**ENVIRONMENTAL ASSESSMENT**

On an Application for an

**OPENCUT MINING PERMIT**

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of 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 thereunder place operational guidance and limitations on a project during its lifetime, and provide 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 thereunder. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

**APPLICANT:** SK Construction, Inc. **COUNTY:** Meagher

**SITE NAME:** Bair Ranch Borrow **DATE:** October 2013

**LOCATION:** Section 33 & 34, T9 N, R11 E

**PROPOSAL:** The applicant proposes to permit a new, short-term gravel pit to mine and transport 87,000 cubic yards of gravel from a 12.0-acre site located 25 miles west of Harlowton. The site currently contains bee hives, a historic Opencut operation, a buried fiber optic cable, and power lines run along the northern boundary. Bee hives would be removed before operations commence. The fiber optic cable would have a 50 foot buffer. Power poles would have a 75 foot buffer.

A reclamation bond would be held by DEQ to ensure that final reclamation of the site to rangeland/pasture would be completed by June 2016. This application contains all items required by the Opencut Mining Act and its implementing rules. Proponent commits to properly conducting opencut operations and would be legally bound by the permit.

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
|---|---|
| **RESOURCE** | **POTENTIAL IMPACTS AND MITIGATION MEASURES** |
| **1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:** | The site is located on a flat bench overlooking the North Fork Musselshell River. A small swale runs through the site toward the river. The site consists of alluvium-gravel, sand, silt, and clay deposits of stream and river channels, and floodplains.<br>The onsite soils consist of cobbly loams. The operator would replace 14 inches of soil and 4 inches of overburden. The site receives approximately 13 inches of precipitation per year.<br>*Impacts:* An irreversible and irretrievable removal of gravel from the site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation. There are no unusual |

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
|---|---|
| **RESOURCE** | **POTENTIAL IMPACTS AND MITIGATION MEASURES** |
| | topographic, geologic, soil, or special reclamation considerations that would prevent reclamation success. |
| **2. WATER QUALITY, QUANTITY AND DISTRIBUTION** | The North Fork Musselshell River is located approximately 200 feet north of the site. Ephemeral drainages, wetlands, and irrigation ditches also surround the site. Water will be used onsite for dust control. The water source is not located within 1,000 feet of the main permit area and water will not be stored onsite.<br>*Impacts:* The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources.<br>*Cumulative:* Cumulative impacts of the proposed action on resources would be negligible. |
| **3. AIR QUALITY** | Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.<br>Air quality permits would be required on the processing equipment before installment. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.<br>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health.<br>*Impacts:* Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts. |
| **4. VEGETATION COVER, QUANTITY AND QUALITY** | There are no known rare or sensitive plants or cover types present in the site area. Onsite vegetation consists of western wheatgrass, blue grama, smooth brome, crested wheatgrass, needle and threadgrass, prairie Junegrass, fringed sagewort, mustard spp., curly cup gumweed, dotted gayfeather, foxtail barley, kochia, and cheatgrass; and provides approximately 85% cover. The vegetation would be removed as soil is stripped and the site would be replanted with plant species compatible with the proposed reclaimed use.<br>*Impacts:* No long term detrimental impacts to the vegetation would occur. |
| **5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:** | Although the area is used primarily for pasture, it also supports populations of deer, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known.<br>*Impacts:* 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. |
| **6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:** | The Montana Natural Heritage Program (MNHP) lists the following two species of concern in the vicinity of the site:<br>**Ferruginous hawk** (*Buteo regalis)* is a large bird of prey. Most of Montana is summer range for this raptor. Fall migration begins in August and continues into early September. Young birds will migrate south earlier than, and independent of adults. The habitat of this hawk is described as mixed-grass prairie, shrub-grasslands, grasslands, grass-sagebrush complex, and sagebrush steppe. |

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
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| **RESOURCE** | **POTENTIAL IMPACTS AND MITIGATION MEASURES** |
| | **Greater sage-grouse** (*Centrocercus urophasianus)* is the largest of Montana's grouse. Both sexes have relatively long, pointed tails, feathered legs, and mottled gray-brown, buff, and black plumage. In Montana, it ranges primarily in the southwestern and eastern portions of the state. This species does not migrate. Sagebrush is its preferred habitat.<br>*Impacts:* 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 possible impact to these species would be minimal. |
| **7. HISTORICAL AND ARCHAEOLOGICAL SITES** | The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that a few sites have been discovered previously within the designated search locale. A pedestrian survey 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. SHPO does not feel that a cultural resource inventory is warranted at this site at this time.<br>*Impacts:* 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. |
| **8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY** | There are no unusual demands on land, water, air or energy anticipated as a result of this project.<br>*Impacts:* Negligible impacts to land, water, air, or energy would occur. |

| IMPACTS ON THE HUMAN POPULATION | |
|---|---|
| **RESOURCE** | **POTENTIAL IMPACTS AND MITIGATION MEASURES** |
| **9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** | Meagher County zoning clearance has been obtained. The site is not zoned. |
| **10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING** | As seen on the aerial photo of the surrounding area, there are no nearby residences.<br>*Impact:* This commercial pit is being sited in this area because of the location of the resource, and to provide resources for an MDT project. |
| **11. AESTHETICS** | The site is located in a common pastureland area. There would be a temporary alteration of aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape. This project is considered to be short-term, i.e., planned to take three years to complete.<br>There are no nearby residences. Hours of operation will be 24 hours a day, 7 days a week. |
| **12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT** | Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs.<br>*Impacts:* New employment opportunities would be limited. |
| **13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL** | The acreage listed in the proposal would be taken out of pastureland use. Upon completion of mining, the land would be reclaimed to rangeland/pasture.<br>*Impacts:* Pastureland production would be reduced as soil stripping and |

| IMPACTS ON THE HUMAN POPULATION | |
|---|---|
| **RESOURCE** | **POTENTIAL IMPACTS AND MITIGATION MEASURES** |
| **ACTIVITIES AND PRODUCTION** | operations progress across the site. When the entire site is opened up for mining and mine-related activities, all pastureland activities would cease, but would be restored as the site is reclaimed. |
| **14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME** | 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. Following reclamation, it is assumed the tax base would revert to pre-mine levels. |
| **15. DEMAND FOR GOVERNMENT SERVICES** | Limited oversight by DEQ Opencut Program personnel would be conducted in concert with other area activity when in the vicinity. |
| **16. HUMAN HEALTH AND SAFETY** | Any industrial activity would increase the opportunities for accidental injury. There are agencies that require the Operator to implement specific safety measures. If followed there is no reason to believe that significant safety issues would be present. |
| **17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** | This activity would not inhibit the use of the identified resources. |
| **18. NATIVE CULTURAL CONCERNS** | *Impacts:* None identified. |

**19. 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.** Approval Alternative: The Department would approve an application that complies with the Act and Rules. Impacts of this application are addressed in the body of the EA.

**20. Public Involvement, Agencies, Groups or Individuals contacted:** Montana State Historic Preservation Office, Montana Natural Heritage Program, Triangle Communications (fiber optic cable).

**21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction include, but may not be limited to:** Meagher County Planning Department (zoning), Meagher County Weed Control Board, MSHA and OSHA (worker safety), DEQ ARMB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).

**22. 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.

**23. Magnitude and Significance of Potential Impacts:** This proposal is not likely to create impacts of significance due to mitigation, restrictions, and oversight mandated by the Opencut Mining Act and pursuant rules and the Montana Clean Air Act.

**24. Recommendation for Further Environmental Analysis: [ ] EIS [ X ] No Further Analysis**

**EA Prepared By:** Kenley Stone — Opencut Mining Program Environmental Specialist
Name — Title

**EA Reviewed By:** Chris Cronin — Opencut Mining Program Supervisor
Name — Title

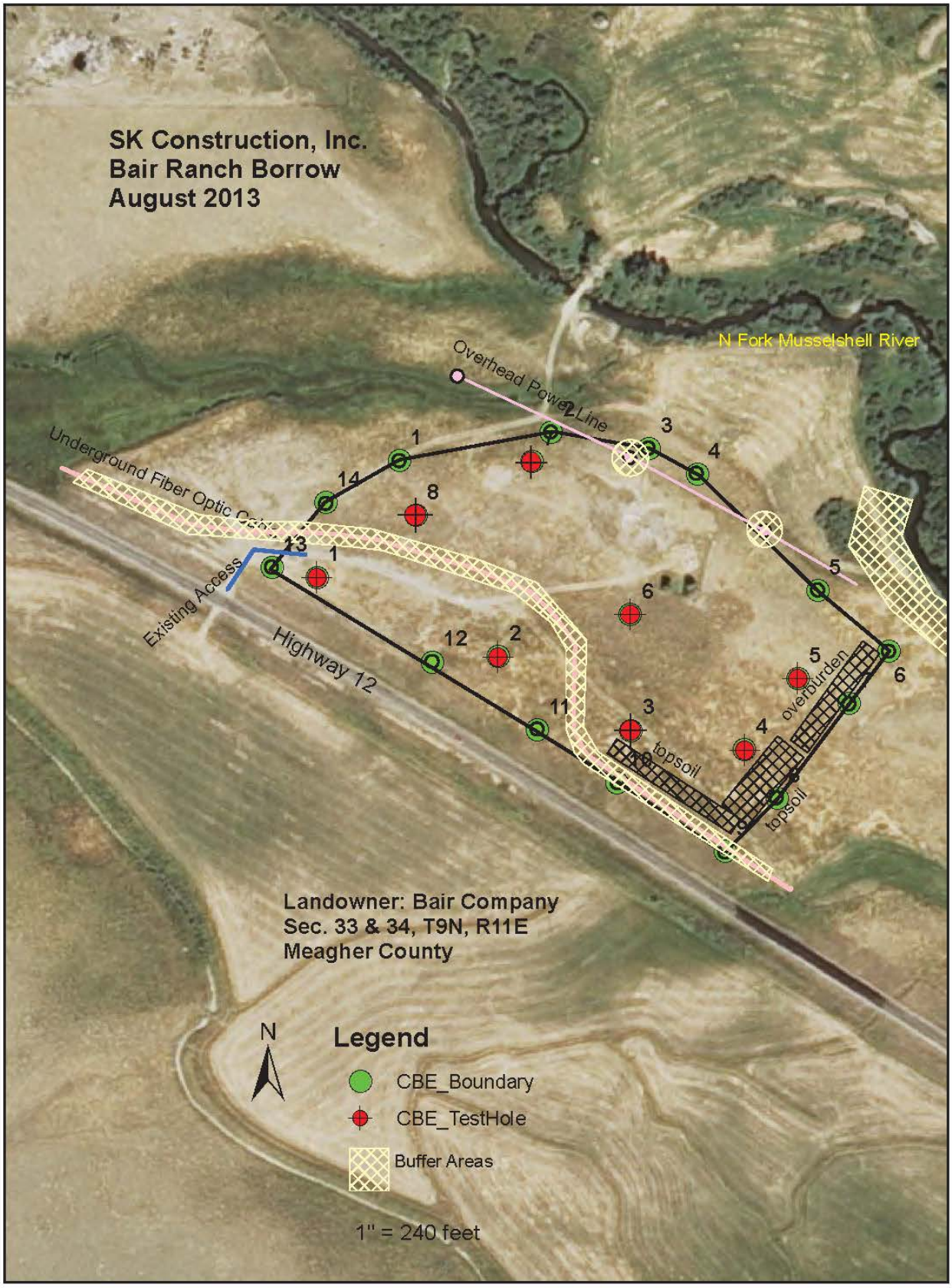
# PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

| YES | NO | |
|---|---|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 4. Does the action deny a fundamental attribute of ownership? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.) |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c) |
| | | 7a. Is the impact of government action direct, peculiar, and significant? |
| | | 7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded? |
| | | 7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.


SK Construction, Inc.
Bair Ranch Borrow
August 2013
N Fork Musselshell River
Overhead Power Line
Underground Fiber Optic Cable
Existing Access
Highway 12
overburden
topsoil
topsoil
Landowner: Bair Company
Sec. 33 & 34, T9N, R11E
Meagher County
N
Legend
CBE_Boundary
CBE_TestHole
Buffer Areas
1" = 240 feet