



**Montana Department of  
ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • [www.deq.mt.gov](http://www.deq.mt.gov)

August 25, 2008

RE: Draft Checklist EA for Big Sky Masonry Stone, Inc. Operating Permit

Dear Reader:

Enclosed for your review and comment is the Draft Checklist Environmental Assessment (CEA) for an operating permit requested by Big Sky Masonry Stone, Inc. (BSM) located at PO Box 617, Belgrade, MT 59714. BSM filed an application on May 12, 2005 for an Operating Permit for two sites from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena. The application was later revised on February 13, 2008 and again on June 10, 2008. At the South Shawmut site BSM would lift rocks from the ground creating a disturbance of about two feet in depth. At the South Barber site BSM would quarry sandstone down to a depth of about 15 feet with use of an excavator. A skid steer loader would be used to lift rocks and place them onto one to two-ton flatbed trucks. The rock would be used for building stone.

The South Shawmut site is composed of about 2,944 acres about 6.5 miles southwest of Shawmut, MT in Sections 3, 4, and 5 in Township 7 North, Range 17 East, in Wheatland County. At the South Shawmut site up to 38 acres could be disturbed at any point in time. The South Barber site is composed of about 320 acres about 6 miles south of Barber, MT in Section 25, Township 6 North, Range 18 East, Golden Valley County. At the South Barber site up to 20 acres could be disturbed at any point in time.

The proposed operation has been reviewed for compliance under a Supplemental Programmatic Environmental Assessment (SPEA) for a General Quarry Operating Permit published by the DEQ in February 2004. DEQ has determined that this operation does not meet the requirements listed in the SPEA since there would be more than five acres unreclaimed at any one time. An operating permit may be issued once the application is complete, an environmental analysis is performed, and the reclamation bond has been posted to ensure reclamation after completion of the rock collecting activities. If BSM develops additional lease agreements on other sites in the future, they would have to apply for an amendment or revision to the operating permit.

BSM must obtain an operating permit as the sites cannot stay under the five acre disturbed and unreclaimed limit required under the Small Miner's Exclusion Statement. The operating plan calls for reclamation of all surface disturbances with a post-mining land use of livestock grazing.

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 the Draft CEA can be obtained by writing DEQ, Environmental Management Bureau, P.O. Box 200901, Helena, MT 59620, c/o Herb Rolfes, or calling (406) 444-3841; or sending email addressed to [hrolfes@mt.gov](mailto:hrolfes@mt.gov). The Draft CEA will also be posted on the DEQ web page: [www.deq.mt.gov](http://www.deq.mt.gov). Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted until September 30, 2008.

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*

Warren D. McCullough, Chief  
Environmental Management Bureau

*8 / 25 / 08*

Date

## CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Big Sky Masonry Stone, Inc., P. O. Box 617, Belgrade, MT 59714

PROJECT: Building stone quarries and rock collecting sites

PERMIT OR LICENSE: Operating Permit Application

LOCATION: (see list below)

COUNTY: Wheatland and Golden Valley

PROPERTY OWNERSHIP: ☐ Federal ☐ State ☒ Private

TYPE AND PURPOSE OF ACTION: Big Sky Masonry, Inc. (BSM) removes lichen covered ledge rock and boulders for landscaping and masonry use under the provisions of a Small Miner Exclusion Statement (SMES) at two sites (figure 1). BSM has exceeded the limit of disturbed acreage allowed under an SMES and has applied for an operating permit to continue removing building stone at the South Shawmut site and to quarry sandstone found along outcrops, hilltops, and other areas where commercial sandstone is available at the South Barber site. The proposed South Shawmut Quarry is about 6.5 miles southwest of Shawmut, MT in Sections 3, 4, and 5 in Township 7 North, Range 17 East, Wheatland County. The proposed South Barber Quarry is about 6 miles south of Barber, MT in Section 25, Township 6 North, Range 18 East and Section 30, Township 6 North Range 19 East, in Wheatland and Golden Valley Counties. Other sites may be added in the future. If new sites are proposed, BSM would need to apply for an amendment or revision to the Operating Permit.

At the South Shawmut operation (figure 2), crowbars and picks, as well as a skid steer loader, are used to lift rocks which are then loaded onto one to two-ton flatbed trucks. Ground disturbance would normally be less than two feet in depth. Rocks are transported to the pallet yard where they are offloaded, sorted, and palletized. Some cutting and rock splitting is done in the yard. Palletized rocks are loaded and shipped on tractor-trailer rigs.

At the South Barber site (figure 3) BSM would quarry sandstone from the surface to a depth of about 15 feet. For the areas that are mined, the topsoil would be salvaged, and then a tracked excavator would remove the overburden to reveal the rock layers. The stripped overburden would be used to backfill the previous mining cut. Large rock slabs would be extracted with an excavator. Smaller rocks would be removed with a backhoe or by hand.

Current access is along existing ranch roads, eliminating the need to construct new ones. Some equipment would be driven across undisturbed soils. The existing roads would remain for post-mining land use at closure.

No water is used in processing the stone. The operator would take appropriate measures to ensure protection of surface and groundwater quality and quantity. All equipment, facilities, and disturbances would be kept at least 50 feet from surface water.

BSM would not dispose of solid wastes on site. If this changes they would first obtain the appropriate solid waste management system license from DEQ.

At both sites the proposed post-mining land use would be livestock grazing. Currently, no grading is needed to reclaim the South Shawmut rock collecting site. Soil would not be salvaged on the rock collecting areas. The area of ground disturbed is discontinuous and no larger than each individual rock that is removed. Rock collecting areas are interseeded seasonally. Soil has not been stripped

from the existing pallet area. The pallet area would be worked with farm equipment to relieve compaction and then seeded with native perennial grasses (annual ryegrass and dryland alfalfa) at closure unless the landowner specifies a preferred mix for a particular special use.

At the South Barber Quarry site, as each quarry or portion of a quarry is depleted, the waste rock would be backfilled into the pits, or pushed into low piles if the quarrying does not create pits and depressions. Previously salvaged soil would be spread over the recontoured ground. A native grass seed mix would be used on areas of native range, or those areas that were previously grazed would be returned to agricultural production. Noxious weeds would be controlled as needed.

BSM has submitted an application to permit two separate sites on private property in two counties. The South Shawmut site located in Wheatland County would have a permit area of approximately 2,944 acres (4.6 square miles). Rock is present over about 753 acres at this site, all of which could be disturbed throughout the life of the operation. However, disturbance is limited in any three year period to less than 5% of this area or about 38 acres. The pallet site encompasses an additional 6.8 acres. The South Barber Quarry site located in Golden Valley and Wheatland counties would have a permit area of 320 acres. Over the life of the permit the total acreage to be disturbed at the South Barber site would be about 12.5 acres of pit disturbance, a storage area of 6.6 acres, and a processing area of 0.9 acres. Over the life of the permit disturbance would be limited to about 20 acres.

#### Summary of Proposed Disturbance for the South Shawmut and South Barber Sites

Site	South Shawmut	South Barber
Total Acreage	2,944 acres	320 acres
Total Acreage to be Disturbed	759.8 acres	20 acres
Rock Picking	753 acres	0 acres
Pallet Yard	6.8 acres	6.6 acres
Process Building	0 acres	0.9 acres
Pit Disturbance	0 acres	12.5 acres
Disturbance at any Point in Time	38 acres	20 acres

DEQ must prepare an environmental assessment because the proposed quarry site exceeds the disturbance limitation in a Supplemental Programmatic Environmental Assessment (SPEA) completed by DEQ for rock quarries in 2004. The quarry proposed by BSM meets all the requirements under the Programmatic SPEA except the disturbance cannot be kept below 5 acres disturbed and unreclaimed at any one time.

N = Not present or No Impact will occur.

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

N/A = Not Applicable

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACT AND MITIGATION MEASURES
1. GEOLOGY AND SOIL	[Y] At both sites, the predominant soils that would be impacted

## IMPACTS ON THE PHYSICAL ENVIRONMENT

<p><b>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>are loams and stony loams. These soils are susceptible to wind erosion when exposed. Salvaging soils for replacement after rock collecting is completed would accelerate new soil development on reclaimed areas. The small size of the disturbances at rock collecting sites would limit soil loss. Soil disturbance is an unavoidable impact of rock collecting activities. During periods of extreme drought, reclamation seedings may fail with some resulting loss of soil. Failed seedings would be reseeded until vegetation is successfully established.</p> <p>Sandstone rocks would be removed from the surface at the South Shawmut rock collecting site, and quarried at and below the surface at the South Barber Quarry. At both sites, some sandstone outcrops would be removed or altered. This is an unavoidable impact of the quarry operations.</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 standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] All proposed sites would be dry. All excavations would be relatively shallow at the South Shawmut site, and not exceeding about 15 feet in depth at the South Barber site. Neither site would impact groundwater. Impacts from petroleum product spills and herbicide used to control weeds would be limited by the distance from water. No domestic groundwater wells are within 1,000 feet of the sites.</p> <p>At the South Shawmut site there are two stockwater wells located in Section 4, Township 6 North, Range 17 East. One well is not in use and the other is used to water stock. The wells are located outside the area to be disturbed. There is no plan to excavate rock beyond two feet in depth at the South Shawmut site.</p> <p>At the South Barber site there is a stockwater well in Section 25, Township 6 North, Range 18 East, located in the northwest corner of the proposed permit area. The well is 85 feet deep and has a static water level of 40 feet. Excavations would be approximately 500 feet from the well.</p> <p>No water use is proposed by BSM for rock processing purposes. The operator would take appropriate measures to ensure protection of surface and groundwater quality and quantity. All equipment, facilities, and disturbances would be kept at least 50 feet from surface water.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones</p>	<p>[Y] Dust would be produced by these operations due to travel on existing ranch roads and other two-track roads commonly found in the area. The landowner would be responsible for controlling dust within the permit boundary. Dust is a common problem resulting from increased traffic on gravel roads. If dust on the</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
(Class I airshed)?	access road becomes an issue for the surrounding landowners, they may want to join with the applicant on developing a dust control program including chemical dust suppressants. Increased dust is an unavoidable impact of allowing the rock picking operation.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	<p>[N] The native plant communities that would be impacted are common in the sedimentary plains of Montana. The sites would be on dry rangeland, where the native communities have been replaced due to agricultural influence.</p> <p>A search of the NRIS database found that there are no known threatened and endangered plant species growing in the proposed permit areas.</p> <p>The disturbance on the sites would lead to more noxious weed invasion in the area. This is an unavoidable impact of quarry development. Weed control efforts would limit these impacts. The operator must comply with the Wheatland and Golden Valley County Weed District programs for controlling weeds.</p>
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The areas are commonly used by mule deer and antelope. There is no aquatic habitat (see number 6 below).
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	<p>[Y] Eagles, ferruginous hawks, or other raptors may use the outcrops as perching sites. A search of the NRIS database found that there are no known threatened and endangered animal species in the area. At the Shawmut site a bald eagle was observed in 2004 and 2005 and two ferruginous hawks were observed in 1996. Bald eagles are seasonal migrants through the area, but do not remain, and are more closely associated with the Musselshell River valley than the uplands. Eagle use of the outcrops would be limited during rock collecting activities. They would return after areas are reclaimed.</p> <p>Ferruginous hawks are seasonal migrants that use upland habitat similar to the Shawmut site area for nesting and foraging. They leave the area in the fall. Hawks' use of the outcrops for nesting and perching would be limited during rock collecting activities. They would return after areas are reclaimed.</p> <p>There are no wetlands in the proposed areas.</p>
7. HISTORICAL AND	[N] A records search by the State Historic Preservation Office did

### IMPACTS ON THE PHYSICAL ENVIRONMENT

ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	not identify any historical or archaeological sites. The quarries have the potential to impact cultural resources. BSM has committed to protect any resources found.
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] All of the current and potential quarry or rock collecting sites are in remote, rural areas. Activity would be visible from some county roads during operations, but the disturbance created would not be readily apparent in the absence of construction equipment. If applicable for each site, soil would be replaced after the rock has been removed, and then seeded. The reclaimed quarry sites in the South Barber permit area would not have the appearance of the original sandstone outcrops in the area. This is an unavoidable impact of quarrying activities.
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] These projects would be isolated and require a minimum of energy resources.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] The surrounding land use is livestock grazing.

### IMPACTS ON THE HUMAN POPULATION

11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	<p>[N] The rock picking and quarry site hours and days of operation are not addressed by the operator in the application for an operating permit. The days that work occurs would likely be seasonal, approximately mid-April to October. DEQ has no authority to limit hours of operation or days of operation. The applicant would have to voluntarily agree to set limits. Impacts to neighbors from hours and days of operation would be an unavoidable impact of permitting the rock picking operation.</p> <p>There would be impacts to neighbors from noise created by rock loading and use of the access road by haul trucks. The noise levels heard by the neighbors would be a nuisance but would not exceed thresholds for public safety. Increased noise is an unavoidable impact of a rock picking or quarrying operation.</p>
12. INDUSTRIAL,	[N] These operations are a source of income for the area

IMPACTS ON THE HUMAN POPULATION	
COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	ranchers.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] This and other stone producing operations are major employers in Wheatland and Golden Valley counties, providing work for a segment of the population that is otherwise unemployed, or underemployed.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] This project would create tax revenue.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] There is no anticipated need for increased government services that would result from this project. The local roads can handle the limited traffic that would result from the rock collecting activities.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] There are plans in effect in the area but none that affect private 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?	[N] There are no wilderness or major recreational areas on private land in these counties. The ranches are commonly used by hunters.
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] The work force would be local, or drawn from neighboring counties. The royalty payments made to landowners would help maintain the sometimes tenuous existence of the family owned farms and ranches recovering from the regional drought.

IMPACTS ON THE HUMAN POPULATION	
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 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]
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.	[N]
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.	[N/A]
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:

No Action: Deny the request for an operating permit. No issues were identified which would require denying the permit.

Approval: Approve the permit as proposed.

Approval with Modification: No unresolved issues were identified which would require modification of the proposal.

26. Public Involvement: A legal notice and press release were published. No comments were received.
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 Impacts: Building stone quarries and rock collecting sites are increasing throughout Montana. DEQ has prepared a SPEA on these operations. The operations that qualify must meet the following provisions as listed in the SPEA:
- Any individual small quarry must maintain a working disturbance not more than 5 acres disturbed and unreclaimed at any one time. 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 groundwater;
  - 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 quarry;
  - There would be no impact to threatened and endangered species; and
  - There would be no impact to significant historic or archaeological features.

The rock collecting operation and quarry proposed by BSM meets all these requirements except the operator cannot keep the disturbance to less than 5 acres disturbed and unreclaimed at any one time. Even though the current sites and some future sites may exceed 5 acres disturbed and unreclaimed at any one time, there would be no other impacts other than the size of the disturbance area over that analyzed in the SPEA. This Checklist EA tiers to the 2004 SPEA. Reclamation would limit those impacts. DEQ would require a performance bond from BSM to reclaim acres disturbed by quarrying.

Many acres could be potentially disturbed by quarry operations throughout Montana as a result of the demand for building stone. The cumulative impacts from these operations would lead to more soil disturbance requiring reclamation, more impacts to native plant communities, increased potential for noxious weed invasion and spread, and more economic benefits to the local economies from quarry operations. Rocks removed by these operations would be an unavoidable impact of quarrying.

30. Recommendation for Further Environmental Analysis:

☐ EIS    ☐ More Detailed EA    ☒ No Further Analysis

31. EA Checklist Prepared By: Lisa Boettcher, Reclamation Specialist and Herb Rolfes, Operating Permit Section Supervisor.
32. EA Reviewed By: Patrick Plantenberg, Reclamation Specialist and Warren McCullough, EMB Bureau Chief

*Herb Rolfes*

Signature

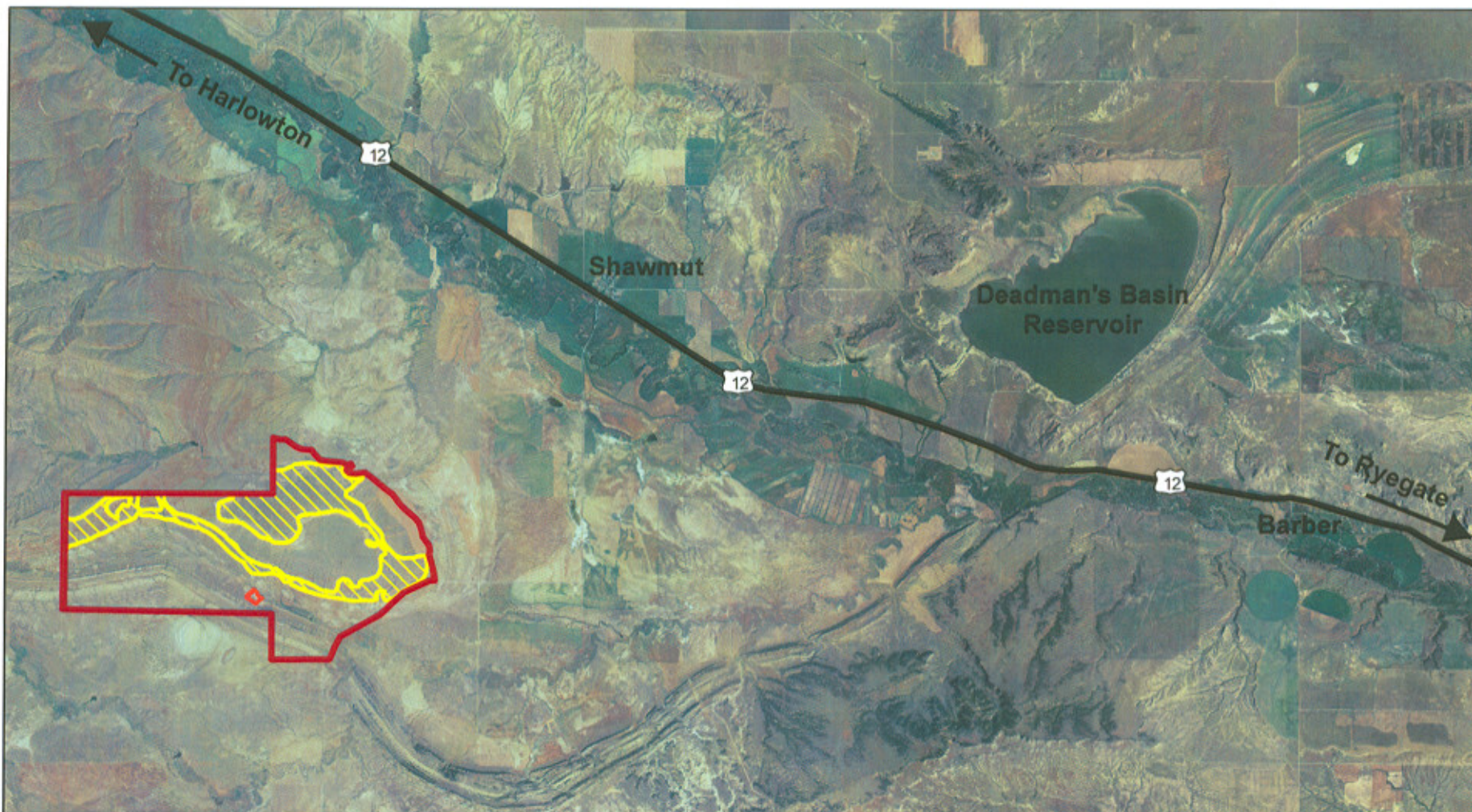
*8/25/08*

Date

Herb Rolfes  
Operating Permit Section Supervisor

File: pending bigskymasonry.70

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**Figure 1:**

**Big Sky Masonry Stone, Inc.  
South Shawmut and South Barber  
Locations**



By: CD 8-18-2008



1 inch equals 1.5 miles

**Legend**

-  Permit Boundaries
-  Rock Picking
-  Pit Disturbance
-  Other Disturbance:  
Pallet Yards  
Processing Building  
Rock Picking Areas



