Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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October 7, 2008

Chris Johnson
Glacier Gold LLC
P.O. Box 260
Olney, MT 59927

Dear Mr. Johnson:

The Department of Environmental Quality (Department) has made its decision on the Montana Air Quality Permit application for Glacier Gold LLC. The application was given permit number 4252-00. The Department's decision may be appealed to the Board of Environmental Review (Board). A request for hearing must be filed by October 22, 2008. This permit shall become final on October 23, 2008, unless the Board orders a stay on the permit.

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

Conditions: See attached.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3490

Brent Lignell
Environmental Engineer
Air Resources Management Bureau
(406) 444-5311

VW: BL
Enclosures

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Glacier Gold LLC
P.O. Box 260
Olney, MT 59927

Air Quality Permit number: 4252-00

Preliminary Determination Issued: September 19, 2008
Department Decision Issued: October 7, 2008
Permit Final:

1. *Legal Description of Site:* Permit #4252-00 is issued for the operation of a portable wood chipping facility to be initially located in Section 8, Township 32 North, Range 23 West, in Flathead County. The facility is proposed to be located in a log yard near Olney and Stillwater Lake. However, Permit #4252-00 applies while operating at any location in Montana, except those areas having a Department -approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM_{10} nonattainment areas. A Missoula County air quality permit will be required for locations within Missoula County, Montana. Glacier Gold will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM_{10} nonattainment areas.

2. *Description of Project:* The permit applicant proposes the operation of a portable whole tree chipper powered by a diesel engine not to exceed 700-horsepower (hp), and associated equipment. The portable whole tree chipper would process up to 60 tons/hour (TPH) waste-wood products for various purposes. For a typical operational set-up, whole tree logs are fed into a feed hopper, and then conveyed via feed rollers into a hammermill. The wood is cut into chips, and then deposited to a pile where it is loaded on to haul trucks.

3. *Objectives of Project:* The objective of the project would be to produce business and revenue for the company through the removal of wood/biomass accumulation and the production and sale of wood/biomass products. The issuance of Permit #4252-00 would allow Glacier Gold to operate the permitted equipment at various locations throughout Montana.

4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Glacier Gold has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Permit #4252-00.

6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit

conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			Yes
B.	Water Quality, Quantity, and Distribution			X			Yes
C.	Geology and Soil Quality, Stability and Moisture			X			Yes
D.	Vegetation Cover, Quantity, and Quality			X			Yes
E.	Aesthetics			X			Yes
F.	Air Quality			X			Yes
G.	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H.	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I.	Historical and Archaeological Sites				X		Yes
J.	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:
The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the areas where chipping operations occur. Further, the project would result in emissions, which could affect any terrestrial and aquatic resources using the proposed project area. However, because the operations are temporary, seasonal, and relatively small by industrial standards, the operations alone would result in only minor impacts to the terrestrial and aquatic life of any given area.

B. Water Quality, Quantity and Distribution

Emissions from the proposed project could potentially affect existing resources of water in any proposed project area. However, as described in Section III of the permit analysis, the source would be required to apply BACT to emissions sources to minimize any potential emissions and thus minimize any potential impact to area water resources. Further, because the facility would be a temporary, seasonal, and a relatively small industrial source, any impacts to water resources in the any proposed project area would be minor and short-lived.

In addition, water would be used for dust suppression, but would only cause a minor disturbance to any given area. No surface water or ground water quality problems would be expected as a result of using water for dust suppression. Any accidental spills or leaks from equipment would

be required to be handled according to the appropriate environmental regulations. Overall, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability and Moisture

Due to the nature of wood chipping operations, the proposed facility would impact the soil characteristics of the proposed project area. However, the operations would initially and typically take place within a previously disturbed timber cut area or industrial location. Because the proposed site exists as a disturbed site and because the proposed operation would be temporary, seasonal, and relatively small by industrial standards, any impacts would be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Emissions from the proposed project could potentially affect existing vegetation resources in the proposed project area. However, the operations would initially and typically take place within a previously disturbed timber cut area or industrial location. As described in Section III of the permit analysis, the source would be required to apply BACT to emissions sources to minimize any potential emissions and thus minimize any potential impact to vegetation resources in the area. Further, because the facility would be a temporary, seasonal, and a relatively small industrial source, any impacts to vegetation resources in any given proposed project area would be minor and short-lived.

E. Aesthetics

The operations would be visible and would create additional noise in any given area of operation. Permit #4252-00 would include conditions to control emissions (including visible emissions) from the plant. In addition, the operations would initially and typically take place within a previously disturbed timber cut site or industrial location. Because the site is typically used for industrial purposes such as that proposed for the current permit action, the proposed operations would be typical and would have only a minor impact on the proposed project area. Further, given that the proposed project would be a temporary, seasonal, and a relatively small industrial operation any impact would be minor and short-lived.

F. Air Quality

The air quality impacts from the proposed wood chipping operation would be minor because Permit #4252-00 would include conditions limiting the opacity from the plant, as well as requiring water and/or chemical dust suppressant to control air pollution. Permit #4252-00 would limit total emissions from the operation and any additional equipment owned and operated by Glacier Gold to 250 tons/year or less at any given operating site, excluding fugitive emissions. Further, the Department determined that the facility would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's permitted PTE would be below the major source threshold level of 100 tons/year for any regulated pollutant.

The Clean Air Act, last amended in 1990, requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. EPA has set such standards for "criteria pollutants" CO, nitrogen dioxide (NO_2), Ozone, Lead, PM_{10}, particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), and sulfur dioxide (SO_2). The Clean Air Act established two types of NAAQS, Primary and Secondary. Primary Standards set limits to protect public health, including, but not limited to, the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary Standards set

limits to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Primary and Secondary Standards under the NAAQS are identical with the exception of SO_2 which has a less stringent Secondary Standard, and CO which does not have a Secondary Standard. Permit #4252-00 contains conditions and limitations, which would ensure compliance with all applicable air quality standards.

The wood chipping facility would be used on a temporary and intermittent basis and would initially and typically operate within a previously disturbed industrial area, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Overall, any air quality impacts resulting from the proposed wood chipping operation would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

To assess potential impacts to unique endangered, fragile, or limited environmental resources in the proposed area of operations, the Department contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern associated with the initial proposed site location (Section 18, Township 32 North, and Range 23 East, in Flathead County, Montana). Search results concluded there are eleven environmental resources of special concern within the defined area, including eight species of special concern. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer.

Terrestrial animal species of special concern inhabiting the area surrounding the proposed project site include the Gray Wolf, Common Loon, Bald Eagle, Canady Lynx, Grizzly Bear, Wolverine, and the Fisher. Aquatic animal species of special concern inhabiting the area surrounding the proposed project site include the Bull Trout.

The species of special concern that have been identified as being within the defined area have been generalized from many miles of potential habitat. The current permit action would result in the emission of air pollutants, which could result in minor impacts to existing unique endangered, fragile, or limited environmental resource in any given area of operation. However, given the temporary, seasonal, and relatively small industrial size of the operation, any impact would be minor and short-lived. In addition, initial and typical operations would take place within a previously disturbed industrial location further limiting the potential for impact to any unique endangered, fragile, or limited environmental resource in any proposed location of operation.

To determine the impact on the bald eagle population as addressed by previous permitting actions, the Department consulted the U.S. Department of Interior, Bureau of Reclamation Montana Bald Eagle Management Plan (MBEMP). With the identified nest being approximately 1.8 miles away from the Glacier Gold facility, the facility site would fall into an MBEMP "Zone III" Classification, representing home range for bald eagles. Zone III is classified as the area from 0.5 mile to 2.5 miles in radius from the nest site (Zone II from 0.25 to 0.5 miles, Zone I from 0 to 0.25 miles). Zone III represents most of the home range used by eagles during nesting season, usually including all suitable foraging habitat within 2.5 miles of all nest sites in the breeding area that have been active within 5 years.

The objectives in Zone III areas include maintaining suitability of foraging habitat, minimizing disturbance within key areas, minimizing hazards, and maintaining the integrity of the breeding area. The nest location would remain unchanged by the facility operation, except for a possible

cumulative minor impact by air pollutants (by the facility as a whole), as described in Section 7.F of this EA. The proposed change would not impact the nest area, except, as described above, a possible impact from the slight increase in PM_{10} emissions. Therefore, the impact on bald eagles would be minor.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed project would impact the demands on the environmental resources of water, air, and energy because the project would be a source of air pollution and require energy for operation. While deposition of pollutants may impact water and air resources, as explained in Sections 7.B and 7.F of this EA, respectively, the Department determined that the impacts of the proposed project on air and water resources would be minor due to the dispersion of pollutants and emissions control conditions that would be placed in Permit #4252-00. Furthermore, only small quantities of water would be required for dust suppression of emissions being generated at the site.

The proposed project would have minor impacts on the demand on energy resources because the facility would be powered by an industrial diesel engine that would use small amounts of fuel. Overall, the facility is a temporary, seasonal, and relatively small industrial source, so any demands for environmental resources of water, air, and energy would be minor and short-lived.

I. Historical and Archaeological Sites

To identify historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there have not been any previously recorded historic or archaeological sites within the proposed area. In addition, SHPO records indicated that no previous cultural resource inventories have been conducted in the area. SHPO determined that a cultural resource inventory is unwarranted at this time. The Department determined that due to the previous disturbance in the area and the small amount of land disturbance that would be required to construct the facility, the chance of the project impacting any cultural or historic sites would be minor.

J. Cumulative and Secondary Impacts

Overall, this project would result in minor impacts to the physical and biological environment in the immediate area, as discussed in Section 7.A through Section 7.I of this EA. Because all impacts discussed previously are minor or will not occur, the Department determined that any cumulative and secondary impacts associated with the permitted operations would be minor. Air pollution from the facility would be controlled by Department-determined BACT and conditions in Permit #4252-00. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #4252-00.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		Yes
B.	Cultural Uniqueness and Diversity				X		Yes
C.	Local and State Tax Base and Tax Revenue			X			Yes
D.	Agricultural or Industrial Production				X		Yes
E.	Human Health			X			Yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G.	Quantity and Distribution of Employment				X		Yes
H.	Distribution of Population				X		Yes
I.	Demands for Government Services			X			Yes
J.	Industrial and Commercial Activity				X		Yes
K.	Locally Adopted Environmental Plans and Goals			X			Yes
L.	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:
The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed project would not have any effect on social structures and mores of the proposed area of operation. The project is temporary, seasonal, and small by industrial standards and operations would initially and typically take place in an existing timber cut area or industrial location. The predominant use of the surrounding area would not change as a result of the proposed project. Further, the facility would be required to operate according to the conditions that would be placed in Permit #4252-00, which would limit the effects to social structures and mores because air emissions would be limited from compliance with the established permit conditions.

B. Cultural Uniqueness and Diversity

The proposed project would not have any effect on cultural uniqueness and diversity of the proposed area of operation. The project is small by industrial standards and operations would typically take place at an existing timber cut area. The predominant use of the surrounding area would not change as a result of the proposed project.

C. Local and State Tax Base and Tax Revenue

The proposed project would have only a minor affect on the local and state tax base and tax revenue. The project is temporary, seasonal, and small by industrial standards, and operations would typically take place in an existing timber cut area requiring no new construction. The facility would require the use of only a few employees (between 7 and 10). Therefore, only minor impacts to the local and state tax base and revenue could be expected from company and employee revenues and facility production.

D. Agricultural or Industrial Production

Because the proposed project would initially and typically operate in an existing timber cut area or industrial location, the project would not effect or displace any land used for agricultural production and would not require any additional industrial construction. Further, no additional industrial production would result from the proposed project. Operations would have little effect upon adjacent lands that could be utilized for farmland and animal grazing and any such effects would be minor and temporary.

E. Human Health

The proposed project would result in the emission of air pollutants. However, Permit #4252-00 would include limits and conditions to ensure that the facility would be operated in compliance with all applicable air quality rules and standards. As detailed in Section 7.F of this EA, Glacier Gold would be required to use BACT and maintain compliance with all ambient air quality standards (including secondary standards). These standards are designed to be protective of human health. Overall, any health impacts resulting from the proposed project would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would initially and typically take place within an existing timber cut area or industrial location and would operate in an area removed from the general population. Therefore, the proposed operations would not affect any access to recreational and wilderness activities in the area. The operations would locate in a given area for a relatively short period of time thus decreasing any impact to the quality of recreational and wilderness activities in a given area of operation. Any impact to the quality of recreational and wilderness activities in a given area of operation would be minor.

G. Quantity and Distribution of Employment

The proposed project would be relatively small, and would have seasonal and intermittent operations. Glacier Gold would use approximately seven current company employees for the project, and would add up to three more. Therefore, the proposed project would have no significant effects upon the quantity and distribution of employment in this area.

H. Distribution of Population

The proposed operations would not disrupt the normal population distribution in any given area. Glacier Gold would use approximately seven current employees for the proposed project and may add up to three more. Because operations are temporary and seasonal, no individuals would be expected to permanently relocate to any area as a result of operating the facility.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Therefore, any demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would not impact local industrial and commercial activity because the proposed project would initially and typically operate in an existing timber cut area or industrial location and would not require any additional industrial construction or result in any additional industrial production.

K. Locally Adopted Environmental Plans and Goals

Glacier Gold would be allowed, by Permit #4252-00, to operate in areas designated by the EPA as attainment or unclassified for ambient air quality. An addendum would be required to operate in or within 10 km of certain PM_{10} nonattainment areas. Permit #4252-00 would contain limits for protecting air quality and for ensuring facility emissions are in compliance with any applicable ambient air quality standards. Because the facility would be a small and portable source and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived. The Department is unaware of any local environmental plans or goals. Permit #4252-00 would be protective of the local areas.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area as discussed in Section 8.A through Section 8.K of this EA. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #4252-00.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable wood chipping facility. Permit #4252-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: (1) Montana Historical Society / State Historic Preservation Office, (2) Natural Resource Information System / Montana Natural Heritage Program.

Individuals or groups contributing to this EA: (1) Department of Environmental Quality / Air Resources Management Bureau, (2) Montana Historical Society / State Historic Preservation Office, (3) Natural Resource Information System / Montana Natural Heritage Program.

EA prepared by: Brent Lignell
Date: September 15, 2008