

ENVIRONMENTAL ASSESSMENT

Name/Title: Zanetti Bros., Inc. - Proposed Osburn Pit Expansion
EA Number: ID410-2009-EA-3858
Type of Action: Mineral Materials Disposal (Sale)
Location: Township 48 North, Range 4 East, Section 18 (N½NW¼), Boise Meridian
Project Number: IDI-36547
Office: Bureau of Land Management, Idaho, Coeur d'Alene Field Office
Applicant: Zanetti Bros., Inc. - (Headquarters in Osburn, Idaho)

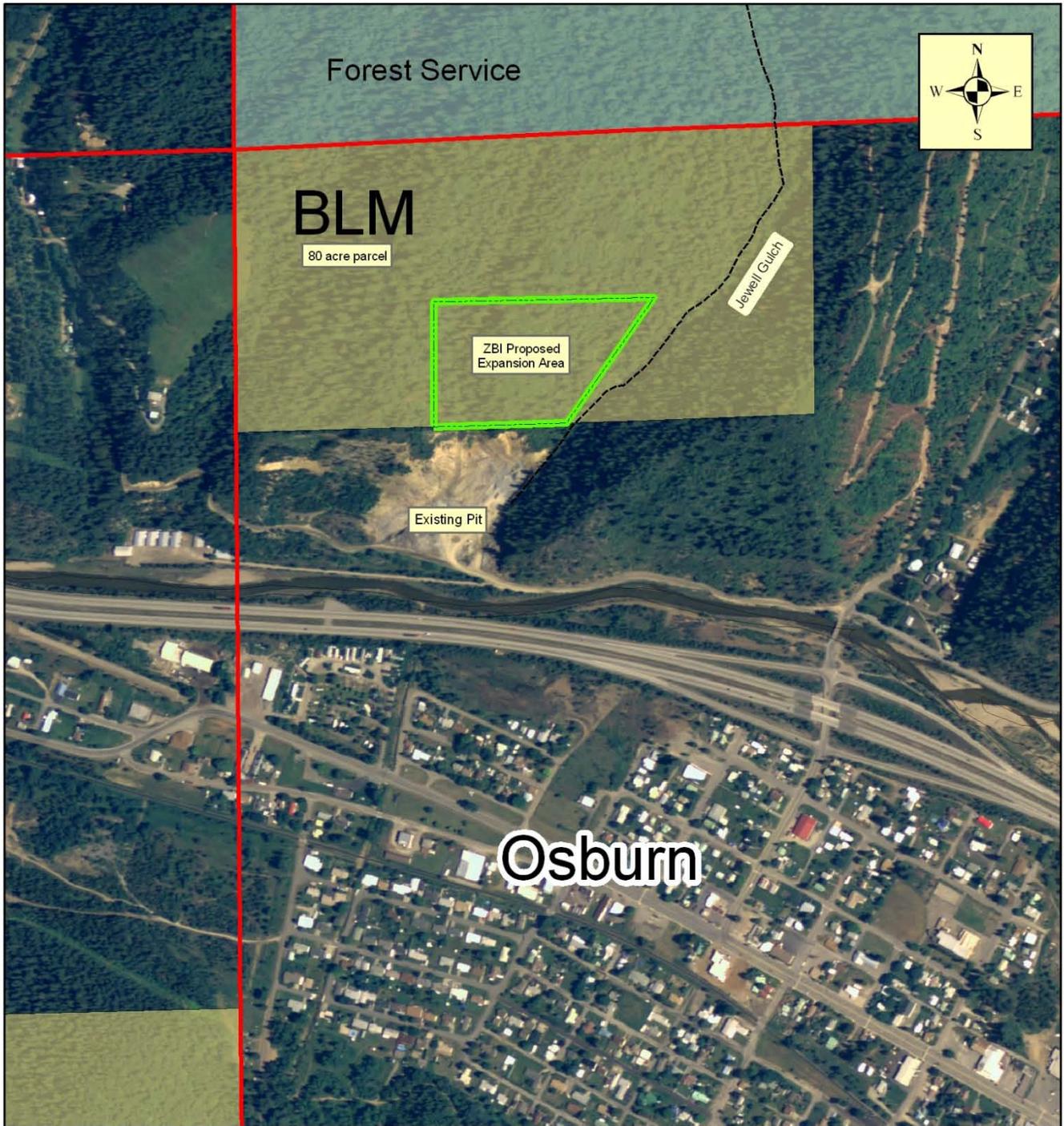
INTRODUCTION

BACKGROUND

Zanetti Bros., Inc. (ZBI) submitted a proposal to the Bureau of Land Management's (BLM) Coeur d'Alene Field Office (CdA FO) to expand their existing rock quarry just north of Osburn, Idaho onto an adjacent parcel of BLM administered land. (See General Location Map, page 2.) ZBI's proposal requests the purchase and development (mining) of a set quantity of mineral materials (rock) from the identified public land. The federal regulations that govern the disposal (sale) of mineral materials from public land are found at Title 43 of the Code of Federal Regulations, Part 3600. These regulations require all proposals requesting the purchase of mineral materials from public land be analyzed in accordance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations to determine potential environmental consequences prior to the BLM making any decision regarding the proposal. This Environmental Assessment (EA) discloses the direct, indirect, and cumulative environmental impacts that would result from ZBI's proposed action and possible alternatives.

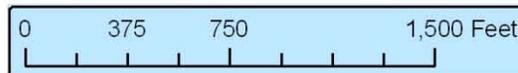
PURPOSE AND NEED FOR PROPOSED ACTION

In December, 2008 the CdA FO Manager was contacted by the Shoshone County Commissioners requesting information regarding possible sources for mineral materials on BLM administered land in, or near, north Idaho's Silver Valley region. The Commissioners informed the Manager that good construction grade rock sources (sand & gravel, rip-rap, etc.) that were also economical with respect to the County's budget are becoming more difficult to find in the Silver Valley. The County had searched and explored for rock sources in the Silver Valley with little success for the type and amount they felt they needed to have available for future needs. Therefore, the Commissioners wanted to know if the CdA FO had done any inventorying that identified possible rock sources; and if so, what kind of material was available and where was it located. The BLM's answer was, No, because no one had ever approached the CdA FO with a need for this type of information. Furthermore, typical rock sales from CdA FO land have been small, usually for personal use, and the source (or location) has been identified by the individual wanting the rock. (The County re-iterated its position/concerns in a letter to the BLM received on Dec. 9, 2009.)



Legend

----- Old Road (trail)	BLM
Section Lines	PRIVATE
Proposed Pit	USFS



General Location Map for IDI-36547
 Zanetti Bros., Inc. - Proposed Pit Expansion
 T. 48 N., R. 4 E., Sec. 18 (N2NW), Boise Meridian
 BLM Corp. Data - 11/6/2009



No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM.



In response to the Commissioners' inquiry and Shoshone County's need to have a range of reliable rock sources available, the CdA FO Manager has decided to consider the proposal submitted by ZBI. The following analysis is needed here and now because the decision to sell mineral materials from federal land is discretionary; however, the BLM's policy is to make them available for use by the public unless it is detrimental to the public interest to do so.

SCOPING, PUBLIC INVOLVEMENT AND ISSUES

This project was posted to the Idaho BLM's NEPA website on August 13, 2009; the initial step in making the public aware of ZBI's proposal and the BLM's decision to evaluate it. The general public, other federal and state regulatory entities, environmental groups, members of the state and local governments and tribal interests were given an opportunity to provide comments regarding ZBI's proposed operations. Notification of this comment period included postings in local newspapers and direct correspondence (emails and letters) to identified individuals, entities and groups. The public scoping period ran from December 15th, 2009 through January 15th, 2010 and was initiated with a public meeting held in Osburn, Idaho on December 15th. The meeting was attended by four Osburn residents who were provided information regarding ZBI's proposal, the environmental review process, and issues/concerns that had already been identified by the BLM's internal scoping review.

Ten individuals submitted comments, both written and oral. Below is a list of substantive issues taken from the public comments and those identified by the BLM specialists reviewing the proposal:

Issues/Concerns addressed during completion of the EA:

1. Disclosure of anticipated impacts to resources identified during internal and external scoping: Cultural; Air Quality; Water Quality; Fisheries; Soils; Vegetation Communities; Wildlife; Recreation Use; Visuals; Economic and Social Values; and Minerals.
2. Several comments expressed concern for potential water quality impacts to Jewell Creek and the South Fork of the Coeur d'Alene River from increased sediment or heavy metal loading.

Response: The BLM will consult with the Department of Environmental Quality to ensure full compliance with the 2003 TMDL and Clean Water Act. Incorporated *Project Design Measures* and drainage improvements are expected to result in a decrease to existing sediment delivery to Jewell Gulch and the South Fork of the Coeur d'Alene River.

Water samples were collected from Jewell Creek and the existing run-off water catch basin in the pit. The samples were delivered to SVL Analytical in Kellogg and tested for arsenic, cadmium, lead, and zinc. The test results for all four metals was 'non-detect', which means that if these metals are present, the amount is below detectable limits and not considered a threat to water quality. In addition, the pH of both samples was well within the desired range to support aquatic life. To ensure continued compliance with water quality standards, these two sample sites would be periodically tested during the life of any approved permit. Should test results indicate a potential problem, then the BLM would re-evaluate water quality safeguards and respond accordingly.

3. Several public comments expressed safety concerns regarding ZBI's existing pit highwall. Currently, the highwall is a nearly vertical, 200 foot drop from its crest (top edge) to the pit floor. The public expressed a desire/need for safety measures near highwalls on public land.

Response: The BLM incorporated a Project Design Measure which requires warning signs and some type of physical deterrent around the pit perimeter. (See Appendix A, No. 3, page 34.) The type and placement of the physical deterrent would be determined by the authorized officer during the course of project implementation.

Issues/Concerns beyond the scope of this analysis:

1. The public's request to include a stipulation with any approved permit that would require upgrading the Patterson Road (applying a hard surface; cement or asphalt) from ZBI's existing pit to the intersection with the Twomile Gulch Road.

Response: The BLM cannot require the proponent to resurface and/or upgrade the maintenance of the identified road which is under the jurisdiction of Shoshone County. The attendees of the BLM's December 15th public meeting were informed that this would have to be worked out between the proponent (ZBI), the local residents and the County. At a Shoshone County Planning Commission meeting on March 10, 2010, the commission approved a Conditional Use Permit for ZBI that includes standards and guides for road maintenance and use specifically designed to alleviate concerns from both the County and the concerned citizens.

2. The public's concern for the safety of people using the Patterson Road (walking, biking, driving) when ZBI is hauling material from the pit.

Response: As a condition of permit approval, ZBI's operations must comply with all federal, state and local laws. This includes obeying traffic laws and exercising driver attentiveness when hauling rock from the pit.

Issues/Concerns addressed prior to EA completion:

1. ZBI's initial Mining and Reclamation Plan (plan) for the proposed pit expansion was rejected because the BLM determined the plan may not conform to the Visual Resource Management (VRM) rating for the identified land as specified in the BLM's approved Land Use Plan.

Resolution: ZBI submittal a revised plan that included final reclamation measures specifically designed to satisfy the VRM rating (Class III). These measures are provided in the paragraph starting with "Reclamation efforts would include..." under the heading 'Proposed Action - Zanetti Bros., Inc.'s Mining and Reclamation Plan' on page 7; and, they are discussed and analyzed in the 'Visuals' section of the EA starting on page 28.

2. ZBI's initial plan included improving and using the existing road (trail) up Jewell Gulch for equipment access to the northern extent of the proposed pit boundary. ZBI was informed that the BLM would not authorize this because the BLM wanted the trail to remain open to the

public which could become a problem should ZBI have large equipment running up and down the road/trail.

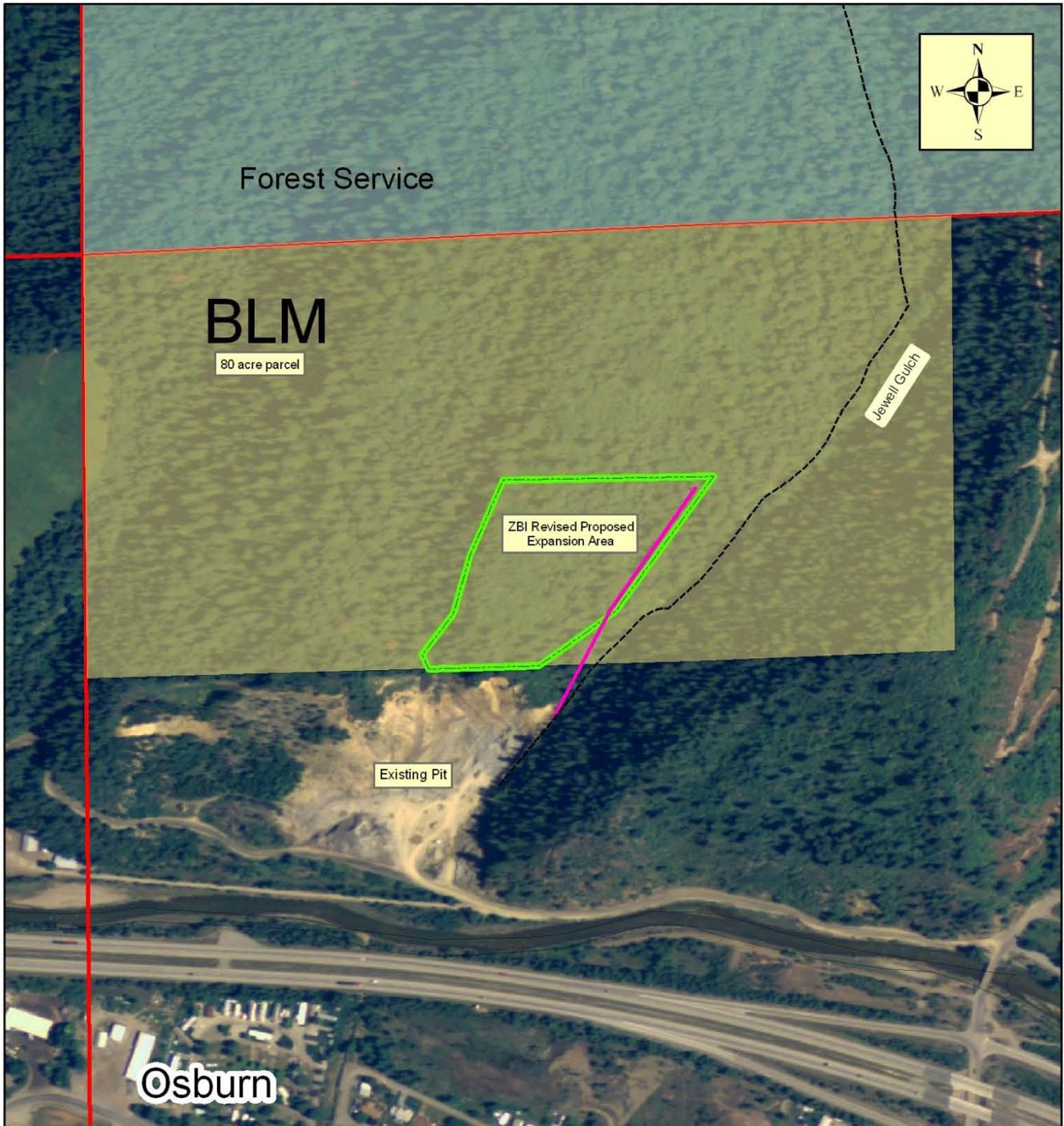
Resolution: ZBI's revised plan moved the location of the equipment access road (See Area of Analysis Map on page 6; pink line on photo.) The trail would not be disturbed and would remain open to the public with a couple of exceptions (both related to public safety);

- A. ZBI would be responsible for blocking access to the trail during a short period of time (one or two weeks) when the proposed equipment access road was being constructed (pre-mining) and reclaimed (post mining).
 - B. ZBI would be responsible for blocking access to the trail (for short periods of time) when blasting was to occur in the pit.
3. ZBI's initial plan was to purchase all the mineral materials (rock) within the boundaries of the "ZBI Proposed Expansion Area" (indicated by the green line on the General Location Map on page 2) and then develop (mine) the site over the next 25 to 30 years. The federal regulations governing noncompetitive sales of mineral materials (Title 43, Code of Federal Regulations, Part 3600, §3602.30) only allow a noncompetitive contract to be issued for a term of five (5) years, with the possibility of extending the term for one (1) additional year. Also, the regulations identify volume limitations unless specific conditions are present. Both of these constraints would negate ZBI's proposal if pursued as originally proposed.

Resolution: ZBI's revised plan proposes development of an amount of rock (volume and area of disturbance) sufficient for a five year period. Furthermore, their proposal is being made with the understanding that, should there continue to be a need for this type of rock, future requests from ZBI could continue in this manner (5 year increments or less) until the mineral resource was depleted in the identified area. ZBI was informed that this would be acceptable; however, the BLM would be required to analyze the impacts to the entire area with this EA, not just the initial five year footprint.

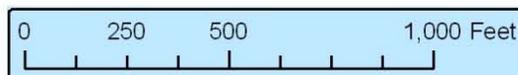
4. ZBI's initial plan showed them mining through an intermittent stream that currently drains into the northwest corner of their existing pit. ZBI was informed that this may not conform to the BLM's approved Land Use Plan (LUP) which calls for a one-hundred foot (100') buffer along intermittent streams to protect and promote riparian habitat; therefore, the BLM would likely not authorize the plan as proposed. (Note: The LUP does have conditions that, if applicable, do allow for compromise of stream buffer zones.)

Resolution: ZBI's revised plan would compromise the 100' buffer for a short distance (180 feet ±) beginning at the northwest corner of the existing pit highwall. From this corner, the pit wall would angle northeast to a point 100' from the stream channel. From there, the pit boundary would honor the 100' buffer to the northern extent of the possible future pit expansion. This "Ultimate Pit" configuration, which is the proposed area of disturbance that is analyzed with this EA, is indicated by the green line on the Area of Analysis Map on page 6. The compromised buffer zone, approximately one-quarter (0.25) acre, is indicated by cross-hatching/shading on the Feature Map on page 8. Discussion and analysis of the compromised buffer and its applicability under the LUP is provided in the 'Water Quality', 'Fisheries', and 'Vegetation Communities' sections of the EA.



Legend

----- Old Road (trail)	BLM
Equip Road	PRIVATE
Section Lines	USFS
Ultimate Pit	



Area of Analysis Map for IDI-36547
 Zanetti Bros., Inc. - Proposed Pit Expansion
 (per revised plan)



BLM Corp. Data - 1/15/2010



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PROPOSED ACTION AND ALTERNATIVES

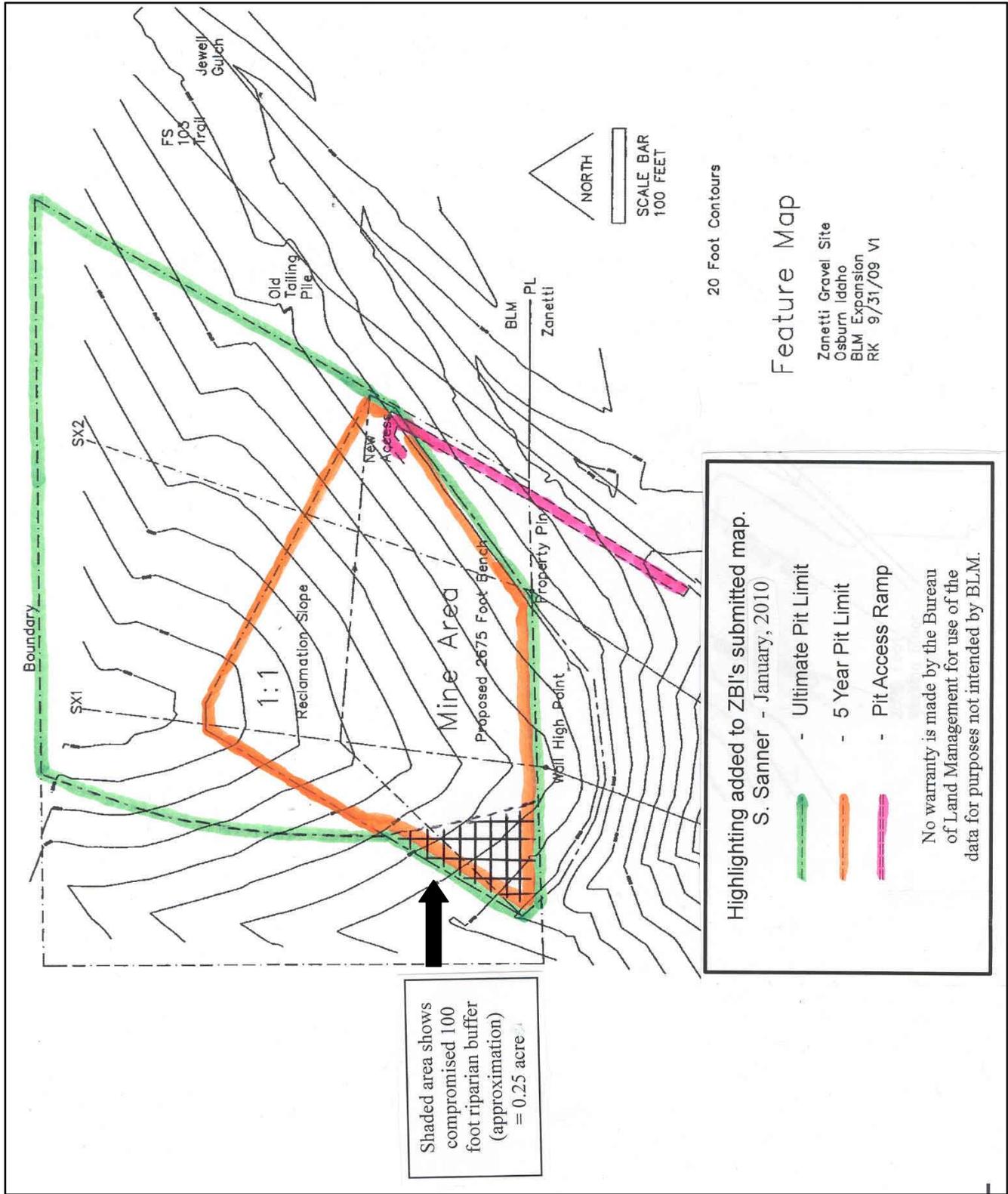
PROPOSED ACTION - ZANETTI BROS., INC.'S MINING AND RECLAMATION PLAN

ZBI's proposal outlines steps they deem necessary to remove an estimated 30,000 cubic yards (in-place; or 60,000 to 65,000 tons) of rock from the BLM administered land in Township 48 North, Range 4 East, Section 18 (N½NW¼), Boise Meridian. Approximately three (3.0) acres of the BLM parcel would be impacted over the next five or six years. The proposed five-year (5 Year) pit limit is indicated by the orange line on the Feature Map on page 8. ZBI has included with this proposal a forward looking statement that additional requests for pit expansion beyond the initial permit could ultimately disturb another four (4.0) acres over a 20 to 25 year period. ZBI's envisioned ultimate pit boundary, which would cover about seven (7.0) acres and remove a possible 500,000 cubic yards of rock, is indicated by the green line on the Area of Analysis Map (page 6) and the Feature Map.

Initially, ZBI would construct a road for logging and mining equipment access to the pit area. The proposed access road location is indicated by the pink line on the Area of Analysis Map and Feature Map. The road would begin in the northeast corner of ZBI's existing pit and extend to the northeast corner of the proposed five-year pit boundary. Future plans would include extending this road along the eastern boundary of the ultimate pit limits on an as needed basis. Next, the vegetation (trees, shrubs, grass, etc.) would be removed from the estimated three acres of BLM land that would be developed under the initial five-year plan. Once the vegetation was removed, ZBI would scrape off the topsoil and stockpile it on the floor of their existing pit for future use during final reclamation efforts. Measures to prevent erosion of the topsoil stockpile(s) and discourage weed growth would be implemented immediately (i.e., application of seed mix provide in Appendix A, page 35). Drilling and blasting would then be required to break up the in-place rock. ZBI's five-year plan indicates that the broken rock would be pushed over the existing pit highwall and then loaded into trucks and transported to either ZBI's rock yard in Osburn, or directly to the customer. *{These steps would be repeated as needed with each incremental plan until the pit was developed out to the extents of the seven acre Ultimate Pit boundary. Future plans would have similar measures for pushing, loading and transport of broken rock; however, the push-point would move with the advancing pit.}*

Development of the expanding pit would include benching the pit walls (east, west, and north sides) as material is extracted and the depth of the pit increases. (Examples of benching are provided in the photos on page 9.) ZBI's plan states that the benches would be twenty to thirty feet wide and high (dependent upon the reach of the largest piece of equipment at the site) and the resulting pit wall slopes would be near a one-to-one (1:1) ratio (crest to crest). This is an estimate because the slope between the crest and toe of each bench face would be dependent upon the composition and competence of the rock as evidenced in the examples on page 9.

Reclamation efforts would include applying an approved mix and depth of soil on benches considered to be "final", and on the final pit floor. The re-distributed topsoil would then be seeded with an approved seed mix. Re-establishment of desired trees would be through natural reseeding and augmented with bare root planting. Shrub planting would include container stock placed in appropriate survivable locations such as the wet and partially shaded base of bench walls. Planting would be done in the late fall at the onset of seasonal precipitation to facilitate establishment of the grass, tree and shrub cover. Additional replanting would occur until an acceptable tree and shrub cover is established.



Shaded area shows
compromised 100
foot riparian buffer
(approximation)
= 0.25 acre

20 Foot Contours

Feature Map

Zanetti Gravel Site
Osburn Idaho
BLM Expansion
RK 9/31/09 VI

Highlighting added to ZBI's submitted map.
S. Sanner - January, 2010

- Ultimate Pit Limit
- 5 Year Pit Limit
- Pit Access Ramp

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM.



Highwall Benching Example: Interstate 90 - 4th of July Pass



Highwall Benching Example: Interstate 90 - 4th of July Pass

NO-ACTION ALTERNATIVE

Under this alternative, the BLM would not approve ZBI's request. No further federal action with regard to this proposal would be necessary.

CONFORMANCE

LAND USE PLAN CONFORMANCE

The Coeur d'Alene Resource Management Plan (RMP; Record of Decision signed June, 2007) identifies goals for the various resources on the federal land administered by the Coeur d'Alene Field Office. Two of the resources identified in the RMP are:

Minerals (MN):

Goal MN-2 for mineral resources is;

“Make...mineral materials...available for exploration, acquisition, and production...consistent with other resource goals.”

To meet this goal, Objective MN-2.1 was developed which states;

“Identify area(s) open to...mineral material disposal...”

Social and Economic (SE):

Goal SE-3 for social and economic resources states;

“Provide opportunities for economic benefits while protecting cultural and natural resources.”

To meet this goal, Objective SE-3.1 was developed which states;

“Balance resource protection with opportunities for commercial activities and other noncommercial human uses.”

The BLM land that would be affected by ZBI's proposal is included with the 76,048 acres identified in the RMP as open to mineral material disposal (Objective MN-2.1). The BLM's decision to review ZBI's proposal is in conformance with the RMP's Objective SE-3.1. This information indicates that ZBI's proposal is a possible use of the identified land within the framework of the approved Land Use Plan. However, the BLM must also determine if completion of the proposed activity can be done in a manner that protects standards and goals set for any resource that may exist in the area of consideration. This discussion and analysis is presented for each of the identified resources under the 'Affected Environment / Environmental Effects' section of this EA.

CONFORMANCE WITH OTHER PLANS, REGULATIONS, ETC.

ZBI's proposal is subject to Title 43, Code of Federal Regulations, Group 3600, 'Mineral Materials Disposal'. In addition to these federal regulations, the proposed operations must comply with all federal, state and local laws, and plans and regulations; including national, state and local fire restrictions.

AFFECTED ENVIRONMENT / ENVIRONMENTAL EFFECTS

GENERAL SETTING

The BLM land that would be affected by ZBI's current proposal [approximately seven acres in Township 48 North, Range 4 East, Section 18 (N½NW¼), Boise Meridian] is essentially in its natural forest and shrubland state. The Coeur d'Alene National Forest (CdA NF) is north of the BLM parcel and privately owned and developed land is east (Twomile Gulch) and west (Terror Gulch) of the parcel. To the south is ZBI's existing rock pit on their private land. Currently, no other proposed or authorized actions exist for the BLM land.

Evidence of human caused disturbances in the area is limited. An old road (trail) used for recreating (ATV, hiking, biking, etc.) is immediately east of the project area. This north-south trail parallels Jewell Creek all the way through the BLM's parcel and continues into the CdA NF. For the most part, this trail is located between 30 to 50 feet slope distance above the channel bottom. That portion of the trail on the CdA NF is a designated trail.

ASSUMPTION(S)

As discussed under '*Issues/Concerns not addressed with completion of the EA*', any future pit expansion requests submitted by ZBI would honor the 100' buffer for the intermittent stream that currently drains into the northwest corner of ZBI's existing pit.

CUMULATIVE EFFECTS

Cumulative effects to each identified resource are addressed following the description of direct and indirect environmental effects. In general, the analysis of cumulative impacts focuses on the completion of ZBI's currently proposed mining and reclamation work involving about three (3.0) acres, possible future pit expansions that could disturb another four (4.0) acres, and historic, on-going and foreseeable future activities within the Silver Valley. Activities considered in the cumulative impacts analysis include:

- Community Expansion (includes construction of homes and businesses due to increasing population which leads to additional road building, use and maintenance).
- Mining (both underground and surface).
- Timber Harvesting (for both private and commercial uses).
- Recreation/Tourism (hunting, fishing, hiking, biking, snowmobiling, skiing, etc.).
- Continued Superfund Clean-up and Restoration Efforts (throughout the Silver Valley).

AFFECTED RESOURCES/VALUES

Cultural

A cultural resource inventory was completed and there are no significant cultural resources in the project area. There are no anticipated effects to cultural resources from either the Proposed Action or No Action alternatives.

Air Quality

Particulate matter is the dominant air pollutant in the Silver Valley/Shoshone County region. Smoke and dust are the primary types of particulate air pollutants that could result from or be affected by land management direction. Overall, air quality in the region is in the “good” category of the Air Quality Index (BLM, 2006).

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

Impacts to air quality from ZBI’s proposed operations would include dust and exhaust generated during construction of the equipment access road and site clearing (timber and topsoil removal), and smoke during prescribed slash burning (if needed) after timber removal. Dust and exhaust would be generated from mining (blasting, dozer push, loading, etc.), transport of the rock from the project area, and reclamation efforts (when needed) throughout the life of the permit. These impacts would be sporadic and most noticeable in the surrounding communities when the identified activities are occurring. The BLM has incorporated a Project Design Measure for dust abatement which would reduce the amount of dust generated during dry periods of the year. (See Appendix A, No. 4, page 34.)

No Action

There would be no impacts to air quality from activities on the identified federal land should the BLM decide not to authorize ZBI’s proposed operations. However, the same type and level of impacts would likely occur in the region from similar activities authorized and completed on other public or private land in the region as there would still be a need for this type of rock.

CUMULATIVE EFFECTS

Natural events in the area (storms and wildfires) have obvious impacts to the region’s air quality when these events occur. A wind storm can introduce dust during the storm; however, these impacts typically clear up soon after the storm has passed. The retention time for smoke and ash generated from wildfires is typically dependent on weather conditions and patterns, fire severity and proximity.

Human activities in the region (home heating, logging, mining, construction, field burning, etc.) introduce smoke, dust and exhaust year-round. The amount of pollutants from human activities is dependent on several factors (time of year, level of activity, soil moisture content, etc.). Again, retention time for these pollutants in the air is dependent on weather conditions.

Impacts to air quality from ZBI’s proposed operations would be comparable to those that have occurred during operations conducted in their existing pit. The amounts, conditions, and trends in the region would be similar to those that are present, and will continue to be present for the foreseeable future. The effects from ZBI’s proposed operations would discontinue upon final reclamation of the site (possibly between 25 to 30 years from now), therefore, no cumulative effects to the region’s air quality are expected.

Water Quality, Surface & Ground

The proposed action lies within the South Fork of the Coeur d'Alene River (SF CdA River) watershed, which has a drainage area of about 300 square miles (192,000 acres \pm) at its confluence with the North Fork of the Coeur d'Alene River, ultimately flowing into Coeur d'Alene Lake. The Coeur d'Alene River watershed has been impacted by mining, channelization, road building, logging and wildfires.

The project area is characterized by a broad north-south trending ridge with elevations ranging from about 2860 to 2700 feet. The ridge is bounded on the east by Jewell Gulch and on the west by an intermittent (unnamed) draw.

Jewell Gulch is a steep, forested draw with a contributing drainage area of about 240 acres. Downstream of the BLM property line, Jewell Creek has been re-routed around ZBI's existing access ramp in a perched and bermed ditch. From the ditch, the creek is routed along the east side of the ramp and existing pit floor, then under the Patterson Road in a 400-foot long, 36-inch diameter, corrugated metal culvert. The creek then enters another 40 foot long culvert which conveys the water under another dirt/gravel road and into the SF CdA River.

Presently, the intermittent draw along the west side of the project area flows over the top of the existing rock pit highwall as a seasonal waterfall. Near the base of the highwall, a detention basin, with a surface area of approximately one-quarter (0.25) acre, collects runoff.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

As described above, there are two stream channels within or adjacent to the proposed site. The drainage pattern of the intermittent draw along the west boundary would be changed by the five-year plan. The largest impact would not be water quality as much as a slight loss (about 0.25 acre) of riparian area and vegetation. (See Feature Map, page 8.)

Referring to the Feature Map, the proposed equipment access road would angle upslope and away from the existing trail and Jewell Gulch, effectively increasing the buffer width between the proposed road and the stream. At the lower end of the proposed road, near the junction with ZBI's existing ramp, the potential for sediment delivery to Jewell Gulch would be relatively high due to the minimal buffer width, averaging about 30 feet slope distance. Sediment delivery, however, could effectively be minimized with proper erosion control measures (rocking and in-sloping the road) as provided for with the BLM's incorporated Project Design Measure No. 1 (Appendix A, page 34). Upstream of ZBI's existing equipment access road, some segments of the trail along Jewell Gulch are poorly drained, chronic sediment sources that could be addressed through maintenance and improved drainage. Therefore, the BLM has incorporated Project Design Measure No. 2 (Appendix A) which is designed to reduce the potential for sediment delivery to Jewell Gulch.

Water quality impacts to the SF CdA River are expected to be minor, due to the site drainage features, including routing run-off from the in-sloped equipment access road into the detention basin in the existing pit. Most of the site-generated runoff would be captured in the detention

basin or dispersed to infiltrate in the undisturbed forest ground. The existing detention basin may need to be enlarged as the impermeable surface area of the mine is enlarged.

The primary risk to groundwater would be from a fuel spill. ZBI has indicated that no fuel would be stored at the site; however, operating equipment would be on site, and should any equipment need refueling or spills occur, ZBI would be required to follow proper storage and handling procedures as required by EPA and other applicable regulations. These measures are included in Zanetti Bros., Inc.'s Fuel Transport, Storage, and Emergency Spill Plan which would be adhered to during the course of any approved operations. (See Appendix B, page 36.)

No Action

There would be no additional impacts to water quality should the BLM decide not to authorize ZBI's proposed operations. Existing conditions would continue unless ZBI decided to do something on their private land.

CUMULATIVE EFFECTS

There would be no cumulative effects to water quality in Jewell Gulch or the SF CdA River should ZBI be authorized to complete their proposed operations as designed.

Fisheries, Including Special Status Species

The proposed project is located adjacent to the SF CdA River, between Jewell Gulch to the east and an unnamed intermittent tributary to the west. The intermittent draw flows into the existing rock pit as a seasonal waterfall and collects in a basin with no outflow to the SF CdA River. As described in the 'Water Quality' section, Jewell Gulch contains a small perennial stream that flows into a 400-foot long, 36-inch diameter, corrugated metal culvert, then into a 40-foot long culvert that empties into the SF CdA River.

The SF CdA River contains westslope cutthroat trout (*Oncorhynchus clarki lewisi*) a BLM sensitive species. Other native species known to inhabit the SF CdA River watershed include mountain whitefish (*Prosopium williamsoni*), shorthead sculpin (*Cottus confuses*), and torrent sculpin (*C. rhotheus*). Brook trout (*Salvelinus fontinalis*) and rainbow trout (*O. mykiss*) both introduced species, are also present. Jewell Gulch Creek is not known to contain fish; fish may have inhabited the lower end historically, however currently they are not able to navigate the culverts or the altered lower portion of the stream. The unnamed intermittent tributary does not contain fish habitat currently, and would not have in the past due to steepness and lack of water.

Westslope cutthroat trout spawn mainly in small tributaries from March through July, when water temperatures warm to about 50°F. Westslope cutthroat trout stocks in the Coeur d'Alene Basin exist at a fraction of historic levels due to habitat degradation from activities such as mining, logging, development, and highway construction. Fishing pressure and introduction of non-native fish species has also contributed to reducing cutthroat numbers (DuPont and Horner, 2003). Due to low numbers, the current fishing regulations for westslope cutthroat trout are catch-and-release in the entire Spokane River drainage, which includes the SF CdA River and all tributary streams (Idaho Fish and Game, 2010). The SF CdA River adjacent to and downstream from the project mainly

serves as a migratory corridor and adult habitat for westslope cutthroat trout; spawning or juvenile rearing would occur in smaller tributaries.

Bull trout (*S. confluentus*) are found in parts of the Coeur d'Alene River and Lake Coeur d'Alene, but are no longer known to inhabit the SF CdA River or any of its tributaries. No bull trout were detected during a BLM-Idaho Fish and Game 2006 snorkel survey of the SF CdA River and it is not included in designated critical habitat for bull trout, or in the current revised designation critical habitat proposal.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

According to the Coeur d'Alene Native Fish Strategy (CNFISH) in the Coeur d'Alene Resource Management Plan (RMP), the Riparian Conservation Area (RCA) along the unnamed tributary would extend 100 feet on either side of the channel, and the RCA along Jewell Gulch would extend 150 feet on either side of the stream channel. RCAs are lands that are likely to affect the condition and/or function of aquatic habitat, and may include areas adjacent to streams, ponds, lakes, wetlands, and unstable landscapes. In RCAs, riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines.

About one-quarter (0.25) acre of the RCA along the lower east side of the unnamed tributary would be included in the project area and become part of the rock pit. (See Feature Map, page 8.) RCA Standard and Guideline MM-5 states:

“Permit sand and gravel mining and extraction within RCAs only if no alternatives exist, if the action(s) would not retard or prevent attainment of Riparian Management Objectives (RMOs), and adverse effects to native fish can be avoided.”

This small amount of RCA is necessary to include in the proposed pit due to the alignment of the current pit, though any future expansion would avoid encroachment into this RCA. The unnamed gulch is intermittent, does not provide habitat for fish, and currently drains into the existing rock pit, therefore no adverse effects to native fish species would occur. The attainment of RMOs in the 0.25 acre of RCA to be included in the pit would be prevented. However, RMOs address fish habitat needs, and since this intermittent tributary never contained fish or fish habitat, and since the tributary drains into the existing rock pit and would not impact water quality in the SF CdA River, the impacts of including about 0.25 acre of RCA in the rock pit is negligible, and would not cause any adverse effects to native fish species.

Part of the pit access ramp would be inside of the Jewell Gulch RCA. (See Feature Map, page 8.) This access ramp would be used to get equipment to the new rock pit area, as well as hauling timber off the site. Standard and Guideline MM-5 states:

“Locate structures, support facilities, and roads outside RCAs. Where no alternative to sitting facilities in RCAs exists, locate and construct the facilities in ways that avoid impacts to RCAs and streams and adverse effects on native fish. Where no alternative to road construction exists, keep roads to the minimum necessary for the approved mineral activity. Close, obliterate, and revegetate roads no longer required for mineral or land management activities.”

The access ramp would be in the Jewell Gulch RCA for 100 feet or less. Improvements in drainage along the access ramp would occur (in-sloping) so that any sediment runoff would be directed into the rock pit detention basin and not into Jewell Gulch. Sediment control devices (straw bales, silt fence, etc.) would be installed to prevent any sediment movement into Jewell Gulch during construction of the road. Use of the road may cause sediment movement into Jewell Gulch; however, the drainage improvements and sediment control measures would reduce potential for sediment to reach live water. Finally, at the end of the project, the road would be rehabilitated back to approximate pre-disturbance topography and any bare areas within the RCA planted or seeded. With sediment control measures in places, improved drainage, and rehabilitation at the end of the project, the amount of sediment moving into Jewell Gulch Creek would be negligible and impacts to the RCA, stream and native fish species in the SF CdA River would be avoided.

Overall, impacts to westslope cutthroat trout and other native fish species would be negligible. Fish do not inhabit the unnamed tributary to the west of Jewell Gulch, and the potential of sediment reaching the SF CdA River and impacting occupied fish habitat is low.

No Action

No action would occur; therefore there would be no impacts to any native fish species. The unnamed tributary on the west side of the project area would retain the 0.25 acre of RCA that would become part of the rock pit under the proposed action. Jewell Gulch would remain in its current condition, with a trail running adjacent to and partially within the RCA. Current drainage problems along the trail could cause sediment in-put into Jewell Gulch Creek, with a slight possibility of sediment reaching the SF CdA River. Over all, no impacts to westslope cutthroat trout or any other native fish species or their habitats are anticipated.

CUMULATIVE EFFECTS

Westslope cutthroat trout stocks in the Coeur d'Alene Basin exist at a fraction of historic levels due to habitat degradation from activities such as mining, logging, development, and highway construction. Fishing pressure and introduction of non-native fish species has also contributed to reducing cutthroat numbers (DuPont and Horner, 2003). All these activities are expected to continue in the present and into the future. Mining, which probably has had the greatest impact on westslope cutthroat trout and other native fish species, will likely have less of an impact in the future due to stronger regulations and increasing restoration work occurring in the watershed. Fishing pressure on westslope cutthroat trout has been reduced due to catch and release regulations set by the Idaho Department of Fish and Game, so effects from fishing also should decrease in the future. Since the effects from the project are expected to be negligible to westslope cutthroat trout and other native fish species, and since some of the other past, present and future impacts are lessening, cumulative effects are not anticipated.

Soils

Soils within the proposed project area range from shallow to deep, well-drained gravelly silt loams. Permeability is moderate. Parent material is weathered metasedimentary bedrock, primarily

siltite and argillite, with a mantle of volcanic ash. Average annual precipitation in the area is 38 inches.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

Excavated topsoil would be stockpiled and saved for ultimate site reclamation activities. The saved topsoil would be redistributed over much of the disturbed area (on final terrace benches and the pit floor) as part of final reclamation. There would be a small, but permanent loss of areal soil coverage, and consequently a loss of soil productivity, on the slopes between the benches.

No Action

There would be no impacts to soils should the BLM decide not to authorize ZBI's proposed operations. Existing conditions would continue unless ZBI decided to do something on their private land.

CUMULATIVE EFFECTS

There would be no cumulative effects to soils should ZBI be authorized to complete their proposed operations as designed.

Vegetation Communities

The land cover classification in the action area is split between upland forest (about five acres); shrubland (about two acres); and riparian vegetation (two acres) that occurs in the drainages on the east (Jewell Gulch) and west (unnamed) sides of the proposed pit expansion area.

Within the action area, forest vegetation is dominated by ponderosa pine, Douglas fir, and western white pine, including about 40 large (>24" DBH) trees, as well as a stand of about 30 mature quaking aspen trees (< 1 acre). Overall, about 100 large diameter conifers grow on the 80 acre BLM tract, along with additional aspen trees. The large conifer trees have withstood: Past wildfires; harvest, for personal or industrial use, for example; and insect and disease outbreaks. Smaller western white pine and Douglas fir trees (<12"DBH) occur in the forest understory, along with shrubs such as pachistima, twinflower, Rocky Mountain maple and oceanspray.

The portion of the action area covered by shrubland is composed of a mixture of densely-growing chokecherry, ninebark, ocean-spray, Oregon grape, serviceberry, snowberry, and Rocky Mountain maple. The following species are tied to the riparian zones: Black cottonwood; grand fir; western hemlock; western red cedar; western white pine; alder; red-osier dogwood; ladyfern; stinging nettle; and large-leaf avens. The lower part of the Jewell Gulch riparian zone has been channelized due to past rock pit development, with a portion of the area previously occupied by riparian vegetation now dominated by weeds. The riparian zone on the west side of the action area was "disconnected" from the SF CdA River when the adjacent private land was developed into a rock pit.

Threatened and Endangered Species. The Idaho Natural Heritage Program (formerly the Idaho Conservation Data Center) database was searched for known occurrences of rare plants in the vicinity of the project area. Fieldwork has been done in the action area during the past year.

No water howellia (threatened) or Spalding's catchfly (threatened) individuals, populations, or potential habitat occur in the project area.

BLM Sensitive Species. No clustered lady's-slipper orchid, Constance's bittercress, or deerfern (all BLM Sensitive) individuals or populations were found during inventory of the project area, though potential habitat for these species is present throughout the site.

Invasive, Non-native Species. Historic activities in the project area (stream channelization, trails and ATV use) created disturbances allowing the invasion of noxious weeds. The majority of the current weed populations are closely associated with these past activities. Trails and areas along Jewell Gulch that have previously disturbed areas currently have noxious weed populations.

Noxious Weeds currently in Project Area.

Spotted knapweed -	<i>Centaurea maculosa</i>
Common tansy -	<i>Tanacetum vulgare</i>
Meadow hawkweed -	<i>Hieracium caespitosum</i>
Oxeye daisy -	<i>Chrysanthemum leucanthemum</i>

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

During the first five years of rock pit expansion, all vegetation on approximately three acres of BLM land would be killed, with an additional four acres of it killed during the next 20 to 25 years. Removal of the large diameter trees would be a 40% loss of an important forest structure component on the 80-acre BLM tract (BLM, 2007). These trees represent stages of ecological succession in drier forest types that are under-represented on CdA FO lands compared to historical conditions (BLM, 2007). Because aspen stands are more prevalent in this part of the Silver Valley compared to other CdA FO lands, the project impact on forest structure and composition of completely removing less than one acre of an aspen stand might not be as substantial as elsewhere (BLM, 2007).

The Coeur d'Alene Native Fish Strategy (CNFISH) provides direction for protecting native fish populations and their riparian habitat within the CdA FO (BLM, 2007). CNFISH defines riparian buffer widths where riparian-dependent resources receive primary emphasis. During the first five years of expansion, the rock pit would encroach into the 100 foot riparian buffer on the west side of the action area, destroying about one-quarter (0.25) acre of riparian habitat. The subsequent phase of expansion would avoid impacts to the rest of that particular riparian zone. Impacts to the Jewell Gulch riparian community would be reduced by locating the access road in the adjacent upland community and reclaiming it upon project completion.

Rock pit expansion would completely disrupt the site's features, such as landform, soil, and hydrology, which enable the existing vegetation communities to grow there. Therefore, natural redevelopment of a similar vegetation community would not be possible within the proposed

seven acre boundary. Some vegetative cover would re-establish within the seven acre action area due to:

- Benches constructed on ‘final’ pit highwalls, covered with native topsoil and planted with site appropriate species to be determined by the BLM.
- Topsoil spread on the final pit floor and planted with site appropriate species to be determined by the BLM in the final years of pit development.
- Plus any natural regeneration that occurs on the pit floor, benches and amid the remaining rock.

Treatment and monitoring of project area weed infestations would reduce potential impacts to adjacent native vegetation communities. Proposed weed control measures for these reclaimed areas would reduce weed competition with desired, planted species.

Threatened and Endangered Species. The Proposed Action would not affect water howellia or Spalding’s catchfly.

BLM Sensitive Species. The Proposed Action would not affect clustered lady’s-slipper orchid, Constance’s bittercress, or deerfern individuals or populations. Seven acres of potential habitat for these three species would be destroyed. However, the Proposed Action would not contribute to the need to list any of these species as Threatened or Endangered.

Invasive, Non-native Species. The Proposed Action would likely have a direct effect by increasing disturbance and thereby increasing the risk of localized invasive plant invasion into the Project Area. The removal and stockpiling of soil from the project area would increase the likelihood of weed invasion into both the disturbed pit area and the stockpiled soil itself. The risk of weed invasion into the rock pit area effects are short term in nature due to the removal of the rock at regular intervals. Assuming that the surface rock is removed at intervals of less than one year, the likelihood of weed invasion is low. Intervals of longer than one year would have increasing risk of weed invasion by allowing weed seed to germinate on the surface and establish populations. Construction and use of the access road would likely increase the risk of noxious weed spread. Equipment and vehicles traveling to and from the rock pit would increase the risk of introduction of new weeds by moving seed and/or plant parts into the project area.

Indirect effects include risks associated with transporting weed seed from the project area throughout the Silver Valley. Established weeds in and around the project area may produce seed that could be incorporated into the harvested rock. This rock is to be used throughout the Silver valley for various construction projects. The weed seed incorporated into the rock may cause new infestations at these construction sites. While the weeds currently found in the project area are widespread throughout the Silver Valley, every effort needs to be made to reduce the possibility of infesting new areas. Preventing new weeds from establishing in the project area and spreading through the transported rock is the highest priority (BLM, 2007).

The prevention and treatment of weeds in the project area during the active life of the rock pit is necessary to reduce and prevent incorporation of weeds seed or plant parts into harvested rock. The main areas that must be addressed include; stockpiled soil, terraced walls, access road, and existing weeds in the project area.

Following removal from the project area, the native topsoil is to be stockpiled and stored in ZBI's existing pit for a long period of time (possibly 20 years or more) before being used to revegetate the terraced pit walls and pit floor. Stockpiled soil is very susceptible to weed invasion unless seeded with desirable species to prevent or reduce weed infestation of the soil. Stockpiled soil would be monitored and treated for noxious weed infestations.

Pit wall terraces, the active pit area, and the access road must be monitored for weed invasion. Any weed establishment must be treated as soon as practicable to reduce the possibility of incorporating seed or plant parts into the harvested rock. Treatments may include herbicide, physical removal or other treatment that works in short time frames. Treatments such as biological controls are not appropriate for immediate removal of weeds to prevent infection of harvest rock.

Long term effects are largely from the risk of weed invasion into the pit area and terraced walls. The pit floor would be largely rock and would support only small populations of weeds that would be easily treated with herbicides, mechanical, or manual methods. The terraced rock walls would have the greatest risk for weed invasion as well as the most difficult access for treatment. Spreading soil on these terraces and planting with desirable vegetation would reduce the likelihood of weed invasion. Weeds are still likely to establish to some level. All treatment methods available would need to be used to reduce these populations including herbicides, biological controls, mechanical, and manual methods. Monitoring of the project area would continue following the final reclamation efforts to identify any weed populations.

No Action

Plant succession would continue toward the potential natural community, where possible, until a future disturbance such as timber harvest; wildfire; insect or disease outbreak; or weather event occurs. Weeds would still remain in and adjacent to the project area and compete with native species.

Threatened and Endangered Species. This alternative would not affect water howellia or Spalding's catchfly.

BLM Sensitive Species. This alternative would not affect clustered lady's-slipper, Constance's bittercress, or deerfern individuals or populations. The site would continue to support potential habitat for these three species.

Invasive, Non-native Species. Established weed populations would remain in the disturbed areas along Jewell Gulch. Weeds would continue to be transported along the trail adjacent to the creek by ATV use.

CUMULATIVE EFFECTS

Proposed Action

The analysis area includes the mainstem SF CdA River drainage, from Wallace downstream to the confluence with the North Fork of the Coeur d'Alene River (NF CdA River), approximately 300 square miles (or 192,000 acres ±).

Past land use practices and natural disturbances in the analysis area have influenced the present composition, structure, and function of existing plant communities. Examples include mining operations and reclamation; fire activity; timber harvest; road building, use, and maintenance; insect and disease outbreaks; home site establishment; and/or rock pit development. Some sites have recovered naturally, where not completely denuded or converted to a condition that would no longer support vegetation. Other areas have been replanted to varying degrees with native or non-native species. Weedy species have invaded and established following vegetation and soil disturbance, leading to competition with desirable native species. Currently, various stages of ecological succession are present in the analysis area due to past disturbances.

Present activities and natural disturbances in the analysis area include mining-related reclamation; fire activity; timber harvest; road building, use, and maintenance; insect and disease outbreaks; home site establishment; and rock pit development.

Reasonably foreseeable future actions and natural disturbances in the analysis area include mining-related reclamation; fire activity; timber harvest; road-building, use, and maintenance; insect and disease outbreaks; homesite establishment; and rock pit development.

Ongoing and future disturbances in the analysis area which involve partial removal of vegetation with an opportunity for natural regeneration would continue to promote a mosaic of plant communities in various stages of ecological succession. Plant communities that revert to earlier ecological succession stages due to disturbance such as timber harvest, insect infestation or disease would begin the process of maturing all over again. Vegetation communities removed by rock pit development or expansion would not regenerate; however, reclamation would supplement (potential) slow-paced, natural colonization of the exposed rock. Ecological succession would proceed where vegetation is left undisturbed. Ongoing and proposed activities that impact vegetation would open up sites favorable to weed invasion due to ground disturbance and/or reduction of tree canopy cover. Where left untreated, weeds would continue to threaten native plant communities.

The proposed action would impact seven (7.0) of 192,000 acres of vegetation in the analysis area; therefore, this project is unlikely to contribute cumulative effects to vegetation communities; special status plant species; or invasive non-native species, due to the relatively small level of disturbance when compared to the overall analysis area.

The proposed action would likely contribute to a very small overall increase in weeds. The potential for noxious weed population increases in the project area are small in relation to the current and expected weed populations in the surrounding Silver Valley.

No Action

Due to “stimulus” funding and long-term mining impacts reclamation work (Superfund Clean-up and Restoration Efforts), the need for “good construction grade rock” in the Silver Valley is predicted to continue. Therefore, if rock pit expansion does not occur in the proposed action area, it could occur elsewhere in the analysis area, and, therefore, impact localized area(s) of vegetation.

Mitigation / Residual Effects

Mitigation Measures

Mitigation and Project Design Measures incorporated into the proposed action would reduce the impacts of weeds to a negligible level. (See Appendix A, No. 5 and 8, page 34.) ZBI would immediately seed topsoil stockpiled from the initial three acre expansion area with a BLM-approved mix to discourage weeds from becoming established on the stored soil (assumes the topsoil is removed over a short period of time). During the initial five years of pit expansion, this preferred vegetative cover on the stockpile would be maintained to inhibit weed emergence, invasion, and establishment; and to potentially augment the desired seed source present in the topsoil. The BLM would periodically monitor the soil stockpile to determine if maintenance measures such as weed control and/or supplemental seedings are necessary. Should topsoil be removed from the remaining four acres of pit expansion area in the future, and if the soil is added to the existing, original stockpile, the vegetative cover should be refreshed, and maintained as before. If the second batch of topsoil is placed elsewhere, measures used to control weeds during the first five years of expansion should then be applied to the new soil storage area. The approved weed control and stockpile maintenance measures would be followed until the time when the stored topsoil is re-spread onto disturbed areas for re-vegetation efforts.

Residual Effects

Actively working to exclude/limit weeds in the stockpiled topsoil would minimize the contamination of the stored topsoil. Once the topsoil is returned to the benches, pit floor, and access road to provide a growing medium for re-vegetation efforts, a reduced source of weed seeds/parts would then be present in the topsoil to compete with the desired, planted species. The reclaimed areas would also be less likely to contribute weed seeds/parts into the adjacent, intact native plant communities.

Wildlife

The project area provides habitat for numerous wildlife species. Vegetation present on the site that is particularly valuable to wildlife includes aspen and Oregon grape, as well as several shrub species that provide cover and a food source for big game, grouse and other birds, and small mammals. The large aspen stand provides an important winter food source for elk, which is evidenced by the bark scarring from elk scraping. Aspen buds and catkins are a highly nutritional food source for birds in winter and early spring, especially grouse. Large diameter aspen provide a substrate for numerous primary and secondary cavity nesters.

There is ample evidence of big game use on the site. Pellets from moose, elk, and deer were present throughout the project area. There are also numerous game trails on the site. A ridge line bisects the project area and several very large diameter (20-30 inch) Douglas fir and ponderosa pine are present there. These large trees can provide roosting areas for wild turkey (Boeker and Scott, 1969) and are very desirable snags after they die.

Wildlife species that have special status and could be reasonably expected to use the site are summarized in Table 1 on page 23.

Table 1. Wildlife - Special Status		
Species	Likely to Inhabit	Uncommon-May Inhabit
Northern Goshawk		X
Red-tailed hawk	X	
Sharp-shinned hawk	X	
Cooper's hawk	X	
Northern pygmy owl *	X	
Flammulated owl * ^M		X
Ruffed Grouse	X	
Wild turkey	X	
Calliope hummingbird * ^M		X
Cordilleran flycatcher * ^M	X	
Dusky flycatcher ^M	X	
Western wood peewee ^M	X	
Black-headed grosbeak ^M	X	
Brown creeper ^M	X	
House wren ^M	X	
Swainson's thrush ^M	X	
Cassin's vireo ^M	X	
Warbling vireo ^M	X	
MacGillivray's warbler ^M	X	
Yellow-rumped warbler ^M	X	
Yellow warbler ^M	X	
Townsend's warbler ^M	X	
Orange-crowned warbler ^M	X	
Wilson's warbler ^M	X	
Nashville warbler ^M		X
Western tanager ^M	X	
Lazuli bunting ^M	X	
Chipping sparrow ^M	X	
Spotted towhee ^M	X	
Cassin's finch *	X	
Gray wolf **		X
Fisher		X
Fringed Myotis		X
Townsend's big-eared bat *		X
Yuma myotis *	X	
Long-eared myotis *	X	
California myotis *		X
Long-legged myotis *		X
Western small-footed myotis *		X
Common garter snake *		X
Northern alligator lizard *	X	

*Special Status Species, ** Threatened, Endangered, Proposed, or Candidate Species,
^M Migratory Bird

Threatened, Endangered, or Candidate Species. There are currently three Federally protected wildlife species that occur in north Idaho. Grizzly bear (*Ursus arctos*) and Canada lynx (*Lynx canadensis*) are listed as Threatened under the Endangered Species Act. The woodland caribou (*Rangifer tarandus caribou*) is listed as Endangered. The gray wolf (*Lupus candensis*) was recently removed from the Endangered Species List. None of these species have been documented on the site. This project area is not within a Lynx Assessment Unit, nor is it in a Bear Management Unit or in designated Grizzly Bear Core Habitat.

Other Special Status Species. Very often, species that are habitat specialists are BLM Special Status Species or Idaho State Listed Species of Greatest Conservation Need. Their populations tend to be less secure because loss of their specialized habitat results in more dramatic population declines and higher rates of extinction (Smith, 1992). Recovery of declining populations requires restoration of lost habitat which may be difficult for many reasons. Ponderosa pine specialists require ponderosa pine during some portion of their life history. Brown creepers prefer mature ponderosa pine with knobby bark for foraging and nesting. They hide their nests behind a large slab of bark, or occasionally in an existing cavity. Lewis' woodpecker and white-headed woodpecker use large ponderosa pine for excavating nesting cavities and for foraging. Pygmy nuthatches forage for insects along the bole of the ponderosa tree, and they store pine seeds from the cones in the knobby bark. Pygmy nuthatches excavate a nesting cavity in the soft wood of a dead limb or snag. Small family groups roost in the nesting cavity during the non-breeding season. Calliope humming birds build their nests on pine boughs, or on the base of an old pine cone (Kaufman, 1996).

While the common garter snake is not uncommon in north Idaho, the northern alligator lizard is relatively rare. The alligator lizard is a habitat specialist that can occur in many different upland habitats, but is limited to those habitats that have talus slopes, or rocky outcrops. Common garter snakes are found in many upland and riparian sites in the Panhandle region of Idaho. Usually they are not too far from a water source. They are habitat generalists that prey on insects, small fishes, amphibians, and occasionally small mammals and birds (NatureServe, 2009).

The bat species found in Table 1 (pg 23) are habitat specialists because they require roosting and hibernating habitats that are very specific in their temperature and airflow requirements. Often bat populations, roosting sites, and life histories are not well known. This lack of knowledge leads most wildlife and land managers to take a more conservative approach when it comes to actions that may impact these bat species or their habitats. California myotis prefer dry conifer sites, and they may use this site for foraging. They may also roost under loose tree bark. The fringed myotis, which is relatively rare in north Idaho, is most likely to be found in low elevation ponderosa pine. Little is known about its roosting habitat requirements, but snags are one likely source in spring, summer, and early fall. Townsend's big eared bat may use this site for foraging and roosting. The long legged myotis and long eared myotis are both forest dwelling bats that use snags, caves, mines, and sometimes structures as roosts. This site may provide both foraging and roosting habitat for these two species. Yuma myotis are most commonly found near open water so these bats are highly associated with wetlands (Adams, 2003). The proximity to the SF CdA River makes presence of the Yuma bat somewhat likely. No mine shafts are known to be present on the site.

Migratory Birds. The moderately closed forest canopy and shrub understory on the project site provide foraging and nesting habitat for numerous neo-tropical migrants in spring and summer.

Table 1 (page 23) lists migratory birds that are expected to use the site and those that are uncommon but are known to use the habitat types that are currently present on the project site. Mixed coniferous forest with a moderately closed canopy and a shrubby understory is a habitat type that supports mostly generalist migratory birds. However, the aspen stand on the site is valuable to cavity nesting migratory birds and large diameter ponderosa pine makes this site more valuable to species that prefer large diameter snags.

Migratory birds that are generalists on the project site can usually fulfill all of their life history requirements in mixed coniferous forests, the shrubby forest understory, or in sunny forest openings with grasses and shrubs. Table 1 lists these generalists that are likely to be on the project site and are usually relatively common. These birds may nest in pine trees, from near to ground level up to the highest branches. They may be secondary cavity nesters, or nest on the ground (Birds of North America Online, 2009).

Other Wildlife. The south facing aspect, low elevation, shrubby understory, and open canopy are components of winter range for deer, moose, and elk. Elk prefer habitat that is composed of 60% forage and 40% cover (Thomas, 1979). This project site also provides necessary habitat components for mountain lion, bear, grouse, wild turkey, bobcat, and numerous small mammal species.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

No impacts to threatened or endangered species are expected. While wolves, grizzly bears, and lynx all have large home ranges and can move great distances in a relatively short time period (Squires and Laurion in Rugerio et al., 1999, Schwartz et al., 2003), it is unlikely that any of the three use this site with any regularity for foraging, denning, or cover. This project area is not within a Lynx Assessment Unit, nor is it in a Bear Management Unit or in designated Grizzly Bear Core Habitat. Gray wolves may pass through this site, but no documentation of individuals, packs, or dens exists. No grizzly bears have been reported near this site. A grizzly bear was shot about 20 miles away near Rose Lake, so it is possible, but unlikely, that a grizzly bear might be on or near the project site. If one were in the vicinity of the project area, direct impacts would be limited to temporary disturbance from machinery and other activities associated with logging and rock removal.

Direct impacts of the proposed action include mortality of migratory and special status bird species if mining and logging activities occur during the nesting season. Loss of adults, young, and unhatched eggs could be expected.

Small animals like the alligator lizard are unlikely to be able to escape machinery and equipment and thus would experience direct mortality. If ground disturbing activities occur during winter or early spring they may be killed as they estivate (hibernate).

Special status bat species that are roosting in live trees, snags, or rock crevices may be killed during logging and mining operations. At a minimum, they would be displaced and would be more vulnerable to predation as they move to new roosting habitat.

Ground nesting birds such as grouse and turkey may experience direct mortality of adults, young, and eggs if the proposed mining and logging activities occur during the nesting season.

The most substantial indirect impact would be habitat loss for big game species and some special status species. All species that are currently using the site would have long term (more than 20 years) loss of habitat. Reclamation would be slow and would not provide the same habitat type or habitat quality as that which currently exists. It would take several decades to replace large diameter trees that are removed during the project. These trees, which would eventually become snags are a valuable resource for several special status wildlife species, as well as many others. Specifically, cavity nesting birds like flammulated and pygmy owls, brown creepers, and pygmy nuthatches would be negatively impacted by the loss of existing and future large diameter snags. Special status bat species that use snags and loose bark for roosting habitat would be impacted by the immediate and long term loss of snag habitat.

Because alligator lizards prefer rocky substrates, the project area may become more suitable for this species. Although the site would be unproductive from a vegetative and insect standpoint initially, once restoration is initiated, the rocky benches and open canopy may become a preferred habitat for the alligator lizard.

No Action

If the project is not implemented, there would be no direct or indirect impacts to wildlife. No mortality would occur and there would be no long term loss of habitat.

CUMULATIVE EFFECTS

Proposed Action

What makes the project site valuable as wildlife habitat is its southerly aspect and the presence of aspen. The cumulative effects analysis area for wildlife impacts is the north side of the Silver Valley from Wallace to Pinehurst. These south-facing ridges have similar vegetation types and provide similar wildlife habitat values.

Historical activities in the analysis area include logging, development, road construction, mining (both open pit and sub surface), and restoration activities associated with historic mining. Recreation activities include hunting, ATV use, hiking, and snow machine use in winter. Historical mining and the pollution associated with it have made the most substantial impacts on wildlife and their habitat in the Silver Valley. Vegetation altered by logging, pollution, and restoration projects, is only now beginning to resemble its historical assemblage in many parts of the Silver Valley. Even the contours and surfaces of valley ridges and slopes have been highly modified in some areas.

The south-facing slopes in the Silver Valley are important winter range for big game species. Historical activities have affected, and would continue to affect this suite of species more than any other.

To a great extent, much of the land on the north side of the Silver Valley is privately owned. Remaining lands are mostly managed by the BLM. Reasonably foreseeable activities include continued subsurface mining, but to a much lesser extent than historically. New settlement monies received as part of the Natural Resources Damage Assessment in the Silver Valley would result in large amounts of money being spent to clean-up and restore large portions of the Silver

Valley. These projects would increase the amount of surface disturbance and vegetation removal during the clean-up phase. Continued and increasing surface mining (open pit) as demand for rock to complete restoration projects increases can also be expected. Logging of merchantable trees on private lands can be expected. Most of the restoration activities (soil removal and clean up) would occur on the valley bottoms, rather than on south facing slopes. Development and construction activities would occur on the valley bottom and on south facing slopes as well. All of these activities continue to degrade or eliminate big game wintering habitat.

While the aspen on the site, and south facing aspect, make it particularly valuable, no cumulative effects from the proposed project are expected. The project area makes up a very small portion of the analysis area for wildlife (about .06%). The eventual restoration of the site will approximate the habitat values it currently has, especially if aspen can be reestablished.

No Action

If the project is not implemented, the applicant may choose to mine rock in another portion of the Silver Valley. This may end up having more negative impacts on wildlife because there could be no mitigation, or less stringent mitigation measures. Or, alternative sites may be more valuable to wildlife than the proposed site.

Mitigation / Residual Effects:

Mitigation Measures

Restoration plantings should closely match the existing vegetation. Specifically, aspen should be a large component of the replanting as this is a relatively rare habitat type that has a very high wildlife value. Replanted shrub species should be those that benefit wintering big game, red stem ceanothus is a nutritionally valuable shrub that does not exist in great abundance on the site currently, but would increase the value of what would be highly marginalized habitat in the future.

Residual Effects

Even with mitigation measures, the seven acres loss of habitat is long term. Habitat quality would not closely match the current site for decades, if ever. Short and long term loss of large diameter live and dead trees would not be mitigated for 70 years or more. If aspen cannot be successfully re-established on the site, the impacts to wildlife would be even more substantial.

Recreation Use, Existing and Potential

The project area is a seven acre portion of an approximately 80 acre parcel of BLM land, bounded by the Coeur d'Alene National Forest (CdA NF) on the north and private lands on the other three sides. ZBI's current rock pit (which has a 200 foot-plus, near vertical highwall) is immediately to the south. As described under the 'General Setting' section, an old road (trail) runs north-south through the BLM parcel just east of the project area, paralleling Jewell Creek. This trail is a non-designated trail under the BLM's Land Use Plan, but that portion on the CdA NF is designated.

Entry to the public land is controlled from the south by ZBI. The CdA NF to the north provides legal, albeit minimal, non-motorized access to the project area for the general public. Project area use levels can be characterized as sporadic, with use being dispersed and non-motorized in nature.

The project area is primarily steep, open forest on southern-facing slopes within 900 and 1500 feet of Interstate 90. The small area provides minimal separation from the sights and sounds of human activities and very little opportunity for solitude. The project area is within the Silver Valley Special Recreation Management Area (SRMA), for which a Recreation Management Plan has yet to be completed. In general, the Silver Valley SRMA is intended to be managed for motorized recreation opportunities in a front to mid-country setting.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

There is a small likelihood of public safety issues developing with the encroachment of the pit and mining activities onto public land. In response to this possibility, the BLM has incorporated a Project Design Measure that would require cautionary signing and some type of physical deterrent at the crest of the advancing pit walls. (See Appendix A, No. 3, page 34.)

The area is likely used occasionally for dispersed non-motorized uses such as hunting, walking, or sightseeing. These impacts would not be allowed to continue within the project area as the expanding pit advances north, but the remaining 70-plus acres of public land in the BLM parcel would be available for recreational use. Disruption and/or loss of recreational opportunities would therefore be negligible.

No Action

No change from the current situation.

CUMULATIVE EFFECTS

No cumulative effects to recreation use are anticipated from the 25 to 30 years of disrupted and/or loss of recreational opportunities on the seven acre parcel.

Visuals

The area is classified as a Class III visual resource management area within the Coeur d'Alene Resource Management Plan (RMP). 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.

Key viewpoints of the project area are the I-90 travel corridor from east and west, and the Osburn cemetery across the SF CdA River in the valley bottom. Additional views are from most north-facing slopes across the valley as the elevations rise in the mountains south of the project area.

ZBI's south facing highwall (which is over 200 feet high) and pit already form the predominant visual feature from key viewpoints. There is currently a great deal of contrast between the pit highwall and the surrounding forested slopes.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

In the short-term, the visual contrast and impact would increase the size and shape of the disturbed area associated with the expanding pit and highwall(s). This contrast involves both forms and colors that do not blend well with the natural surroundings. However, the degree of change is not significant when compared to the current condition of the pit as operated on adjacent private land to the south of this proposed expansion.

In the long-term, the reclamation and restoration components built into the proposed action would actually improve the long-term visual appearance of the project area. Proposed terracing of the final highwall(s) and replanting of the bench areas and final pit floor would return the site to a more natural-appearing state, even when compared to the existing situation (no action alternative). Therefore, although some visual impacts would be inherent with the operation expanding onto adjacent public land, the long-term visual impacts would be beneficial from viewpoints in both the Silver Valley and the mountain areas to the south.

No Action

The current pit, once abandoned, would present a long-term scar upon the landscape from key viewpoints within the Silver Valley and the mountain areas to the south. The steep, nearly vertical rock faces are not likely to revegetate naturally and would remain different in color and form from the surrounding landscape for the foreseeable future.

CUMULATIVE EFFECTS

The restored features (revegetated highwall benches and pit floor) would partially retain the existing character of the landscape and be similar to the many other restored (terraced) hillsides in the Silver Valley. Therefore, there would be no cumulative effects to visual resources in the Silver Valley from the Proposed Action. No cumulative effects would occur under the No Action alternative because the existing conditions would remain.

Economic and Social Values

ZBI has been headquartered out of Osburn, Idaho and conducting business throughout the Silver Valley/Shoshone County region for about seventy years. Historically, the natural resource-related industries (mining, agriculture, forestry, etc.) were the dominant employers in the Silver Valley. However, these industries have become less dominant due to the closure of mines and lumber mills. To replace these lost jobs and/or revenue sources, the area has been migrating to tourism which has resulted in a gradual transition to more employment in the 'transportation/utilities' and 'services' sectors (BLM, 2006). This regional economic trend is expected to continue for the foreseeable future.

New settlement monies received as part of the Natural Resources Damage Assessment in the Silver Valley will result in large amounts of money being introduced into the local economies. This money will be spent on projects that will clean-up and restore historical environmental damage in the Silver Valley. The longevity of this revenue source is not known, but it will no longer be available when the majority of the clean-up and restoration efforts have been completed.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

If authorized, ZBI's proposed operations would continue providing jobs and other related economic benefits currently seen from their existing operations in the Silver Valley. The community of Osburn would likely see the most direct effects to economic and social values because most of ZBI's employees live in the area. For the greater Valley area, social benefits would include use of the rock in construction projects (roads, homes, businesses, reclamation efforts, etc.) in both the private and public business sectors. These impacts would be seen for at least five years and could last for over twenty years should ZBI request and be authorized to continue expanding the pit.

No Action

There would be no more effect to economic or social values from this rock pit if expansion onto the BLM land is not authorized. Community needs would have to be satisfied through identification and development of other sites.

CUMULATIVE EFFECTS

Rock pit operations are common around population centers because industrial mineral sources (sand & gravel, rip-rap, etc.) are important to the development and sustainability of any community. The economic and social effects from rock pit operations will always be present as long as there is the need and an identified source for materials. Therefore, based on the spatial and temporal scale of the ZBI rock pit, no cumulative effects are anticipated from the Proposed Action; nor would there be cumulative effects from the No Action alternative.

Minerals

The SF CdA River watershed covers about 300 square miles (192,000 acres ±). Although sources for good construction rock (sand & gravel, rip-rap, etc.) are known to exist in the Silver Valley, geographic conditions (terrain, access, cover, etc.) can make it difficult to locate and develop quarry sites. The Valley has no identified large deposits, and those that do exist are typically constrained by valley bottom topography lacking setback width from the drainages for site development. Or, possible sources are located in areas that would require a lot of effort just to access the site. This is not the case for the proposed pit expansion.

Also, possible rock sources in the eastern part of the Silver Valley can be lacking the necessary characteristics (strength, durability, rock type/make-up, etc.) needed for its use in the construction industry. Five of the six permitted public and private sites in the Valley are located west of Osburn.

The rock at these sites is from what is known as the lower to middle Belt Series rock (the Revett and Burke Formations or upper Prichard Formation). East of Osburn, the exposed rock is upper Belt Series (primarily the Wallace Formation) which typically lacks the strength for use as gravel or rip-rap. The rock type in the project area is Prichard Formation which has proven to have the necessary rock characteristics for use as rip-rap and/or crusher feed.

At present, no active locatable mining operations (metals, gemstones, etc.) are occurring within the project area. However, Azteca Gold Corporation (headquartered in Spokane, WA) has unpatented mining claims which cover the identified BLM land. As such, the BLM was required to secure a "Mineral Materials Waiver" from Azteca Gold prior to processing ZBI's proposal. A signed and notarized "Agreement" between Azteca Gold and ZBI was received by the BLM on June 25, 2009. This document grants ZBI the right to develop the mineral material resource on Azteca's unpatented mining claims should the BLM authorize ZBI's proposal. No known leasable mineral deposits (oil, gas, coal, etc.) or geothermal resources have been identified in the project area.

ENVIRONMENTAL EFFECTS (DIRECT / INDIRECT)

Proposed Action

Over the next five to six years, ZBI's proposed operations would remove an estimated 30,000 cubic yards of mineral materials from an area that covers about three acres. If requested and approved, an estimated 500,000 cubic yards of in-place rock could be removed from the proposed seven acre ultimate pit. This non-renewable resource would be used for a variety of reasons (roads, homes, businesses, stream restoration, etc.) within the Silver Valley/Shoshone County region.

No Action

No rock would be removed from the identified project area and the resource would remain available for future consideration.

CUMULATIVE EFFECTS

The rock from the proposed area of removal would be one of six possible sources in the Silver Valley. In essence, expansion of the pit would fill the void created by exhaustion of the resource in ZBI's 'mined out' pit. Demand for this type of rock may be higher over the next several years in response to the Superfund Clean-up and Restoration Efforts in the Valley; however, demand related to community needs will likely remain constant with current levels and this site could be a good, reliable source for up to 30 years. Removal of the rock from seven acres of land in the 192,000 ± acre basin would have no cumulative effects to mineral resources (Proposed Action); nor would non-removal of the rock (No Action).

References

- Adams, R.A. 2003. Bats of the Rocky Mountain West. University Press of Colorado. Boulder, CO. USA. 289pp.
- Birds of North America Online [Internet]. Cornell Lab of Ornithology. Available from: <http://bna.birds.cornell.edu/bna>.
- BLM. 2006. Proposed Coeur d'Alene Resource Management Plan and Final Environmental Impact Statement, ID-410-2005-EIS-1059. United States Department of the Interior, Bureau of Land Management, Coeur d'Alene Field Office.
- BLM. 2007. Record of Decision and Approved Coeur d'Alene Resource Management Plan. United States Department of the Interior, Bureau of Land Management, Coeur d'Alene Field Office.
- Boeker, E.L. and V.E. Scott. 1969. Roost tree characteristics for Merriam's turkey. The Journal of Wildlife Management, vol 33, no. 1, pp 121-124. Allen Press.
- DuPont, J. and N. Horner. 2003. Regional fisheries management investigations, Idaho Department of Fish and Game, Federal Aid in Fish Restoration, F-71-R-28, Job c-2, 2003 Performance Report, Cutthroat Trout Trend Assessment. Boise, Idaho.
- Elliot, W., D.E. Hall, and D.L. Scheele. 2000. Disturbed WEPP (Draft 2/2000) WEPP Interface for Disturbed Forest and Range Runoff, Erosion and Sediment Delivery, Technical Documentation. U.S. Dept. of Agriculture, Forest Service, Rocky Mountain Research Station and San Dima Technology and Development Center.
- Idaho Fish and Game [Internet]. Boise, Idaho. Available from: <http://fishandgame.idaho.gov/cms/fish/rules/>
- Kaufman, Kenneth. 1996. Lives of North American Birds. Houghton Mifflin. New York, NY. 675pp.
- Nature Serve. Nature Serve Explorer [Internet]. Available from: <http://www.natureserve.org/explorer/>.
- Smith, R.L. 1992. Elements of Ecology. Third Edition. Harpers Collins Publishers Inc. New York, NY. USA. 617pp.
- Thomas, J.W. 1979. Wildlife habitats in managed forests in the Blue Mountains of Oregon and Washington. USDA, Forest Service, Agriculture Handbook No. 553. 512pp.

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APPENDIX A

The BLM has developed, and ZBI has agreed to the following *Project Design Measures* (1-9). These measures would be adhered to during the life of the initial permit and any subsequent permits for expansion of the identified ultimate pit. If required, additional measures may be developed and placed on future permits as needed.

- 1) Construction measures to prevent erosion/sediment from reaching live waters include the following: 1) Sediment fences; 2) Sediment traps; 3) Mulching; 4) Selective placement of slash/debris [slash filter windrow] on downslope side of Equipment Access Road; 5) In-sloping the Equipment Access Road and directing run-off into the detention basin in the pit; 6) In-sloping pit wall benches to help retain moisture needed for revegetation efforts; and, 7) Seeding with an approved seed mix. *Preferred sites for slash filter windrow construction would be dependent on available slash material on site and focus on steeper sloped areas of the Equipment Access road. As needed, in the absence of slash filter windrow construction, previously identified erosion control measures would be used.*
- 2) ZBI will address some existing erosion problems on the road/trail up Jewell Gulch which may include re-installing waterbars as specified by BLM.
- 3) Cautionary signing and some type of physical deterrent will be placed around the perimeter of the advancing and final pit walls (east, west and north sides). Type and location(s) will be determined by the authorized officer on an as needed basis during the life of the project. At the end of the project, the authorized officer will determine whether or not the fencing and signs should remain.
- 4) To help with dust abatement during dry conditions, water would be applied to the Equipment Access Road during construction and use of the road.
- 5) To restrict infestation and spread of weedy plant species on public land, the action area would be inspected periodically for weed infestations and, if necessary, treated with appropriate weed control methods. Post-action monitoring would be done to continue tracking any weed infestation/expansion problems in the action area.
- 6) No work would take place during wet periods that would cause road rutting or cause erosion or sediment delivery to live waters.
- 7) If evidence of human use, artifacts, human skeletal remains, or paleontological specimens are encountered during the course of operations, ZBI must cease work in that location and notify the Field Manager. Work must not begin again until any discovery has been recorded and evaluated.
- 8) All reclaimed areas would be re-seeded with the BLM's approved seed mix as shown in the tables on page 35. Seeded areas will be covered with straw mulch that is free of weed-seed. The BLM may adjust seed mixes if future site inspections suggest different species would be more appropriate for site conditions resulting from this project.
- 9) ZBI would notify the BLM immediately after reclamation/rehabilitation actions have been completed.

Proposed Seed Mix for Zanetti Osburn Rock Pit Project

1. Reclaimed Pit Benches:

Species	Lbs./Acre
Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>)	16.0
Idaho fescue (<i>Festuca idahoensis</i>)	6.0
Pearly everlasting (<i>Anaphalis margaritacea</i>)	1.0
Western yarrow (<i>Achillea millefolium</i>)	1.0
Total	24.0

2. Reclaimed Equipment Access Road:

Species	Lbs./Acre
Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>)	20.0
Pearly everlasting (<i>Anaphalis margaritacea</i>)	2.0
Western yarrow (<i>Achillea millefolium</i>)	2.0
Total	24.0

3. Topsoil Stockpiles:

Species	Lbs./Acre
Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>)	7.0
Sheep Fescue (<i>Festuca ovina</i>)	10.0
Annual Rye (<i>Lolium multiflorum</i>)	4.0
Total	21.0

4. Final Pit Floor: Will be addressed near the end of the project.

APPENDIX B

Zanetti Bros., Inc.'s Fuel Transport, Storage, and Emergency Spill Plan

Fuels will be hauled to the site in Department of Transportation (D.O.T.) approved commercial transport vessels. Oil and lubricants would be transported in D.O.T. approved containers. Minor petrochemical contamination may occur from leaky equipment (e.g. hydraulic fluid, engine oil) on the work site. The operator would be required to maintain all equipment free of leaks. The fuel and lubricants would be hand or mechanically pumped into the fuel tanks of the equipment. There would be a person attending such operations at all times. Absorbent pads would be used in the event of a spill or release. They would be stored in the truck that is used to haul the fuel and oil.

Spill Procedures

All spills, regardless of size or quantity, would be reported immediately to the Project Managers. The following information regarding the spill would be provided:

- The chemical name of the substance that spilled or leaked;
- An estimate of the quantity that spilled or leaked;
- The time and duration of the release;
- Where the release is deposited;
- Why the release occurred;
- Any immediate health and safety, or environmental threats or issues.

Spills that would be reported immediately to the Project Manager **and** the BLM (phone #208-769-5032) include:

- Spills of any substance that exceeds 5 gallons.
- Spills that cannot be totally cleaned up within 24 hours.
- Spills of any substance that reaches or threatens a water body, or that has the potential to cause environmental damage.

If the spill of any quantity has the potential to reach or threaten a water body and cause environmental damage, the BLM or Project Manager would report all spills immediately to the following agencies:

- Shoshone County Emergency Services: (208) 512-4555
- Idaho State Communication Center: (800) 632-8000 or (208) 846-7610
- National Spill Response Center: (800) 424-8802
- Idaho Department of Environmental Quality: (208) 373-0550

ZBI personnel would be responsible for preventing the spill from spreading by using absorbent pads, dikes, trenches, plugging the leak in the container, or other appropriate means. A spill response plan, shovels, and absorbent pads would be stored in the transport vehicle. Contaminated soil and/or absorbent pads will be placed in 55-gallon drums which are compatible with petroleum hydrocarbon materials. A company equipped to clean up hazardous waste spills would be called to haul away the spilled material for proper disposal.

