

September 29, 2005

Dear Reader:

Enclosed for your review and comment is the Draft Checklist Environmental Assessment (CEA) for an operating permit requested by Moonlight Basin Ranch, LLP. (Moonlight Basin) of Ennis, MT. Moonlight Basin applied for an operating permit to quarry sand and gravel from a proposed pit located in Section 15, Township 6 South, Range 2 East, 6 miles west of Big Sky, MT on April 17, 2005. The application is now complete. This Draft CEA evaluates the potential impacts from the quarry operations. The Montana Department of Environmental Quality (DEQ) must decide whether to approve the permit as proposed, deny the request for an operating permit, or approve the operating permit with modifications.

The Draft CEA addresses issues and concerns raised during public involvement and from agency scoping. The agencies have decided to approve the permit as proposed as the preliminary preferred alternative. This is not a final decision. This conclusion may change based on comments received from the public on this Draft CEA, new information, or new analysis that may be needed in preparing the Final CEA.

Copies of this Draft CEA can be obtained by writing or calling the Montana Department of Environmental Quality, c/o Patrick Plantenberg, P. O. Box 200901, Helena, MT 59620, telephone (406) 444-4960; e-mail address [pplantenberg@mt.gov](mailto:pplantenberg@mt.gov). The Draft CEA will also be posted on the DEQ web page: [www.deq.state.mt.us](http://www.deq.state.mt.us).

Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted for 30 days, until October 31, 2005. Written comments may be sent to the Montana Department of Environmental Quality, Environmental Management Bureau, PO Box 200901, Helena, MT 59620-0901, attn: Patrick Plantenberg.

Since the Final EA may only contain public comments and responses, and a list of changes to the Draft CEA, please keep this Draft CEA for future reference.

\_\_\_\_\_  
Warren D. McCullough, Chief  
Environmental Management Bureau

\_\_\_\_\_  
Date

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**CHECKLIST ENVIRONMENTAL ASSESSMENT**

**COMPANY NAME:** Moonlight Basin Ranch, L.P.

**PERMIT OR LICENSE:** Operating Permit Application

**LOCATION:** Section 15: T6S R2E near Lone Mountain between Big Sky and Ennis, MT

**COUNTY:** Madison

**PROPERTY OWNERSHIP:** [ ] Federal [ ] State [X] Private Inholding in Beaverhead National Forest

**TYPE AND PURPOSE OF ACTION:** Moonlight Basin Ranch, L.P. (MBR), a land development company, proposes to expand a shallow rock quarry which is used to produce road aggregate. The quarry has been operated under a Small Miners Exclusion Statement (SMES), and will exceed the 5-acre disturbed and unreclaimed limit of the SMES.

MBR proposes to extract 100,000 cubic yards of material from a 10-acre quarry (Exhibit 1). The maximum depth of the quarry would be 30 feet. Quarrying would be completed with an excavator. A crusher and screen would process the rock. The resulting product would be stockpiled and then hauled as needed. MBR expects to complete the quarry in 2008.

**Reclamation Plan:** The proposed pit location would be reclaimed as a water storage reservoir. A high-density polyethylene (HDPE) or geosynthetic clay liner would be applied to the pit floor. The area surrounding the reservoir would be landscaped with stockpiled soil and revegetated with wetland vegetation along the perimeter of the reservoir.

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<p><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>	<p>[N] Soils on the site are classified as the shallow very channery loam. The overburden and soil horizons are less than 3 inches in depth. All soil would be saved and stockpiled for use in reclamation. Soil would be salvaged at least 10 feet ahead of the mining face to prevent inadvertent soil loss.</p> <p>The subsurface is a glacial till of unsorted, unstratified, unconsolidated, subangular to subrounded boulders in an unsorted matrix as fine as silt.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> Are important surface or groundwater resources present? Is there potential for violation of ambient water quality</p>	<p>[N] Based on inferences from wells drilled in the vicinity, it is estimated that the seasonal high and low water table depths exceed 540 feet below the ground surface. The maximum depth of mining would be 30 feet.</p> <p>There is no surface water nearby. The nearest surface water is an intermittent unnamed tributary to Jack Creek located approximately 900' to the southwest. There would be no use</p>

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>standards, drinking water maximum contaminant levels, or degradation of water quality?</b>	<b>of surface water in the operation.</b>
<b>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</b>	<b>[N] Stockpiles, processing equipment, and the active pit would be located in low areas to minimize the effects of wind. There is no mention of an air quality permit for the crusher. DEQ will stipulate that the crusher brought on the site have an approved air quality permit from DEQ. The drop heights from equipment and machinery would be similarly minimized. A water truck would be used to wet the project site and haul roads as needed to limit dust.</b>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</b>	<b>[N] The proposed permit area was clearcut several years ago, and is now composed primarily of herbaceous species. The vegetation is primarily pinegrass, heartleaf arnica, mountain arnica, meadowrue, northern bedstraw, and elk sedge. Scattered shrubs include globe huckleberry, black elderberry, and grouse whortleberry. Tree species noted along the perimeter of the clearcut include subalpine fir, and Engelmann spruce. Young lodgepole pine trees are colonizing the drier, warmer slopes of the older clearcut areas.  Noxious weeds have not been found on the site, but it is possible that Canada thistle and spotted knapweed are in the vicinity of the proposed pit. MBR implements a proactive weed management program with annual spraying of known infestations. If the project is approved, DEQ would stipulate that the crusher would be spray washed before accessing the site to prevent noxious weed invasion.</b>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</b>	<b>[N] There is no surface water within 900' of the site, the site has been disturbed by clearcut logging and more recently by quarrying under a Small Miner's Exclusion Statement, thus the species diversity and attractiveness for most wildlife have been reduced.  Elk summer in the mountainous portion of the Jack Creek drainage and move to the Madison Valley during the winter. They usually migrate to the upper basin during the late spring and move to the winter range in the early fall. Use of the project area by mule deer and black bear is short and transitory.  The quarry is to be lined with an HDPE or geosynthetic liner at closure. To limit impacts to wildlife slipping on the liner, DEQ would stipulate that the final slopes of the pond would be regraded to a 5h:1v slope until the water is two feet deep.</b>

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
	Then the pond would be graded to 3:1 from there to depth. The liner would be covered with at least one foot of pit run gravel.
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] Threatened and endangered species of wildlife could pass through the area including grey wolf and grizzly bear. The development of the area as a subdivision has limited the potential habitat for these species in the area. The Madison Range is occupied grizzly bear habitat, however, the site does not provide any habitat needs and is located near a subdivision and the Big Sky urban complex which have long ago impacted traditional habitat use. Similarly, lynx and wolverine inhabit the mountain range, but would be occasional transients through the mine site.  There are no wetlands associated with this project. At reclamation, a wetland would be created, which may provide desirable habitat for wetland dependent species.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?	[N] A cultural resource file search by the State Historic Preservation Office found that there were no previously recorded historic or archeological sites within the area.
<b>8. AESTHETICS:</b> Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The site will look like a gravel pit during operations until it is filled with water and the shorelines reclaimed to wetlands.
<b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
<b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other activities nearby that will affect the project?	[N] This project would provide road aggregate for the expansion of a subdivision adjacent to Big Sky.

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?	[N] The quarry is to be lined with an HDPE or geosynthetic liner at closure. To limit impacts to humans slipping on the liner, DEQ would stipulate that the final slopes of the pond would be regraded to a 5h:1v slope until the water is two feet deep. Then the pond would be graded to 3h:1v from there to depth. The liner would be covered with at least one foot of pit run gravel.
<b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?	[N]
<b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.	[N]
<b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?	[N]
<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there	[N] Public access in the subdivision is limited.

<b>IMPACTS ON THE HUMAN POPULATION</b>	
recreational potential within the tract?	
<b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?	[N]
<b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?	[N]
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?	[N]
<b>21. PRIVATE PROPERTY IMPACTS:</b> Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[Y]
<b>22. PRIVATE PROPERTY IMPACTS:</b> Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[N]
<b>23. PRIVATE PROPERTY IMPACTS:</b> Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the	[N/A]

IMPACTS ON THE HUMAN POPULATION	
agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

**25. Alternatives Considered:**

**No Action:** Deny the proposed plan as proposed. No significant impacts were identified that could not be mitigated.

**Approval:** Approve the proposed plan. No significant impacts were identified that could not be mitigated.

**Approval with Modification:** Three potential unresolved issues were identified which would require modification of the proposal. Three stipulations would be attached to project approval:

**Stipulation 001:** To limit impacts to humans and wildlife slipping on the quarry synthetic liner after closure, the final slopes of the pond shall be regraded to a 5h:1v slope until the water is two feet deep. Then the pond shall be graded to 3h:1v from there to depth. The liner must be covered with at least one foot of pit run gravel.

**Stipulation 002:** The crusher would be spray washed before accessing the site to prevent noxious weed invasion.

**Stipulation 003:** The crusher brought on the site have an approved air quality permit from DEQ's Air Resources Management Bureau.

**26. Public Involvement:** A legal notice and press release were issued by DEQ. No comments were received from the public,

**27. Other Governmental Agencies with Jurisdiction:** None

**28. Magnitude and Significance of Potential Impacts:** There would be no significant impacts associated with this proposal.

**29. Cumulative Effects:** Continued development in the area reduces the wildlife value of the property as well making the rural setting appear more urban. The US Forest Service (USFS) has no proposed timber sales in the area. The USFS is proposing to reclassify the lands around the MBR as wilderness in the next Forest Plan revision.

**30. Recommendation for Further Environmental Analysis:**

EIS     More Detailed EA     No Further Analysis

**31. EA Checklist Prepared By: Pete Strazdas, Small Miner and Exploration Program Supervisor and Patrick Plantenberg, Operating Permit Section Supervisor.**

**32. EA Reviewed By: Greg Hallsten, DEQ Environmental Coordinator and Warren McCullough, EMB Bureau Chief**

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**Signature**

**Date**

**Patrick Plantenberg  
Operating Permit Section Supervisor**

**Attachment**

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## ATTACHMENTS

## EXHIBIT



MOONLIGHT BASIN RANCH  
 FIGURE 1 - OVERALL MAP VIEW  
 SCALE 1"=2000'  
 FOR ILLUSTRATION PURPOSES ONLY

February 1, 2004

**RE: Supplemental EA for General Quarry Permit**

Dear Reader,

Attached is a copy of a supplemental programmatic Environmental Assessment (SEA) for a proposed general quarry permit for standardized plans of operations for small multiple-site quarry and rock collecting operations. The Montana Department of Environmental Quality (department) published a draft and final programmatic Environmental Assessment (EA) for a proposed general quarry permit for standardized plans of operations for small multiple-site quarry and rock collecting operations on October 26, 1999 and January 12, 2000.

The department is herein proposing a revision of the language which refers to allowable disturbance under the general quarry permit, to comport with language found in the Metal Mine Reclamation Act (MMRA) regarding disturbance under the Small Miners Exclusion Statement (SMES). In addition, several changes have been made to improve precision and provide clarification. The draft SEA includes a draft application for operations qualifying for this proposed permit.

The General Quarry Permit was developed to address the need to regulate the expanding number of small quarries and rock collecting sites in Montana. Such sites traditionally have been regulated under a Small Miners Exclusion Statement (SMES). Many operators, however, have more than the maximum of two sites allowed under a SMES, but do not cause the level of environmental impacts appropriate for a full Operating Permit. The proposed language change would allow any individual small quarry to maintain a working disturbance of up to 5 acres. Total disturbance during the life of an individual operation could exceed 5 acres, but concurrent reclamation would be required to keep the disturbance at any one time to 5 acres or less. This language is consistent with that found in the MMRA with regard to mines that operate under the SMES.

The General Quarry Permit plan of operations would be accepted where there is no potential for impact to surface or groundwater, where the geochemical changes resulting from excavation of rock will not result in acid rock drainage, and where no water impounding structures other than for storm water control are constructed. In addition, the plan of operations would be accepted for sites where there are no cultural resources, wetlands, or threatened and endangered plant or animal species. Sites may occur on federal, private, or state lands.

**A new supplemental information form would be used for these operations. This form provides an outline specifying information needed regarding the plan of operations, baseline conditions, the reclamation plan, and the applicants. If the department concludes that an application meets the criteria for this permit, no further Montana Environmental Policy Act analysis would be required.**

**The draft SEA discusses two alternatives: No-Action and the Agency Proposal. The Preferred Alternative in the draft SEA is the Agency Proposal.**

**A 30-day comment period on the draft SEA will begin on February 5, 2004 and end on March 5, 2004. Any comments, suggestions, or questions will be welcome during that period. Written comments may be sent to Patrick Plantenberg, Environmental Management Bureau, Permitting and Compliance Division, DEQ, P.O. Box 200901, Helena, MT 59620-0901. Letters must be postmarked by March 5, 2004. Comments can also be sent by e-mail to [pplantenberg@state.mt.us](mailto:pplantenberg@state.mt.us).**

**For more information on the draft SEA or to request a copy of the draft SEA call Patrick Plantenberg at (406) 444-4960 or Pete Strazdas at (406) 444-4962. The draft SEA is also available on the DEQ web page at <http://www.deq.state.mt.us/ea.htm>.**

**Sincerely,**

**Warren McCullough, Chief  
Environmental Management Bureau**

**Enclosure w/2 appendices**

DEPARTMENT OF ENVIRONMENTAL QUALITY  
PERMITTING AND COMPLIANCE DIVISION

PROGRAMMATIC ANALYSIS  
FOR  
GENERAL QUARRY PERMIT  
DRAFT SUPPLEMENTAL ENVIRONMENTAL ANALYSIS

Environmental Management Bureau - Hard Rock Program

APPLICATION FOR OPERATING PERMIT

Introduction

Name of Project: \_\_\_\_\_ General Quarry Permit \_\_\_\_\_

Type of Project: \_\_\_\_\_ Rock \_\_\_\_\_

Location of Project(s): \_\_\_\_\_ Variable \_\_\_\_\_

County: \_\_\_\_\_ Variable \_\_\_\_\_

Description of Project (Summary of Proposed Action)

*The department published draft and final programmatic Environmental Assessments (EAs) for a proposed general quarry permit for standardized plans of operations for small multiple-site quarry and rock collecting operations on October 26, 1999 and January 12, 2000. "Quarry" as used in this SEA may mean either a quarry or a rock collecting site. The department is herein proposing a revision of the language which refers to allowable disturbance under the general quarry permit, to comport with language found in the Metal Mine Reclamation Act (MMRA) regarding disturbance under the Small Miners Exclusion Statement (SMES). In addition, several other changes have been made to improve precision and provide clarification. Additions to the SEA are shown in italics. Deletions are shown as ~~strike outs~~.*

The department is consolidating, in one programmatic review, an analysis of a proposed plan of operations for small multiple-site quarry and rock collecting operations. *The General Quarry Permit was developed to address the need to regulate the expanding number of small quarries and rock collecting sites in Montana. Such sites traditionally have been regulated under a Small Miners Exclusion Statement (SMES). Many operators, however, have more than the maximum of two sites allowed under a SMES, but do not cause the level of environmental impacts appropriate for a full Operating Permit. The proposed language change would allow any individual small quarry to maintain a working disturbance of up to 5 acres. Total disturbance during the life of an individual operation could exceed 5 acres, but concurrent reclamation would be required to keep the disturbance at any one time to 5 acres or less.* The plan of operations would ~~apply only to sites where each individual site would disturb no more than 5 acres,~~ be accepted where there is no potential for impact to surface or groundwaters, where the geochemical changes resulting from excavation of rock ~~do~~ will not result in acid rock drainage, and *where* no water impounding structures other than for storm water control are constructed. In addition, the plan of operations would ~~apply only to~~ be accepted for sites where there are no

cultural resources, wetlands, or threatened and endangered plant or animal species. ~~Such~~ Sites may occur on federal, private, or state lands.

A new supplemental information form would be used for *in conjunction with* these small quarry and rock collecting operations and is included in Appendix A. This form provides an outline specifying information needed regarding the plan of operations, baseline conditions, the reclamation plan, and information about the applicants. If this programmatic review is approved and the department concludes *that* an application meets the criteria set out below, then no further *Montana Environmental Policy Act (MEPA)* analysis would be required.

Each permit approved through this process may be modified by the department or the applicant in accordance with provisions of *Section 82-4-337(3)*, MCA at any time that the above conditions are not met.

### Purpose and Need

The department has proposed a standardized plan of operations for activities undertaken at certain sites by companies and individuals supplying rock for landscaping and construction. Demand for this type of rock is increasing. Thus, the department's workload in this area is increasing. The department has developed this standardized plan to maximize the efficiency of permitting and the decision-making process for such companies and individuals.

These kinds of disturbances are *have* typically *been* covered under the *SMES Small Miner's Exclusion Statement*; the need *by many applicants* for more than two sites precludes this option. This documentation provides a categorical exclusion from the more detailed, *standardized operating permit* application process and environmental impact analysis currently required *for sites not eligible for a SMES*.

### Public Involvement

The department published a notice to solicit public input in *newspapers* across the state. Only two newspapers chose to publish the notice, the Mineral Independent of Superior, and the Meagher County News of White Sulphur Springs, both in April 1999. *The department published the notice for the supplemental environmental analysis in January 2004.*

The department further solicited comments from 117 contractors, quarrymen, public agencies, elected officials, and citizens groups. Letters were mailed on May 10, 1999. The department received letters from two commentors in response. None of the comments were substantive.

### Agency Roles and Responsibilities

The department is responsible for ensuring *that* activities proposed under the *Metal Mine Reclamation Act MMRA* are in compliance with the Act and with air and water regulations. Permits issued pursuant to these regulations do not confer any property rights to a permittee. In preparing the draft EA, the department solicited input from the Department of Natural Resources and Conservation and federal land managing agencies. No comments were received from these agencies. However, each applicant would be responsible for obtaining any special use permits or complying with agency-specific restrictions ~~when~~ *if* the proposed mine *quarry* ~~was~~ *is* located on state or federal lands.

### Alternatives

Alternatives would be developed based on the complexity of the existing process and a desire to tailor the process to meet the specific needs of a group of permittees conducting activities on small areas with minimal impact and no potential for significant impacts. Public comment was solicited to develop additional criteria for consideration as a part of the proposed action and to develop additional alternatives. No additional concerns were identified; therefore, there are no additional alternatives considered in this EA other than the No-Action Alternative required under MEPA.

### No Action *Alternative*

Under the No-Action Alternative, the department would require each potential permittee to apply using the standard operating permit application process. This existing process is minimally standardized because of the large degree of variability between sites proposed for large industrial or even small metal mines. Thus it is difficult for the small operator who has minimal familiarity with, and limited resources to commit to the permitting process *and* to secure an operating permit. Appendix B contains a copy of the existing application form. Supplemental material describing the environmental baseline, the operating plan, and the reclamation plan is typically submitted in three-ring binders. The amount of supplemental information varies with the size and complexity of the site.

### Proposed Plan of Operations *Alternative*

Under this alternative, the department would utilize a standardized, more structured process to work with the individuals and small firms proposing to collect landscaping rock or building stone on a small-scale *or* intermittent basis. Appendix A contains the proposed form outlining and defining the supplemental information needed regarding the plan of operations, baseline conditions, the reclamation plan, and applicants, and would be appended to the existing Application for Operating Permit form found in Appendix B. The proposed form condenses the information that typically fills three-ring binders under the existing standardized permitting process and would facilitate permitting multiple small quarry and rock collecting operations that meet the criteria described below.

~~This plan would apply to multiple sites that do not meet the criteria for a Small Miner's Exclusion Statement because the same operator would disturb more than two sites. *The General Quarry Permit was developed to address the need to regulate the expanding number of small quarries and rock collecting sites in Montana. Such sites traditionally have been regulated under a Small Miners Exclusion Statement (SMES). Many operators, however, have more than the maximum of two sites allowed under a SMES, but do not cause the level of environmental impacts appropriate for a full Operating Permit. The proposed language change would allow any individual small quarry to maintain a working disturbance of up to 5 acres. Total disturbance during the life of an individual operation could exceed 5 acres, but concurrent reclamation would be required to keep the disturbance at any one time to 5 acres or less. Individually, operators would not be allowed to have more than 5 acres at each site. Access roads would not be counted against the allowable 5 acres under this permit if bonded for reclamation. Access roads would be bonded for reclamation if the landowner did not want the road left for uses after quarrying.*~~ The permitted sites are prohibited from being adjacent to each other so as to create a continuous disturbance or unreclaimed sites greater than 5 acres. This permit would cover two kinds of disturbances: quarry type operations (at new or existing sites) and rock ~~or stone~~ collecting sites.

*Quarry operations.* A new quarry would be opened or an existing site reopened by removing vegetation, stripping and stockpiling soil for future reclamation use, and removing overburden or waste rock to access the desired rock materials. Depending on the product being produced, rock may be removed by drilling and blasting followed by excavation and hauling, ripping with a bulldozer or excavator followed by removal, or by drilling and sawing blocks with diamond saws followed by removal. If blasting were to be used, the operator would comply with provisions of ~~S~~section 82-4-356, MCA, and ARM 17.24.157-159.



Quarries would be reclaimed by scaling back highwalls, if necessary for stability and safety. If quarrying results in upslope raveling of scree or loose rock, that destabilized slope would be revegetated or otherwise stabilized. The quarry floor would be graded, covered with soil material and revegetated. If quarrying results in a pit below the level of adjacent ground, that pit would be backfilled ~~to the level of adjacent ground with the remaining waste rock and/or graded to blend with the surrounding topography and revegetated using the cover material that is available.~~

Other areas disturbed but not mined *quarried* would also be revegetated. Overburden and waste rock, if present, would be graded to conform to natural topography, against the pit highwall or as a mound or slope. Coarse rock would not be revegetated but would remain as a rubble or scree feature. Overburden that could support vegetation, or rock that could be covered with salvaged soil, would be revegetated.

*Rock Collection Sites.* A rock or stone collection site would be worked by workers with hand bars or other hand tools, or with loaders, backhoes, or other similar equipment that would lift rock and stones from the ground surface, or from under thin soil layers, and stockpile or pallet them for removal. These kinds of operations would *generally occur on ridges or across rolling prairie and would* not generally cause continuous areas of disturbed soil nor create open pits or highwalls, but would only disturb the ground *from which* the rock had been removed. In most rock collection sites, soil would not be salvaged, because site disturbance would be minimal, however, loss of soil by gully erosion of tracks or other careless activities would not be permitted.

Reclamation needs at rock collection sites would be evaluated on a site-specific basis. Reclamation may consist primarily of smoothing disrupted ground surfaces, replacing any topsoil that had been removed and stockpiled, seeding sites where rock has been removed, clearing rock from roads and trails to remain after mining, and grading excessive ruts on roads or fields that may have been caused by the operator.

*General Requirements.* There would be no permanent structures on site, unless these structures conformed to the approved ~~post-mine~~ land use *after quarrying*. Temporary camp/office trailers may be used. All equipment and buildings brought onto the site and trash would be removed at ~~mine~~ *quarry* closure.

Access would typically be from established trails or roads. However, if an access road were proposed, it would typically be a relatively low grade, temporary road. The operator would need to have approval from the landowner or a special use permit from a government agency prior to constructing the road and all necessary measures would be taken to control erosion including using standard best management practices (*BMPs*) and revegetating all disturbed areas along the road. Roads would be bonded for reclamation, unless required ~~post-mine~~ by the landowner *after quarry closure*.

Rock may be sorted, stockpiled, and collected on sites, prior to removal. Occasionally, some weed splitting/breaking may be done and rock crushing for decorative uses may occur. An air quality permit may be required for crushing operations and would be applied for on a site-specific basis.

In those instances when substantial site disturbance would be required, soils would be salvaged and stockpiled. Long-term soil stockpiles would be revegetated with an interim seed mix to minimize dust and weed establishment. Best management practices for erosion and storm water controls would be utilized, including diversion of run-on water from undisturbed ground away from the rock collection or quarry site and collection of storm water from within the disturbed areas into ponds without discharge to surface waters.

The proposed ~~post-mining~~ land use *after quarrying* would typically return the site to its ~~prequarrying~~ *mining* use, typically *such as* wildlife habitat, forest, or grazing land. Plant species used for revegetation would be compatible with and appropriate for the ~~post-mining~~ land use *after quarrying*, and approved by the department. Any alternative ~~post-mining~~ land use *after quarrying*

proposed by the operator, such as a building site, may be appropriate if it is feasible, compatible with any local or regional zoning regulations, and consistent with the landowners' long-term plans for the site. Any land use changes outside these parameters would need to be evaluated in a separate EA.

Noxious weed control would be consistent with the County's weed control plan. Liability for weed control or eradication would be based on species identified in a site-specific pre~~quarrying~~-mining weed inventory. Operators would be responsible to eradicate noxious weeds on ground that was free of noxious weeds prior to ~~quarrying~~ mining. Conversely, if the site was infested before operations began, the operator would not be responsible for returning the land to a weed-free state, but would be required to return the land to a condition no worse than what existed prior to operations and similar to that of surrounding lands. Operators may be required to establish competitive vegetation, if appropriate.

Bonding would be determined in accordance with the approved site-specific plan of operations as defined in *Section 82-4-338 MCA*.

### Affected Environment

The site conditions required for a plan to be approved under this operating permit are described below.

### Geology

Rock ~~mined~~ *quarried* under this plan would consist of various rock types and mineralogies. The rock may be found at or near the surface, such as talus, or in-place, such as bedded sandstone, shale, limestone, basalt, rhyolite, travertine, or marble. It may be covered by overburden, or exposed as outcrops or scattered rock laying on the earth's surface. The rock or resulting waste would have no potential for causing acid rock drainage. *Sites with a potential for acid rock drainage would not be eligible for permitting under this SEA.*

### Hydrology

For rock recovery under a general quarry permit, the rock must be obtained from a dry site. Surface waters would *must* be 100 feet or more from the site and the water table would *must* not be intercepted by any surface activities. Similarly, no riparian areas or wetlands would *may* be disturbed as a result of rock quarrying under the general quarry permit.

### Soils

Soil development may be highly variable but may be expected to be shallow over rock. Extent of soil development would not be a criterion of permit approval.

### Biological Diversity

Vegetation on quarry sites consists of meadows, rangelands, forests, or agricultural crops, *typically supporting an array* of wildlife species including small and large mammals, reptiles, and birds. Sites supporting threatened *and* endangered ~~or sensitive~~ plant species would not be *permissible* under this general permit. Some sites may contain a high concentration of ~~and~~ noxious weeds ~~plants~~ prior to site disturbances. Due to the *required* distance from water, no fisheries would be present and the probability for the occurrence of any amphibians would be limited.

## Land Use

Existing land uses would include ~~mining~~ *quarrying*, agriculture, recreation, and forestry. If any historic or prehistoric cultural activities are known to have occurred at the proposed site, the site would not be *permissible* under the general quarry permit. The site would not affect any existing transportation or utility corridors, or wilderness lands.

## Social-Economic Conditions

Most rock collecting is done by individuals and small companies. The quarrying and rock collecting activities are distributed statewide. The operators tend to be concentrated near population centers and in areas experiencing growth, to satisfy the demand for decorative rock and building stone.

## Impacts of the Proposed Project

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

Include frequency, duration (long or short term) magnitude and context for any impacts identified. Identify reasonable feasible mitigation measures where appropriate.

**NA= Not applicable**

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[Y] Removal of rock or building stone would irreversibly remove the material from the site. A pit and/or highwall may result from quarrying. Soils would be salvaged and replaced at sites proposed for substantial surface disturbance. Additional protective measures would be required on steep slopes and erodible soils to minimize erosion.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The stipulated 100-foot distance from surface waters and prohibition of interception of water tables would prevent impacts to surface and ground waters.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] There is some potential for dust created by crushing operations that may need to be covered by an air quality permit.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[Y] Vegetation could be impacted for the short-term by clearing and soil removal at some sites. This would be mitigated by replacing soil and revegetating the site at closure. The potential exists for increasing the spread of noxious weeds but would be minimized through implementation of a county approved noxious weed control plan <i>and aggressive control measures</i> .
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] There is a potential for minor impacts to wildlife and birds at sites with greater surface disturbance, and where heavy equipment or blasting would be used. This would be a short term and very local impact, and would be removed <i>cease</i> when <i>quarrying or rock collecting mining</i> <del>ceased</del> <i>ends</i> . Sites with critical habitats for threatened <i>and</i> <del>or</del> endangered species would not be permitted under this process.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or <b>and</b> endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] Sites with these features would not be permitted through this proposed permit process.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] Sites with these features would not be permitted through this proposed permit process.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[Y] Activities at existing quarries or development of new quarries may be visible from populated areas or from recreational sites, but the small size of these operations and site reclamation <b>concurrently and</b> at closure would mitigate any long-term impacts <b>to</b> below the level of significance.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR, OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other environmental resources that would be affected by the project?	[N]

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] Creation of <b>new</b> highwalls at quarry sites would create a safety risk. Fencing and posting of highwalls during operations and reclamation after mining would minimize the short- and long-term risks.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] Development of <b>new</b> sites would result in the development of an industrial operation that could be noticeable in areas with few similar activities nearby. Reclamation of the sites after <b>mining quarrying and rock collecting</b> ceases would mitigate this impact. Expansion of existing quarries and sites would have less impact.

IMPACTS ON THE HUMAN POPULATION	
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[Y] The number of jobs created by these operations is highly variable, from one person per operation, to companies employing several tens of fulltime workers.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[Y] Addition to tax base would be <del>insignificant</del> <b>substantial in some counties in Montana.</b>
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire, police, schools, etc.) be needed?	[Y] There may be some increase in traffic on roads to some sites, but the increase would not be substantial and would return to <del>premine prequarry</del> levels after the <del>mine quarry</del> closed and the site was reclaimed.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] Special use permits and agency specific restrictions may be required on federal or state lands.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[Y] <del>Mining Quarrying</del> could not occur within designated wilderness areas, but development of new, or expansion of existing sites could affect recreational activities on and around the sites. The small size of each site and reclamation of potential sites at <del>mine quarry</del> closure would minimize this potential impact below the level of significance.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property	[Y] This activity is regulated by the <del>MMRA Montana Metal Mine Reclamation Act</del> , <del>S</del> section 82-4-301 MCA, <del>et seq.</del> No permit conditions are proposed outside the scope of this statute.

IMPACTS ON THE HUMAN POPULATION	
management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[Y] The mitigations described above are necessary to comply with reclamation, water quality, and air quality laws and regulations, and would vary to some degree from site to site, depending on conditions and type of operations.
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N] The only discretion available to the agency would be in selecting mitigations appropriate for each site that would achieve the desired result of complying with the laws and regulations. The requirements imposed in the plan of operations are the minimum requirements necessary to comply with the <del>Metal Mine Reclamation Act</del> <b>MMRA</b> and rules.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N/A]

25. Description of and Impacts of Other Alternatives Considered:

**No-Action:** The No-Action alternative would leave the permitting requirements for small quarrying and rock collection operations unchanged. Those operators who utilize more than the two sites allowable under the SMES would be obliged to submit ~~more~~ rigorous baseline, operating, and reclamation plans. The department would be obliged to conduct public scoping, prepare an environmental assessment, and solicit and respond to public comments for each site.

**Approval with Modification:** No modifications were proposed.

26. Summary of Magnitude and Significance of Potential Impacts: Impacts would be minimal. *The General Quarry Permit was developed to address the need to regulate the expanding number of small quarries and rock collecting sites in Montana. Such sites traditionally have been regulated under a Small Miners Exclusion Statement (SMES). Many operators, however, have more than the maximum of two sites allowed under a SMES, but do not cause the level of environmental impacts appropriate for a full Operating Permit. The proposed language change would allow any individual small quarry to maintain a working disturbance of up to 5 acres. Total disturbance during the life of an individual operation could exceed 5 acres, but concurrent reclamation would be required*

*to keep the disturbance at any one time to 5 acres or less.* Each permit would be no larger than 5 acres, which is the scale of disturbance determined in the MMRA to be non-significant. Further, there would be no impact to surface or groundwater, archeological or cultural resources, or *rare threatened* or *and* endangered plant or animal species. Each site would be reclaimed immediately following *mine* closure.

27. Cumulative Effects: Cumulative effects would depend on what other activities are ongoing in each of the quarry/rock collection areas. Operations under the general quarry permit would provide minimal additional disturbance in any area. If cumulative effects from other activities in the area and a quarry or rock-picking site were identified, then this categorical exclusion would not apply.

28. Preferred Alternative: The department's preferred alternative is to adopt the general quarry permit as described in this *supplemental* environmental assessment without modifications.

**29. Recommendation for Further Environmental Analysis:**

EIS     More Detailed EA     No Further Analysis

Rationale for Recommendation: This permitting process for multiple small quarries or rock collection sites would be a more efficient and simpler way for applicants to apply for permits and the agency to review them than the standard process that is currently required for multiple sites due to the small miner's restrictions in the *Montana Metal Mines Reclamation Act MMRA*. There would be minimal or no impacts to the existing environment during operation at sites approved under this general permit and there would be no potential for acid rock drainage. No impacts of any kind would be allowed to affect surface or ground water, wetlands, archeological or cultural resources, or *rare*, threatened, or *and* endangered plant or animal species during operation, because the general quarry permit would not be used in those instances. Soil would be salvaged and/or protected to prevent erosion and facilitate reclamation. Storm water controls would be required *to* preventing erosion and possible sedimentation of nearby streams outside the 100-foot buffer zone. Each site would be reclaimed *concurrently and/or* immediately following *mine* closure.

**30. SEA Checklist Prepared By:**

Pete Strazdas  
Small Miner Program Supervisor

*Patrick Plantenberg*  
*Operating Permit Section Supervisor*

**Approved By:**

\_\_\_\_\_  
McCullough  
Environmental Management Bureau Chief

\_\_\_\_\_  
Date

\_\_\_\_\_  
Warren



## APPENDIX A

## **GENERAL QUARRY PLAN OF OPERATIONS**

**This Plan of Operations application form may be used to permit a rock or stone quarry or collection area if:**

- **Any individual small quarry maintains a working disturbance of up to 5 acres. Total disturbance during the life of an individual operation could exceed 5 acres, but concurrent reclamation would be required to keep the disturbance at any one time to 5 acres or less. Access roads would not be included in the disturbed total, but the operator would submit a reclamation bond for roads that do not have an appropriate use after quarrying. Roads appropriate for the land use after quarrying and access or haulage roads which are required by a local, state, or federal agency having jurisdiction over that road would not have to be bonded;**
- **There would be no impact to any wetland, surface or ground water;**
- **There would be no constructed impoundments or reservoirs used in the operation;**
- **There would be no potential to produce any acid or other pollutive drainage from the pit;**
- **There would be no impact to threatened and endangered species;**  
**and**
- **There would be no impact to significant historic or archeological features.**

**This form offers a simplified way to write a complete plan and must be submitted together with the *Application for Operating Permit* form and \$500 application fee.**

**When using this form: 1) give a complete response to the information requested; 2) provide necessary additional information; and 3) write N/A if the request for information is not applicable.**

**Supplemental information can be found in the Plan of Operations Guidelines and other Operating Permit packet materials. Please contact the department if you need additional information or assistance.**

### **SECTION I - CORPORATE INFORMATION**

**(All information requested in this part must be provided)**

1. **If the applicant is a corporation or other business entity, list the name and address of officers, directors, owners of 10% or more of any class of**

**voting stock, partners, and the like and its registered agent for service of process:**

- 2. List the names and addresses of the owners of record and any purchasers under contract for deed of the surface of the land within the permit area and the owners of record and any purchasers for deed of all land within one half mile of any part of the permit area:**
- 3. List the names and addresses of the present owners of record and any purchasers under contracts for deed of all minerals in the land within the permit area:**
- 4. Provide the source of the applicant's legal right to quarry the mineral on the land affected by the permit:**
- 5. Certify that the applicant is not currently in violation in this state of any law, rule, or regulation of this state or of the United States pertaining to air quality, water quality, or quarried land reclamation:**

**Or if the applicant is a partnership, corporation, or other business association, certify that any partners, officers, directors, owners of 10% or more of any class of voting stock, and business association members, are not currently in violation in this state of any law, rule, or regulation of this state or of the United States pertaining to air quality, water quality, or quarried land reclamation:**

## **SECTION II - PREQUARRY BASELINE**

- 1. Location and Topography. Provide a map showing the location of the proposed quarry and describe the proposed access route. Include the specific area to be quarried and the boundaries of land that will be disturbed, sufficient topographic detail to show the topography of the site, the location and names of streams, roads, railroads, and utility lines on or immediately adjacent to the area, and the location of proposed access roads and conceptual spur roads to be built. Provide a general description of how to access the site using the Exhibits:**
- 2. Present Land Use and Past Quarrying Disturbance. Describe the present land use and any past quarrying disturbance within and near the proposed permit area:**
- 3. Water Wells. Give the location, total depth, and use of any water well in and within 1,000' of the permit area:**

**4. Water Table. Give the estimated seasonal high and low table depths for the area to be quarried, and the maximum depth of quarrying. Specify whether quarrying activities will intercept the water table at any time of the year. If the water table is close to the surface, please dig a test pit and document the presence or absence of evidence of seasonally high water tables:**

**5. Surface Water. Show the location on a map and provide a description, and use of any surface water in and within 100 feet of the permit area. Specifically state how far it is from the permit area to surface water. Specifically state whether there is any surface water within 100 feet of the quarry or the new access road. For all sites with surface water close to the site, the operator will describe additional BMP's put in place to prevent impacts to surface water:**

**6. Soil Material. Provide a general description of the soil and overburden types and thickness in the area to be quarried. Provide a general description of the soil in the proposed disturbance areas. Provide an estimate of the total acreage of the disturbed area that will be salvaged and have soil replaced at closure:**

**7. Vegetation. Describe the dominant vegetation within the permit area and note the occurrence of any noxious weeds:**

**8. Wildlife. Describe any significant seasonal or year round use by wildlife in and within 1,000 feet of the permit area. Does the site have any habitat for threatened and endangered species?**

**9. Geology. Give a geologic description of the site and describe the potential for the rock to produce acid or other pollutive drainage. Specify whether there are any visible sulfides, iron staining or other effects of chemical weathering on the rocks. If so, then provide more information and sample the material and provide the results if necessary:**

**Quarry or Rock Picking Activities: Please provide information for each site on the products being removed from each site. Will the site be used for surface rock picking only? Will the site create a quarry pit that needs to be graded at closure? Will crushing be needed on the site? Will blasting be used on the site?**

**10. Additional Information. Describe any characteristics or circumstances unique to the site:**

### **SECTION III - OPERATING PLAN**

**1. Soil Material Handling. Operator will:**

**a. Salvage at least 6" of soil from level facility areas, if available: (level facility areas include mineral stockpile, processing and staging area, except palleting areas receiving minimal disturbance):**

**b. Salvage all soil and overburden from, and at least 10' ahead of, quarry areas: (quarry areas include areas to be quarried as well as areas for waste rock disposal):**

**c. Handle soil and overburden separately and haul these materials to areas prepared for resoiling or stockpile them separately where they will not be disturbed, contaminated, or lost to erosion:**

**d. Shape and seed any soil or overburden stockpile that will remain undisturbed for more than 1 year:**

**e. In the case of reclamation to a use that will not require a vegetative cover, retain all soil on site in an accessible location until the alternate reclamation is assured:**

**2. Quarrying. Indicate the material to be quarried and describe the quarrying method, showing location of the proposed quarry, stockpiles, roads, and other facilities on a map:**

**3. Rock Collecting Sites. Indicate the material to be collected and describe the collecting method, showing location of the proposed collection area, soil or waste rock stockpiles, roads, and other facilities on a map:**

**4. Expected Starting Date of Operations.**

**5. Road Construction. Describe the types of access and quarry related roads to be built, and specify which if any road is to remain per landowner request after quarrying is completed, their intended use, and the condition in which they will be left:**

**6. Water Management. Describe 1) the source, quantity, use, and discharge of any surface water or groundwater to be used in the quarrying operation, and 2) any sediment control structure, water treatment system, drainage structure, or other water control system to be used:**

7. Water Protection. **Operator will:**

a. **Take appropriate measure to protect surface water and groundwater from deterioration of quality and quantity that could be caused by quarrying and reclamation activities:**

b. **Inspect and maintain all fuel storage tanks parked or set on site to prevent spillage, immediately retrieve and properly dispose of any spilled fuel or contaminated materials, and report any spill that reaches state waters or that is greater than 25 gallons to the Department at 406-444-0379:**

c. **Keep all equipment, facilities, and disturbances at least 100 feet from typical high water marks of drainage ways, except at approved crossings:**

8. Dust Management. **Describe any dust control measures to be used during site preparation, stripping, quarrying, processing, hauling, and reclamation:**

9. Rock Stockpiles. **Operator will consolidate excess rock products into stockpiles in an accessible location near an access point or incorporate them into the reclamation plan:**

10. Waste Disposal. **Operator will prohibit on site disposal of wastes unless an appropriate solid waste management system license is obtained from the Department:**

11. Public Safety. **Describe provisions to secure hazardous features, such as highwalls, from public entry:**

12. Socioeconomics. **Describe the number of employees that the operation would require at least on a seasonal basis. Describe the number or truckloads from the quarry site per week or month:**

#### **SECTION IV - RECLAMATION PLAN**

1. Land Use After Quarrying. **State the land use of the permit area after quarrying. Structures and roads must be removed and reclaimed unless they are appropriate for the land use after quarrying:**

2. Grading. **Describe the backfilling and grading plan, supported by sketch maps and drawings if appropriate, including anticipated highwall, quarry floor, and waste rock dump slopes and contours, and any special reclamation features, water catchments, drainage ways, ponds, and any portion of the quarry to stay open. Describe grading of any quarries that are below the level of adjacent ground. Describe what steps will be taken to insure that the rock face will be stable and will not present a hazard to people or animals:**

3. Ripping, Soil Material Replacement and Revegetation. **Operator will establish a vegetative cover capable of supporting the land use after quarrying:**

a. **Describe the methods and depths of deep ripping road, stockpile, work, and other compacted areas.**

b. **Describe the methods and depths of soil replacement on level facility areas and of overburden and soil replacement on level quarry areas.**

c. **Describe the methods of seedbed preparation, including incorporation of soil amendments and mulch, if any.**

d. **Describe the methods, species and rates, and season of seeding or planting.**

4. Weed Control. **Operator will:**

a. **Ensure that all seed is weed free.**

b. **Control noxious weeds as specified in the respective weed district management plan.**

c. **Describe any planned weed control measures:**

5. Road Reclamation. **After road surface materials have been retrieved and properly handled, operator will downsize or completely reclaim quarry-related roads as follows:**

a. **Roads are to be graded to blend with the natural contour.**

b. **Roads surfaces are to be ripped, resoiled, and seeded.**

6. Site Protection and Management. **Operator will maintain adequate site protection on seeded areas for two complete growing seasons, or until reclamation is achieved, whichever is longer.**

7. Concurrent and Final Reclamation. **Operator will:**

a. **Keep reclamation as concurrent with quarrying operations as possible.**

**b. Grade, resoil, and seed or plant an area no longer needed for quarry-related activities within 1 year of the cessation of such activities on that area.**

**c. Complete final reclamation by the date given below or apply for an amendment to complete reclamation by a later date.**

**d. Give a reasonable estimate of the month and year by which final reclamation will be completed:**

**SECTION V - OTHER**

**1. Archaeological and Historical Values: Operator will:**

**a. Provide appropriate protection for archaeological and historical values found in the permit area.**

**b. Route operations around a site of discovery, promptly notify the State Historic Preservation Office (406-444-7715), and leave the site undisturbed until proper evaluation is made.**

**2. Personnel Informed. Operator will inform all necessary on site personnel, including subcontractors, of the commitments made herein.**

**3. Additional Information. Describe any other conditions that pertain to this permit that would alter the conditions or commitments above.**

**I certify that the statements and information given apply to the \_\_\_\_\_ site, and that this plan will be followed unless modified by revision or amendment as provided for in 82-4-337, MCA.**

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**Signature**

**Date**

**Revised 02/01/04**



## **APPENDIX B**

## APPLICATION FOR OPERATING PERMIT

State of Montana  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
Environmental Management Bureau  
 PO Box 200901  
 Helena, Montana 59620-0901  
 Phone: (406) 444-4953

Pursuant to the Montana Metal Mine  
 Reclamation Act  
 (Title 82, Chapter 4, Part 3 MCA)  
 INSTRUCTIONS: See Operating Permit  
 Rules and Regulations and General Quarry Plan of Operations

Following application submittal, the initial completeness review will be done within 60 days. Subsequent reviews will be completed within 30 days. If this application is consistent with the General Quarry Supplemental EA, no further environmental analyses will be performed.

NAME AND ADDRESS OF OPERATOR (Corporation or other business entity: Give names and addresses of principal officers, partners, agents, etc.)  Telephone:	SIZE AND LEGAL DESCRIPTION OF PERMITTED AREA						
	Location:						
	Section	T _ N    Range _ E _ S    _ W	County				
	Miles	Direction From	Nearest Community				
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Minerals to be Mined</td> <td style="width: 25%;">Proposed Acreage to be Permitted</td> <td style="width: 25%;">Proposed Acreage to be Disturbed</td> <td style="width: 25%;">Expected Dates of: Starting                      Completion</td> </tr> </table>				Minerals to be Mined	Proposed Acreage to be Permitted	Proposed Acreage to be Disturbed	Expected Dates of: Starting                      Completion
Minerals to be Mined	Proposed Acreage to be Permitted	Proposed Acreage to be Disturbed	Expected Dates of: Starting                      Completion				
In the following sections, refer to maps and photos. Use attachments if necessary. (Please contact Department on questions concerning application requirements.)							
DESCRIBE ACCESS ROADS TO BE BUILT AND MANNER OF RECLAMATION UPON ABANDONMENT.							
RECLAMATION PLAN FOR ACRES TO BE DISTURBED COVERED BY THIS APPLICATION FOR PERMIT.							
DESCRIBE PLAN OF QUARRYING, PROVIDING FOR COMPLETION OF QUARRYING AND ASSOCIATED LAND DISTURBANCES.							
THIS APPLICATION MUST BE ACCOMPANIED BY:  1. Fee of \$500.00. 2. Map showing: Permit Area; specific area to be quarried; boundaries of land which will be disturbed; topographic detail; location and names of all lakes, streams, roads, railroads, and utility lines on or immediately adjacent to the area;	Signature of Applicant						
	Title						
	Date						
	FEE RECEIVED	PERMIT ISSUED	Application Returned (Statement Attached)				

March 30, 2004

**Re: Responses to Comments on the Supplemental Programmatic Environmental Assessment and Approval of the Proposed General Quarry Permit**

Dear Reader:

On February 1, 2004, the Montana Department of Environmental Quality (DEQ) published the Supplemental Programmatic Environmental Assessment (SEA) for the proposed General Quarry Permit for standardized plans of operations for multiple-site quarry and rock collecting operations. During the 30-day public comment period ending March 1, 2004, DEQ received seven comment letters, phone calls, and e-mails (Appendix C). DEQ's responses to these comments are attached in Appendix D. None of the comments resulted in substantive changes to the SEA. Section V.1 of the General Quarry Plan of Operations in Appendix A of the SEA has been revised to address concerns from the State Historic Preservation Office:

**"The Operator will *contact the State Historic Preservation Office (SHPO) and request a file search for previously recorded archeological sites in the permit area. Attach a copy of the SHPO response.*"**

This letter is being sent to the same people that received the SEA. If you would like another copy of the SEA, or if you have questions on the environmental assessment process, please contact Patrick Plantenberg, Operating Permit Section Supervisor, at DEQ, P. O. Box 200901, Helena, MT 59620, or call (406) 444-4960 or e-mail at [pplantenberg@state.mt.us](mailto:pplantenberg@state.mt.us), and one will be mailed to you.

Based on the analysis of potential environmental impacts and the lack of substantive comments received on the SEA, DEQ has determined that the Proposed Action as described in the SEA will not have any significant impacts on the human environment, and the preparation of an environmental impact statement is not required.

The SEA for the General Quarry Permit, the General Quarry Plan of Operations as modified by the SHPO comment listed above (Appendix A in the SEA), and the Application for Operating Permit form (Appendix B in the SEA) are hereby approved. This permitting process for multiple small quarries or rock collection sites would be more efficient than the standard process that is currently required

for multiple sites due to restrictions placed on small miners in the Montana Metal Mine Reclamation Act (MMRA). There would be minimal impacts to the environment during operation at sites approved under this General Quarry Permit, and there must be no potential for acid rock drainage. No impacts would be allowed to affect surface water or groundwater, wetlands, archeological or cultural resources, or threatened or endangered plant or animal species during operation. Soil would be salvaged and/or protected to prevent erosion and facilitate reclamation. Storm water controls would be required to prevent erosion and possible sedimentation of nearby streams outside the 100-foot buffer zone. Each site would be reclaimed immediately following quarry closure. Any sites that could not meet these criteria would have to be permitted through the standard operating permit application process.

As of the date of this letter applicants may apply for this permit for multiple small quarries or rock collection sites meeting the required criteria summarized above and described in the SEA. Applicants must complete the General Quarry Plan of Operations and Application for Operating Permit form attached to the SEA as Appendices A and B. The forms are available electronically on the DEQ web page as listed below. If you have any questions pertaining to the permitting process, please contact Pete Strazdas at (406) 444-4962, Ryan Harris at (406) 444-4330 or Patrick Plantenberg. The SEA is also available on the DEQ web page at <http://www.deq.state.mt.us/ea.htm>.

Sincerely,

Warren McCullough, Chief  
Environmental Management Bureau

2 Appendices

g:/p&c/mepa/ea/finalquarrysealtr.doc

## **APPENDIX C**

### **COMMENT LETTERS**

**Plantenberg, Pat**

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**From:** Lynne Dickman [ldickman@fs.fed.us]  
**Sent:** Monday, March 01, 2004 4:50 PM  
**To:** pplantenberg@state.mt.us  
**Subject:** General Quarry Permit

I don't have any problem with the format of the supplemental programmatic environmental analysis that you mailed out for comment, but I do have an issue with the fact that it is may be required at all on National Forest System land.

We require all potential quarry operators on the National Forest to submit a plan of operations. An environmental analysis appropriate to the level of activity is completed/or approved by Forest Service specialists. In some cases, a bond is placed. What you are proposing is unnecessary paper work in that it duplicates what we already do.

Lynne Dickman  
Bitterroot N.F.  
407 777 7415

Plantenberg, Pat

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From: Holt, Martin  
Sent: Tuesday, March 09, 2004 1:11 PM  
To: Plantenberg, Pat  
Subject: small quarrying

Patrick, just a note, I am engaged in various rock picking activities around this area. Mostly I get stone out of 19th Century granite quarries. But also from surface picking. I read the SEA document, and I think it is okay. There are two items I think are questionable. One is the potential impact on MT counties. Most counties would see virtually no impact, and those that might, would experience them more in the sense of a small community seeing a landmark destroyed. This is a very problematic situation because it is highly localized and personal. Still, why should an outsider, or even an insider, be allowed to go into a place and remove features that a neighbor regarded as a totem or shishook of some kind. Many stone miners are oblivious to the beauty of natural formations. Certainly most would grab a stone they wanted without thought to its impact on a neighbor, especially if that neighbor had no veto power over the operation.

So in that cultural area, is where the greatest potential for damage exists. If people will pry petroglyphs from a cliff face, they will dislodge a mossy granite boulder to haul away to decorate a site fifty miles away, knowing that someone out there will pay for it, but they forget that some one next door may have also appreciated the object for the same reason. I honestly do not think that the stones themselves care, but people do and other people are totally insensitive. I do not have an answer for you, to this dilemma, but I would be glad to consider it with you, if you need another vision.

Otherwise, I think the change will meet a growing commercial need. Ultimately you may need an oversight staff who can preview a site to identify landmarks and other special features that should not be disturbed. For example, there is a beautiful Boulder and Juniper that sits out west of town by that antique mall near the Bauxendale Fire House. I have often thought it ought to be protected, a State Park or something. So far, it remains undisturbed even though there is some development happening around it. I assume the locals there recognize its unique beauty. But some merchant contractor could just come in there with an excavator and haul it off on his loby and set it down in Billings for big bucks and It would hurt us. Yours, Martin

Martin Holt  
Environmental Specialist  
Dept. of Environmental Quality  
(406) 444-0485  
mholt@state.mt.us

Ralph Jackson  
Clearwater Stone  
St. Regis, Montana  
25 February, 2004

Mrs. Pete Strandas,  
Patrick Plantenberg &  
Warren McCullough,  
Montana DEQ

COPY

RECEIVED

FEB 27 2004

DEPT. ENVIRONMENTAL QUALITY

Sirs:

RE: Your supplemental EA for a Quarry Permit and Proposals, I would like to make a few comments. And thank you for the chance. I first got involved in the quarry business back in the '70s when I staked 10 claims that became the Muchwater Quarry. I discovered the site in the early '70s and staked in 1978 & 1979, initially. As you can see, there has been a great sea-change in the quarry & mining business. I tried to model my operations after the great and highly successful quarry operations in Idaho and Arizona, some of which became patented under the mining laws of 1872 & 1892, and that created the great demand for building stone that we see today. I strove to create such a new industry here in Montana. During the recession of the early 1980s, Sanders county and Mineral County experienced unofficially, 45% and 46% unemployment. It was beginning to look like another depression, which thank God, did not occur. My operation was stymied again and again by my ignorance of how government works, by the restrictions of state & federal government, and the changes in mining law and the introduction of a barrage of environmental legislation. And we can no longer patent stone quarries in order to protect production & sales from outside interests. Whether that was necessary or not is a moot question. My operation was definitely limited and I lost control of the markets I developed in the name of business self interest. Supposedly capitalism works on that self interest. Also in the late '60s, I could see the end of huge stands of giant old growth timber, high ball logging and giant sawmills. The volume just was not going to be there. So rather naively, I thought that the stone industry in Montana would make a great substitute. You see, I did have SOME vision. But it was government restrictions, and the denial that they did it, that discouraged and limited my business, and gave it away to competitors. So please let me comment.

First, a lot of state & federal regulations are redundant. And the restrictions are so great as to severely limit and kill an operation. Well you know that. It is just about impossible to operate legally. Do we really need the MDEQ on federal or private ground in 99% of the sites? Does not government solicit the attentions of the negotiators who don't want anything done anywhere, and probably have it made? Don't federal agencies have a broader overview when it comes to creating jobs and the economy?

Next, because of intense competition, quarriers need more than one site in order to survive as a business.

You are correct in excluding access roads to quarry sites as part of the 5 acre disturbance. I was forced out of the Muchwater Quarry on the basis of including the main mile long access road as disturbance, that we put in in 1980 & '82. That quarry still retains one of the thinnest, hardest, spectacularly beautiful thin stone in the West. I now see four locks on my gate into that quarry that I used to develop national markets, and especially Western markets, and on which I staked those original mining claims. This site is nearly out of sight, and unknown to many of the people who resided in that general area for up to twenty years. And the brush grew thick and tall along much of the access road, along with the grasses on the road, making it look like it had been there a hundred years. The last few years the answer was almost always "No" when I asked the government for something in the quarry. It may not be popular, but it made me a great believer in patenting an operation. Maybe we ought to reconsider our options on that.



On reclamation: in many quarries the stone lies right on or at the surface. That's how the merchantable stone was discovered. Because the ground is always tilted and uneven, and contains boulders and especially rock ribs, six inches of soil is too thin to save. Usually two or three feet is too tough. If the ground is steep, two feet of surface cut dirt may only be 14 inches thick, which is too thin and requires too much machine time and effort to separate the dirt from the rock and set it aside. And by the way, it takes years of backbreaking work to capitalize that heavy equipment needed to do reclamation.

Scaling back highwalls may not be very effective either. In my kind of flagstone, the stone is not loose, but rather is bedded in very solidly. Hence scaling back the highwall only creates more possibility for erosion.

Our highwalls are hardly ever over 12 or 14 feet high. It makes a lot more sense to move the waste rock and dirt, if any can be separated on initial quarrying, back up against the high wall and tapered off like a natural contour.

Quarrying this kind of stone is a long, slow moving process. In our really thin material, usually each individual piece must be hand separated, cleaned, split and graded.

Consequently little ground is disturbed even in the long run, so little bonding is required. I quarried in the Muchwater Quarry for about twenty years and disturbed only about 3 acres. There was little soil left or put back on the contoured waste material, but we did our best. When I went into that operation I told the U.S. Forest Service that I wanted to open up 10 to 20 acres so that the rain & freeze/thaw work of Mother Nature could separate the rock for us. We never reached that far because of the artificial restrictions imposed by government agencies.

Remember this: This stone will be quarried for hundreds and probably thousands of years.

On royalties: These are a prepaid tax on the quarry operations. I do not believe that you can really tax a business. Why? Because those taxes must be passed right on to the wholesaler, the contractor and the consumer. So here is a tax that goes up in multiples. A Pre-tax! And that pre-tax also restricts our ability to compete with foreign competitors. Back in the early 90s I began to cut tile from thin slabs of rock from my quarry. It was gorgeous tile. Prettiest on the market then. Not for business I went to the coast and visited with Ann Sachs Tile & Stone. She liked the tile. So eventually I gave her about 500 tiles for samples for all of her high-end tile stores in her national chain. She told me later that she gave them to her help! Instead she imported similar stone tile from India, eventually China and Brazil. Thank you Ann! There went my tile and roof tile business. And thank you Government! "Don't blame you and don't blame me. Blame that fellow over there under that tree" - Huey Long on new taxes. I really believe that taxes have to come out of labor, not capital. And if you tax too much, that reduces money in the bank, for the bank to lend against, which reduces our much needed capital.

Of course you can argue that they need the jobs overseas and that that made the product much cheaper. But I also employed migrant workers as well as local boys desperate for work. Some worked for me up to 10 seasons.

Quarry operations should be treated as private property when it comes to visitors. Why should a competitor pretending to be a recreationist be allowed to peruse my operation and steal my secret methods? Why should a recreationist, who is playing, be allowed to limit or shut down my operation? I put thousands & thousands of hours and dollars into my operation, along with enormous risk. Do I want to close down because of some crackpot who understands little about the role of business in our society and economy? I discovered that there are always people who do not want anything done. It seems to be a form of jealousy. Quarry operators of my type are almost always way out of town and usually out of sight.

So in summary I want to see less government, not more, less duplication, and more protection for the business. Quarry people are among the hardest working in our country. We need protection, if not by mining claim & patent, something very similar. Mining claims have been effective since the Roman times, came to Latin America from Spain, and here from Mexico. Let's protect our assets.

Gincerely,  
Karl A. Fischer

GENERAL Q400  
EA

DEPARTMENT OF ENVIRONMENTAL QUALITY

. 221  
Classification  
Comments

Date: 3/1/04

Time: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

File No. / Name: \_\_\_\_\_

Contact: RICK SENIOR

Address: VALLEY CO. ROAD DEPT

Phone: \_\_\_\_\_

RESULTS OF CONVERSATION OR DISCUSSION:

TH FEB. 26: RICE CALLED.  
REVIEWED CALL MONDAY:

WANTED TO KNOW IF THIS ED APPLIED TO  
GRAVEL PITS. EXPLAINED IT DIDN'T  
NO OTHER COMMENTS

FOLLOW-UP ACTION REQUIRED? Yes \_\_\_\_\_ No

DEQ Employee

Paul Pley

Date

3/1/04



## MONTANA HISTORICAL SOCIETY

225 North Roberts ♦ P.O. Box 201201 ♦ Helena, MT 59620-1201  
♦ (406) 444-2694 ♦ FAX (406) 444-2696 ♦ [www.montanahistoricalsociety.org](http://www.montanahistoricalsociety.org) ♦

Wednesday, February 04, 2004

Patrick Plantenberg  
DEQ Permitting and Compliance – Hard Rock  
POB 200901  
Helena MT 59620-0901

**RECEIVED**

FEB 05 2004

DEPT. ENVIRONMENTAL QUALITY

RE: Draft SEA General Quarry Permit

Mr. Plantenberg:

Thank you for requesting our comments on the proposed General Quarry Permit *Draft* SEA. I spoke with our Records Manager Damon Murdo about his experience with the past/present Permit process involving small hard rock quarries and collecting sites. It was his belief that our involvement has been limited to providing information on recorded archaeological sites on state or federal lands. If we have been requested to provide information for DEQ permits on private lands in the past those requests have not been common.

We suggest that a simple modification to **Section V –Other** in the Plan of Operations application on page 7 would comport further with MEPA language and common state agency practice. We suggest wording at **V 1.** such as Operator will contact the State Historic Preservation Office and request a file search for previously recorded archaeological/historic sites in the permit area. Attach a copy of the SHPO response.

This simple modification would also facilitate DEQ programmatic assessment of possible impacts and the goals of the General Permit as indicated in section 7 of the Programmatic Analysis (page 9). Please find attached a copy of our standardized file search request form for your information. If you wish further comment or assistance please do not hesitate to let me know.

Stan Wilmoth, Ph.D.  
State Archaeologist/Deputy, SHPO

File DEQ Hard Rock



STATE HISTORIC PRESERVATION OFFICE ♦ 1410 8<sup>th</sup> Ave ♦ P.O. Box 201202 ♦ Helena, MT 59620-1202  
♦ (406) 444-7715 ♦ FAX (406) 444-6573

DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL  
INVESTIGATIVE  
PROGRAM  
831

Date: 2/3/04

Time: \_\_\_\_\_ a.m./ \_\_\_\_\_ p.m.

Comment on lead

File No./Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

RESULTS OF CONVERSATION OR DISCUSSION:

Anonymous call on  
Quarry EA wants to see a  
big bond set on these  
to protect environment.

12:10pm

2/3/04

Taken by Craig Jones

FOLLOW-UP ACTION REQUIRED? YES  NO

DEQ Employee

Paul Zille

Date

2/3/04

**Plantenberg, Pat**

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**From:** Steve Perrone [Steve.Perrone@plumcreek.com]  
**Sent:** Thursday, February 05, 2004 7:00 AM  
**To:** Henning Stabins  
**Cc:** pplantenberg@state.mt.us; ryharris@state.mt.us  
**Subject:** Re: rock quarry draft SEA comment

Thanks for your critique, I will pass it along. Perhaps the word "sensitive" could be removed.

>>> Henning Stabins 2/4/2004 10:46:41 AM >>>

Steve:

I had the chance to look over the Draft SEA you sent. Looks good. However, I found one possible edit:

The term "sensitive" is used in the Biological Diversity sections when discussing plants (see below). Everywhere else in the document, only threatened and endangered plants are referred to. Perhaps this is an oversight by the DSO?

Draft SEA:

bottom of page 6:

\*Biological Diversity

Vegetation on quarry sites consists of meadows, rangelands, forests, or agricultural crops, supporting a typically array of wildlife species including small and large mammals, reptiles, and birds. Sites supporting threatened, endangered or sensitive plant species would not be permitted under this general permit."

Call me if you have any questions.

HCS

## **APPENDIX D**

### **RESPONSES TO COMMENTS ON THE PROGRAMMATIC SEA FOR THE GENERAL QUARRY PERMIT**

#### **RESPONSE TO LYNNE DICKMAN'S COMMENT REGARDING THE DUPLICATIVE NATURE OF THIS PERMIT ON FEDERAL LANDS:**

Under Montana law all small miners are required to apply for a Small Miners Exclusion Statement (SMES). Under the SMES they are limited to two sites of not more than 5 acres disturbed and unreclaimed at each site at any one time. The sites must be at least one mile apart. All hardrock mining operations that do not qualify for a SMES must have an operating permit. The law pertains to all operations on private and public (state, federal, or county) lands. Typically when operations occur on federal lands, a joint environmental assessment is conducted and the decision-makers make joint or separate decisions. For a proposed SMES operation, the state is not required to prepare a MEPA document because the SMES is not a state action. The federal agency requires a plan of operations and prepares the environmental assessment (EA).

Sites that would qualify under the General Quarry Permit would be evaluated by the state using the information supplied in the General Quarry Plan of Operations and Application for Operating Permit form included in the appendices of the SEA. Without the General Quarry Permit, the operators of proposed multiple small sites would be forced to go through the lengthy permitting process for a standard operating permit and incur greater costs and time delays in obtaining a permit. There is nothing in the new permit or supplemental information form that would preclude a federal agency from requiring a plan of operations and preparing an EA as is typically done for state-excluded small miners' operations. In other words, the General Quarry Permit removes one layer of regulation for operations that would qualify. DEQ would review and approve operations that qualify under the General Quarry Permit contingent on approval from the federal agency. Finally, DEQ believes that General Quarry Permit is not duplicative as joint reviews are done now for all operations on federal lands that exceed the SMES limits.

In addition, the MMRA does not require regulation of common use pits and quarries on federal land in those instances when the responsible federal agency manages a pit or quarry for continuing occasional sales.

**RESPONSE TO MARTIN HOLT'S COMMENTS ON IMPACTS OF ROCK PICKING ON MONTANA COUNTIES AND THE POTENTIAL FOR CULTURAL/AESTHETIC IMPACTS:**

DEQ is aware of the varying level of impacts to various Montana counties from rock collecting activities across the state. For this reason, DEQ copied the County Commissioners in all 56 counties with a copy of the SEA. If rock picking continues to increase to the point that impacts became problematic in a particular county, and DEQ received many complaints, DEQ could reopen the analysis for a new operating permit application under cumulative impacts under MEPA and prepare a supplemental environmental assessment.

DEQ is also aware of the cultural/aesthetic impacts associated with quarrying and rock picking activities. A lot of decorative rock is being recovered in these operations and relocated to many parts of Montana as well as other states. The MMRA does not give DEQ authority to impose restrictions on a cultural or aesthetic basis. Impacts to significant Native American or historically significant sites on federal land would be mitigated under federal laws and regulations. DEQ does not have authority to require mitigations on private land, but would facilitate a compromise between the operator and SHPO. Based on a comment received from SHPO, DEQ has revised Section V.1 of the General Quarry Plan of Operations listed in Appendix A of the SEA to read:

**“The Operator will *contact the State Historic Preservation Office (SHPO) and request a file search for previously recorded archeological sites in the permit area. Attach a copy of the SHPO response.*”**

This will help address the cultural issue.

## **RESPONSE TO RALPH JACKSON'S COMMENTS ABOUT GOVERNMENTAL REGULATIONS AND THE IMPACTS ON QUARRYING IN MONTANA:**

The Metal Mine Reclamation Act was passed in 1971 and has regulated mining on state, federal and private lands since that time. DEQ agrees that state and federal regulations and environmental laws are sometimes redundant. DEQ and the federal agencies have Memoranda of Understanding to limit the redundancy. The purpose of the General Quarry Permit is not to create more government, paperwork and redundancy. On the contrary, the purpose is to allow operations that meet the requirements listed in the General Quarry Permit Application to proceed without lengthy permitting and environmental review periods currently required. On federal lands, if the operation meets the requirements of the General Quarry Permit, DEQ would approve it contingent on approval from the federal agency.

The second purpose of the General Quarry Permit is to allow multiple sites, which is not presently allowed under the small miner's exclusion statement.

DEQ considers soil salvage an important part of a quarry operation especially on the flat staging areas. DEQ does not agree that soil salvage is too expensive. In fact, DEQ contends that soil must be removed as part of the overburden in any event. DEQ does not require salvage on the rock ribs. DEQ does not require soil to be separated from the rock as it is being quarried.

Scaling back highwalls would not be required on all sites. In an area as you described in your letter, DEQ would not require scaling back. However, DEQ cannot predetermine requirements on Forest Service lands. Your description of pushing the waste rock and dirt up against the highwall is what DEQ would require in almost all operations with a highwall.

Bonding will be required based on the estimated cost to the state to complete the reclamation. Bonds are based on construction estimates and include indirect costs such as mobilization, contract administration, etc.

DEQ does not get involved with royalties.

DEQ would require fencing quarry operations only if there is a public safety hazard. On private lands, the landowner or the quarry operator, as part of his lease agreement could control access. On federal lands, access and restrictions to public use would be controlled by the federal land management agency based on public safety issues. If the operator on federal lands wanted to control access for confidentiality issues, that would have to be worked out with the federal agency.



**RESPONSE TO COMMENT FROM VALLEY COUNTY ROAD DEPARTMENT ABOUT APPLICABILITY OF SEA TO GRAVEL PITS:**

The General Quarry Permit does not apply to gravel pits; the Open Cut Mining Act regulates them.

**RESPONSE TO STATE HISTORIC PRESERVATION OFFICE COMMENT ON REWORDING SECTION V1. OF THE SEA ABOUT ARCHEOLOGICAL/HISTORIC SITES:**

DEQ has revised the section V 1. of the General Quarry Plan of Operations in Appendix A of the SEA to say “The Operator will *contact the State Historic Preservation Office (SHPO) and request a file search for previously recorded archeological sites in the permit area. Attach a copy of the SHPO response.*”

**RESPONSE TO ANONYMOUS CALL ON SEA ABOUT BONDING:**

DEQ uses construction estimation techniques to calculate bonds on all operating permits and includes indirect costs to cover expenses such as mobilization and contract management. DEQ would use the same bonding method for these sites as it does for all operating permits in Montana.

**RESPONSE TO PLUM CREEK COMMENT ON SENSITIVE PLANT SPECIES:**

DEQ struck out the word sensitive in the SEA. That is one change made in the SEA from the 1999 Draft and 2000 Final Programmatic EA.