

Environmental Assessment
#DOI-BLM-OR-L040-2010-0006-EA

PROJECT TITLE: Mainhaul Rock Quarry

PROJECT LOCATION: T40S, R14½E, Sec.13 E½NE¼, NE¼SE¼ (See Figure 1.)

BLM OFFICE: Klamath Falls Resource Area, Lakeview District

LEASE/SERIAL/CASE FILE #: N/A

APPLICANT (if any): N/A

DESCRIPTION OF PROPOSED ACTION

The Proposed Action is to develop the Mainhaul Rock Quarry as shown on the attached map (Figure 2). The proposed action would affect a total of approximately 11 acres. An area of approximately eight acres would be excavated to remove the overburden/topsoil and extract rock material. Another area of approximately three acres would be utilized to stockpile the overburden/topsoil and for staging and crushing rock material from the quarry. When the quarry is no longer in use, the stockpiled topsoil would be redistributed over the site as part of the restoration process. The existing road into the proposed quarry site will be improved to accommodate heavy equipment traffic. A small segment of the road at the sharp turn will need to be increased one to two feet in width. Juniper removed during clearing and access road improvement activities would be limbed and decked at designated locations on the quarry site for use as firewood or other products. Material that is not utilized (tops, limbs and other brush) would be piled and burned.

PURPOSE AND NEED FOR ACTION

The Gerber Block is the largest contiguous block of Bureau of Land Management (BLM) managed land in the Klamath Falls Resource Area (KFRA). The BLM has responsibility for maintaining roads in this area which are, for the most part, surfaced with dirt or cinders. During wet weather, these roads become deeply rutted and create increased maintenance costs. In the past, cinder from existing quarries in the Gerber area has been used to surface roads. Not only are these existing sources of cinder becoming depleted, but cinder material has been shown to lack durability and break down too quickly. A need has been identified to put rock surfacing (gravel) on the main travel routes and there are currently no hard rock quarries in the area. Gravel to accomplish this purpose would have to be trucked a minimum of 35 miles, which would be costly and inefficient. The purpose of developing a rock quarry in this area is to provide a source of rock to accomplish the needed road surface improvement.

CONFORMANCE WITH APPLICABLE LAND USE PLAN

This project was designed to comply with the land use allocations, management direction, and objectives of the 1995 Klamath Falls Resource Area Resource Management Plan (1995 RMP). The project design and recommendations for implementation are contained in the ROD/RMP and a number of other supporting documents including:

- Northwest Area Noxious Weed Control Program FEIS and ROD (1985) and Supplement (1987)
- Integrated Weed Control Plan (IWCP) 1993
- Lakeview District Fire Management Plan – Phase 1 (1998)
- National Fire Plan (A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy) (2001)
- Rangeland Reform '94 FEIS and ROD (1995)
- Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1997)

- Standards for Land Health for Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1998)
- Interior Columbia Basin Strategy Scientific Documentation (2003)
- National Sage-Grouse Habitat Conservation Strategy (2004)
- Greater Sage-Grouse Conservation Strategy and Assessment for Oregon, Draft (2005)

This Environmental Assessment is tiered to the Final - Klamath Falls Resource Area Resource Management Plan and Environmental Impact Statement, September 1994 (KFRA RMP/EIS).

NO ACTION ALTERNATIVE

The No Action Alternative is the only alternative to the Proposed Action being analyzed. This alternative would result in the continuation of the status quo, which is that road maintenance would continue as it has been accomplished with annual road grading and ditching, minimal application of cinders, and limited “spot rocking” (application of gravel in very small quantity on specific problem areas).

ALTERNATIVES CONSIDERED, BUT NOT ANALYZED IN DETAIL

Alternate Pit Sources

There are no known alternate sources that would be better suited for this action. In 2009, the entire southern portion of the Gerber Block was evaluated for potential rock sources. The “Mainhaul” 20-acre site was chosen that was most likely to provide a sufficient source of gravel, had adequate access, was centrally located to the roads in need of improvement, and had relatively low potential for impact to other resources. Exploration conducted within those twenty acres verified the presence of a sufficient material source. The proposed action is the development of the most suitable portion of that 20-acre site.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The potential environmental impacts resulting from the alternatives relative to critical resource values were evaluated. The following values are either not present or not affected by the proposed action: ACEC/RNAs, cultural resources, prime/unique farmlands, floodplains, Native American cultural/religious concerns, environmental justice, T & E species, wilderness, Wild & Scenic rivers, hazardous wastes, water quality, and wetlands/riparian zones. Access is across BLM controlled roads. No utilities are found in area. The site is away from main roads so effects on visual resources are limited.

Vegetation – Affected Environment

The vegetation in the project area consists of scattered juniper, low growing shrubs, grasses and forbs growing on scab rock flats. There are no riparian areas and no merchantable timber in the project area. The proposed quarry site currently does not have any known populations of noxious weeds. However, there is a previously known population of musk thistle located just to the west of the proposed project area. No known Federal, State, or BLM listed sensitive plant species are known to occur in this area. This area was most recently surveyed in 2001 for special status plants and noxious weeds.

Vegetation – Environmental Consequences

Proposed Action

Nearly all of the vegetation on the 11-acre quarry site would be removed. There is potential to have noxious weeds establish in the quarry area because of disturbance and the transport of noxious weed propagules to the site by vehicles or animals. If this occurs, there is also a possibility that noxious weed propagules could become incorporated into the rock materials, and be transported throughout BLM lands by construction equipment. Following mitigation measures would minimize the possibility of this potential scenario. No known populations of special status plant species occur in this area. The establishment of the quarry and activities associated with its use would likely prevent new populations of sensitive plants from establishing in the vicinity of the project.

No Action Alternative

No impacts to the vegetation on the 11-acre site would occur and there would not be any increase in potential for weed establishment and distribution.

Mitigation

Any vehicles entering the quarry should be routinely washed to remove noxious weed propagules from the vehicle body and undercarriage. In addition, weed sites of the quarry and surrounding area would be surveyed and treated for noxious weeds on a regular basis, to prevent weeds from growing in the quarry materials and being spread onto BLM lands.

Air Quality – Affected Environment

Air quality is a sensitive issue in the Upper Klamath Basin primarily because of the recent designation of part of the county as nonattainment for PM_{2.5}. Potential air quality consequences are important for the preservation of high quality visual values for the region. National Ambient Air Quality Standards (NAAQS) were established by the 1963 Clean Air Act and subsequent amendments to protect the public health and welfare from adverse effects associated with the presence of pollutants in the ambient air. In 2006, EPA revised the 24-hour NAAQS for PM_{2.5} downward from 65 to 35 µg/m³. If the particulate matter for NAAQS is exceeded, the EPA is required to designate the area as a “nonattainment” area. Air pollutants are emitted from a variety of sources in the Basin including woodstoves, open burning, industrial plants, and internal combustion engines. Woodstoves contribute greatly to particulate matter during the winter. Agricultural and forestry burning operations are significant sources in the spring & fall. With the emphasis on reducing risk of wildfire, fuels reduction projects using prescribed fire are also common source of pollutants that can contribute to reduced air quality. This is a Class II airshed, with the closest Class I airshed, Gearhart Wilderness, located 20 miles to the north.

Air Quality – Environmental Consequences

Proposed Action

The Proposed Action would produce some fugitive dust from equipment and vehicle use, and a minimal amount of smoke from burning a small amount of slash during implementation of this project. The particulate matter would mostly be greater than 2.5 µm but less than 10 µm in diameter. This coarser PM₁₀ material presents less health concerns than smaller particles, such as those found in wood smoke (PM_{2.5}). The National Ambient Air Quality Standard for PM₁₀ is 150 µg/m³ averaged over a 24-hour period. It is not expected that particulate levels would approach anywhere near that level. Due to the low quantity of dust and smoke, the limited time in which dust will be created, and the remote location, no negative effects on health are anticipated. Visibility may be reduced in the immediate vicinity during periods of work. Fugitive dust and smoke from this project will not affect any Class 1 airshed.

No Action Alternative

The No Action Alternative would have no impacts to air quality.

Livestock Grazing – Affected Environment

The proposed rock quarry would be located in the northeast corner of the Rim Pasture in the Horse Camp Rim Allotment (See Figure 3.) The pasture and allotment boundary fence is located along the east and north sides of the proposed quarry site. A gate for vehicle and livestock access to the allotment is also located at the intersection of these two fences. The Southwest Pasture of the Pitchlog Allotment is located to the north of the proposed quarry site and the north boundary fence. The North Pasture of the Bear Valley Allotment is located to the east of the proposed quarry site and the east boundary fence.

Livestock Grazing – Environmental Consequences

Proposed Action

The proposed quarry site would be located at the intersection of the boundary fence for three different grazing allotments. The existing fence and gate along the north edge of the quarry site separates the Horse Camp Rim and Pitchlog Allotments. The forage available to livestock is minimal because of the scab rock flats;

therefore, removal of the 11 acres of vegetation for development or the pit would not have a measurable effect on sustaining the grazing.

If the gate to the developed pit was to be left open for extended time periods during the season-of-use for the allotments, there would be a possibility that livestock could move between the allotments. This could result in minor impacts to the forage availability in either allotment depending upon which direction the livestock moved. This could also result in the increased need for livestock herding by the affected allotment permittees to move livestock back to their respective allotments. The season-of-use for the Horse Camp Rim and Pitchlog Allotments is between May 1 and July 31. This is during the main period of operation for the quarry, so limiting the hauling of material from the quarry during this period would not be feasible.

No Action Alternative

The No Action Alternative would have no effect upon livestock grazing in the grazing allotments listed under the Affected Environment section above.

Mitigation

The installation of a cattleguard in the road that passes through the north fence would decrease the possibility of livestock movement between the grazing allotments. A bypass gate next to the cattleguard would allow for the passage of livestock, horses, and large equipment that could damage the cattleguard.

Wildlife – Affected Environment

The proposed project site is not habitat for any special status wildlife species, but is summer range habitat for mule deer and pronghorn. A variety of bird species and small mammals use the area as well.

Wildlife – Environmental Consequences

Proposed Action

No ESA listed Threatened, Endangered, or Proposed species would be affected by this project. Due to the small size of this project, no effects on populations of birds of conservation concern, mule deer or pronghorn are anticipated. The proposed quarry would remove approximately 11 acres of juniper/shrub/grass/ scab rock habitat. Where excavations have occurred in the Gerber area, these depressions collect rain and snow melt. If all sides of the pit were steep, accumulated water could attract and potentially trap wildlife. Designing the pit with at least one gently sloping side would alleviate this problem. If a pond is created, there would be benefits for a wide variety of wildlife species by providing water in an otherwise dry landscape.

No Action

There would be no impacts to wildlife species, but the opportunity to create a water source would be foregone.

Mitigation

Design the pit with at least one gently sloping side. When the quarry is no longer needed, the site should be reclaimed to a natural habitat state using the banked overburden material and plantings of native grasses and shrubs. Any pond that is created should be left intact and functional as part of the restoration, if possible.

Cultural Resources – Affected Environment

Native American use of the area spans many millennia. The region was most likely used by the Modoc and/or Klamath peoples. On a map showing the Modoc territory, Ray (1963) shows the Modoc encompassing the project area. Ray (1963) notes that the Modoc territory was divided into three geographic areas that were named after those who lived in those areas. Of these three areas, the Kokiwas' (people of the far out country) lived within the project area

Historic contact between the Native American tribes and Euro-Americans began around the 1820s and culminated with the Klamath Lake Treaty of 1864 in which lands around the project area were ceded to the

United States by the Klamath Tribes (Minor et al. 1979). The Klamath Tribes consist of the closely related Klamath, Modoc, and Yahooskin peoples.

Euro-American exploration within the analysis area began in 1843 when a band of “free trappers”, led by Old Bill Williams, explored the Lost River region. Euro-American settlement did not occur until 1875. Homesteaders pursued sheep and cattle ranching. The Gerber family was the first to establish a ranch at the northern end of the Gerber Block in 1880, hence the name of the area (Beckham 200).

The Civilian Conservation Corp (CCC) improved the landscape within the analysis area for grazing in the 1930s. The CCC built roads, spring developments, stock ponds, corrals and even telephone lines. In 1935, the Gerber block became the first grazing district in Oregon and the United States (Bonanza Grazing District No. 1) under the 1933 Taylor Grazing Act. In 1946, the General Land Office was merged with the Grazing Service to create the Bureau of Land Management (Beckham 2000). The BLM has managed the area ever since.

The project area is covered under three previous inventories and no sites are known to be located within the project area based off these cultural surveys.

Cultural Resources – Environmental Consequences

Proposed Action

There are no known cultural resources within the project area; therefore the proposed action should have no impacts on cultural resources.

No Action

This alternative would have no effect on cultural resources.

Soils - Affected Environment

The Gerber Soil Survey (NRCS) identified three soil mapping units in the project area. The location selected for the quarry and stockpile appears to be within mapping unit 330B. Units 520B and 540C border the proposed site and contain similar soils that may intrude into the project area.

Mapping unit 330B, the Casebeer-Norcross-Dranket complex, consists of three soil types that are intermingled across the landscape. Slopes are typically 1 to 8 percent. The soils in this unit have very cobbly to extremely cobbly loam surface layers. Subsurface soil is clay or cobbly clay over a hard (indurated) pan. The soils are shallow, defined as less than 20 inches deep. Norcross soils contain a thick dark surface layer. Dranket soils have a dark surface layer, but are 20 to 40 inches deep. The cobbly clay features and predominantly shallow depths of these soils contribute to their low nutrient status and productivity levels.

Soils types adjacent to the proposed quarry location are similar to those in unit 330B. These soils differ in one or more of the following characteristics: depth, clay content, rock content, or percent slope. Unlike unit 330B, soils in the adjoining mapping units tend to be more suitable for livestock grazing use.

Soils – Environmental Consequences

Proposed Action

About 11 acres of land will be disturbed by the Proposed Action. The impact to the soil resource, which includes complete soil removal and mixing of layers, would be minimal due to the number of acres involved. A minor amount (likely less than 200-300 square feet) of area would be impacted by burning slash from vegetation removal, but those areas would later be completely removed and mixed as part of the development. The areal extent of operations would not expand beyond the current project area without additional analysis.

No Action

Under the No Action alternative, no potential impacts to the soil resource would occur.

Proposed Mitigation

To minimize soil disturbance and maximize future site productivity, recommendations during implementation of the project include:

- Keep the area disturbed by construction and operation of the project (i.e., footprint) to a minimum.
- If possible, stockpile and reserve topsoil for reclamation. To minimize erosion, stabilize the piles by seeding with native vegetation.
- Upon completion of operations, reapply topsoil from all excavations and construction activities during reclamation. Seed, mulch, and replant disturbed sites with native grasses, forbs, and shrubs as early as possible.

Recreation, Wilderness and Visual Resources – Affected Environment

The proposed quarry site is in a remote portion of the Gerber Block. The existing access is by the Horse Camp Road (#40S 14.5E 22.00). This road is an unsurfaced Resource road, which connects between the Mainhaul and CCC roads, typically used for BLM and permittee administration and by the public during hunting season. The site itself does not have attributes that are preferred for camping or other recreation.

This area was inventoried for wilderness characteristics in 1980 and designated as part of the Horse Camp Rim unit. Numerous developments existed including reservoirs and roads, the area had been logged in recent years, and the works of man were evident. The opportunities for solitude and unconfined recreation were considered to be limited.

The vegetation in the project area consists of scattered juniper, low growing shrubs, grasses and forbs growing on scab rock flats. There are no riparian areas and no large overstory trees in the project area. The site is not visible from any main roads. This area has been designated as Visual Resource Management Class IV which allows major modifications of existing character of landscapes.

Recreation, Wilderness and Visual Resources – Environmental Consequences

Proposed Action

Development of the site would have a minimal effect on recreation opportunities because of its low preference for camping. Minor improvement of the road to the site would not affect recreational driving because it is not a well travelled road.

Even though this site is directly adjacent to a Resource road and would not intrude into the Horse Camp Rim study unit very far, it was already part of a unit that was not rated with opportunities for solitude and unconfined recreation, thus the potential for wilderness designation would not be changed.

Nearly all of the vegetation on the 11-acre quarry site would be removed. Site development including excavation of the pit would be considered a major modification of the existing character of landscapes, although the site is not visible from any main roads. Minimal amounts of dust and smoke created during site development and operation would have a minor effect on local air quality and thus visibility.

No Action Alternative

There would be no effect on recreation, wilderness character or visual resources.

PERSONS/AGENCIES CONSULTED

The Klamath Tribes, Perry Chocktoot, Jr. Cultural and Heritage Director- January 11, 2010.

Because this project is expected to have no effect on ESA listed species, no consultation with the US Fish and Wildlife Service is necessary.

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Figure 1 – General Location Map of Proposed Mainhaul Rock Quarry

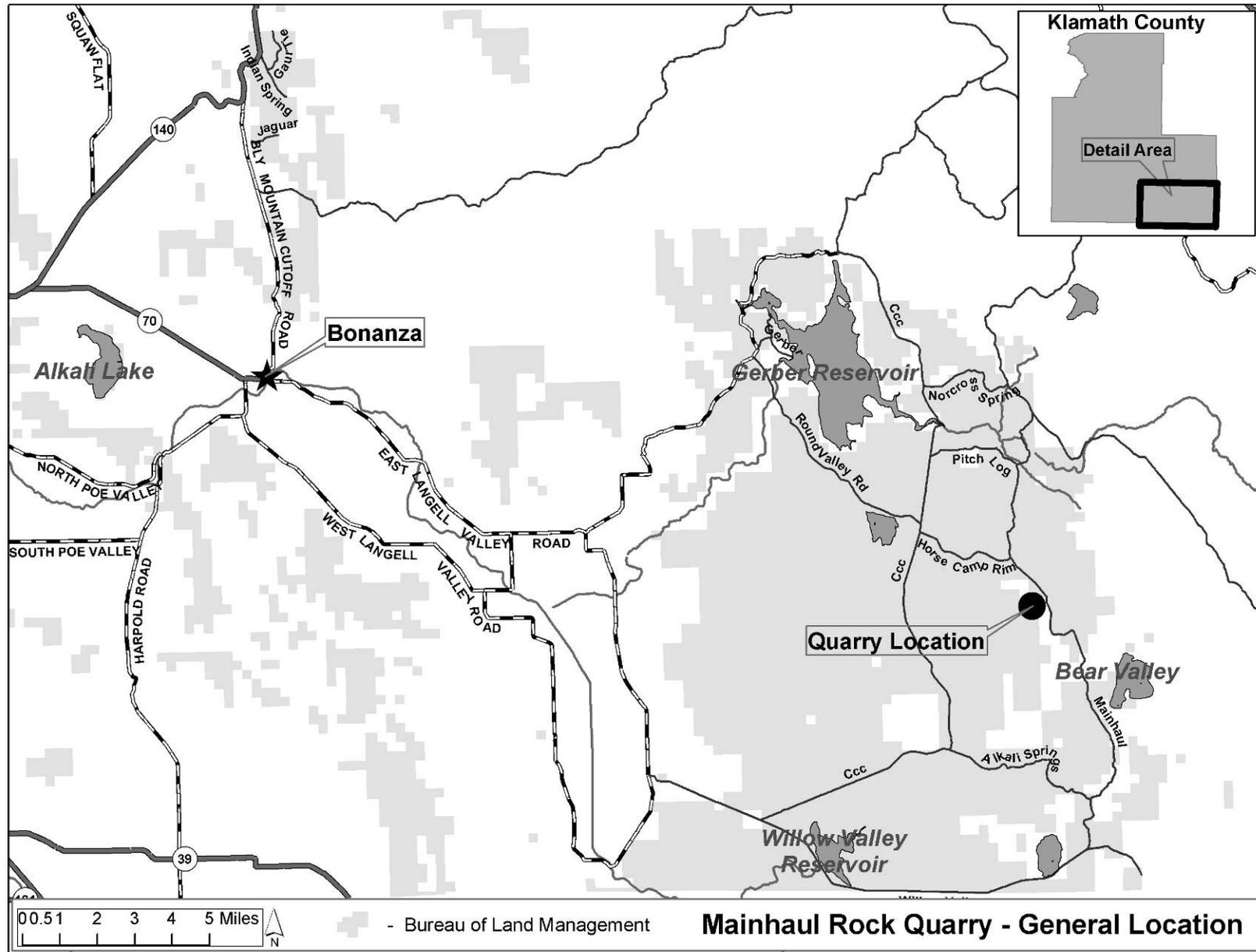


Figure 2 – Detail Map of Proposed Mainhaul Rock Quarry

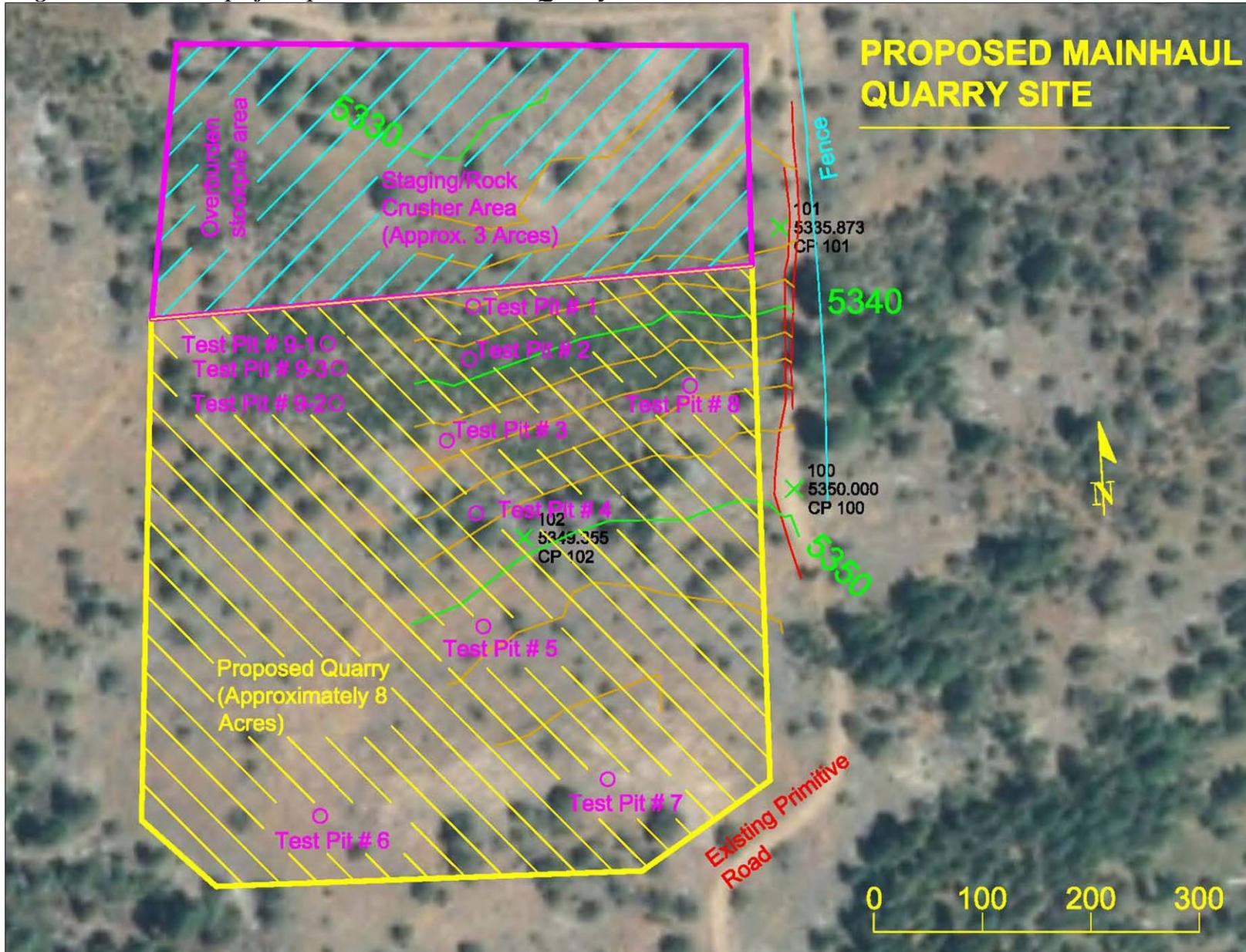
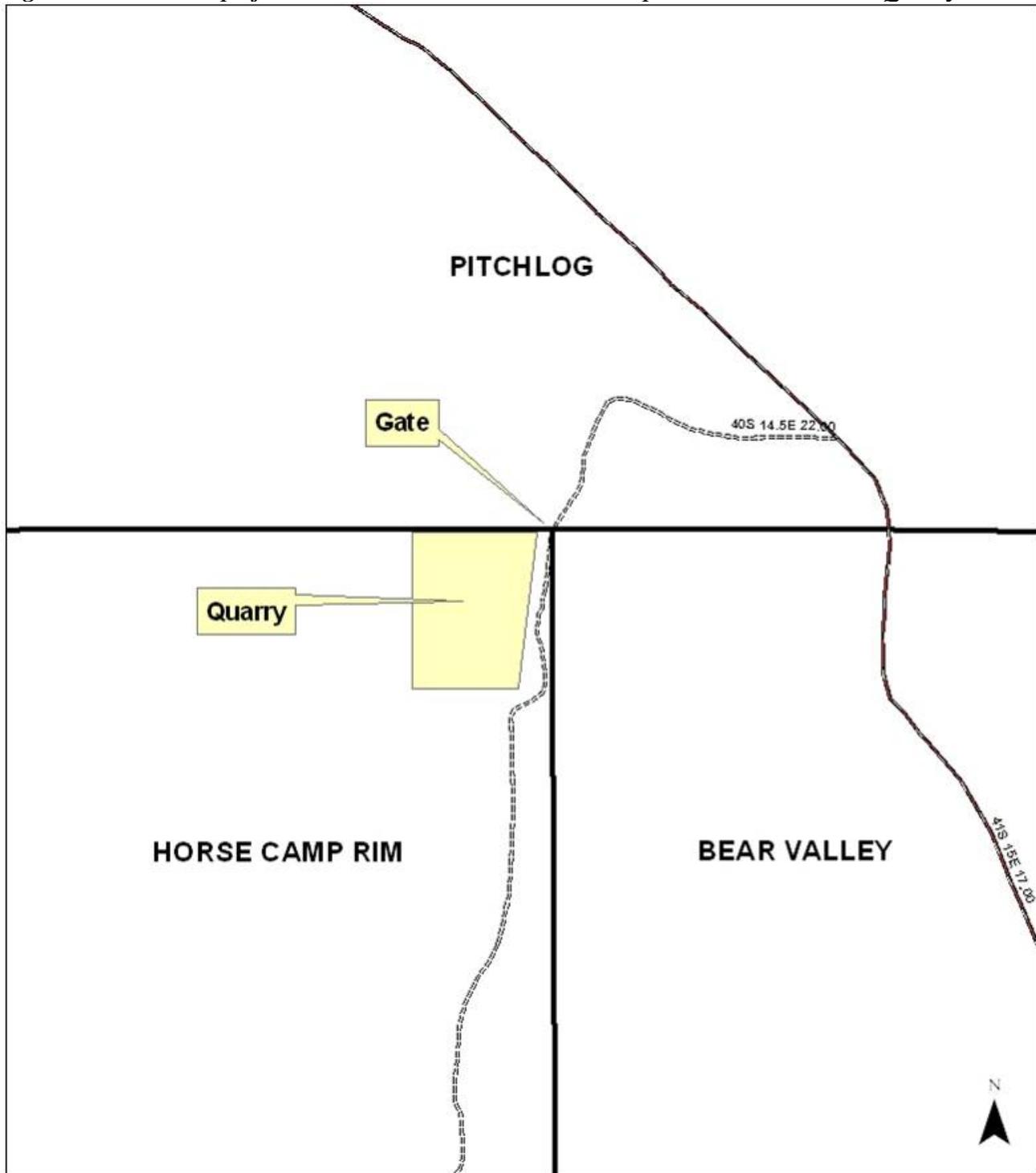


Figure 3 – Detail Map of Allotment Boundaries Near the Proposed Mainhaul Rock Quarry



Legend

KFRA Roads by Surface Type

- SurfaceType
- Bitum Inerts/Paved
 - Aggregate / Hard Surface / Paved
 - Natural Improved / Gravel Rolloff
 - Natural Unimproved
 - Not Known
 - Allotments

0 0.1 0.2 Miles



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