Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
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October 18, 2012

Dear Reader:

Enclosed for your review and comment is a Draft Checklist Environmental Assessment (CEA) for an amendment to the E. S. Stone and Structure, Inc., (E. S. Stone) operating permit (00163) located near Harlowton, MT. E. S. Stone, located at PO Box 28, Ryegate, MT 59074 filed an amendment on July 19, 2012 to their Operating Permit from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena. The amendment would add one site for a total of 160 acres on private land. Fifteen sites have been permitted by E. S. Stone to date, with three of the sites receiving full bond release. Currently, the total permitted acreage is 2,654 acres. E. S. Stone uses dozers, excavators or backhoes to pick up rock and boulders for landscaping and possible masonry purposes. The amendment would be on private land in the northwest quarter of Section 2, Township 7 North, Range 15 East. The site is about two miles south of Harlowton, MT. E. S. Stone would post a bond to ensure reclamation is completed.

This Draft CEA evaluates the potential impacts from this proposed amendment. The 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 agency has decided to approve the amendment as proposed. 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, PO Box 200901, Helena, MT 59620, c/o Herb Rolfes, or calling (406) 444-3841; or sending email addressed to hrolfes@mt.gov. The Draft CEA will also be posted on the DEQ web page: www.deq.mt.gov. Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted until November 19, 2012.

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

10/18/12

Warren D. McCullough, Chief
Environmental Management Bureau

Date

File: 00176.353
EMB\OP_Amendment&Revisions\ESStone\Amendment004/EA Cover Letter

CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: E.S. Stone and Structure, Inc., P. O. Box 28, Ryegate, MT 59074

PROJECT: Building stone quarry and rock collecting sites.

PERMIT OR LICENSE: Amendment Application 004 to Operating Permit 00163

LOCATION: Section 2 (NW1/4), Township 7 North, Range 15 East (Site 16) in Wheatland County, about two miles south of Harlowton, MT (see location map).

COUNTY: Wheatland

PROPERTY OWNERSHIP: [ ] Federal [ ] State [X] Private

TYPE AND PURPOSE OF ACTION: E.S. Stone and Structure, Inc. (E.S. Stone) currently quarries and collects building stone on 12 sites under Operating Permit 00163 in Golden Valley, Wheatland, and Cascade counties.

Operating Plan: E.S. Stone filed an application on July 19, 2012 for an amendment to Operating Permit 00163 from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena, MT. E.S. Stone has lease agreements with the landowner on which the site in this amendment would be located. Rock would be removed for the purpose of landscaping and masonry. The amendment area would consist of a total of about 160 acres on private land of which about 130 acres would be disturbed.

E.S. Stone quarries landscaping and masonry rock found along outcrops, hilltops, and other areas. Rock is quarried from the surface to a depth up to 16 feet deep. Soil and overburden are stripped by dozers from the quarry and stockpiled for use in reclamation. Larger rock slabs are removed using tracked excavators or backhoes. Smaller rocks are picked up with a backhoe or by hand. The excavated stone is sorted and either placed on pallets for shipment to market, taken to a sawing shop, or processed on site into block and brick sized stone.

Reclamation Plan: As each quarry or portion of a quarry is closed, the waste stone is backfilled into the pits or pushed into low piles if the quarrying does not create pits and depressions. Previously saved soil is spread over the recontoured ground and the areas are then seeded with a native grass seed mix on areas of native range, or returned to agricultural production on areas that were previously farmed. Temporary sheds housing rock splitters would be removed at closure of operations. Soil in the staging area would be scarified before seeding.

The proposed amendment 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. The site meets all the requirements under the SPEA except that the disturbance cannot be kept below five acres disturbed and unreclaimed at any one time. E.S. Stone would have a pallet and splitting yard. Up to 100 acres could be disturbed at any one time on the proposed site.

E.S. Stone has 2,654 acres of permit area on 12 sites currently approved under Operating Permit 00163, of which a total of 500 acres can be disturbed at any one time. A total of 1,500 acres could be disturbed over the life of mining. This permit amendment would add 160 acres to the permit area, for a total of 2,814 acres. The new site 16* would add 130 acres to the permitted disturbance total increasing the total permitted disturbance to

1,630 acres. E. S. Stone would be able to disturb up to 600 acres at any one time.

Operating Permit 00163	Current Conditions	Amendment 004	Total
Permit Area	2,654 acres	160 acres	2,814 acres
Permitted Disturbance	1,500 acres	130 acres	1,630 acres
Maximum Acres Disturbed at Any One time	500 acres	100 acres	600 acres
Bonded Acres	251 acres	351 acres	351 acres

*Three of the 15 permitted sites have been reclaimed and have had full bond released.

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 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] The soils that will be impacted are predominantly Cabbart-Yawdim-Rock outcrop (44%) with slopes of 4 to 35%, and Cabbart-Delpoint loam (29%) with slopes of 2 to 8%, with minor components of Cabbart loam (14%) with slopes of 15 to 35 %, Korchea-Fairway loam (8%) with slopes of 0 to 4%, and Cabbart loam (5%) with 2 to 15% slopes. The Cabbart-Yawdim-Rock Outcrop typical profile has 0 to 16 inches of loam. The Cabbart-Delpoint loam typical profile has 0 to 17 inches of loam. The minor components of the Cabbart loam have typical profiles of 0 to 17 inches of loam. The Korchea-Fairway loam typical profile is 0 to 42 inches of sandy loam and 42 to 60 inches of silty-clay-loam. The soils are well drained, and the depth to groundwater is more than 80 inches (NRCS 2010). A minimum of 16 inches of soil would be spread over the disturbed ground to reestablish productive rangeland, except in the pallet site. The pallet site would be scarified. Concurrent reclamation would limit the amount of soil susceptible to erosion from wind or water. 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. No new permanent roads would be constructed. Traffic volume and truck weight will not increase as a result of approval of the amendment. Removal of rocks from the surface is an unavoidable impact of rock product operations.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for	[N] The nearest source of surface water is the Musselshell River which is approximately two miles away. According to the Montana Bureau of Mines and Geology (Ground Water

IMPACTS ON THE PHYSICAL ENVIRONMENT	
violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	Information Center database), four wells are located in Section 2, but only one well is located in the northwest corner of the section where excavation would occur. This well appears to be misplaced and is actually in the section to the north (section 35). The depth of the well is 130 feet. The other wells are located in the southeast corner of Section 2. They range in depth from 205 to 300 feet. The proposed excavations are relatively shallow and should not impact groundwater. E.S. Stone has committed to retrieve and properly dispose of any spilled fuel or contaminated materials.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] There would be dust produced by the operation due to travel on the gravel roads commonly found in the area. Landowners can require dust control as needed on their leases to the company. Concurrent reclamation would limit the potential for blowing dust from the operating area. The rock fragments left in the soils would also limit blowing dust.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[Y] The plant communities on these shallow to very shallow range sites are dominated by native grasses. The plant communities that would be impacted are common in the sedimentary plains of Montana. The site is on native range used for grazing and crops. A search of the Montana Natural Heritage Program (MNHP) database at the Montana State Library in Helena, MT found that there are no known threatened and endangered (T&E) plant species present. MNHP indicated that there is a species of concern. Small Dropseed is an annual plant and would reproduce from seed if soil is replaced after reclamation is completed. It would naturally be found on disturbed sites. Disturbance on the site would lead to more noxious weed invasion in the area, especially from the existing populations of leafy spurge. Weed control efforts would limit these impacts. The disturbed land would be reclaimed to livestock grazing and dryland farming. Loss of native species on disturbed rangeland would be an unavoidable impact of disturbance.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] The rock product area is commonly used by mule deer and antelope. They would be displaced around the human activity until reclamation is completed. There is no winter range for ungulate species or aquatic habitat in the permit area.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	[Y] MNHP indicated that a number of animal species of concern have either been sighted in the area or could be expected to be found in the permit boundary. These species include: the Bald eagle, Ferruginous

IMPACTS ON THE PHYSICAL ENVIRONMENT	
Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	hawk, Northern redbelly dace, and the Greater short-horned lizard. Bald eagles are seasonal migrants through the area, but do not remain in the uplands. They are more closely associated with the Musselshell River valley. Eagles may use the outcrops as perching sites. A Bald eagle was sighted in the area in 2005. A Ferruginous hawk was sighted in the area in 2000. The Ferruginous hawk is associated with the Musselshell River and not the uplands where rock collecting activities would occur. The Northern redbelly dace has not been observed. The habitat type is stream reaches and standing water bodies. A Greater short-horned lizard was last observed in 1933. The habitat type is sandy/gravelly soils.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] A records search by the State Historic Preservation Office did not return any historical or archaeological sites. The proposed sites have the potential to impact cultural resources. E.S. Stone 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] The proposed rock collecting site is in a rural area. Activity would be visible from nearby county roads during operations, but the disturbance created would not be readily apparent in the absence of construction equipment. Soil will be replaced after the rock has been removed, and then scarified and reseeded. The reclaimed rock collecting site would not appear as the original rangeland 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] This project site is isolated, and would 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 and dryland farming.

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N]
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:	[N] These operations are a source of income for area ranchers.

IMPACTS ON THE HUMAN POPULATION	
Will the project add to or alter these activities?	
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] Stone producing operations in Wheatland County are major employers, 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 as a result of this project.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
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 nearby, or accessed through this site.
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. Royalty payments made to landowners of rock picking sites help to maintain the sometimes tenuous existence of family owned farms and ranches recovering from the regional drought.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action	[N]

IMPACTS ON THE HUMAN POPULATION	
cause a shift in some unique quality of the area?	
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 the amendment to the operating permit. No issues were identified which would require denying the amendment.
Approval: Approve the amendment as proposed.
Approval with Modification: No mitigations are proposed.

26. Public Involvement: A legal notice was published in the Harlowton *Times/Clarion* and the *Great Falls Tribune*, and a press release was issued on receipt of the application for an amendment to the operating

permit. No comments were received. A legal notice and press release will be published with release of the Draft EA.

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. 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:

- Any individual small quarry may maintain a working disturbance of up to five acres. Total disturbance during the life of an individual operation could exceed five acres, but concurrent reclamation would be required to keep the disturbance at any one time to five 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 approved use after quarrying. Roads approved 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 quarry;
- There would be no impact to threatened and endangered species; and
- There would be no impact to significant historic or archaeological features.

The site proposed by E.S. Stone meets all of these requirements except the operator cannot keep the disturbance to less than five acres disturbed and unreclaimed at any one time. Even though the site may exceed five acres disturbed and unreclaimed at any one time, there would be no other impacts other than the size of the disturbance area over those analyzed in the SPEA. This Checklist EA tiers to the 2004 SPEA and the 2010 EA for amendment 003. Reclamation would limit impacts. DEQ would bond E.S. Stone to reclaim the acres disturbed by quarrying.

Many acres could be potentially disturbed by quarry operations throughout Montana as a result of the demand for building stone. Previously, operating permits were issued to Bozeman Brick, Block, and Tile, Big Sky Masonry, and Northfork Stoneworks for sites in Wheatland County. The cumulative impacts from these operations can lead to more soil disturbance requiring reclamation, more impacts to native plant communities and increased potential for noxious weed invasion and spread, as well as economic benefits to the local economies from quarry operations.

30. Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

The DEQ has selected the Approval as the preferred alternative.

31. References:
NRCS, 2010. Custom Soil Resource Report for Wheatland County Area, Montana.

32. EA Checklist Prepared By:
Herb Rolfes, DEQ Operating Permits Section Supervisor
Patrick Plantenberg, DEQ Reclamation Specialist

33. This EA was reviewed by:
Warren McCullough, DEQ, Environmental Management Bureau, Chief

Approved By:

Warren D. McCullough — 10/16/12

Signature — Date

Warren D. McCullough, Chief
Environmental Management Bureau, DEQ

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