

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
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**Bruneau Field Office
Owyhee County Road and Bridge
Environmental Assessment**

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U.S. Department of the Interior
Bureau of Land Management
Bruneau Field Office
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1.0 Introduction

The Grand View Shop pit (Shop pit) and Shoofly pit, operated by Owyhee County Road and Bridge have been in operation for nearly 30 years. They were previously authorized as Free Use Permits and analyzed using Categorical Exclusion. The Shop pit is on split estate ground in the town of Grand View. The Shop pit was previously authorized for 10 acres of disturbance and its actual disturbance sits at the full 10 acre boundary. The FUP area is surrounded by private land, limiting its footprint to the 10 acres previously and currently proposed. The FUP renewal would authorize up to 50,000 cubic yards of material to be removed. The Shop pit has been in existence for over 20 years. The Shoofly pit is approximately 10.6 miles SSE of Grand View off Shoofly Cutoff Rd. It has been operating since 1986 and was previously permitted for 5 acres of disturbance. However, its actual disturbance is approximately 8.2 acres. It is being proposed to authorize this Free Use Permit to remove up to 30,000 cubic yards of material and allow up to 22.5 acres of disturbance. This new area would encompass its current disturbance footprint and all for some expansion to the north and east (Figures 1 through 5).

1.1 Need for and Purpose of Action

The purpose of this action is to address the Free Use Permit renewals that Owyhee County Road and Bridge submitted on January 23, 2013. This action is needed because Title 43 of the Code of Federal Regulations (CFR) Subpart 3604.12(b) “BLM may issue free use permits to a government entity without limitations as to the number of permits or as to value of the mineral materials to be extracted or removed provided that the government entity shows that it will not use these materials for commercial or industrial purposes.” Clearances were provided for the previous Free Use Permits; however, National Environmental Policy Act (NEPA) documents were completed using Categorical Exclusions. The amount of disturbance requires an Environmental Analysis for future permit renewals. The permit renewals submitted by the proponent includes the 10 acre area already disturbed for the Shop Pit and 22.5 acres for the Shoofly Pit.

1.2 Federal Decision to be made

The decision to be made is to reject or approve Owyhee County Road and Bridge’s Permit Applications to quarry gravel at both locations and to allow northward and/or eastward expansion as needed at Shoofly (Maps 1 and 2). Operations consist of excavation, sorting, crushing, stockpiling, loading, and removal of gravels.

1.3 Location and Setting

Both The Shop and Shoofly pits are located in Owyhee County in southwest Idaho. The Shop Pit is on split estate ground in the town of Grand View. The legal land description is NWSWNW of Section 22, T. 5S., R. 3 E. The Shoofly Pit is approximately 10.6 miles SSE of Grand View off Shoofly Cutoff Rd. The legal land description for the last approved permit is S2NWNENE of Section 7, T. 7S., R. 4E. The legal land description of the proposed area is NWNENE, N2SWNENE, W2NENENE, NWSWNENE of Section 7, T. 7S., R. 4E.

Figure 1. Panorama of the stockpiles at the Shop pit. View is from the south looking north. Photo taken 3/12/2014.



Figure 2. Panorama of the southern half of the Shop pit. One stockpile can be seen, as well as the building where they store their equipment (in the background). View is from the east looking west. Photo taken 7/16/2013.



Figure 3. Panorama of the Shoofly pit area. The large stockpiles are in the middle of the pit. The proposed boundary encompasses the area to the south and east of that stockpile. View is looking to the northwest. Photo taken 3/12/2014.



Figure 4. Panorama of the stockpiles at Shoofly pit area. View is looking from the north to the south. Photo taken 3/12/2014.



Figure 5. Panorama of the western portion of the Shoofly pit. View is looking from the southeast to the northwest. Photo taken 2/21/2014.



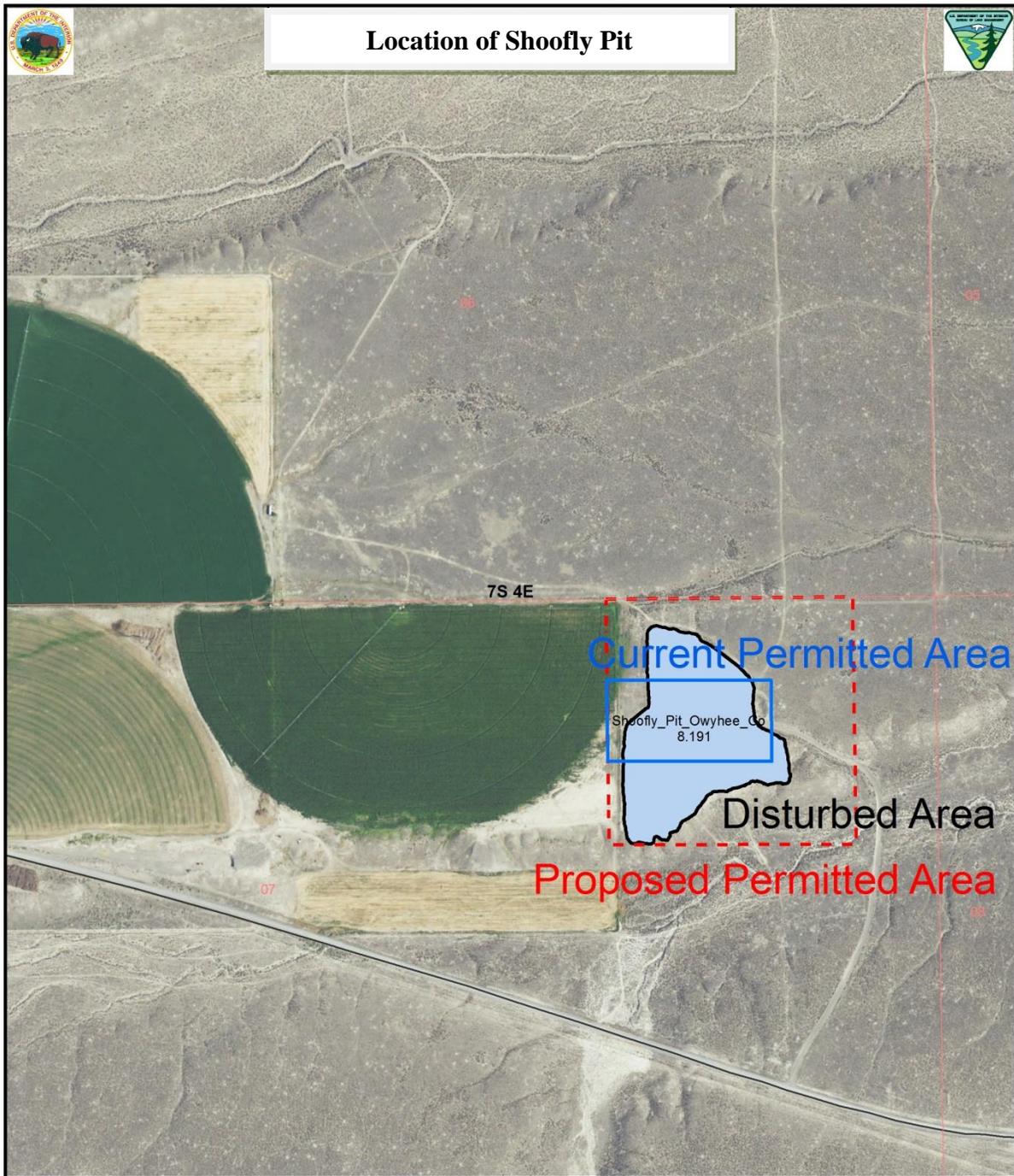
Map 1. Location of Grand View Shop Pit relative to town of Grand View and Highways 67 and 78, showing the permitted, disturbed, and proposed area of disturbance (all the same sized blue box).



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Map 2. Location of Shoofly Pit relative to Shoofly Cutoff Rd showing permitted, disturbed, and proposed area of disturbance.



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1.4 Conformance with Applicable Land Use Plan

The proposed action is consistent with the Bruneau Management Framework Plan (MFP) dated March 22, 1983. Specifically, in the Decision M-4.1, the MFP states, “Designate free-use sites of up to 20 acres for federal, state, county or city government needs...” While the proposed 22.5 acre boundary for Shoofly exceeds the 20 acres specifically mentioned, allowing for 22.5 acres of disturbance falls under the main objective which states, “Provide sand, gravel, cinders, clay, bentonite, fill material, and building stone to meet the needs of local and state governments, industry, and individuals as the demand warrants.” Additionally, the MFP states, “Where economically feasible limit the development of new sources and where practical and economic allow private sales from same sources.” Demand of sand and gravel for road maintenance and construction has increased over the past 30 years and is expected to increase in the future. Allowing this site to expand to 22.5 acres would also prevent the need to find and develop a new source of sand and gravel for many years.

1.5 Relationship to Statutes, Regulations, and Other Requirements

The following section outlines statutes, regulations, and other requirements that apply to the Proposed Action.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 requires that any action conducted on federally-administered lands or an action that utilizes federal dollars must be evaluated to determine if significant economic, social, or environmental effects may occur as a result of the Proposed Action. The assessment of the Proposed Action must also identify a reasonable range of Action Alternatives and the associated environmental effects of the Actions.

Federal Land Policy and Management Act

The BLM is mandated by the Federal Land Policy Management Act (FLPMA) of 1976 (Public Law 94-579) to manage for multiple uses on BLM-administered lands. Land use planning is based on multiple use and sustained yield principles. This includes grazing, mining, land sales, acquisitions, and exchanges. FLPMA requires that the Secretary of the Interior regulate mining operations to prevent undue or unnecessary degradation of the public lands.

Free Use of Mineral Materials

43 CFR Subpart 3604 allows for the free use of mineral materials by government agencies and non-profit organizations as long as materials are not used for commercial or industrial purposes.

Clean Water Act

Section 313 of the Clean Water Act of 1972 requires federal agencies be in compliance with all federal, state, interstate, and local requirements. In Idaho, the Idaho Department of Environmental Quality (IDEQ) implements the Clean Water Act. Additionally, the IDEQ develops total maximum daily loads (TMDLs) for water bodies.

Migratory Birds

Executive Order 13186 (2001) and the Memorandum of Understanding between the BLM and the United States Fish and Wildlife Service (FWS) (2010) expressly requires that Federal

agencies, including the BLM, evaluate the effects of proposed actions on migratory birds (including eagles) pursuant to the NEPA “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, develop and use principles, standards, and practices that would lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the FWS.

Vegetation Treatments Using Herbicides on BLM lands in the 17 Western States Programmatic Environmental Impact Statement

The analysis of proposed herbicide treatments to be used in reclaiming the disturbed area is tiered to the 2007 *Vegetation Treatments Using Herbicides on BLM lands in the 17 Western States Programmatic EIS* (PEIS) (USDI BLM 2007a). The Record of Decision (ROD) for the Final EIS identified herbicide active ingredients that were approved for use on BLM lands and standard operating procedures to use when applying herbicides (USDI BLM 2007b). Only herbicide active ingredients approved for use in the ROD would be utilized. Herbicide treatment activities to be used in reclamation activities in both the No Action Alternative and the proposed action would follow the applicable standard operating procedures identified in the ROD.

Cultural Resource Laws and Executive Orders

BLM is required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, BLM Manual Handbook H-8120-1). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources, which are referred to as “cultural resource authorities,” and under regulations that are not specific to cultural resources, which are termed “general authorities.” Cultural resource authorities include: the National Historic Preservation Act of 1966, as amended (NHPA); the Archaeological Resources Protection Act of 1979 (ARPA); and the Native American Graves Protection and Repatriation Act of 1990, as amended (NAGPRA). General authorities include: the American Indian Religious Freedom Act of 1979 (AIRFA); NEPA; FLPMA; and Executive Order 13007-Indian Sacred Sites. The proposed action is in compliance with the aforementioned authorities.

Southwest Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and the Northern Paiute. In the latter half of the 19th century, a reservation was established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. The Shoshone-Paiute Tribes residing on the Duck Valley Reservation today actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Other tribes that have ties to southwest Idaho include the Bannock Tribe and the Nez Perce Tribe. Southeast Idaho is the homeland of the Northern Shoshone Tribe and the Bannock Tribe.

In 1867, a reservation was established at Fort Hall in southeastern Idaho. The Fort Bridger Treaty of 1868 applies to BLM's relationship with the Shoshone-Bannock Tribes. The northern part of the BLM's Boise District was also inhabited by the Nez Perce Tribe. The Nez Perce signed treaties in 1855, 1863 and 1868. BLM considers off-reservation treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on the public lands it administers for all tribes that may be affected by a proposed action.

1.6 Scoping and Development of Issues

The proposed action was developed from the submitted Free Use Permit applications and their associated Mining and Reclamation Plans. This action was entered into the Boise District NEPA Register, which is available to the public online. Bruneau Field Office personnel were notified of the action, and clearances for special status plants, wildlife, fish species, and cultural resources were requested and obtained from staff. Compliance inspection reports from activities conducted under the existing FUP's for the same area were also reviewed to assist in formulating the issues. An interdisciplinary meeting with Bruneau Field Office staff was also held. All of these efforts were utilized to develop and to identify potential issues.

The following preliminary issues were identified and will be discussed in this NEPA document:

- ***Soils/Watershed*** - Disturbance of the soil horizon in the original topography could result in increased rill erosion and accentuated waterflow paths. One seasonal channel runs through the southeast corner of the proposed area for the Shoofly Pit.
- ***Air and Water Quality*** - Air and water quality could be impacted on a short-term basis from increased fugitive dust as material is mined, staged, loaded, and/or crushed and from increased truck traffic on gravel access roads. Specifically, a wash runs through the southeast corner of the Proposed Shoofly area.
- ***Vegetation/Special Status Plant Species*** - Loss of native vegetation could occur as increased mining activity and expansion occurs. Introduced seeded grasses could spread into adjacent plant communities or occupy the reclamation area after mining is completed (shifts in community components from native to seeded/introduced species). Noxious weed populations could increase in number and size.
- ***Wildlife/Migratory Birds/Special Status Animal Species*** - Proposed activities could disturb some Special Status Species during nesting, brood-rearing, and migration periods. However, no federally endangered, threatened, or candidate animal or plant species are known to occur or use the project area and would not be affected by the implementation of the Proposed Action.
- ***Recreation/Visual Resources Management*** – Proposed activities could have impacts on recreational use and visual resources by having a larger disturbance area. Recreation visitation to the project area is primarily for off-road motorcycle riding and competitive motorcycle races.
- ***Cultural Resources*** – If present, items of cultural or historical importance could be disturbed or un-earthed in the process of digging and loading the ore material.

2.0 Description of the Alternatives

Two alternatives were developed and are addressed in this document. Alternative 1, the No Action Alternative, would be to reject the applications for permit renewal and for the operator to

reclaim the sites. Alternative 2, the preferred alternative, would be to authorize the free use permit renewals as applied-for consistent with the submitted Mining and Reclamation Plans.

2.1 Description of Action Alternatives

2.1.1 Alternative 1 – No Action/Reject Applications

Under Alternative 1, BLM would reject the applications for renewal and their associated Mining and Reclamation Plans submitted by Owyhee County Road and Bridge. Under this alternative, the proponent would be required to cease mining gravel and reclaim the site as described in Section 2.3.2.2.

2.1.2 Alternative 2 – Preferred Alternative

Under Alternative 2, BLM would approve the Mining and Reclamation Plans submitted by Owyhee County Road and Bridge and authorize the applications as proposed. This would allow the proponent to continue mining operations per the submitted Plans for another 10 year period. The proponent would be authorized to continue quarrying sand and gravel in the existing 10-acre disturbed area of the Shop pit as well as the 8.2-acre disturbed area of the Shoofly Pit. The permits will allow up to 50,000 cubic yards of material to be removed at the Shop Pit and up to 30,000 cubic yards of material to be removed at Shoofly. The Shoofly pit would have the potential to expand to up to 22.5 acres, as shown on Map 2. The Standard Stipulations listed in Section 2.3.2.1 would apply.

The mining and reclamation plans are similar for both the Shop and Shoofly pits. Front end loaders and bulldozers will be used to move and stockpile topsoil and overburden. These stockpiles will be used in the final reclamation of the site once the materials are exhausted. The stockpiles will also be seeded with an approved seed mix to help prevent erosion. Equipment listed in the plans consists of front end loaders and trucks; however, conveyors and a rock crusher may be required to break up the gravel if some gravel is too large. These activities are generally contracted out and do not last longer than a few weeks. The sand and gravel will be excavated and processed through screens to sort the material by size. Once the material is sorted and crushed, it will be stockpiled or loaded into haul trucks of various capacities for use. No asphalt use has been requested to be performed at this site.

The proponent would be required to take all necessary actions to prevent and/or stop noxious weed infestations that occur from the preferred alternative. BLM monitoring of the operation will continue to occur at a minimum once per fiscal year. Weed infestations would be reported to the operator for remedial action.

Once the quarry is depleted, the proponent would be required to reclaim the disturbed area by recontouring, with the stockpiled overburden and top soil, the affected area to as natural appearing land form as is possible. The topsoil would be seeded with an approved seed mix, with monitoring (BLM) and subsequent re-seeding (operator) to occur until a successful, as determined by BLM personnel, planting is achieved.

No buildings or occupancy have been requested by the proponent at the Shoofly pit. There is no 24 hour occupancy anticipated here. However, a building is located within the boundaries of the Shop pit on privately owned surface ground, as this is split estate.

No hazardous materials will be stored on site at the Shoofly. Refueling will be conducted only when required by portable truck mounted refueling apparatus. No routine oil or lubrication changes will be conducted on site, and only emergency maintenance will be allowed. Any spills of hazardous materials will be reported to the BLM immediately. The proponent will be responsible for ensuring that spills will be contained, cleaned up, and disposed of at a facility authorized to dispose of hazardous wastes.

All vehicles will carry fire extinguishers that have been inspected annually. The annual inspection must be completed by a competent authority such as fire department or other trained personnel.

2.1.2.1 Free Use Permit Standard Stipulations

1. All materials removed would be extracted in accordance with approved conservation practices so as to preserve, to the maximum extent feasible, all scenic, recreational, watershed and other values of the land and resources (43 CFR § 3601.6).
2. When American antiquities or other objects of historic or scientific interest, including but not limited to: historic or prehistoric ruins, vertebrate fossils or artifacts, are discovered in the performance of this permit, the item(s) or condition(s) would be left intact and immediately brought to the attention of the district manager or his authorized representative.
3. The permittee shall maintain the area free of trash, refuse, and noxious weeds during operations and termination of the contract.
4. Permittee shall be responsible for suppression costs of any fires resulting from actions under this permit or contract.
5. Each year, within 30 days of January 1st and 30 days prior to the expiration date of the permit, the permittee would submit a statement to the BLM indicating the type and volume of materials removed from the permit area during the previous year.
6. The approved mining and reclamation plan is part of this permit as special conditions governing all operations under the permit.
7. Any deviations from the approved reclamation plan and these stipulations would be subject to approval by the BLM authorized officer prior to such actions.
8. Upon expiration of the permit the permittee would, within 90 days, remove all equipment, personal property, and other improvements from the area.
9. The authorized officer may cancel the permit if the permittee fails to observe its terms and conditions, or if the permit has been issued erroneously (43 CFR § 3601.61).

10. The permittee shall indemnify and save harmless the United States of America against any liability for damages to life, person, or property arising from the use of the lands under this permit.
11. The subject site and haul roads shall be sprayed as necessary with water or other suitable material to minimize dust created by these activities.
12. Proper mufflers and spark arresters shall be maintained on equipment used in this project to reduce noise levels and to limit the potential for fires. In addition, the permittee and any contractors or subcontractors shall maintain and have on the site adequate fire prevention and extinguishing equipment.
13. The permittee shall remove only as much overburden and vegetation as is needed for each operation so as to keep visual, wildlife, and land stability impacts to a minimum.
14. No construction waste material or other debris may be hauled onto the site, stockpiled or used as fill material, other than that material which was found on the site at the time of signature of this contract.
15. Whenever possible, reclamation should proceed concurrently with excavation.
16. Upon completion of this project, the authorized officer would inspect the site to determine which quarry walls may be left intact for use as nesting sites for raptors. Sites not left intact shall be sloped to a minimum of 3:1 ratio. Overburden would be replaced and all remaining disturbed areas would be seeded with a mixture of seed and rate to be specified by the BLM at the time of reclamation.
17. This permit does not grant the permittee exclusive use of the public lands identified herein. The Bureau of Land Management reserves the right to remove materials from the land and the right to authorize other governmental agencies or individuals to obtain materials from the site, consistent with safe and orderly use of the lands.
18. All operators are required to provide employee training sufficient to meet the requirements of Title 30, CFR, Part 46 and 62, regarding operator safety training and noise exposure standards. Permittees that contract crushing and screening of materials are responsible for ensuring that contractors have met all of the above requirements. Additional information may be obtained from the internet at www.msha.gov/.
19. Noxious weed and invasive plant control would be the responsibility of the permit holder. Best management practices would be followed. These include, but are not limited to:
 - a. Washing the undercarriage of all vehicles prior to use in any work area.
 - b. Monitoring of disturbed areas for noxious or invasive weeds for three (3) years after work completion.
 - c. Prompt treatment action after identification of noxious or invasive weed infestation, including proper application of BLM-approved herbicides, or physical

removal and disposal.

- d. At the completion of the permit, replanting with a BLM-approved seed mix to help prevent weed infestation.
 - e. Monitoring the site after completion of the permit to ensure that a self-sustaining population of BLM-approved native plants has been established.
20. Pursuant to 43 CFR 10.4(b), the permittee must notify the BLM Field Manager, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43CFR10.2) on federal land. Pursuant to 43 CFR 10.4 (c), the permittee must immediately stop any ongoing activities connected with the discovery and make a reasonable effort to protect the discovered remains or objects.

2.1.2.2 Post-Mining and Concurrent Reclamation

Objectives

1. When possible, reclamation should occur concurrent to mining. The remainder of reclamation will occur once mining has been completed.
2. Restore the landscape to match surrounding land forms as closely as possible, which improves visual resources, increases stability of the slopes and soil to ensure public safety and maintain watershed function, and helps maintain acceptable wildlife habitat.
3. Promote the recovery of existing native vegetation in order to blend with adjacent plant communities.
4. Prevent the introduction or spread of noxious weeds or invasive species. All noxious weeds would be eliminated. Other invasive weeds, such as cheatgrass, would not be allowed to increase greater than the average of the surrounding lands.

Reclamation Treatments

1. The proponent would recontour the affected area to as natural-appearing land form as possible with the stockpiled overburden and topsoil.
2. When the stockpiled topsoil is returned after reclamation, the area will be seeded with a BLM approved seed mix.
3. The proponent would inventory and treat noxious weeds prior to recontouring. After recontouring, the proponent would treat any noxious weeds and cheatgrass within the reclaimed area for two years. Weed treatment would include BLM-approved chemicals and adherence to all manufacturers' recommendations and label instructions. BLM completed an analysis for use of herbicides on public lands managed by the BLM in the Programmatic Environmental Impact Statement, *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* (USDI BLM 2007a). The analysis for use of herbicides for reclamation described in this EA is tiered to the PEIS. Only ground-based application methods would be employed. Herbicides proposed for use are presented in Table 1.
4. BLM would monitor the site for vegetation re-growth, noxious weeds, and cheatgrass for a period of two years. All monitoring results would be provided to the proponent annually. If monitoring results do not show a decrease in weeds the proponent may be

required to conduct additional years of weed treatment. The duration and type of treatment will be determined by weed specialists after reviewing the monitoring information.

5. If reclamation activities do not commence within 10 years of the completion of this EA, the proponent would consult with BLM specialists to assess whether these reclamation treatments are still the preferred methods.

Table 1. Herbicides Proposed For Use During Reclamation Activities.

Herbicide	Herbicide Characteristics*
2,4-D	Selective; foliar absorbed; post-emergent; annual/perennial broadleaf weeds.
Chlorsulfuron	Selective; inhibits enzyme activity, broadleaf weeds and grasses.
Clopyralid	Selective, mimics plant hormones; annual and perennial broadleaf weeds.
Dicamba	Growth regulator; annual and perennial broadleaf weeds and grasses.
Imazapic	Selective pre and post-emergent systemic; inhibits annual grasses and some perennial grasses and broadleaf forbs.
Glyphosate	Non-selective systemic, annual and perennial grasses and broadleaf weeds, sedges, shrubs, and trees.
Metsulfuron methyl	Selective; post-emergent; inhibits cell division in roots and shoots; annual and perennial broadleaf weeds, brush, and trees.
Picloram	Selective; foliar and root absorption; mimics plant hormones; certain annual and perennial broadleaf weeds, vines, and shrubs.
Tebuthiuron	Relatively non-selective soil activated herbicide; pre and post-emergent control of annual and perennial grasses, broadleaf weeds and shrubs.
Triclopyr	Growth regulator; broadleaf weeds and woody plants.
*Information compiled from USDI BLM 2007a.	

3.0 Affected Environment and Environmental Consequences

3.1 Soils/Watershed

3.1.1 Affected Environment – Soils/Watershed

One seasonal drainages runs through the southeast corner of the proposed Shoofly pit area. This drainage is an offshoot of Halfway Gulch and rarely contains water. No watershed issues have been raised while this quarry has been in operation, and none are expected, even if disturbance approaches the drainage.

3.1.2 Environmental Consequences – Soils/Watershed

3.1.2.1 Alternative 1 – No Action

While exposed soils from mining are more susceptible to erosion, from site inspections conducted over the duration of the previous FUP's, there has been no indication that the stockpiled soils at either the Shop or Shoofly pits have been eroded by either wind or water to any measurable degree. Wind- or water-caused erosion is the most likely impact to soil, which is more susceptible to erosion until plants are established. After successful reclamation, wind and water caused erosion would be similar to surrounding, undisturbed areas.

3.1.2.2 Alternative 2 – Preferred Alternative

The current areas of disturbance sit at 10 acres at the Shop pit and 8.2 acres at the Shoofly pit. If mining continues and does expand to the proposed 22.5 acres at Shoofly pit, there could be an increase in the potential erosion of soils from the operation of this quarry as the disturbed area will grow in size. Impacts after the site is reclaimed would be the same as described in Alternative 1.

Overall, the potential for impacts to soils or watershed is greater for Alternative 2 than Alternative 1. The surface disturbance at the Shop pit would stay relatively the same, while the surface disturbance at Shoofly pit would potentially grow from 8.2 to 22.5 acres, increasing the area susceptible to impacts; however, based on site inspections over the duration of the previous FUP's, erosion by either wind or water has not occurred to any measurable degree and is not expected to have an increased impact by pit expansion.

3.2 Air and Water Quality

3.2.1 Affected Environment – Air and Water Quality

No air quality issues have been raised during the course of operations at either the Shop or Shoofly pits. The quarrying operations mostly involve the use of one front end loader and haul trucks. The exhaust from these vehicles would be negligible. If the need calls for a rock crusher to be used, there would be potential for short term increases in dust production as the gravels are crushed and sorted. The offshoot of Halfway Gulch near the Shoofly pit is not expected to be impacted by any mining/crushing/hauling activities. No water quality issues related to the either the Shop or Shoofly pits have been raised since the mines have been active.

3.2.2 Environmental Consequences – Air and Water Quality

3.2.2.1 Alternative 1 – No Action

There would be minimal impact on air or water quality by ceasing operations and reclaiming the two sites. The act of reclaiming and re-contouring the site would raise dust and would leave soils susceptible to erosion until soils settle and plants colonize the site.

3.2.2.2 Alternative 2 – Preferred Alternative

There would be no impact on air quality from this action. No air quality issues have arisen while this site has been active. Any anticipated dust-related impacts would be from trucks on the access road or in the event a rock crusher is used to crush the gravel into smaller sizes. Both crushing and hauling episodes are generally short lived, occur sporadically, and historically have not impacted the environment to a measurable degree.

No direct effect to surface water would be anticipated. In the event of a major spring run-off or a rainstorm of significant amount, water quality could be affected. Events causing the erosion of the topsoil or active quarry would be of a magnitude unknown in this area during the last 30 years of operations. No such occurrence has occurred at the quarry site since its inception. If such a runoff was to occur, the erosion of the stockpiled topsoil would be similar to the erosion that would occur if the site had never been disturbed. There would be a greater chance of increased erosion of the gravel stockpiles if such an occurrence were to occur. Gravel could be

potentially be carried downstream much like topsoil. However, as the gravel stockpiles are generally stored on large, flat areas within the pit limits, the likelihood of much gravel being carried downstream would be small. Impacts after the site is reclaimed would be the same as described in Alternative 1.

Overall, the potential for impacts to air or water quality is greater for Alternative 2 than Alternative 1. While the impacts would be the same as they have been at the Shop pit during its previous FUP, the disturbance could potentially grow from 8.2 to 22.5 acres at the Shoofly pit, increasing the area susceptible to impacts. However, given the rarity of the events that would cause these impacts, no actual increase is expected.

3.3 Vegetation/Special Status Plants

3.3.1 Affected Environment – Vegetation/Special Status Plants

Vegetation within the proposed project area at the Shop pit is largely non-existent as the area has undergone extensive gravel excavation. The area is mostly surrounded by privately owned agricultural land. Vegetation within the proposed project area at the Shoofly pit is comprised of a sparse salt desert shrub community species such as shadscale saltbush (*Atriplex confertifolia*), rabbitbrush (*Chrysothamnus viscidiflorus*), budsage (*Picrothamnus desertorum*), cheatgrass (*Bromus tectorum*), and Wyoming big sagebrush (*Artemisia tridentata* var. *wyomingensis*).

No special status plants occur within the boundaries of the proposed projects at the Shop or Shoofly pits. The current areas of disturbance are large and actively used, making them unlikely to support any special status plants. The potential area of expansion at Shoofly pit is not known to contain special status plants or suitable habitats for special status plants.

3.3.2 Environmental Consequences – Vegetation/Special Status Plants

3.3.2.1 Alternative 1 – No Action

No additional vegetation would be removed as a result of No Action. Impacts to native salt desert shrub communities would be the lowest in this alternative. The potential for noxious and invasive weed spread would be less than the preferred alternative. Weed control efforts would be the same as the preferred alternative. No special status plants are known from the project area or vicinity therefore, no impacts would occur.

3.3.2.2 Alternative 2 – Preferred Alternative

While the amount of surface disturbance would remain the same at the Shop pit, the Preferred Alternative would remove more acres of native salt desert shrub plant community than the No Action Alternative at the Shoofly pit. This would result in temporarily barren soils and a loss of up to 14.3 more acres of sparse vegetation. Colonization of these bare soils by adjacent plant communities is expected to be slow but would likely occur eventually. The low precipitation, sparse vegetation, and naturally arid soils surrounding the project area would provide a natural setting for a barren, slowly revegetating mine site. The potential for noxious and invasive weed spread would be higher in this alternative than in the no action alternative as a result of the increased disturbance area. Control of noxious and invasive weeds would be the same level as the no action alternative.

No special status plants are known from either site and therefore no impacts would occur with the proposed action.

3.4 Wildlife/Migratory Birds/Special Status Animal Species

3.4.1 Affected Environment – Wildlife/Migratory Birds/Special Status Animals

Vegetation within the proposed project area at the Shop pit is largely non-existent as the area has undergone extensive gravel excavation. The area is mostly surrounded by privately owned agricultural land. Vegetation within the proposed project area at the Shoofly pit is comprised of salt desert shrub community species such as shadscale saltbush (*Atriplex confertifolia*), green rabbitbrush (*Chrysothamnus viscidiflorus*), budsage (*Picrothamnus desertorum*), cheatgrass (*Bromus tectorum*), and Wyoming big sagebrush (*Artemisia tridentata* var. *wyomingensis*).

The Shop pit area is not located in antelope winter range or sage-grouse habitat and is not near any incidental sighting of any BLM Sensitive Wildlife Species (IFWIS 2013).

In the vicinity of the Shoofly pit, the most likely of the BLM Sensitive wildlife species to occupy the area adjacent to the existing 8.2-acre footprint of the site include western ground snake (*Sonora semiannulata*) and longnose snake (*Rhinocheilus lecontei*). The Shoofly pit area does not reside within habitat that is limiting for any wildlife species that may inhabit the area (e.g. pronghorn antelope {*Antilocapra americana*} winter habitat). However, the habitat in the expansion area could potentially be occupied by western ground and/or longnose snakes. The closest recorded BLM Sensitive Wildlife Species is of a western ground snake roughly $\frac{3}{4}$ of a mile east of the project area (IFWIS 2013). Conversely, the Mojave black-collared lizard is especially unlikely to reside in the existing quarry (existing disturbance) and in the proposed expansion (flat, devoid of large rocks) due to their association with boulder sized rocks (>20"; Pope 2004). There are drainage washes on both the north and south boundaries of the proposed expansion area, but these are dry and devoid of any riparian vegetation. Consequently, the lack of persistent water at or proximate to the project area precludes occupancy by species associated with this feature (e.g. Woodhouse toad {*Bufo woodhousii*}, common garter snake {*Thamnophis sirtalis*}).

The project areas lacks sagebrush shrubland habitat that is used by sagebrush-obligate species like Greater sage-grouse (*Centrocercus urophasianus*), sage sparrows (*Amphispiza belli*), sage thrashers (*Oreoscoptes montanus*), and Brewer's sparrows (*Spizella breweri*), all of which are high priority species in this Priority Habitat identified by Idaho Partners in Flight (IDPIF 2000). There are no migratory birds that are solely associated with salt desert shrub habitat due to the paucity of grasses and forbs (IDPIF 2000) so the few that might use the area are generalists and warrant no further mention relative to the small footprint of either alternative.

3.4.2 Environmental Consequences – Wildlife/Migratory Birds/Special Status Animal Species

3.4.2.1 Alternative 1 – No Action

Reclamation activities would occur under Alternative 1 and would not negatively impact BLM Sensitive species because the area is already disturbed. Operations have occurred since at least 1986, so wildlife species in proximity to the quarry have had time to adapt or avoid (e.g. western ground and longnose snakes) the disturbance. Furthermore, stipulations for weed control (i.e., equipment washing offsite) would minimize the spread of noxious weeds into the area so the likelihood of invasion would be low. In the unlikely event of noxious and/or invasive plant introduction to the area, herbicide treatment contingencies would preclude impacts to wildlife.

Herbicide effects on wildlife are described in the *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement* (PEIS) (USDI BLM 2007a). The PEIS (p. 4-102) states that risks from direct spray and spills, indirect contact with foliage after direct spray, and ingestion of contaminated food items after direct spray are generally low or non-existent for terrestrial fauna, with few exceptions, particularly for mammalian herbivores and pollinating insects. It further states that birds, mammals, or insects that eat grass that has been sprayed with herbicides have relatively greater risk for harm than animals that eat other vegetative material, because herbicide residue is higher on grass (Fletcher et al. 1994; Pfleeger et al. 1996); however, harmful doses of herbicide are not likely unless the animal forages exclusively in the treatment area for an extended period of time (USDI BLM 2007a). The likelihood of animals foraging for an extended period of time in the proposed project area is unlikely because the area is characterized as a low productivity area for vegetation (i.e., salt desert shrub community; IDPIF 2000). The probability of harmful contamination is further reduced by the relatively small area of disturbance that may require treatment. While adverse effects from herbicides to wildlife could occur, the actual risk is low enough, so as to be discounted, based on the following rationale:

- Western ground and longnose snakes are not herbivorous and unlikely to ingest herbicides directly.
- Neither project area is characterized as winter habitat for antelope or mule deer so herbicide application would not occur in an area where these herbivores concentrate in large numbers.
- Harmful doses of herbicide are not likely unless an animal forages exclusively in the treatment area for an extended period of time. The likelihood of antelope spending large amounts of time foraging in any one area of this salt desert shrub community, characterized with poor forage productivity, is low.
- The predictions of potential adverse effects from herbicides are overly conservative in that they assume 100% of the animal's diet would consist of contaminated vegetation, which would be unlikely unless the animal's entire habitat was treated (USDI BLM 2007c).
- The number of acres treated in the project area is minimal when compared to the acres of suitable foraging habitat within and surrounding the project area.
- Application would be applied under the standard operating procedures from the *Vegetation Treatments using Herbicides on Bureau of Land Management Lands in 17*

Western States Programmatic Environmental Impact Statement (USDI BLM 2007a, Appendix B).

- Herbicide treatments would target undesirable vegetation and not include the entire project area.
- Reduction of noxious weeds and invasive annuals would improve habitat conditions for wildlife.

Although it would take a few years for the vegetation to be re-established and cover the area, actions associated with Alternative 1 would be beneficial to wildlife species as the disturbed area returns to conditions similar to the surrounding area.

3.4.2.2 Alternative 2 – Preferred Alternative

There would be no measurable impacts to Special Status wildlife species with the continuation of mining activities at both pits in the existing disturbed areas because there is little vegetation present and they have experienced disturbance for at least the last 25 years.

The expansion of the Shoofly pit mine from roughly 8.2 to 22.5 acres has the potential to affect two snake species (western ground and longnose) in the currently undisturbed 16.8 acres. The initial expansion into this undisturbed area could result in a few snake mortalities if they inhabit the area. Even so, the few individuals that could be killed would not have a measurable effect to the population of either snake. If the disturbance eventually covers the full 22.5 acres, snakes would avoid the area, so further impacts to these species would not occur.

Reclamation activities that would occur during the final stages of the implementation of Alternative 2 would have the same impacts as described in Alternative 1. Following the contouring and the re-establishment of vegetation, wildlife species would benefit as the project area returns to conditions similar to the surrounding area.

Overall, Alternative 2 would have more impacts to a few wildlife species than Alternative 1, but would only impact a few individuals and not have measurable impacts to any given wildlife species population.

3.5 Recreation/Visual Resources Management

3.5.1 Affected Environment – Recreation/Visual Resources Management

Neither the Shop pit, on split estate, nor the Shoofly pits provide a managed recreation experience. As the Shop pit is split estate with the surface being private property, recreation by the public is not allowed. While some target shooting may occur, the experience to this visitor will not be impacted from the proposed activities.

The visual resource inventory class is IV (the current status) at both project sites. The areas visual resource management (VRM) class of IV (how the area may be managed) allows for major modification to the characteristic landscape.

3.5.2 Environmental Consequences – Recreation/Visual Resources Management

3.5.2.1 Alternative 1 – No Action

Under the No Action Alternative, there would be no new impacts. Under this alternative, the 10 acres of disturbed area at the Shop pit and 8.2 acres of disturbed area at the Shoofly pit would be rehabilitated, which would enhance the visual resources compared to the preferred alternative of continuing operations at the Shop pit and allowing the potential expansion of the Shoofly pit to 22.5 acres of disturbance.

3.5.2.2 Alternative 2 – Preferred Alternative

No measurable impacts to recreation opportunities are expected during the operation period from this project. The Shop pit is on split estate, with privately owned surface ground. The Shoofly pit has irrigated fields to the west and does not provide for recreation experiences outside of target shooting which would be discouraged or not allowed at an active pit. There is also not much evidence of high OHV use at the site. Neither the project activities nor reclamation of the site would measurably affect recreation opportunities.

The impacts to visual resources would be within VRM Class IV objectives under this alternative. After reclamation, effects to visual resources are expected to be the same as Alternative 1.

The increase in size of the disturbance under Alternative 2 from approximately 8.2 acres to up to 22.5 acres would affect visual resources to a slightly greater extent than under Alternative 1.

3.6 Cultural Resources

3.6.1 Affected Environment – Cultural Resources

The areas of potential effect for the Mining and Reclamation Plans were surveyed for cultural resources on March 12, 2014. No historic properties were located in the area of potential effect for either the Shop or Shoofly pits. The Shop and Shoofly pits were also surveyed on January 16, 1986, by BLM Archaeologist, Steve Addington, for 10 acres, and 5 acres, respectively. He did not locate any historic properties in the area of potential effect (APE) for this action (ID-01-FU-5-69).

3.6.2 Environmental Consequences – Cultural Resources

3.6.2.1 Alternative 1 – No Action

As no cultural or historic properties have been located within the area of potential effect for either the Shop or Shoofly pit areas, no impacts to cultural or historic properties would occur under the No Action Alternative.

3.6.2.2 Alternative 2 – Preferred Alternative

As no cultural or historic properties have been located within the area of potential effect for either the Shop or Shoofly pit areas, no impacts to cultural or historic properties would occur under the Preferred Alternative.

Impacts would be the same as described in Alternative 1.

3.7 Cumulative Impacts

Several resources, including soils and watersheds, air and water quality, vegetation and special status plants, cultural resources, recreation and visual resources, would not be affected by either alternative, and therefore, would not have cumulative effects.

3.7.1 Past, Present, and Reasonably Foreseeable Actions

There are several other mining activities within the same general geographic area. There are 6 other FUP's for various permittees, as well as 2 community pits and one mine (OCP for oolite) within 10 miles of either pit area that are currently active. The closest to the Shop Pit is an active FUP approximately 4 miles to the northwest operated by Grand View Irrigation District. The closest activity to the Shoofly pit is the privately owned OCP oolite mine approximately 4 miles to the west of the Shoofly pit. Historically, none of quarries within 10 miles of either pit have affected soils or any other resource in any noticeable extent.

Other activities that may cumulatively affect resources include livestock grazing (winter use), occasional off-highway vehicle (OHV) use, and passenger car road use (i.e. Shoofly Cutoff Road).

There are several farms in the region. Both the Shop and Shoofly pits have farmland adjacent to the quarry site.

3.7.2 Wildlife

Although minimal, wildlife was the only resource identified that might incur direct and/or indirect impacts from either alternative. Of the wildlife species considered, western ground and longnose snakes were the only BLM Sensitive Species of management concern that would potentially experience impacts from this project.

Little is known of the ecology or life history of either of the snake species in Idaho (Cossel 1998a, b), but one study revealed that longnose snakes can have a home range up to 18.5 acres (Beck and Peterson 1995). Using this analysis as an approximation for both snake species, the cumulative effects spatial scale for these species radiated out 0.2 miles from the boundary of the proposed 16.8 acre expansion area of the Shoofly pit to capture impacts to individuals that might inhabit the expansion area identified in Alternative 2. This distance represents the diameter of an 18.5-acre circle.

Finally, identification of the temporal scale for the cumulative effects analysis was unnecessary since the cumulative effects shown from the spatial analysis resulted in no measureable impacts to any of the species beyond what was described for direct and indirect effects.

3.7.2.1 Alternative 1 – No Action

Impacts to western ground and longnose snakes from reclamation activities associated with Alternative 1 would be beneficial. Consequently, Alternative 1 would not contribute cumulatively to any negative effects from any other ongoing or future projects and could partially mitigate negative impacts from nearby projects once the reclamation has occurred.

3.7.2.2 Alternative 2 – Preferred Alternative

Alternative 2 could cause the mortalities of a few individual snakes as the area is expanded from 8.2 to 22.5 acres at the Shoofly pit. Activities within the 0.2-mile buffer of the expansion area that could cumulatively interact with Alternative 2 and impact western ground and longnose snakes are OHV, farmland, and passenger car road uses. However, both of these snakes are primarily nocturnal, when OHV use is unlikely, so there would be no interaction of these activities that would cumulatively affect either snake species. Additionally, farmland adjacent to the site would be atypical habitat and unlikely to be used by these species and finally, road use on Shoofly Cutoff Road (0.13 miles away) is minimal enough at night when snakes could venture out onto this feature that it is unlikely that any individuals that could be using the expansion area would be impacted. The eventual reclamation of the area could minimally mitigate any slight negative impacts from these nearby projects. Therefore, the overall impacts to these snake species would not be any greater than what would occur directly and indirectly from the implementation of this alternative and would not result in any measurable effects to the population of either species.

4.0 Consultation and Coordination

4.1 List of Preparers

David Keeler, Geologist
Bruce Schoeberl, Wildlife Biologist
Holly Beck, Botanist
Dave Draheim, Recreation Planner
Lois Palmgren, Archaeologist

4.2 List of Agencies, Organizations, and Individuals Consulted

Shoshone-Paiute Indian Tribes of the Duck Valley Reservation.
State Historic Preservation Office

4.3 Public Participation

The preferred alternative was listed on the Idaho BLM NEPA Register. The address to the site is: https://www.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do. The draft EA was presented to the Shoshone-Paiute Tribes during Wings and Roots consultation meeting held June 19, 2014. The Tribe had no specific comments about the renewals of the two FUP's.

BLM Idaho uses the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f)) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed permit will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. Through the NEPA process we provide an opportunity for public participation and comment pursuant to both the requirements of the NEPA and the NHPA.

5.0 References

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- USDI BLM. 2007c. Vegetation Treatments Using Herbicides on Bureau of Land Management Land Lands in 17 Western States Programmatic Biological Assessment.