10, T28N, R20W

**COUNTY:** Flathead

**DATE:** July, 2009

**PROPOSAL:** The proponent has applied for an Opencut Mining Permit that if approved would allow the mining of soils and require reclamation of those 27 relatively level farmed acres north of Creston. The applicant would remove for sale, the upper six inches of soil from a 12 – 16 inch homogenous layer of Creston Loam. The remaining 6-10" of soils would be seeded to grass and/or developed as a residential subdivision with attendant roads and dedicated parkland.

As part of the permit application, the proponent has submitted a Plan of Operation that provides baseline information, operation plans and plans for reclamation. This reclamation is required to be completed within specified time frames (12/2012) and backed by a reclamation bond that allows the state to perform the work should the applicant be unwilling or unable to do such.

### IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	<p>The proposed mine is located on a relatively level glacial outwash terrace left from the last retreating glacier during the late Pleistocene around 10,000 years ago. The deposit consists of stratified layers of alluvium and glacial outwash sand, gravel and cobbles that cover the deeper Tertiary valley fill. The billion year old Precambrian rock of the Belt Series sandstone, mudstone and limestone rocks surround the deposit in towering walls sculpted by alpine glaciers that form an intermountain, fault block basin known as the Rocky Mountain Trench.</p> <p>These famous Creston Loam soils are generally 12-16" deep and relatively free of rocks and cobbles. The field from which this soil is mined has been farmed for many years and mixed with countless applications of dairy farm manure to further enhance the texture and nutrient content. Because of the continuous farming, the soils are</p>

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	<p>relatively homogenous for the upper 12 inches.</p> <p>There will be irreversible and irretrievable removal of soil from the site. Because of the deep deposit and farming that has created the homogenous horizons, there will be sufficient soils to continue farming and/or creating conditions suitable for grasslands and lawns. There are no unusual topographic, geologic, soil, or special reclamation considerations that would lead to reclamation failure.</p>
<b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b>	<p>The only surface water near the site comes from seeps on the southwest side of the operation which may be enhanced by residential irrigation. Groundwater is relatively shallow at 35 feet for the general area, although it may be low production at that level because the nearest well log shows significant water encountered between 140 and 160 feet.</p> <p>The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources. Water used for dust control would be brought in from outside sources. There is no fuel stored on site and any spills must be immediately retrieved and disposed of properly.</p>
<b>3. AIR QUALITY</b>	<p>DEQ administers an Environmental Protection Agency (EPA) approved air quality program. Permits and permit conditions are established to promote compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health and the environment.</p> <p>Fugitive dust blowing off the stockpiles and fields is considered a nuisance but not considered to be harmful to health if held to state opacity standards. If necessary, water from off site sources will be used for dust control.</p>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p>This site has been farmed for small grains and summer fallowed. Those areas not built upon or roaded will be planted to tame lawn mixes.</p>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b>	<p>Continuous farming and residential development have modified the natural habitats of all species that would have historically inhabited this area. Current species are generally transient and consist of deer, fox, coyote, rodents, song birds, some upland birds in adjacent woody patches and occasional hunting raptors.</p> <p>Upon completion of soil mining, the habitat would be reduced significantly because of additional residential development.</p>
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>The Montana Natural Heritage Program has indicated that Bull Trout, Grizzly Bears and Gray Wolf are regional species of concern.</p> <p>None of the listed species have been found on this site. 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</p>

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	possible impact to these species would be minimal.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	<p>The Montana State Historic Preservation Office (SHPO) has reviewed the application materials and reported that no sites have been 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>This soil mining operation would utilize energy in the form of fuels for the scrapers, loaders and trucks, but use of fuels would not be in greater quantity than the farming operations that have historically practiced on this property. Upon reclamation, consumption of these resources would transition to more human-related uses and probably greater fuel consumption because of the multiple vehicle trips from the residential subdivision.</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 will have absolutely no impact on these resources, but the post-mine land use of subdivision development would increase each by multiples.
<b>11. AESTHETICS</b>	<p>There are numerous homes on the bench overlooking this site and in the surrounding area. Soil mining however, would seem to be no more intrusive on these residents than was the historic farming operation. Greater development of the area would cause the viewscape to transition from pastoral settings to a more suburban landscape.</p>
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	This operation would utilize labor to distribute soils to other locations but would not have any significant effect on these resources.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	Agricultural activities would generally disappear from this site as the mined area is reclaimed into a subdivision.
<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.
<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	Minimal oversight from government agencies would generally be conducted with other area operations and by itself would not significantly increase demand.
<b>16. HUMAN HEALTH AND SAFETY</b>	Machinery activity would generally increase the likelihood of accidents.
<b>17. ACCESS TO AND QUALITY</b>	This is private property and no public access is available.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
OF RECREATIONAL AND WILDERNESS ACTIVITIES	

**18. Alternatives Considered:**

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

**19. Public Involvement, Agencies, Groups or Individuals contacted:** Montana State Historic Preservation Office, Montana Natural Heritage Program, local planning department, private resident notifications and local interested citizens.

**20. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction:** Required: Flathead County Commission and County Planning Department (zoning clearance), Flathead County Weed Control Board.

Possible permits required from other programs or agencies: DEQ’s Air Resources Management Bureau regarding air quality, DEQ’s Water Protection Bureau for stormwater or discharge permits, DNRC for water rights permit.

**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 so as to constitute a taking.

**22. Magnitude and Significance of Potential Impacts:** Mitigation by the Opencut Mining Act reduces impacts to a level of insignificance.

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

**EA Prepared By:** Steve Welch Opencut Mining Program Environmental Specialist  
Name Title

**EA Approved By:** Neil Harrington Chief, Industrial and Energy Minerals Bureau  
Name Title

**Signature**

**Date**