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Four Rivers Field Office
Scharff 43 CFR 3809 Plan of Operations
Environmental Assessment

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BLM

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1.0 Introduction

1.1 Background

Placer gold mining began in the Boise Basin as early as 1862. Over the years, the larger rivers in the Boise Basin were mined with gold dredges while the smaller streams and tributaries were hydraulically mined by running large amounts of water into ditches and then flooding the surface, thus washing the unconsolidated material into an area where it could be run through a sluice box. While these operations recovered a substantial amount of gold, they were not completely efficient; therefore, some gold remains in the area. High gold prices and improved recovery techniques have made these areas desirable for mining. The entire area included in Mr. Scharff's Plan of Operations has previously been disturbed by placer mining operations. Mr. Scharff's placer mining operations are considered extremely small scale when compared to the early dredge and hydraulic operations in the area.

1.2 Purpose and Need for the Proposed Action

In 1985, Ted Scharff submitted a Notice under 43 Code of Federal Regulations (CFR) 3809 to conduct small scale placer mining operations on BLM land in the Boise Basin near the historic town of Centerville, Idaho. Mr. Scharff amended his Notice several times between 1985 and 2003 to accurately reflect what his mining operations would involve for each upcoming year. On January 15, 2003, Mr. Scharff submitted a Plan of Operations under 43 CFR. His operations were approved by the BLM on February 21, 2003.

The 43 CFR 3809 Regulations (3809.411 (a) (3)(ii)) state that an environmental review, required under the National Environmental Policy Act (NEPA), is to be completed prior to approving mining operations proposed under a Plan of Operations.

1.3 Summary of the Proposed Action

The proposed action is to review Mr. Scharff's Plan of Operations and develop standard operating procedures (SOPs) that would prevent undue or unnecessary degradation to public land.

1.4 Location and Setting

The Boise Basin (Basin) is located some 30-40 miles northeast of Boise, Idaho and accessed by State Highway (Highway) 21. It consists of private and State lands surrounded by Boise National Forest. Idaho City, the county seat of Boise County, is located 38 miles from Boise on Highway 21. Centerville lies near the center of the Basin, 6.6 miles north of Idaho City along Grimes Creek (Map 1). The BLM manages those sections in the Basin where the towns of Centerville, Placerville, Pioneerville, and Quartzburg were originally located.

Mr. Scharff's placer operations are being conducted in Section 29 of T. 7 N., R. 5 E., Boise Meridian, on the Association (IMC-13179), Association No. 1 (IMC-13180), and Association

No. 2 placer claims (IMC-13181). The claims are located where the town site of Centerville previously existed. Some of Centerville's buildings were destroyed by fires in 1870 and 1910. Those not burned have since collapsed and been removed. A more recent small building located on Mr. Scharff mining claim is being utilized for storage of incidental mining tools and equipment. Two small cemeteries are located north of Mr. Scharff's operations. Ponderosa pines, previously destroyed by forest fires, have again grown throughout the area.

A right-of-way (ROW) (IDI-21033A) has been issued to Boise County for the portion of Placerville road that crosses BLM land; Mr. Scharff proposes to realign it. In order for Mr. Scharff to do so, Boise County, as the ROW holder, would need to agree to the proposed realignment and submit an application to the BLM to amend their ROW for the road.

Although an environmental review would also be prepared then, the road realignment impacts are identified in this EA because it is part of Mr. Scharff's Plan of Operations. According to the Master Title Plat and early maps of the area, it appears that portions of the Placerville road may have been moved previously.

1.5 Conformance with Applicable Land Use Plans

The proposed action conforms to the July 1988 Cascade Resource Management Plan (RMP) (USDI 1988). The Boise Basin is classified for intensive management of minerals. Areas of intensive management will emphasize "providing for mineral production while protecting important wildlife values, restoring water quality, and rehabilitating site productivity and stream stabilization through reclamation" (ROD, p. 20).

The Cascade RMP further recommended that nine sites, including Centerville, be nominated to the National Register of Historic Places (NRHP). As of this date, Centerville has not been nominated because past disturbances have compromised the archeological significance of the site. Furthermore, archeological excavations designed to mitigate the effects from mining activity were completed in 1993 and failed to find significant archeological deposits (USDI 2001); therefore, NRHP listing is not warranted.

1.6 Relationship to Statutes, Regulations, and Other Requirement

The 1872 Mining Law [30 United States Code (U.S.C.) 22 *et seq.*] states that a person has a statutory right consistent with other laws and Departmental regulations to go upon the open (unappropriated and unreserved) public land for the purpose of mineral prospecting, exploration, development, and extraction.

The Federal Land Policy and Management Act (FLPMA) of 1976 (Public Law 94-579) require that the Secretary of the Interior regulate mining operation to prevent undue or unnecessary degradation of the public lands.

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 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); the National Environmental Policy Act of 1969 (NEPA); the FLPMA of 1976; 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.

1.7 Scoping and Development of Issues

A meeting was held on August 3, 2011 with Four Rivers Field Office staff to identify relevant issues to the Scharff Plan of Operations. The following preliminary issues were discussed:

- **Water Quality** – Redband trout, a BLM Type 2 species, are known to exist in Grimes Creek. The area is not critical habitat for any listed Threatened and Endangered (T&E) trout species. The potential exists for diesel fuel to impact water quality in the placer dredge pond adjacent to the Scharff processing plant. (Section 3.4.2)

- **Lands with Wilderness Characteristics**– No lands with wilderness characteristics were identified in a recent inventory conducted in preparing the Four Rivers Resource Management Plan Draft Environmental Impact Statement.

- **Botanical Resources -** A sensitive plant site inventory was completed and no sensitive plant species were located. (Section 3.2.1)

- **Vegetation** – There could be a potential for noxious weeds invading disturbed areas if sites are not reseeded. (Section 3.2.2)

- **Public Health & Safety** – There could be a potential safety hazard if high walls are created during mining and left open for long periods of time. In order to provide for public safety, in the event Mr. Scharff opens areas larger than the initial trenched area, berms or signs would be installed that warn off-highway vehicle (OHV) users of an area being mined. This issue has been resolved.

- **Livestock Management** – The lands are not grazed by domestic livestock.

- **Human Waste** – There is a need to properly contain and dispose of human waste. All human waste is contained within the holding tank of Mr. Scharff's fifth–wheel trailer which is on-site. This issue has been resolved.

- **Wildlife and Migratory Birds** – There is potential for impacting raptors (northern goshawks and forest hawks) if nesting trees are removed. (Section 3.3.2)

- **Recreation** – OHV use may be impacted by opening trenches or pits adjacent to existing area roads and trails (see Public Health & Safety above).

- **Air Quality** – There is the potential for fugitive dust as Mr. Scharff excavates materials to be processed. (Section 3.5.2)

- **Visual Resource Management (VRM)** – Mining activities might not be in conformance with the VRM classification for the area. (Section 3.6)

- **Relocation of 600' of an existing County road** – Approximately one acre would be disturbed by the proposed relocation of 600' of the existing Placerville road. However, the relocation of the road would be contingent upon the ROW holder applying to the BLM for approval to amend the existing grant.

The proposed project was presented to the Shoshone-Paiute Tribes at a September 28, 2011, Boise District Wings and Roots Native American Campfire consultation. Subsequent updates for the project were brought up at the October 9 and December 6, 2011 and the January 19, 2012 Boise District Wings and Roots Native American Campfire consultation.

2.0 Description of the Alternatives

2.1 Alternatives Considered But Not Analyzed in Detail

The very nature of 43 CFR 3809 regulations limits the Plan of Operations alternatives submitted by the mining claimant. Alternatives that propose moving the claimant's operations to another area are not reasonable, because the material to be mined and the mining claims are tied to a specific tract where the placer gold occurs. Alternative mining methods are unreasonable because the mined material only has to be washed to recover the contained placer gold. No chemicals are used in the process.

As such, the mining regulations require that BLM review the submitted Plan of Operations to identify and mitigate impacts to insure that unnecessary or undue degradation to public lands does not occur.

2.2 Description of Proposed Action and Alternatives

2.2.1 Alternative A – No Change/Continue Current Plan of Operations

Mr. Scharff would utilize a rubber-tired backhoe to dig small trenches in areas that may have been missed by previous placer operations (Photo 1). Material from the open trench would be sampled with a gold pan. If gold is found, he would remove up to 10 cubic yards of material, and transport it near a wash plant in a 5-yard dump truck, where it would be stockpiled and later processed. If no gold is found, Mr. Scharff would put the material back in the trench, return the area to the pre-disturbance contour, seed the disturbed area in the fall, and move on to another location. Exploratory trenching and mining would disturb approximately one acre per year within the claim block.

Photo 1 – Mr. Scharff standing by a trench that has been opened to sample for placer gold.

If Mr. Scharff determines, through panning, that gold still exists in the material surrounding an opened trench, he would transport additional material to the wash plant for processing. The expanded trenches could remain open for up to two years until all gold bearing material is mined and processed. Once the gold bearing material is washed, Mr. Scharff would remove it from the settling pond with a back hoe and return it to the trench or mined area where it was removed. The disturbed areas would be re-contoured and seeded (Photos 2 & 3).

Mr. Scharff's gold processing (washing) operation would occupy approximately 1.5 acres, and would include the stockpiled materials' area, a puddle box (an old dump truck bed) where he would dump mined material to wash out the rocks and non-gold bearing particles, a sluice at the lower end of the puddle box, and a closed settling basin where water from the washing operation would be contained. He would pump processing water from a settling basin and would have the ability to recirculate water from the basin back through his washing operation. The settling basin, a historic dredge pond, would be isolated from Grimes Creek by natural features.

The Plan of Operations would remain in effect as long as Mr. Scharff is conducting operations, unless BLM suspends or revokes the plan for failure to comply with applicable performance standards in 43 CFR 3809.

Photo 2 – A trenched area that was expanded to recover placer gold. The area has been re-sloped and is ready

to be seeded.

Photo 3 – An area that was previously mined, re-sloped, and reseeded by Mr. Scharff.

2.2.2 Alternative B – Proposed Action

The Plan of Operations described in Alternative A would be implemented along with the Stipulations and Standard Operating Procedures outlined below. Mr. Scharff has proposed to dig several trenches along the existing Placerville road, within the first 600' of its junction with Centerville Road. Should he find gold in the trenches, he would propose to move the road's first 600' to the east, approximately 100 feet, so he could mine below the existing roadbed (Map 2). He believes that the material below this road section may not have been mined due to the longevity of the road. The road realignment and mining would disturb approximately one acre.

Stipulations

1. All plans of operations would be conducted in accordance with 43 CFR Subpart 3809 - Surface Management and 43 CFR Subpart 3715 - Use and Occupancy under the Mining Laws.

2. The claimant/operator would ensure that vehicles and equipment used in his operation are free of vegetative material and mud/soil before entering the project area to mitigate the spread of noxious weeds.

3. Claimant/operator would immediately notify the BLM's Authorized Officer of any human remains unearthed during mining operations. (25 USC 3002 Section 3 (d) "*Inadvertent discovery of Native American remains and objects*")

4. Claimant/operator would maintain the area free of trash and refuse during operations and termination of the contract.

5. Claimant/operator would be responsible for suppression costs of any fires resulting from actions under this permit or contract.

6. The approved mining and reclamation plan and environmental assessment would be part of this plan of operations as special conditions governing all operations under the plan of operations.

7. Any deviations from the approved plan of operations, reclamation plan, and these stipulations would be subject to approval by the BLM authorized officer prior to such actions.

8. If claimant/operator stops conducting operations then subchapter 3809.424 of 43 CFR must be followed. Requirements may include the removal of all equipment, personal property, and other improvements from the area and reclaim the area according to the approved reclamation plan.

9. The claimant/operator would not mine in the area covered by this plan of operations without a financial guarantee (43 CFR §3809.582) that has been approved by BLM's Authorized Officer.

10. Claimant/operator would notify the BLM's Authorized Officer before any standing ponderosa pine trees greater than 12" diameter breast height (dbh) are removed by mining operations.

11. Storage of recreational equipment (i.e., boats, mobile homes, camping trailers, etc.) would not be authorized under this plan of operations except for use as shelter only during periods of active mining.

12. Storage of construction equipment (i.e., crushers, dump trucks, graders, dozers, etc.) other than the equipment mentioned in the plan of operation would not be authorized under this plan of operations.

13. No construction waste material, other materials or debris may be hauled onto the site, stockpiled or used as fill material.

14. The BLM Authorized Officer may cancel the plan of operations if the claimant/operator fails to observe its terms and conditions (to include these stipulations), or if the plan of operation has been issued erroneously (43 CFR §3809.602).

15. Claimant/operator would 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 plan of operations.

16. The subject site and haul roads would be sprayed as necessary with water or other suitable material to hold down the dust created by these activities.

17. Proper mufflers and spark arresters would be maintained on equipment used in this project to reduce noise level and to limit the potential for fires. In addition, the claimant/operator and any contractors or subcontractors would maintain and have on the site adequate fire prevention and extinguishing equipment.

18. Claimant/operator would 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.

19. Whenever possible, reclamation would proceed concurrently with excavation.

20. For interim and final reclamation, the claimant/operator would slope excavation walls to a minimum of 3:1 ratio; overburden would be replaced, and all disturbed areas would be seeded with a BLM approved seed mix.

21. This plan of operations does not grant the claimant/operator exclusive use of the public lands identified herein.

Standard Operating Procedures

- Mr. Scharff would monitor disturbed and reclaimed areas and notify the BLM's Authorized Officer of the presence of any noxious weeds.
- A 50-foot buffer of undisturbed ground would be maintained between surface disturbing activities and the Town Creek and Slaughter House Gulch intermittent drainages.
- Diesel pumps, used at the processing facility, would be moved to lined depressions capable of containing four times the capacity of the fuel tanks on the pumps. The liner would be at least 20 millimeters thick.
- If mined areas are to remain open for longer than one mining season, the open areas would be bermed or signs placed to indicate their presence.
- Boise County would be notified prior to any relocation of any portion of the County road leading to Placerville. The County would be responsible for submitting a Right-of-Way amendment to BLM and get its approval before any portion of the Placerville Road would be relocated. The BLM would require the appropriate clearances before the relocation. Signs would be posted during construction to warn the traveling public and OHV users of equipment use near the road.
- Mr. Scharff would be required to provide the BLM with an updated map of his facilities' locations on the mining claims and incidental to his operations.

3.0 Affected Environment and Environmental Consequences

3.1 Soils

3.1.1 Affected Environment – Soils

The area between Town Creek and Slaughter House Gulch ranges from flat on the east near the Grimes Creek dredge tailings to steep slopes with incised drainages to the northwest. The entire area is underlain by thin, highly erosive granitic soils that lie on granitic bedrock. Hydraulic mining of the area in the 1890s removed all developed soil, leaving a loose assemblage of unsorted cobbles, sand, and silt. The placer mining has led to rill and gully erosion, prevalent on the steeper slopes to the west of Mr. Scharff's operations. Although a new vegetative community has established in the area, it is still susceptible to heavy erosion during heavy spring runoff or high intensity rainfall events.

3.1.2 Environmental Consequences – Soils

3.1.2.1 Alternative A – No Change/Continue Current Plan of Operations

Conditions would remain much the same as the present situation. Any soil profile, primarily surface and subsurface organic material that developed since historic mining activities would be removed in excavated areas. Approximately one acre of disturbed areas in any year would be susceptible to small amounts of wind and water erosion. Soil movement from disturbed areas would generally be expected to be captured in adjacent vegetated areas. Contouring and

reclamation efforts would minimize or eliminate erosion from disturbed areas after seeded species become established, generally two to three growing seasons.

3.1.2.2 Alternative B – Proposed Action

Impacts to soil resources would be as described in Alternative A for mining activities outside the Placerville roadway. The relocation of 600' of the Placerville road would disturb approximately one acre adjacent to the existing roadway. This one acre has been repeatedly disturbed by placer mining over the last 100 years which has resulted in the loss of topsoil. The one acre of proposed disturbance now consists of granitic sand, cobbles, and boulders. Cuts and berms on the new roadway would be subject to erosion until vegetation becomes reestablished.

3.2 Vegetation

3.2.1 Affected Environment – Vegetation/Noxious Weeds/Special Status Plants

The area's upland vegetation is a mixed ponderosa pine and Douglas-fir habitat, with a bitterbrush understory, and lesser amounts of snowbrush, sagebrush, snowberry, serviceberry, and native grasses. Quaking aspen, coyote willow, and other riparian species are found along the Town Creek and Slaughter House Gulch drainages. No infestations of noxious weeds are known to occur. Based on a May 2005 site visit and the Conservation Data Center database, no known special status plants or their habitat occur in the area; therefore, impacts to special status plants will not be discussed.

3.2.2 Environmental Consequences – Vegetation/Noxious Weeds/Special Status Plants

3.2.2.1 Alternative A – No Change/Continue Current Plan of Operations

Up to one acre of vegetation would be disturbed annually where Mr. Scharff opens trenches and pits. In reclaimed areas, seeded grasses and forbs would become established within two to three growing seasons. Shrubs would become established in two to four years and reach full size within 10-20 years. Trees would be established primarily by natural processes and would take several years to decades to reach pre-disturbance size and diversity. Disturbed areas would be most susceptible to the establishment and spread of noxious weeds until seeded species become established. Sparks from mining equipment could start fires which would reduce or eliminate vegetation over the short term and shrubs and trees over the intermediate and long term.

3.2.2.2 Alternative B – Proposed Action

Impacts to vegetation resources would generally be as described in Alternative A for disturbed areas outside the Placerville roadway. Monitoring for noxious weed species by Mr. Scharff would help ensure early treatment and minimize the potential for weeds to become established and spread. Implementing safety precautions such as spark arrestors would reduce the potential for fires from mining activities.

The relocation of 600' of the Placerville road would destroy the existing vegetation on approximately one acre where the newly aligned road would be located. This vegetation consists of sagebrush, native grasses, and several 12" and smaller ponderosa pine trees. Native

vegetation would be replanted where the current road exists and those areas to be placer mined. All mined and re-contoured areas would be reseeded with a BLM-approved seed mix.

3.3 Wildlife and Migratory Birds/Special Status Animals

3.3.1 Affected Environment – Wildlife and Migratory Birds

The Boise Basin provides habitat for wolves and numerous big game species. Forest grouse, red-tailed hawk, Cooper's hawk, and a variety of songbirds (e.g., yellow-rumped warblers, chipping sparrows) have a seasonal (e.g., during breeding, nesting, brood-rearing, winter) or year-round presence.

Special status species including northern goshawk (Type 3 - Regional/State Imperiled Species), flammulated owl (Type 3), and white-headed woodpecker (Type 4 - Peripheral Species) inhabit the area. Goshawks use a wide variety of habitats for foraging, but prefer dense conifer stands with high canopy closure for nesting. Flammulated owls nest in cavities in moderate-sized (12-20" dbh) in areas with diverse, well vegetated understories and forage in a diversity of areas from grasslands to mixed conifer stands. White-headed woodpecker nest in large (20" dbh) snags and feeds primarily on ponderosa pine seeds.

3.3.2 Environmental Consequences – Wildlife and Migratory Birds/Special Status Animals

3.3.2.1 Alternative A – No Change/Continue Current Plan of Operations

Because of the small scale and seasonal nature of Mr. Scharff's operations, there would be limited impacts to wildlife. Wildlife would experience low levels of disturbance from human activity and operation of motorized equipment, primarily during breeding through brood-rearing periods (April-July). Areas that are cleared of vegetation and subsequently re-vegetated would benefit species that prefer edges and early successional habitat including American crow, hermit thrush, and black-capped chickadee. Species that require un-fragmented habitat (e.g., olive-sided flycatcher, varied thrush, Townsend's warbler) could be adversely impacted by vegetation removal; however, because of the small size of the openings created and the long-term recovery of vegetation, the impacts would be limited and occur from 0-20 years post disturbance.

Tree nesting species, especially those that require moderate to large sized trees, could be adversely affected by removal of trees > 12" dbh. Mr. Scharff stated that he has only removed two mature ponderosa pine trees since he began operations in 1985. Foraging areas for goshawk, flammulated owl, and white-headed woodpecker would be minimally affected because cleared areas would represent a small portion of typical home ranges (e.g., 6,400 acres for a male goshawk; 30-40 acres for flammulated owl).

3.3.2.2 Alternative B – Proposed Action

Impacts to wildlife and their habitats would generally be as described in Alternative A for activities outside the Placerville roadway. The requirement to notify BLM prior to removing trees > 12" dbh should help insure that active nest trees would not be disturbed which would benefit goshawk, flammulated owl, and white-headed woodpecker.

Actively used linear features such as roads can affect wildlife in a variety of ways including causing mortality and disturbance of breeding and foraging activities. Many species avoid roads to varying degrees (e.g., elk) which effectively reduces the amount of suitable habitat available. As road density increases, the presence of disturbance intolerant species is reduced or eliminated. The proposal to move the Placerville road would result in no net increase in road miles; therefore, the disturbance caused by the road would remain essentially the same over the long term. One-acre of habitat would be lost by construction of the new section. That loss would eventually (up to 80 years depending on habitat component) be replaced as the old roadbed is mined and reclaimed. Habitat for disturbance intolerant species in the vicinity of the proposed alignment would be adversely affected over the long term and some nest sites for special status birds could be abandoned; however, because of the short distance involved, few nest sites would be affected.

3.4 Water Quality/Riparian/Fisheries

3.4.1 Affected Environment – Water Quality/Riparian/Fisheries

Mr. Scharff's placer operations are being conducted between Town Creek and Slaughter House Gulch, two intermittent streams that flow into Grimes Creek. Both streams have the potential to impact the water quality in Grimes Creek during spring runoff and heavy precipitation events. During the remainder of the year, the only hydrologic connection between the tributaries and Grimes Creek is through subsurface flows. Grimes Creek is listed on the February 2010 IDEQ 303(d) list of water quality impaired streams. With the exception of the extreme northwestern portion of Section 29, the channels of Town Creek, Slaughter House Gulch, and Grimes Creek have been disturbed by the previous placer mining. The channels have stabilized and now support riparian vegetation.

Grimes Creek contains redband trout (Type 2 - Rangewide/Globally Imperiled Species), a subspecies of rainbow trout. Although current range-wide abundance of redband trout in Idaho is unknown, resident populations are locally abundant in the Boise, Weiser, Payette, Owyhee, and Wood/Malad River drainages (IDFG 2005). Neither of the intermittent streams contains a fishery, and no critical habitat for threatened or endangered trout species exists in the area.

3.4.2 Environmental Consequences – Water Quality/Riparian/Fisheries

3.4.2.1 Alternative A – No Change/Continue Current Plan of Operations

Increased sediment could be deposited in Town Creek and Slaughter House Gulch if Mr. Scharff disturbs the surface immediately adjacent to or within the drainages. Except during spring runoff and heavy precipitation events, sediment from mining activities would not impact Grimes Creek because of the numerous dredge tailings between the tributaries and Grimes Creek that limit surface flows between the drainages. As a result, Mr. Scharff's operations would have limited impact on redband trout or water quality in Grimes Creek. Upland reclamation efforts would help stabilize soils and eliminate sediment production after ground cover is established (two to three growing seasons).

In 2011, Mr. Scharff had two diesel pumps situated near one of the dredge ponds' bank, west of Grimes Creek. It was noted during a site inspection in summer 2011 that neither pump had a lined berm that would prevent petroleum spills into the pond. The BLM identified the issue and required a lined berm to prevent possible impacts from fuel spills.

Human waste generated by Mr. Scharff would not impact water quality or fisheries because it would be contained in the holding tanks of his fifth–wheel trailer, where he lives when mining.

3.4.2.2 Alternative B – Proposed Action

Impacts to water quality and fisheries would generally be as described in Alternative A for activities outside the Placerville roadway. Spraying water on haul roads and mining sites would help reduce dust input to water bodies. The potential for sediment, generated from Mr. Scharff's operations, entering Town Creek or Slaughter House Gulch would be eliminated by implementing a 50' buffer between his mining operations and the stream channels. Requiring Mr. Scharff to provide a containment berm and lined basin for his diesel pumps would eliminate the potential for hydrocarbons to be spilled and enter the dredge pond.

The relocation of 600' of the Placerville road would disturb up to one acre of upland vegetation. Because the realigned road would be further from Slaughterhouse Gulch, the potential for sediment input from the road over the short term (as vegetation becomes established on berms and cuts) and long term would be less than Alternative A. Because of the area's topography and higher elevation, both east and west of the proposed realignment area, there would be no effects to water quality, riparian habitat, or fisheries in Grimes Creek or its tributaries.

3.5 Air Quality

3.5.1 Affected Environment – Air Quality

The area's air quality is considered good to excellent, with no known air concerns. However, fugitive dust is created as vehicles travel the County roads providing access to Centerville and other Boise Basin areas. This dust settles quickly or is dispersed by the prevailing winds.

3.5.2 Environmental Consequences – Air Quality

3.5.2.1 Alternative A – No Change/Continue Current Plan of Operations

Because of the small scale of Mr. Scharff's operations, there would be little impact to air quality. Fugitive dust could be created as pits are being dug with the backhoe, material loaded in and out of his dump truck, hauled to the processing area, and stockpiled material being dumped into the puddle box. No dust would be created by the gold processing as the water used to wash away oversized material eliminates dust.

3.5.2.2 Alternative B – Proposed Action

Impacts to air quality would generally be as described in Alternative A for activities outside the Placerville roadway. Spraying water on haul roads and mining sites would help reduce fugitive dust.

The 600' relocation of the Placerville Road would require use of mechanized equipment such as a road grader. Because of the area's flat topography, there would be no cut and fill required and, therefore, no trucks to haul material along the roadway. The existing surface material is coarse enough to use as road base, so there would be no need to import materials. Dust generated by the blading operations would be minimal, and could be reduced with the use of a water truck.

3.6 Visual Resource Management

3.6.1 Affected Environment – Visual Resource Management

The area of Mr. Scharff's mining site is classified as a VRM Class III management area. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The area has an unnatural state with dirt roads, piles of mined materials, and areas of little or no vegetation.

3.6.2 Environmental Consequences – Visual Resource Management

3.6.2.1 Alternative A – No Change/Continue Current Plan of Operations

Conditions would remain as they currently are, with barren dirt outcrops and mounds of placer-mined materials existing throughout the area. The mining activities would be noticeable, but because of their small size (one acre affected per year) and consistent reclamation efforts over the long term, the disturbed areas would not result in noticeable changes in form, line, contrast, or texture with historic mining activities.

3.6.2.2 Alternative B – Proposed Action

Impacts to visual resources would generally be as described in Alternative A for activities outside the Placerville roadway. The relocation of up to 600' of the Placerville Road would disturb up to one additional acre of vegetation; however, in the long term, once the road is relocated and the area mined and reclaimed, there would be no change in the existing landscape character.

3.7 Recreation

3.7.1 Affected Environment – Recreation

Much of the Boise Basin area experiences high levels of recreational use. Activities include dispersed camping and picnicking, recreational gold panning, late spring and summer OHV riding, fall hunting, and winter over-snow activities. Off-highway vehicle travel is limited to existing or designated roads and trails.

3.7.2 Environmental Consequences – Recreation

3.7.2.1 Alternative A – No Change/Continue Current Plan of Operations

Conditions would remain as they are at present. Mr. Scharff's operations would be conducted near the junction of two well-traveled roads and would not inhibit any recreational uses of the area. Unmarked excavations could be a safety hazard for OHV users that are riding cross-country instead of on existing roads and trails.

3.7.2.2 Alternative B – Proposed Action

Impacts to recreation would generally be as described in Alternative A for activities outside the Placerville roadway. Placement of berms or signs around larger excavations open for more than one mining season would improve safety for OHV users. The public and OHV users could experience delays as traffic is moved from the existing road to the newly relocated one.

3.8 Cultural Resources

3.8.1 Affected Environment – Cultural Resources

Placer mining activities in the Boise Basin began in the early 1860s. The town of Centerville was established in 1862, and flourished until after the turn of the century. It boasted a large Chinese population and, by 1870, more than half the residents were Chinese. Although their numbers and percentages declined afterwards, they remained in the area until at least 1910. Major fires in 1870 and 1910 destroyed most of the structures in Centerville. Those that did not burn later collapsed.

Because of the cultural resources that existed in the Centerville area, the BLM contracted with an archaeologist in 1993 to conduct an extensive archeological investigation on its lands surrounding Centerville. The investigation included archaeological excavations and historical researches that are contained in the monograph entitled "Uncovering a Chinese Legacy: Historical Archaeology at Centerville, Idaho" (USDI 2001). The primary purpose of the investigation was to provide mitigation for future mining activities in the area. Previous surveys and the archaeological excavation failed to find any prehistoric artifacts or features. Because of the heavily disturbed nature of the area, it is unlikely any still exist.

3.8.2 Environmental Consequences – Cultural Resources

3.8.2.1 Alternative A – No Change/Continue Current Plan of Operations

There is the potential that historical artifacts could be unearthed in the trenching and mining activities, but the BLM has determined that the only items of importance would be the discovery of human remains. Excavation activities could damage or destroy these resources and their associated context.

3.8.2.2 Alternative B – Proposed Action

The environmental consequences to historical artifacts would be the same described in Alternative A. The requirement to notify BLM immediately upon the discovery of human

remains would help the permittee conform with NAGPRA and Idaho law to minimize damage and maintain their context.

3.9 Social and Economic

3.9.1 Affected Environment – Social and Economic

Both year-round and summer residents live in the communities of Centerville, Placerville, Pioneerville, and Quartzburg. The only town with a well-established residential and commercial population is Idaho City, the County seat of Boise County, which is located 6.6 miles south of Centerville.

Since 2000, Idaho City has had a population increase of 10.7 percent, with 1,124 people living there in 2007. The 2000 census report shows that it is seven-tenths of a square mile, had 257 housing "units," median household income was $28,000, and 17% were below poverty level.

Idaho City's cost of living was 7.48% lower than the U.S. average. Its public schools spent $4,670 per student; the national average was $6,058. There were 15.4 students per teacher in Idaho City. The unemployment rate was 3.2 percent; the U.S. average was 4.6%. (http://censtats.census.gov/data/ID/1601639610.pdf)

3.9.2 Environmental Consequences - Social and Economic

3.9.2.1 Alternative A – No Change/Continue Current Plan of Operations

Mr. Scharff's mining operations are typical of the recreational and small–scale placer mining occurring in the Boise Basin. They are seasonal and would have little effect on the area's social or economic conditions. Like other miners, he mines by himself, lives during the summer in a fifth-wheel trailer on his unpatented mining claims, and repairs his own equipment. He does purchase fuel and supplies in Idaho City.

3.9.2.2 Alternative B – Proposed Action

The effects of Mr. Scharff's mining operations would be the same as Alternative A. The relocation of the 600' of the Placerville road would have no impact on social and economic conditions.

3.10 Cumulative Impacts

3.10.1 Environmental Consequences – Cumulative Impacts

The cumulative effects analysis area for this proposal is limited to Section 29 of T. 7 N., R. 5 E., Boise Meridian on the Association (IMC-13179), Association No. 1 (IMC-13180), and Association No. 2 (IMC-13181) placer claims. The effects would not extend outside the area because the proposed mining activity would be conducted at such a small scale that none of the effects described above extend beyond the immediate area described.

Past activities on this site include dredge and hydraulic placer mining that began in the 1860s on most of the land along Grimes Creek and its tributaries. This site has recovered from past mining activities and the proposed project would have negligible effects to the defined cumulative effects analysis area. Additionally there are no other present or reasonably foreseeable future projects proposed in the cumulative effects analysis area; therefore, by definition, there are no cumulative actions or impacts. There is no need to analyze effects beyond those directly and indirectly associated with the proposed action and alternatives.

4.0 Consultation and Coordination

4.1 Four Rivers Field Office Interdisciplinary Team Members who reviewed and provided input into this EA

Allen Tarter, Natural Resources Specialist, Hydrology/Water Quality
Dean Shaw, Cultural and Archaeological Resources
Christa Braun, Wildlife and GIS
Jeremy Bluma, Minerals Land Law Examiner
Valerie Lenhartzen, Boise District Geologist
Matt McCoy, Assistant Field Manager
Jon Beck, Planning and Environmental Coordinator
Allan Young, Minerals Lead for Locatable Minerals, Idaho State Office

4.2 List of Agencies, Organizations, and Individuals Consulted

Ted Scharff, Mining Claimant
Shoshone-Paiute Tribes

4.3 Public Participation

The public was notified in 2008 when the BLM listed the project on the Idaho NEPA webpage (http://www.id.blm.gov/planning/nepa/databases/index.php), and in 2009 on the ePlanning NEPA Register webpage (https://www.blm.gov/epl-font-office/eplanning/nepa/nepa_register.do). No comments were received from either posting.

5.0 References

Idaho Department of Fish and Game. 2005. Inland Redband Trout. 3 pp.

US Census Bureau. http://censtats.census.gov/data/ID/1601639610.pdf.

USDI (US Department of the Interior). 1988. Cascade Resource Management Plan Record of Decision. USDI, Bureau of Land Management. Boise, ID. 25 pp.

USDI (US Department of the Interior). 2001. Uncovering a Chinese Legacy: Historical Archaeology at Centerville, Idaho, Idaho Cultural Resources Series Number 5. USDI, Bureau of Land Management. Boise, ID. 211 pp.

US Environmental Protection Agency. 2010. Letter to Water Quality Division, Idaho Department of Environmental Quality. Boise, ID. 2 pp.

6.0 Attachments

Map 1 – General Location Map
Map 2 – Scharff Claim Block Map and Details of Road Realignment