

United States Department of the Interior Bureau of Land Management

Environmental Assessment DOI-BLM-ID-T020-2013-0028-EA

Goat Springs Quarry



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CHAPTER 1, PURPOSE AND NEED FOR ACTION

BACKGROUND

This environmental assessment (EA) has been prepared to disclose and analyze the environmental consequences of issuing a free use permit (FUP) to the Twin Falls Highway District for the quarrying and crushing of rock from the Goat Springs Quarry (the Quarry). The case file has been assigned the serial number IDI-37555.

The quarry is located approximately 5 miles southeast of Hollister, ID, in Boise Meridian, T13S R17E Section 18 and is shown in Map 1, the Project Location Map. The surface and mineral estates are public land administered by the Bureau of Land Management (BLM), Burley Field Office.

The area of the proposed FUP is an existing 15 acre quarry, with a proposed 2 acres of additional disturbance over the next ten years. The quarry was first authorized in 1995, and has been in regular operation by multiple private operators since that time. Material is blasted from an outcrop of limestone rock and processed to produce chips, aggregate and gravel. The material produced from the quarry is stockpiled on site until needed for specific projects.

Free use permits are typically issued to local highway departments or other non-profit or government organizations for purposes including resurfacing and maintaining local roads. This FUP is important to the local economy in the Twin Falls Area as it provides free material to the Twin Falls Highway District, which reduces cost to taxpayers. Free use permits also provide a local source of material which reduces hauling distances and increases efficiency. This quarry has been chosen for the quality of material, as well as strategic location to provide the shortest hauling distances.

PURPOSE AND NEED FOR ACTION

In May 2013 the Burley Field Office received an application from the Twin Falls Highway District for a FUP to operate in the Goat Springs Quarry. In accordance with 43 CFR 3600, BLM has an obligation to process this permit application. If issued, the permit would allow the Twin Falls Highway District to blast and crush up to 400,000 cubic yards (CY) of material over the ten year life of the permit. The Twin Falls Highway Department meets the qualifications for a FUP applicant, and has a need for crushed stone and gravel to build, resurface, and maintain roads.

CONFORMANCE WITH APPLICABLE LAND USE PLAN(S)

The Proposed Action is in accordance with the Twin Falls Management Framework Plan (MFP 1980). The Twin Falls MFP does not identify lands as open or closed to minerals development. However, Objective M-4 under the salable minerals section of the MFP is to:

“Provide for local needs of sand and gravel, borrow, and other varieties of salable minerals to meet the requirements of the building construction industry, for road construction and maintenance, and for other private non-commercial use.”

RELATIONSHIP TO STATUTES, REGULATIONS OR OTHER PLANS

The following statutes and regulations are applicable to the authorization of FUP's for the exploration and extraction of mineral materials.

43 CFR 3604 – Free Use of Mineral Materials: Establishes procedures for the exploration, development, and disposal of mineral material resources on public lands, and for the protection of the resources and the environment.

Mineral Materials Act, July 31, 1947 as amended: This authority applies to sales and free use of mineral materials.

Section 302 of the Federal Land Policy and Management Act of 1976: Provides the general authority for BLM to manage the use, occupancy, and development of the public lands under the principals of multiple use and sustained yield in accordance with land use plans.

National Environmental Policy Act of 1969: This EA has been prepared for compliance with the National Environmental Policy Act of 1969 (NEPA). The EA analyzes the potential environmental effects that may be associated with proposed quarrying activities detailed in the Mining Plans submitted to the BLM. The EA will also assist the BLM, in determining whether an Environmental Impact Statement (EIS) would need to be prepared if a Finding of No Significant Impact (FONSI) cannot be reached.

Idaho Instruction Memorandum (IM) 2012-43: Greater-Sage Grouse Interim Management Policies and Procedures, outlines the interim conservation measures to be implemented while BLM develops and decides how to best incorporate long-term conservation measures for the Greater Sage-Grouse into applicable Land Use Plans (LUP). Specifically regarding saleable minerals, the IM states:

It is BLM policy that where a field office determines that it is appropriate to issue an authorization, the following process must be followed:

- *The BLM will document the reasons for its determination and implement measures to minimize impacts to sage-grouse habitat.*
- *In addition to considering opportunities for onsite mitigation, the BLM will, to the extent possible, cooperate with project proponents to develop and consider implementing appropriate offsite mitigation that the BLM, coordinating with the respective state wildlife agency, determines would avoid or minimize habitat and population-level effects (refer to WO-IM-2008-204, Off-Site Mitigation). When developing such mitigation, the BLM should consider compensating for the short-term and long-term direct and indirect loss of Greater Sage-Grouse and its habitat.*
- *Unless the BLM determines, in coordination with the respective state wildlife agency, that the proposed pit and mitigation measures would cumulatively maintain or enhance Greater Sage-Grouse habitat, the proposed pit authorization decision must be forwarded to the appropriate BLM State Director, State Wildlife Agency Director, and FWS representative for their review. If this group is unable to agree on the appropriate mitigation for the proposed authorization, then the proposed decision must be forwarded to the Greater Sage-Grouse National Policy Team with the addition of the State Wildlife Agency Director, when appropriate, for its review. If the National Policy Team and the*

State Wildlife Agency Director are unable to agree on the appropriate mitigation for the proposed authorization, the National Policy Team will coordinate with and brief the BLM Director for a final decision in absence of consensus.

- Exception- Pit Expansion Only: New permits may be issued for pit expansion, provided there are no adverse effects on Greater Sage-Grouse and its habitat.

SCOPING, PUBLIC INVOLVEMENT, AND ISSUES

This project has been listed on the NEPA Register since June 17, 2013. On July 5, 2013 scoping packages were mailed to 6 interested organizations and 5 interested members of the public. The scoping package solicited comments for a 30 day period. BLM received comments from four organizations during this period. These comments were reviewed and several issues were identified. Issues identified through scoping which were determined to be important for analysis of effects or were incorporated as design features to refine alternatives are discussed below.

Idaho Fish and Game (IDFG) provided information regarding wintering mule deer in the areas adjacent to the quarry; these concerns were addressed with stipulation number 12 and are addressed in the wildlife section. Idaho Fish and Game also provided information regarding greater sage-grouse and Columbian sharp tailed grouse, and recommended addressing the direct, indirect and cumulative impacts to the species' from the Proposed Action. This information and the impacts to these species are addressed in the wildlife section of this EA.

The Jones Corporation, had concerns regarding dust control at the project area. As per stipulation number four, adequate dust abatement measures will be taken by the TFHD. Impacts to air quality are addressed in the air quality section of this EA.

WT Williams Inc. is the grazing permittee on the Squaw Joe grazing allotment, which the project area is a part of. WT Williams had a number of concerns including limiting damages to their range improvement projects, and repair of these projects if they are damaged. Stipulation number seven addresses the issue of range improvements and instructs the TFHD to avoid the improvements and repair these improvements if damaged.

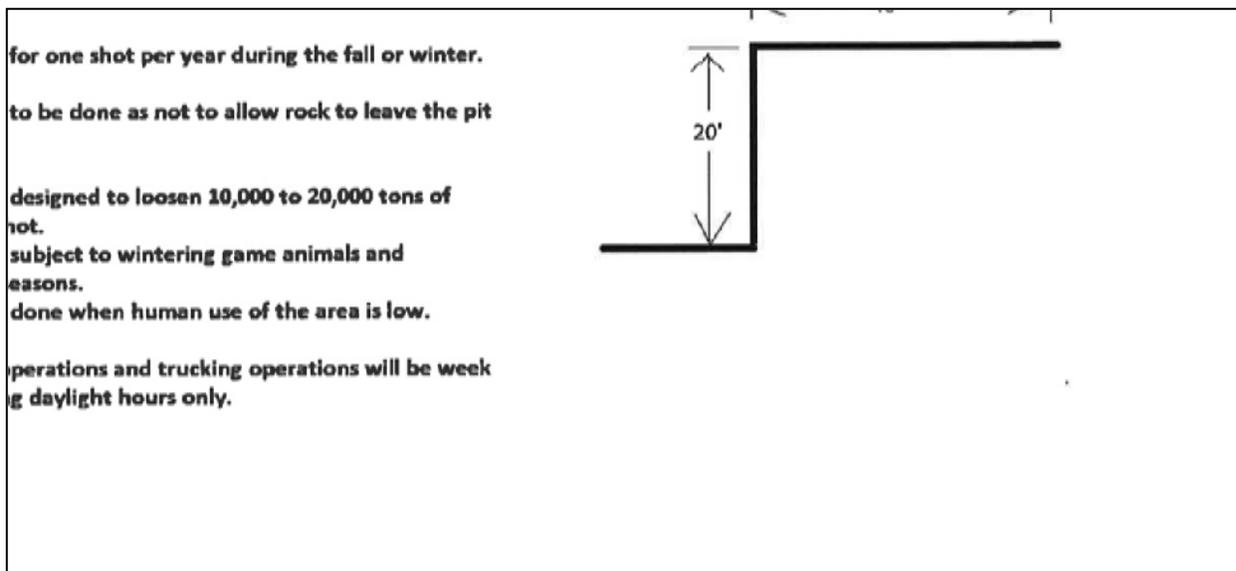
Idaho Conservation League (ICL) had a number of comments, primarily concerning greater sage-grouse conservation methods. A number of ICL's comments directed BLM to look at the Conservation Plan for Greater Sage-Grouse in Idaho. Idaho BLM is in the process of amending RMPs statewide and the Idaho Sage grouse Task Force Recommendations were submitted to BLM as an alternative. Currently the BLM has similar guidelines for decisions on public lands that have been applied through this analysis as described in the *Relationship to Statutes, Regulations, or Other Plans* section of this EA. Effects to sage grouse habitat and their populations are discussed in the *Threatened/Endangered Animals; Sensitive Animals; Migratory Birds* section of this EA. One comment asked BLM to consider impacts of invasive exotic plant species; stipulation number 14 would require TFHD to control noxious weeds in the project area. Noxious weeds are addressed in the Noxious Weed and Invasive Species Section of this EA. One comment expressed concern regarding mule deer winter range; this is addressed in stipulation 12 and in the wildlife section of this EA. One comment expressed concern regarding public access to BLM lands surrounding the project area. This project would not limit access to any of the surrounding BLM administered lands. One comment encouraged BLM to identify and mitigate sedimentation from erosion and heavy rainfall events. Stipulation five would require TFHD to maintain erosion control structures to keep storm water runoff within the quarry area.

CHAPTER 2, PROPOSED ACTION AND ALTERNATIVE(S)

PROPOSED ACTION

BLM is proposing to issue a FUP to the Twin Falls Highway Department for the quarrying and crushing of rock from the Goat Springs Quarry. BLM would issue the FUP for up to 400,000 CY of material (crushed base gravel and chips) to be quarried over ten years. Material would be blasted from the rock face dependent on supplies of rock and weather conditions, and would likely occur once per year. Figure 1 below shows a generalized benching diagram and discusses blasting and crushing operations that would occur within the quarry.

Figure 1: Benching Diagram and Proposed Blasting Plan



Quarry operations would occur throughout the year, and would vary depending on road maintenance needs. While Twin Falls Highway District could operate daily, operations are dependent upon project needs and the quarry will likely sit idle for weeks or even months at a time. Map 2 shows the current extent of the quarry (15 acres), as well as the proposed area of new disturbance (2 acres). Operations include crushing, loading and hauling of processed material to stockpiles on the floor of the quarry where it would be stored until needed for projects. Equipment used would include crushers, screens, conveyors, generators, loaders, and bulldozers. A small pull-behind hot mix asphalt plant would also be used when necessary for road projects.

STIPULATIONS

The following stipulations will be included as a part of the permit:

1. The TFHD shall comply with the submitted mining and reclamation plan with the addition of the following stipulations and mitigation measures, as well as any mitigation measures selected for implementation by the authorized officer.
2. Access is limited to use of existing roads. Twin Falls Highway District shall not close roads or trails commonly in public use.
3. Any fuel, petroleum products, or hazardous materials are to be stored in secondary containment areas.
4. The TFHD shall take appropriate measures for abating dust including but not limited to watering roads during operational periods. This includes dust control while conducting crushing operations if necessary.
5. Berms will be constructed and maintained on the south and east sides of the quarry to ensure all runoff remains within the quarry.
6. For safety of the public, no high, steep banks conducive to cave-in will be left in the quarry area after any gravel removal operation. Interim slopes shall be 1:1 or flatter, or benched so that no vertical face will be left greater than 20 feet, as described in the mining plan.
7. The TFHD will repair, restore, or replace any presently existing or subsequently installed range improvements such as roads, fences, wells, pipelines, etc. which are damaged or demolished by the TFHD's use of the permitted area. Such repairs or replacements shall be made in acceptable manner and to the satisfaction of the authorized officer.
8. The TFHD will be responsible for cleanup of all waste and prompt disposal at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, old asphalt, and equipment.
9. All topsoil and/or overburden will be stripped and stockpiled separately. Topsoil and overburden will be used during reclamation.
10. No surface disturbance or construction will be allowed within 50 feet of roads, structures, or fences. Any deviation from this requirement shall have the prior written approval of the authorized officer.
11. Migratory birds may now or hereafter be found to utilize habitats within and adjacent to the Goat Springs Quarry. To avoid the potential take of migratory birds, no vegetation disturbing activities are to occur during the migratory bird nesting season from March 15 to July 31. Additionally, migratory birds have been observed nesting in overburden piles and highwalls. If occupied migratory bird nests, cavities, or burrows are found within the project area, operations must immediately cease and the authorized officer notified. The authorized officer will coordinate with the U.S. Fish and Wildlife Service and notify the operator how to resolve the issue. Avoiding vertical escarpments would minimize the potential for migratory birds to initiate nesting.
12. To minimize impacts to wintering mule deer, gravel operations may be limited between January 16th to March 15th. In the event of severe weather during the aforementioned dates gravel operations may be prohibited or altered.

13. The project area may now or in the future contain threatened, endangered, or special-status plants and/or animals, or their habitats. BLM may require modifications to, or disapproval of, ongoing and/or proposed activities that may harm such species or their habitat. Project specific studies may be required to inventory special status species prior to activities that have the potential to harm these species or their habitat. BLM will not approve ground-disturbing activities that may affect such species or critical habitat until it completes its consultation obligations under applicable requirements of the Endangered Species Act as amended, 16 USC 1531 et seq., including implementation of additional mitigation requirements necessary to avoid impacts to special status species.
14. The TFHD is responsible for preventing the spread of noxious weeds designated by the State of Idaho (www.idahoweedawareness.net) or other invasive plants. If these species are encountered in the project area, the TFHD is responsible for control using BLM approved herbicide or treatments.
15. Twin Falls Highway District shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archeological site, structure, building, or object on Federal lands. Twin Falls Highway District shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. All operations in the immediate area of such a discovery shall be suspended until written authorization to proceed is issued by the authorizing officer.
16. A production report will be submitted annually.
17. Compliance inspections will be conducted at least twice yearly by the BLM. If any deficiencies are noted, the TFHD will be contacted. If the TFHD fails, after adequate notice, to observe the terms and conditions of the permit, the authorized officer may cancel the permit.
18. Reclamation, including contouring and seeding, will be completed on areas that are depleted of gravel and are no longer needed for processing or stockpiling in the fall following depletion. The TFHD shall contact the Burley Field Office for a biologist recommended native seed mix. Best times for seeding are Fall through early Spring.
19. Prior to final termination of the permit, the TFHD shall contact the authorized officer to arrange a joint inspection to plan final reclamation of the site.
20. Upon termination of operations at the site, the disturbed area would be shaped to blend into the surrounding land contours and adequate drainage provided for. Stockpiled topsoil would be replaced, and the site would be re-vegetated by the TFHD.
21. All applicable State and Federal laws and regulations must be complied with.

ALTERNATIVES ANALYZED IN DETAIL

NO ACTION

Under this alternative, a FUP similar to the previous permit would be issued to the Twin Falls Highway District. Operations under the No Action Alternative would be similar to the Proposed Action, but would be limited to the existing disturbance area.

CLOSURE OF THE GOAT SPRINGS QUARRY (CLOSURE)

Under the Closure Alternative, the FUP to the Twin Falls Highway District would not be issued. The quarry would sit idle and would not be occupied by an operator. The BLM would likely attempt to secure funding for reclamation work, however, the amount of funding and success of reclamation efforts is not known at this time.

CHAPTERS 3&4, AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The No Action alternative reflects the current/previous level of use within the project area and will serve as the baseline for comparing the environmental effects of the analyzed alternatives.

During the analysis process, the interdisciplinary team considered several resources and supplemental authorities. The interdisciplinary team determined that the resources discussed below would be affected by the Proposed Action.

The cumulative effects area (Map 3) was determined by a four mile radius surrounding the quarry. The total cumulative effects area is about 32,200 acres and includes a diverse land ownership including BLM, US Forest Service, State of Idaho, and privately held lands.

AIR QUALITY

The Clean Air Act requires the Environmental Protection Agency (EPA) to set the National Ambient Air Quality Standards (NAAQS) to protect human health and safeguard public welfare. The EPA has set standards for six criteria pollutants: ozone, particulate matter, carbon monoxide, sulfur dioxide, lead, and nitrogen dioxide. An air shed must satisfy standards for these six pollutants to ensure compliance with the NAAQS.

The Idaho Department of Environmental Quality (IDEQ) is responsible for monitoring air quality in Idaho. Historically, the two most common criteria pollutants of concern in Idaho are particulate matter and carbon monoxide. In 2010, the IDEQ released the most recent Air Quality Monitoring Data Summary (IDEQ, 2014). According to the 2010 Air Quality Monitoring Data Summary, all areas of the state met the standards for both particulate matter and carbon monoxide.

Particulate matter is widespread throughout Idaho and sources include windblown dust, re-entrained road dust, smoke, industrial emissions, and motor vehicle emissions. In 2010 the air quality for Twin Falls County was rated good 98% of the days and moderate for 2% of the days (IDEQ, 2014).

No Action

Air quality impacts are expected to be confined to the immediate areas of the quarry, resulting from blasting, crushing, and hauling operations. Dust abatement measures required by

stipulation number 4 would mitigate the effects from hauling materials and quarry operations. Emissions of carbon monoxide would occur during operations of equipment, trucks and generators. During periods of high winds dust may also be blown from the site. NAAQS standards are not expected to be exceeded due to the duration of emissions and the overall low amount to pollutants emitted in the general area.

Proposed Action

Effects from the Proposed Action would be similar to the No Action.

Closure

Under this alternative, no permit would be issued, and quarry would sit idle. There may be periods when dust from the disturbed area blows off site, however these occurrences would be limited to extreme wind events.

Cumulative Effects

Past activities such as gravel pit development have resulted in dust and particulate matter from increased road traffic and construction activities. Currently there is one other mineral material site on BLM land within four miles of the Dry Gulch Quarry. This site is the Idaho Transportation Department (ITD) material site TF-25 which is about ¼ mile north of the Goat Springs quarry. This material site operates sporadically throughout the year and produces carbon monoxide and dust from operations. Air quality impacts could also occur during the construction of the Southwest Intertie Project (SWIP) transmission line. Dust and particulate matter would increase during the construction phase of the project due to construction activities. The cumulative impacts to air quality would not be likely to exceed the NAAQS standards because emissions would be similar to those that have occurred for the last several years.

MINERALS

The quarry is located on the northwest corner of the South Hills. The South Hills are primarily composed of a “core” of sedimentary and metamorphic rock, mainly quartzite and limestone. On top of this “core,” is a thick blanket of younger volcanic ash (tuff) and volcanic pyroclastic flow deposits (rhyolite). These volcanic deposits range from hundreds to over a thousand feet thick and are the primary unit that is exposed at the surface. The area of the quarry is a rare exposure of limestone that is exposed from below the volcanic deposits. This area and the State quarry to the north are the only exposures of limestone on the west and northern end of the South Hills. The surface exposure of this limestone is roughly 600 acres.

No Action

The No Action Alternative would be to issue a permit similar to the current level of activity (no additional ground disturbance). This alternative would allow Twin Falls Highway District to safely mine, crush, and utilize the quarry to mine roughly 300,000 CY of material safely from the site. Operations would be limited by the peninsula of unused material that juts into the

quarry area. As the operator mines downward, benching the quarry as they mine, the quarry area would become constricted and it would limit the quarrying operations. This alternative would not meet the TFHD's projected need of 400,000 CY of material over the next ten years.

Proposed Action

The Proposed Action would be to issue a permit similar to the current level of activity; however, Twin Falls Highway District would be allowed to expand the quarry two additional acres. This would allow TFHD to mine out the peninsula of material that extends into the quarry, and allows for minor expansion around the edges of the quarry. Under this alternative there is potential to utilize at least 600,000 CY of material. This would meet the TFHD's projected need of 400,000 CY of material over the next ten years. There would likely be another 600,000 CY that could be utilized in future operations, depending on how deep the quarry is mined.

Closure

Under the closure alternative, the quarry would sit idle and no additional minerals would be utilized from this site.

Cumulative Effects

The Burley Field Office currently has 36 FUP's issued throughout the field office. In 2013, the production from all the FUP's was 78,000 CY of material. If the full amount of material is quarried every year, this would increase the total production of mineral materials in the Burley Field Office by roughly 40,000 CY per year. The TFHD also has two other BLM material sites in the Burley FO, it would be expected that as the Goat Springs Quarry is used more, these other sites would be used less.

RECREATION

Adjacent to the project area, recreational opportunities include hunting, hiking, biking, and OHV use.

No Action

Under the No Action alternative, there would be no change from the current management of the quarry. Recreationists would be excluded from the immediate quarry area (15 acres), but would be able to utilize the surrounding areas. Impacts such as truck traffic on the access road, noise from blasting, crusher operation, and heavy equipment operations may deter use adjacent to the quarry.

Proposed Action

Under the Proposed Action, there would be a slight expansion and recreationists would be excluded from the immediate quarry area (17 acres), but would be able to utilize surrounding areas. Other impacts would be similar to the No Action Alternative.

Closure

Under the Closure Alternative the quarry would be closed, but access would be restricted due to safety issues with the high walls and falling rock. Fifteen acres would be excluded from the use of recreationists.

Cumulative Effects

The Indian Springs Trails Project is currently in development stage, and would manage and potentially expand mountain biking opportunities to the Northwest of the project area. The SWIP transmission line has been granted a 200 foot Right of Way (ROW) and traverses about 9 miles of the cumulative effects area. Other projects that have or could potentially impact recreation within the cumulative effects area include existing power lines and ROW's and their maintenance, a potential wind project that BLM has received an application for but is currently on hold, and private land uses.

Under all of the alternatives, impacts to recreation would be similar to those currently in existence.

VEGETATION

The proposed project area is in the Northern Basin and Range Ecoregion. Ecoregions are designated by the US Environmental Protection Agency and the Commission for Environmental Cooperation as delineated areas with similar geology, physiography, vegetation, climate, soils, and hydrology. The Northern Basin and Range Ecoregion contains arid tablelands, inermontane basins, dissected lava plains, and scattered mountains. The quarry is located in a native plant community. Dominant plant species surrounding the quarry include black sagebrush, low sagebrush, Wyoming big sagebrush, rabbitbrush, bluebunch wheatgrass, Sandberg bluegrass, cheatgrass, and a variety of annual and perennial forbs.

No Action

Under the No Action alternative, the current level of disturbance would be maintained. The quarry would be reclaimed when mined out, and the project area would be re-vegetated.

Proposed Action

If the Proposed Action is implemented, an additional two acres of vegetation would be disturbed. The peninsula of unmined material jutting into the quarry from south to north has already been

partially disturbed by heavy equipment driving over it, and by an access road that bisects it from southwest to northeast. Under the Proposed Action this area, as well as a slight expansion outwards from the currently disturbed area would be mined, resulting in the loss of two acres of vegetation. The quarry area would be reclaimed when it is fully mined out, and the area would be re-vegetated.

Closure

Under the Closure alternative, the quarry would naturally re-vegetate, taking many years for native vegetation to reclaim the site. This would also leave the site in a disturbed state. The BLM would likely attempt to secure funding for reclamation efforts, however the success of these efforts is currently unknown.

Cumulative Effects

Past, present and current projects that have impacted the vegetation in the cumulative effects area include the Squaw Joe Plow and Seed range improvement project, completed in 1988. The Squaw Joe Plow and Seed project plowed under 190 acres and seeded with crested wheatgrass, Russian wildrye, alfalfa, and four wing saltbush. This project was implemented and the area is currently primarily vegetated with Wyoming sagebrush, four wing saltbush, crested wheatgrass, and Russian wildrye. The ITD gravel pit immediately to the north of the project area is currently roughly 40 acres, and there are plans to expand it to 100-150 acres over the next 50 years. This project would likely be phased, with concurrent reclamation and only portions of the 150 acres disturbed at a time. The SWIP power line would create disturbance through the 12 mile section that would be constructed through the cumulative effects area. Disturbance from SWIP would include pads for the towers to be constructed and roads for access and maintenance of the project. The Oreana-Hunt 230 KV transmission line has already been constructed and disturbed ground along its route including an access road, and areas around the towers. Other existing power lines and ROW's have disturbed ground and been maintained for roads and access. Range improvements including pipelines, fences and cattleguards and fences have disturbed ground when they were implemented, and will continue to disturb small amounts of ground for maintenance. The disturbance caused by range improvements is typically seeded to reclaim and is re-vegetated within one or two growing seasons. The Shoshone Basin Grazing Permit Renewal EIS is currently in early development stages, but will likely propose some additional range improvements.

Cumulatively, the amount of disturbed area throughout the South Hills area would remain similar to that which currently exists. Under the No Action Alternative, no additional disturbance would occur, and at the end of the permit, 15 acres of currently disturbed land would be re-contoured and seeded. Under the Proposed Action, two acres of new disturbance would occur, and 17 acres of disturbed land would be re-contoured and seeded at the expiration of the permit. Under the Closure Alternative, the site would naturally re-vegetate.

NOXIOUS WEEDS AND INVASIVE PLANTS

Noxious weeds previously observed and treated on site or adjacent to the site include whitetop, diffuse knapweed, scotch thistle, and bull thistle. Invasive annual plants (cheatgrass, halogeton, and tumble mustards) can be found in disturbed areas throughout the quarry. The previous permittee was responsible for treating weeds in the quarry.

No Action

Under the No Action Alternative, TFHD would be required to treat all noxious weeds within the project area. Within the project area, 15 acres of disturbance would be maintained over the life of the permit. This disturbed area would be monitored and treated by the TFHD.

Proposed Action

Impacts under the Proposed Action would be similar to the No Action, except a total of 17 acres of disturbance would be treated.

Closure

No change in the amount of noxious weeds is expected to occur under the Closure alternative. The quarry would be closed, and BLM would be responsible for managing the noxious weed treatments in this area. The areas of bare ground would over time naturally re-vegetate, however this process would likely take many years, and BLM would need to continue noxious weed management actions throughout these years.

Cumulative Effects

Cumulatively, the potential for establishment of new infestations of noxious weeds and invasive plants throughout the cumulative effects area would remain similar to the potential that currently exists. Reclaiming the quarry at the end of its usable life would reduce the potential only on those acres and is not likely to reduce the overall potential for establishment of new infestations. The Closure alternative would require that BLM monitor the area more intensively, as there would no longer be a permittee responsible to monitor and treat noxious weeds.

Other activities that have the potential to spread noxious weeds include; OHV use, use of existing materials sites, livestock grazing, and trails users and the adjoining pit. BLM authorized uses such as construction of the SWIP transmission line and maintenance and use of existing ROWs and roads include measures to prevent or control establishment of noxious weeds and invasive plants. BLM would continue to treat infestations of noxious weeds and would continue to work cooperatively with the Twin Falls County Weed Superintendent to reduce noxious weeds.

WILDLIFE RESOURCES

THREATENED, ENDANGERED, AND CANDIDATE SPECIES

The Endangered Species Act (ESA) provides protection for federally listed species (i.e. threatened or endangered) and their habitats (FWS 2013). ESA prohibits the take of listed species and their habitats; take is defined as "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct (FWS 2013)". The U.S. Fish and Wildlife Service (FWS) also maintain a list of candidate species. Candidate species are species classified "...as warranted for listing, but precluded due to greater listing priorities (FWS 2013)".

The Goat Springs gravel pit is located in Twin Falls County, ID. There are two candidate species within Twin Falls County: Columbia spotted frog (*Rana luteiventris*) and Greater sage-grouse (*Centrocercus urophasianus*). There are three listed species within Twin Falls County: Bliss rapids snail (*Taylorconcha serpenticola*) [Threatened], Snake River Physa (*Haitia* (Physa) *natricina*) [Endangered], and Canada lynx (*Lynx Canadensis*) [Threatened] (FWS 2014). The following table describes the occurrence potential of the aforementioned listed and candidate species and provides rationale for the effects determination.

Table 1. ESA listed species and candidate species within Twin Falls County, ID. Species occurrence information was obtained from the FWS Information Planning and Conservation System (Version 1.4); Accessed March 20, 2014.

<u>Species</u>	<u>Occurrence Potential</u>	<u>Effects Determination</u>
Snake River Physa (<i>Haitia</i> (Physa) <i>natricina</i>)	<ul style="list-style-type: none"> No habitat present. 	No Effect
Bliss rapids snail (<i>Taylorconcha serpenticola</i>)	<ul style="list-style-type: none"> No habitat present. 	No Effect
Canada Lynx (<i>Lynx canadensis</i>)	<ul style="list-style-type: none"> No critical habitat present within Twin Falls County. The Goat Springs gravel pit area does not provide suitable habitat and there are no known occurrences of this species within the South Hills. 	No Effect
Columbia spotted frog (<i>Rana luteiventris</i>)	<ul style="list-style-type: none"> Does not occur within or adjacent to the Goat Springs gravel pit. There are no perennial lotic or lentic bodies of water present. 	No Effect
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	<ul style="list-style-type: none"> Occurs. This species utilizes seasonal habitats immediately adjacent to the Goat Springs gravel pit. 	Candidate species. Refer to analysis under BLM sensitive species subheading.

BLM SENSITIVE SPECIES

The following are the BLM sensitive species, excluding migratory birds, which are known to occur or potentially occur in the region and are potentially affected by operations at the Goat Springs gravel pit: Greater sage-grouse, Piute ground squirrel, prairie falcon, Columbian sharp-tailed grouse, loggerhead shrike, sage sparrow, Wyoming ground-squirrel, and kit fox. Migratory bird species recognized as BLM sensitive species are analyzed under the migratory bird subheading (i.e. loggerhead shrike and sage sparrow).

Table 2. BLM sensitive species potentially impacted by operations at the Goat Springs gravel pit.

<u>Species</u>	<u>Occurrence Potential</u>
Greater sage-grouse	Occurs. This species is known to be locally abundant. Sage-grouse have been documented to use seasonal habitats within the South Hills (IDFGa, Unpublished Data). There are 6 leks within ^A 4.0 miles of the gravel pit. The management status for these leks is: Occupied (5) and Undetermined (1) (IDFGb, 2012).
Piute ground squirrel	Potential. There are no known occurrences of this species within the vicinity of the Goat Springs gravel pit. Suitable habitat is present. The range of distribution for this species encompasses the South Hills (Yensen and Sherman 2003).
Columbian Sharp-tailed Grouse	Occurs. This species is known to occur in the South Hills. IDFG has released Columbia sharp-tailed grouse in the Shoshone Basin (SBLWG 2008). Sharp-tailed grouse have been documented to inhabit the South Hills year round, including habitat adjoining the Goat Springs gravel pit. There are 4 documented lek sites within ^B 4.0 miles of the Goat Springs gravel pit. The management status of these leks is occupied (IDFG 2012c).
Wyoming ground squirrel	Potential. There are no known occurrences of this species within the vicinity of the Goat Springs gravel pit. Suitable habitat is present. The range of distribution for this species encompasses the South Hills (Yensen and Sherman 2003).
Kit fox	Potential. Kit fox have been documented in Southern Idaho (IDFG 2012a). There are no element occurrence records of a kit fox in the vicinity of the South Hills.

^A 4.0 miles represents the protective spatial buffer afforded Greater sage- grouse concerning potentially disruptive activities, as per BLM guidance identified in Idaho Instruction Bulletin 2010-039 (BLM 2010).

^B 4.0 miles represents the protective spatial buffer afforded Columbian sharp-tailed grouse concerning potentially disruptive activities when sharp-tailed grouse leks occur near Greater sage-grouse leks, as per BLM guidance identified in Idaho Instruction Bulletin 2010-039 (BLM 2010).

Greater sage-grouse:

Greater sage-grouse are classified as a candidate species for listing under the ESA (FWS 2010). Greater sage-grouse are known to occupy seasonal habitat in the South Hills (IDFG 2012b, SBLWG 2008, IDFGa *Unpublished Data*). Greater sage-grouse inhabiting the South Hills are part of the “NE Nevada S-Central ID/NW-UT” subpopulation of the “Great Basin Core” population (Connelly et al. 2004). This sub-population is also part of the “Snake River Plain sage-grouse management zone” (Stiver et al. 2006). The subject area is located within the administrative boundary of the Shoshone Basin Sage-grouse Local Working Group.

In addition to the presence of six Greater sage-grouse leks within four miles of the Goat Springs gravel pit, telemetry data has verified that Greater sage-grouse breeding on Browns Bench inhabit seasonal habitats adjacent to the Goat Springs gravel pit during the spring, summer, and

fall (IDFGa *Unpublished Data*). The area surrounding the pit is known to provide quality habitat for sage-grouse. The area is predominately comprised of a native vegetative community. There is a mosaic of sagebrush with an understory of native perennial grass and forbs. Exotic grasses (i.e. cheatgrass and crested wheatgrass) are present, but not dominant. Greater sage-grouse scat was observed approximately ¾ mile north of the project area during a field evaluation completed during the summer of 2012.

Key Habitat

Idaho BLM maintains a landscape scale Greater sage-grouse habitat map. This map is commonly referred to as the “key habitat map”. The key habitat map provides a spatial representation of five habitat classifications within the state. Habitat classifications include: key sage-grouse habitat (K), perennial native and non-native grassland (R1); annual grassland (R2); conifer encroachment (R3); and recently burned (RB) (ISAC 2006, BLM 2012). Refer to Table 3 for an approximation of each habitat classification within the Shoshone Basin Greater Sage-grouse Local Working Group planning area.

Table 3. Greater sage-grouse habitat classifications within the Shoshone Basin Sage-grouse Planning Area (ISAC 2006, BLM 2012).

<u>Habitat Classification</u>	<u>Acres (Circa)</u>
Key habitat (K)	203, 819
Perennial native and non-native grassland (R1)	90, 232
Conifer encroachment (R2)	0
Annual grassland (R3)	37
Recently burned (RB)	4,574

Preliminary Priority/General Sage-grouse habitat

The project area is classified as preliminary priority sage-grouse habitat (PPH). PPH is a representation of key habitat, known concentration areas, and important migration corridors (Makela and Major 2012, *Unpublished Data*).

Landscape Importance Model

The Goat Springs gravel pit does not show up as an area of greatest relative importance as portrayed within the landscape importance model. The landscape adjacent to (east) is classified as greater relative importance. “Those habitats of greater relative importance represent portions of the landscape where the combination of lek connectivity, breeding bird density and/or population persistence appears to be comparatively high, relative to other areas of the map (Major 2011, *Unpublished Data*)”. IDFG telemetry data, firsthand knowledge, and information collected during field evaluations corroborate that this area is important for both Greater sage-grouse and Columbian sharp-tailed grouse.

Migratory Birds

The following are the migratory bird species of conservation concern and focal species, which are known to occur or suspected to occur within the South Hills and are potentially affected by operations at the Goat Springs gravel pit: Brewer’s sparrow, golden eagle, burrowing owl, loggerhead shrike, mourning dove, prairie falcon, sage sparrow, sage thrasher, and green-tailed towhee. Other migratory birds of non-sensitive status are known to occur in the South Hills as well. The pit walls and overburden piles of the Goat Springs gravel pit actually provide habitat for some species. A colony of bank swallows has been observed actively nesting in one of the overburden piles.

Table 4. Migratory bird species (sensitive status) potentially impacted by the action.

<u>Species</u>	<u>Occurrence Potential (Occurs, Likely, Potential)</u>
Brewer’s sparrow	Occurs. This species is frequently observed within sagebrush habitats throughout the South Hills.
golden eagle	Occurs. Golden eagles are known to occupy the South Hills year-round. Golden eagles have been documented to nest within the South Hills. There is one suspected golden eagle territory within ^A one mile of the Goat Springs gravel pit (BLM 2011). Golden eagles are known to be winter transients to the South Hills as well. Golden eagles are frequently observed in the South Hills.
burrowing owl	Potential. This species is commonly observed throughout the South Hills. There are no identified burrow locations for this species within one mile of the Goat Springs gravel pit. If present this species would be expected to occur in areas with reduced topographic variation and reduced shrub canopy cover.
loggerhead shrike	Likely. This species is known to inhabit sagebrush habitats throughout the South Hills.
Mourning dove	Occurs. An active nesting location for this species was located during a field evaluation to the project area.
prairie falcon	Occurs. This species is known to inhabit the South Hills. There are no known nesting locations within a mile of the Goat Springs gravel pit. This species would be expected to utilize the area while foraging.
sage-sparrow	Likely. This species is known to occur within the South Hills.
sage thrasher	Likely. This species is known to occur within the South Hills.
Green-tailed towhee	Occurs. This species is known to occur in the South Hills.

^A A one mile buffer represents the greatest protective spatial buffer afforded nesting raptors as identified in Whittington and Allen (2008) and adopted in BLM Instruction Bulletin 2010-039a.

WILDLIFE; OTHER THAN THREATENED, ENDANGERED, AND SENSITIVE

The South Hills provide habitat for a variety of non-sensitive species of wildlife, including big game, small game, upland game, and non-game species. Big game species known to occupy the South Hills include: elk, mule deer, and pronghorn. The Goat Springs gravel pit contains mule

deer and pronghorn winter habitat. Mule deer are known to utilize habitat adjacent to the subject pit (IDFGb, unpublished data). Moreover, the surrounding area is known to provide quality habitat and forage for mule deer. A variety of nongame wildlife species, including migratory birds and small mammals, are known or suspected to inhabit the South Hills as well.

No Action Alternative

Direct and Indirect Effects to Wildlife Resources:

The No Action alternative would authorize mining year-round within the existing footprint, which would maintain the disturbed area in bare ground until successfully reclaimed. Direct impacts to wildlife resources via habitat loss and fragmentation have largely manifested. Indirect impacts from noxious and invasive weed proliferation are a threat. Currently the pit is inactive and no reclamation work has been conducted. Colonization of weeds in disturbed areas, particularly those without healthy perennial vegetation, is a well-known adverse impact. Noxious weed infestations have been documented within the gravel pit in the past. Noxious weeds previously observed and treated on site or adjacent to the site include whitetop, diffuse knapweed, scotch thistle, and bull thistle. Invasive annual plants (cheatgrass, halogeton, and tumble mustards) can be found in disturbed areas throughout the quarry. Weed abatement is required as a condition of approval to alleviate the threat of noxious weed proliferation.

Impacts to sage-grouse from the No Action alternative would occur largely due to noise pollution and human activity. Activities at the quarry would be sporadic varying from long expanses of no activity to intense short-term and long-term bouts of mining. Considerable equipment is utilized in the process of mining gravel. Equipment such as crushers, dozers, generators, passenger vehicles, excavators, and tractor trailers are present and actively operating during times of high activity. Explosives would also be used to extract large blocks of material for crushing operations.

Noise pollution and human activity attributed to operations are expected to be the most prominent direct impact associated with the proposed activity. Wildlife resources sensitive to noise emissions and human activity would be disturbed during mining operations. Those species sensitive to these impacts would be expected to seek refuge from disturbance in adjacent areas of habitat that are either removed from the influence of the action or shielded. Prolonged activity could permanently displace certain species. Most species are expected to return to adjoining habitats and behavior during periods of non-use.

The Goat Springs gravel pit is classified as mule deer winter habitat. Access to quality winter habitat, particularly during inclement weather, is important for the survival of big game. Quarry operations could disturb mule deer and potentially increase consumption of body fat reserves, reducing the ability to cope with environmental stressors. Prohibiting operations from January 16 to March 15 when warranted would protect wintering mule deer in years of severe winter.

Operations within the existing footprint would maintain approximately 15 acres as bare ground. Maintaining the gravel pit in bare ground could benefit some species by providing suitable nesting habitat (e.g. kill deer and bank swallow) and un-suitable habitat for other species (e.g.

Greater sage-grouse, Columbian sharp-tailed grouse, loggerhead shrike, sage sparrow, Brewer's sparrow, sage thrasher, etc.). Providing suitable habitat for migratory bird species could present conflicts. If migratory birds initiate nesting within the gravel pit then operation could result in a "take". Migratory birds have been observed nesting within the pit in the past. Avoiding vertical escarpments by contouring pit walls and overburden piles can reduce the likelihood that the migratory birds would initiate nesting. Stipulation number 11 would address this issue by requiring that disturbance of vegetation or overburden piles and pit walls with vertical escarpments is not to take place during the migratory bird nesting season when nests/cavities/burrows are present.

Under this alternative the gravel pit would remain active until reclamation occurs. Reclamation would entail re-contouring and re-seeding the area. The area would be reseeded with a native seed mix, including sagebrush. Restoring the pit to a late seral sagebrush community consistent with the surrounding habitat would take a minimum of 20 to 30 years.

Closure Alternative

Direct and Indirect Effects to Wildlife Resources:

Under this Alternative, a FUP would not be issued to the Twin Falls Highway District. The quarry would remain closed and would not be occupied by an operator. Impacts to wildlife from the subject action would be limited to habitat alteration from noxious and invasive weed proliferation. Indirect impacts from noxious and invasive weed proliferation are a threat. Currently the pit is inactive and no reclamation work has been conducted. Colonization of weeds in disturbed areas, particularly those without healthy perennial vegetation, is a well-known adverse impact. Noxious weed infestations have been documented within the gravel pit in the past. Noxious weeds previously observed and treated on site or adjacent to the site include whitetop, diffuse knapweed, scotch thistle, and bull thistle. Invasive annual plants (cheatgrass, halogeton, and tumble mustards) can be found in disturbed areas throughout the quarry. No reclamation would occur under this alternative. Under this alternative weed abatement would be the responsibility of the BLM. The Closure alternative would maintain 15 acres of sagebrush steppe in non-habitat until the area is able to re-vegetate naturally over time. The pit walls would not be recontoured; as such these portions of the disturbed area would remain un-vegetated. The unreclaimed walls would provide suitable nesting substrate for a variety of opportunistic cliff nesting species (e.g. common raven and swallows).

Proposed Action

Direct and Indirect Effects to Wildlife Resources:

If the Proposed Action is implemented an additional two acres of vegetation would be removed. The two additional acres would include approximately $\frac{3}{4}$ of an acre of a peninsula that is interior to the active pit. This peninsula of un-mined material has been disturbed during previous mining operations. The remaining acreage would be extracted from an outward expansion of the existing pit beyond the peninsula. The quarry area would be reclaimed when it is fully mined out and the area would be re-vegetated. Impacts to wildlife resources would largely be the same as

the No Action alternative. The only operational difference between the No Action and the Proposed Action is the development of an additional two acres. Extraction of an additional two acres would not significantly alter habitat in the South Hills.

Cumulative Impacts to Wildlife Resources:

Past, present, and current projects that have impacted vegetation within the cumulative effects area include a plow and seed range improvement project, completed in 1988. The plow and seed project plowed under 190 acres and planted crested wheatgrass, Russian wildrye, alfalfa, and four wing saltbush. Additional exotic seeding's, primarily crested wheatgrass, have altered wildlife habitat within the cumulative effects analysis area. Impacts from exotic seeding would have variable effects to wildlife resources.

The ITD gravel pit immediately to the north of the project area is currently 40 acres with a proposed plan to expand to 100-150 acres over the next 50 years. This project would likely be phased, with concurrent reclamation and only portions of the 150 acres disturbed at a time. This gravel pit also includes a paved access route which serves as access to the proposed pit as well. Cumulatively the access route to both pits equals approximately 4.4 acres, of which a portion has been paved. Operation and expansion would impact wildlife resources by removing habitat, altering habitat, and disturbing wildlife.

The SWIP power line would create disturbance through the 9 mile section that would be constructed within the cumulative effects area. Disturbance from SWIP would include pads for the towers to be constructed and roads for access and maintenance of the project. Impacts to wildlife resource would include habitat loss/fragmentation and disturbance.

The Oreana-Hunt 230 KV transmission line has already been constructed and disturbed ground along its route including an access road, and areas around the towers. Impacts to wildlife resources include increased perching and nesting substrate for birds of prey and a potential increase in predation of non-predatory wildlife.

Range improvements including pipelines, fences, cattleguards, and water troughs have disturbed ground when they were implemented, and will continue to disturb small amounts of ground for maintenance. The Shoshone Basin Grazing Permit Renewal EIS is currently in early development stages, but will likely propose some additional range improvements.

Wildfire is not uncommon in the South Hills. Wildfire has altered the landscape in the South Hills, including portions of the cumulative effects analysis area. The impact of wildfire on sagebrush habitats and associated wildlife resources has been and will continue to be a prominent concern in Southern Idaho. Currently, the majority of the cumulative effects analysis area surrounding the pit provides quality habitat; including habitat for imperiled and sensitive species, such as Greater sage-grouse and Columbian sharp-tailed grouse.

Under each alternative the cumulative impacts would largely be the same. The cumulative effects are anticipated to be the same because the alternatives are relatively synonymous in acreage and direct and indirect impacts. Ultimately, the operation of activities at the subject pit would not be

expected to appreciably impact wildlife resources utilizing habitat in the surrounding area. Cumulatively the operation at the subject gravel pit and adjoining gravel pit would be noticeable but not significant.

CHAPTER 5, CONSULTATION AND COORDINATION

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

Idaho Department of Fish and Game
Idaho Department of Lands
Idaho Transportation Department

LIST OF PREPARERS

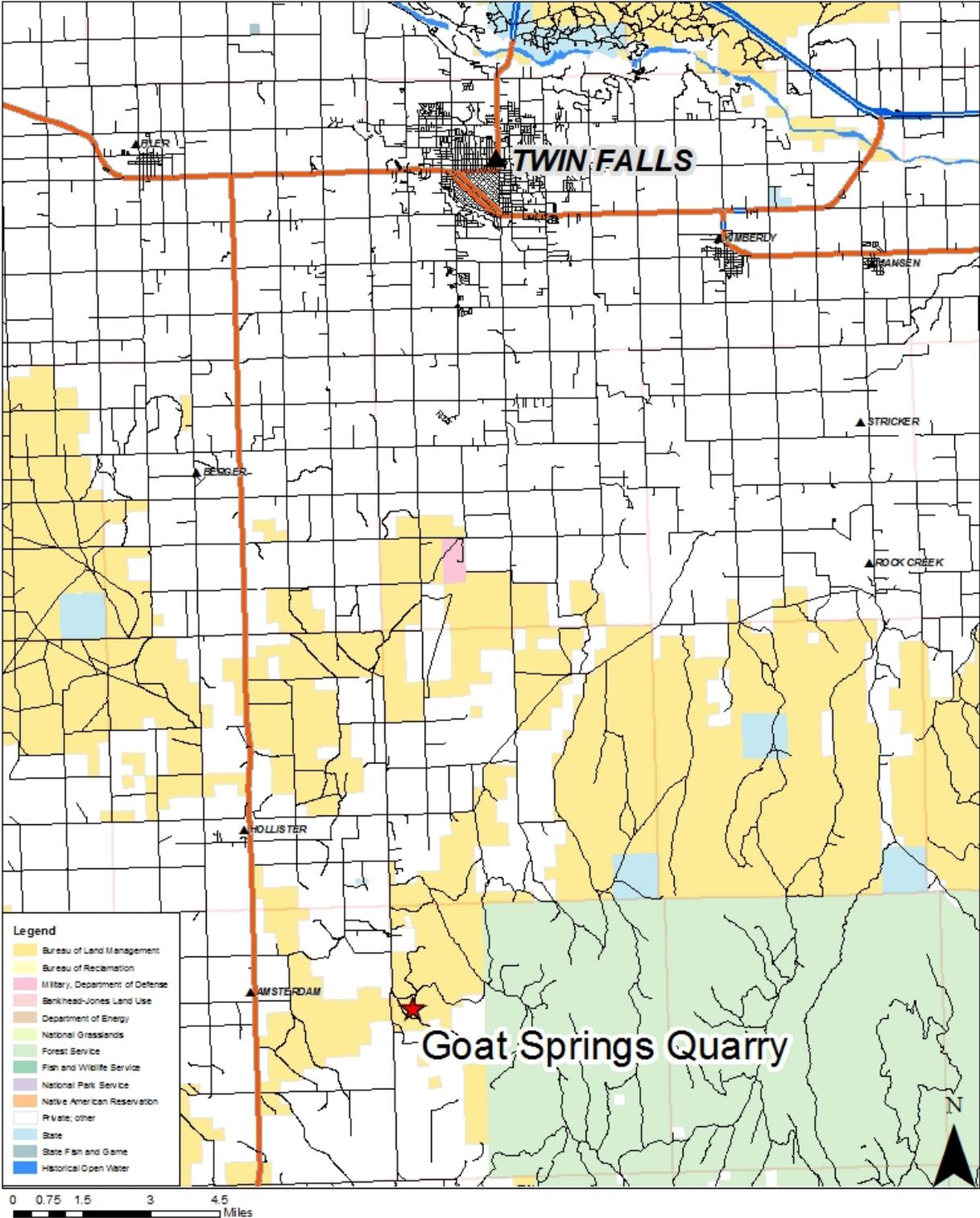
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CHAPTER 6, REFERENCES

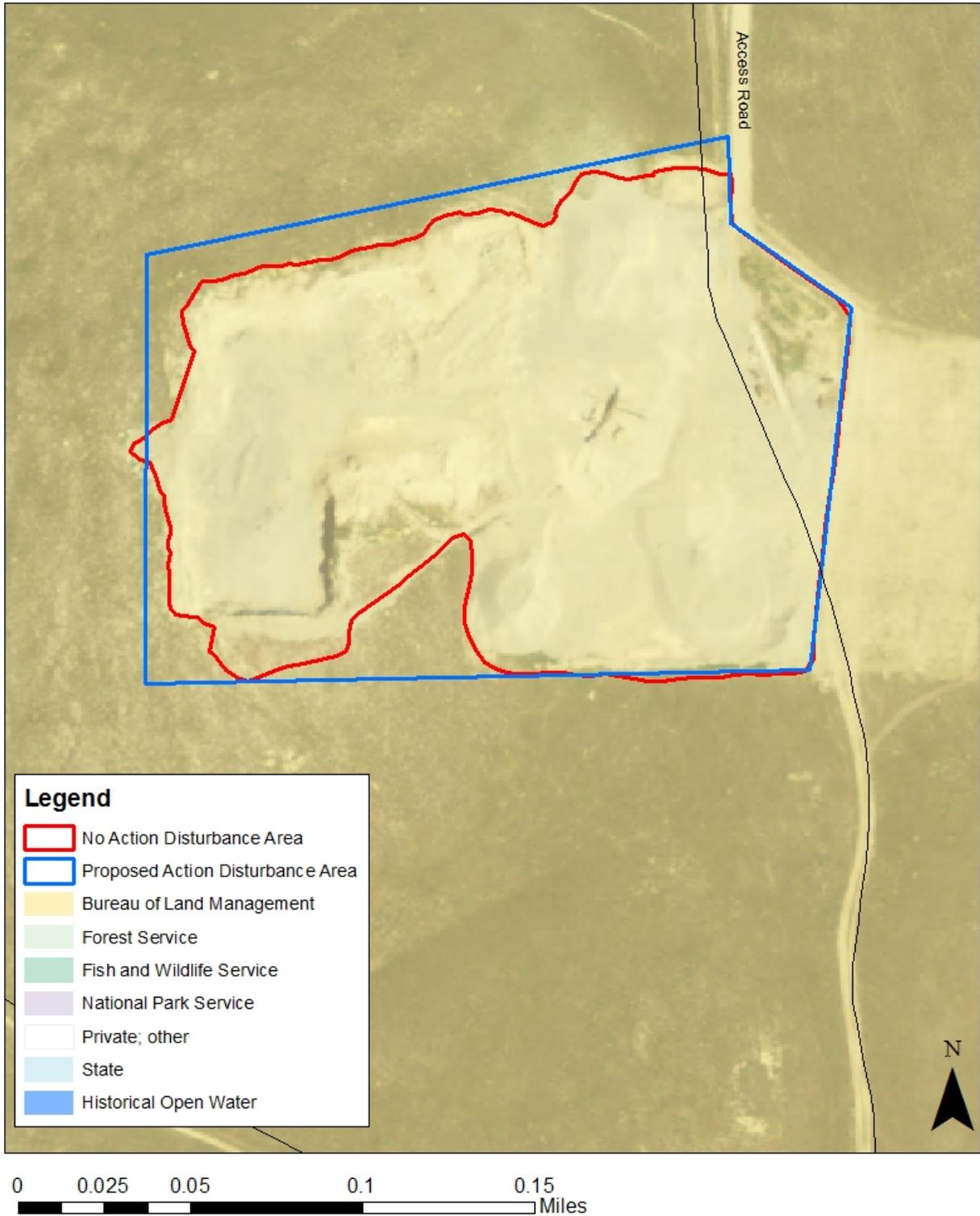
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Goat Springs Quarry - Project Location Map



Goat Springs Quarry - Project Map



Goat Springs Quarry Cumulative Effects Area

