DRAFT INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

SHAW PIT EXPANSION USE PERMIT & RECLAMATION PLAN AMENDMENT
HAT CREEK CONSTRUCTION & MATERIALS, INC.

Prepared for:

County of Modoc
203 West 4th Street
Alturas, CA 96101

Technical Assistance by:

VESTRA Resources Inc.
5300 Aviation Drive
Redding, California 96002

November 2024

Modoc County
CEQA ENVIRONMENTAL CHECKLIST

Project Title: Shaw Pit Expansion Use Permit and Reclamation Plan Amendment

Lead Agency: Modoc County

Contact Person: Jackie Froeming
Associate Planner
County of Modoc
203 West 4th Street
Alturas, CA 96101
(530) 233-6406
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Applicant: Perry Thompson, Vice President
Hat Creek Construction & Materials, Inc.
24339 Highway 89 North
Burney, California 96013

General Plan: General/Agriculture

Zoning: Unclassified

Project Location: The proposed project is located approximately 14 miles northwest of Adin off of County Road 85A on the Shaw Ranch on Assessor's Parcel Number (APN) APN 010-420-170 (Section 35, Township 41 North, Range 7 East, Mount Diablo Base and Meridian [MDBM]; 41° 20'36.46"N latitude/ 121° 08'02.73"W longitude).

Surrounding Uses: The existing quarry is remotely located, with no residences within the immediate vicinity and is not visible from any highway. The adjacent parcels are United States Department of Agriculture (USDA) Forest Service lands. Surrounding land uses include agriculture and grazing.

Description of Project: Shaw Pit is an existing hard rock open pit mine. The mine is located on land owned by Donald Edward Lindsey Trustee and has been in operation since at least the mid to late 1970s. From 1981 until 2010 the mine was leased and operated by the Modoc County Road Department. In 1996, an expansion of 20 acres was proposed and Use Permit and Reclamation Plan No. 96-52 were approved in June 1997. Hat Creek Construction & Materials, Inc., took over the site lease in 2010. A request to renew and extend the Use Permit was submitted to the Modoc County Planning Department in 2016, extending the life of the site by 20 years until 2036.

The original reclamation plan boundary was vague with many approximations not tied to any physical "on ground" location. This proposed Reclamation Plan Amendment serves to clarify and properly document the mine boundary to match the current disturbed area and to permit an approximate 7-acre expansion. In addition, Hat Creek Construction & Materials, Inc., has applied to extend the site life by 30 years, to 2050.

Hat Creek Construction will continue operating under the original conditions outlined in the Use Permit/Reclamation Plan 96-52 on APN 010-420-17. This Initial Study evaluates the proposed amendment to Use Permit/Reclamation Plan 96-52 to include the following: 1) an expansion of approximately 7 acres, 2) a revised total volume of removal, and 3) an extension of the operation end date of the mine to 2050.

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- California Department of Fish and Wildlife (CDFW)
- California Division of Mine Reclamation (DMR)
- California Regional Water Quality Control Board (RWQCB)
- Modoc County (Air Quality, Environmental Health)

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?

Consultation and correspondence with various culturally affiliated Tribal groups and agencies were conducted in accordance with Public Resources Code (PRC) Section 21080.3.1 (AB 52). On September 25, 2024, the County initiated environmental review under the California Environmental Quality Act (CEQA) for the proposed Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project. The County sent a certified project notification letter to traditionally and culturally affiliated Tribes with the geographic area of the proposed project on September 25, 2024, pursuant to PRC Section 21080.3.1, notifying that the project was under review and to provide the Tribes 30 days from the receipt of the letter to request consultation on the project in writing. No responses were received requesting initiation of consultation under the provisions of AB 52.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see PRC Section 21080.3.2.). Information may also be available from the California Native American Heritage

Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Information contained in the *Archaeological Reconnaissance of Three Gravel Quarries in Modoc County, California: Johnson Pit, Shaw Pit, Lake City Pit* (Coyote & Fox, 1996) related to the specific location of prehistoric and historic sites is confidential and exempt from the Freedom of Information Act (FOIA) and the California Public Records Act (CPRA); therefore, site specific cultural resource investigations are not attached to this Initial Study. Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the Modoc County Planning Department directly in order to inquire about its availability.

Purpose of this Document: This document analyzes the environmental effects of the proposed Shaw Pit Expansion Use Permit and Reclamation Plan amendments and makes appropriate findings in accordance with Section 15070 of the State CEQA Guidelines. In addition, this document has been prepared to the degree of specificity appropriate to the current proposed action, as required by Section 15146 of the State CEQA Guidelines. The analysis considers the actions associated with the proposed project to determine the short-term and long-term effects associated with their implementation.

List of Attachments:

Appendix A – Current Use Permit and Reclamation Plan
Appendix B – Reclamation Plan Amendment
Appendix C – Biological Resources Assessment
Appendix D – Cultural Resources Assessment (on file with County)
Appendix E – 1997 Use Permit and Initial Study

1.0 INTRODUCTION AND PURPOSE

1.1 Introduction

Modoc County (County), as the Lead Agency, has prepared this Initial Study to provide the general public and interested public agencies with information about the potential environmental impacts of the proposed Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project (proposed project).

Details about the proposed project are included in Section 2.0, PROJECT DESCRIPTION, of this Initial Study. This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code Section 21000 *et seq*., and the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). Pursuant to these regulations, this Initial Study identifies potentially significant impacts and, where applicable, includes mitigation measures that would reduce all identified environmental impacts to less than significant levels. Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified. This Initial Study supports a Mitigated Negative Declaration pursuant to CEQA Guidelines Section 15070.

1.2 Lead Agency

The Lead Agency is "*the public agency which has the principal responsibility for carrying out or approving a project,*" which may be subject to CEQA (PRC Section 21067). Accordingly, Modoc County is the CEQA Lead Agency.

1.3 Purpose of the Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency prepares a Negative Declaration. If the Initial Study notes significant effects but also identifies mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency prepares a Mitigated Negative Declaration. If a project would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report. The agency may also decide to proceed directly with the preparation of an Environmental Impact Report without an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The County has determined that the project may potentially have significant environmental effects and therefore would require preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would eliminate any potentially significant environmental effects of the project or reduce them to a level that would be less than significant.

This Initial Study is a public information document that describes the proposed project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the proposed project. It is intended to inform the public and decision-makers of the proposed project's potential environmental impacts and to document the lead agency's compliance with CEQA and the State CEQA Guidelines.

This Initial Study concludes that the project would have potentially significant environmental effects, all of which would be avoided or reduced to a level that would be less than significant with recommended mitigation measures. As a result, the County has prepared a Mitigated Negative Declaration and has issued a Notice of Intent to Adopt the Mitigated Negative Declaration for the project. The time available for public comment on the Initial Study and Mitigated Negative Declaration is shown on the Notice of Intent.

1.4 Project Environmental Studies

As part of the preparation of this Initial Study, the following studies were prepared or utilized to develop baseline information and project-related impact discussions. Hard copies of these studies are available for inspection at the Modoc County Planning Department, 203 West 4th Street, Alturas, California 96101, during normal business hours (8:00 a.m. to 5:00 p.m. Monday through Friday):

- *Archaeological Reconnaissance of Three Gravel Quarries In Modoc County, California: Johnson Pit, Shaw Pit, Lake City Pit,* prepared by Coyote and Fox Enterprises, July 1996.
- *Biological Resources Assessment*, prepared by VESTRA Resources Inc., October 2020.
- *Mining and Reclamation Plan Amendment/Mine Boundary Amendment, Shaw Pit,* prepared by VESTRA Resources Inc., November 2020.
- *Shaw Gravel Pit Expansion Initial Study/Mitigated Negative Declaration*, prepared by Environmental Science Associates (for Modoc County), January 1997.

Information contained in the cultural resources inventory report identified above related to the specific location of prehistoric and historic sites is confidential and exempt from the Freedom of Information Act (FOIA) and the California Public Records Act (CPRA); therefore, this information is not included in as an attachment to this Initial Study. Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the Modoc County Planning Department directly to inquire about its availability.

1.5 Environmental Review Process

This Initial Study is being circulated for public and agency review as required by CEQA. Because State agencies will act as responsible or trustee agencies, the County will circulate the Initial Study to the State Clearinghouse of the Governor's Office of Planning and Research for

distribution and a 30-day review period. During the review period, written comments may be submitted to:

Modoc County
Planning Department
203 West 4th Street
Alturas, CA 96101

Sean Curtis, Planning Director
Phone: (530) 233-6406
seancurtis@co.modoc.ca.us

Upon completion of the 30-day public review period, written responses to all substantive environmental issues raised will be prepared and available for review prior to the public hearing before the Modoc County Planning Commission at which the approval of the proposed project will be considered.

2.0 PROJECT DESCRIPTION

2.1 Regional Setting

The proposed project is located in Modoc County within the Modoc Plateau geologic province. Modoc County lies within the far northeast corner of California and has a total area of 4,203 square miles (3,910 square miles of land and 286 square miles of water) and is contiguous to the states of Oregon and Nevada (refer to Figure 1, GENERAL SITE LOCATION). The County is bordered by Klamath and Lake Counties to the north; Washoe County to the east; and Lassen, Shasta, and Siskiyou Counties to the south, southwest, and west, respectively. There are 2.25 persons per square mile, making this one of the most sparsely populated counties in California.

2.2 Local Setting

The proposed project is located in an arid region of high desert plant communities adjacent to the Pit River. The existing quarry is remote, with no residences nearby and is not visible from any highway. The adjacent parcels are United States Department of Agriculture (USDA) Forest Service lands and surrounding existing land uses include agriculture and grazing.

2.3 Project Location

The proposed project is located approximately 14 miles northwest of Adin off of County Road 85A on the Shaw Ranch along the Pit River on Assessor's Parcel Number (APN) APN 010-420-170 (refer to Figure 2, PARCEL BOUNDARY). The current mining area and proposed expansion area are located in Section 35, Township 41 North, Range 7 East, Mount Diablo Base and Meridian (MDBM). The latitude and longitude at the center of the project are 41° 20'36.46"N and 121° 08'02.73"W, respectively.

2.4 Existing Conditions

The current land use is mining of rock and aggregate. The existing quarry is a hard rock, open pit mine. Equipment onsite includes a portable crusher, asphalt batch plant with lime plant and wash plant, conveyors, screens, truck scales, and earth-moving equipment. Historically, gravel has been excavated from the quarry as needed for specific projects.

2.5 General Plan and Zoning

The Modoc County General Plan land use designation for the site is General/Agriculture. The General/Agriculture land use designation allows for mining activities. The site is zoned Unclassified. No special land use designations exist for the project site.

2.6 Background and History

The existing quarry is located on land owned by Donald Edward Lindsey Trustee and has been in operation since at least the mid to late 1970s. From 1981 until 2010 the mine was leased and operated by the Modoc County Road Department. In 1996, an expansion of 21 acres was proposed and Use Permit and Reclamation Plan No. 96-52 were approved in June 1997. Hat Creek Construction & Materials, Inc., took over the site lease in 2010. A request to renew and

extend the Use Permit was submitted to the Modoc County Planning Department in 2016, extending the life of the site by 20 years until 2036. Current permits are included in Appendix A.

The original Reclamation Plan boundary was vague with many approximations not tied to any physical "on ground" location. The proposed project serves to clarify and properly document the mine boundary to match the current disturbed area and to permit an approximately 7-acre expansion. In addition, Hat Creek Construction & Materials, Inc., wishes to extend the site life by 30 years to 2050.

2.7 Project Characteristics

Hat Creek Construction propose to continue operating under the original conditions outlined in the Use Permit/Reclamation Plan 96-52 on APN 010-420-170. This Initial Study evaluates the proposed amendment to Use Permit/Reclamation Plan 96-52 to include the following: 1) an expansion of approximately 7 acres, 2) a revised total volume of removal, and 3) an extension of the operation end date of the mine to 2050.

The project area reflects an expansion of approximately 7 acres of the existing operational mine (see Figure 3, MINE LAYOUT). The current active and proposed clarified boundary will include approximately 37 total acres of mine footprint. No other changes to site operations will occur. Implementation of the proposed project would extend onsite mining activities through 2050 at a rate governed by market demand and depth of rock material.

Surface mining procedures will continue in areas already under the current use permit and will be the same in the areas proposed in this expansion. The historic mining plan included two operating areas: Site A to the south and Site B to the north. The proposed mine expansion would include an additional area northeast of Site B. There will be no additional mining in the area of Site A.

The average depth of cut will be approximately 60 feet. The anticipated final pit floor will reside at an elevation of approximately 4,250 feet. The maximum cut bank elevation will occur in the northeast corner of the pit at an elevation of approximately 4,400 feet. Under the current plan, the mine was to yield approximately 200,000 cubic yards of crushed material over the life of the plan which was to be the year 2036. With this expansion, and extension of an additional 14 years, the yield will increase to an additional 588,000 cubic yards and the termination date will be the year 2050. Cut slopes in the expansion area will be reduced to no steeper than 2:1. The operation will continue to involve blasting, screening, and crushing operations.

Reclamation

Reclamation of the quarry will include revegetation of topsoil over the site, as well as returning mine face slopes to at least 1.5:1 in the already permitted areas and to at least 2:1 in the proposed expansion area, converting it back to general agricultural uses, allowing for continued livestock grazing upon pit closure. Final contours, with cross-sectional views of the final slope proposed for the reclaimed mining area at the site, are provided in Figure 4, FINAL TOPOGRAPHY, and Figure 5, CROSS SECTION.

Reclamation of the proposed expansion area includes reducing cut slopes to no steeper than 2:1 (H/V) (per section 3704 of SMARA). The proposed expanded area will be seeded with a mix of blue bunch wheatgrass (*Elymus spicatus*) at ten pounds of pure live seed (PLS) per acre, bottlebrush squirreltail (*Elymus elymoides*) at seven pounds of PLS per acre, and antelope bitterbrush (*Purshia tridentata*) at five pounds of PLS per acre. In addition, four ponderosa pine plugs will be planted for each individual removed using locally collected seed. Due to the evident encroachment of juniper trees onto the site, none will be planted during reclamation. Natural recruitment may occur following reclamation. The proposed expansion area is predominantly native grasses, sagebrush with evident juniper tree encroachment, and a large presence of non-native annual grass understory. The area is currently used for grazing.

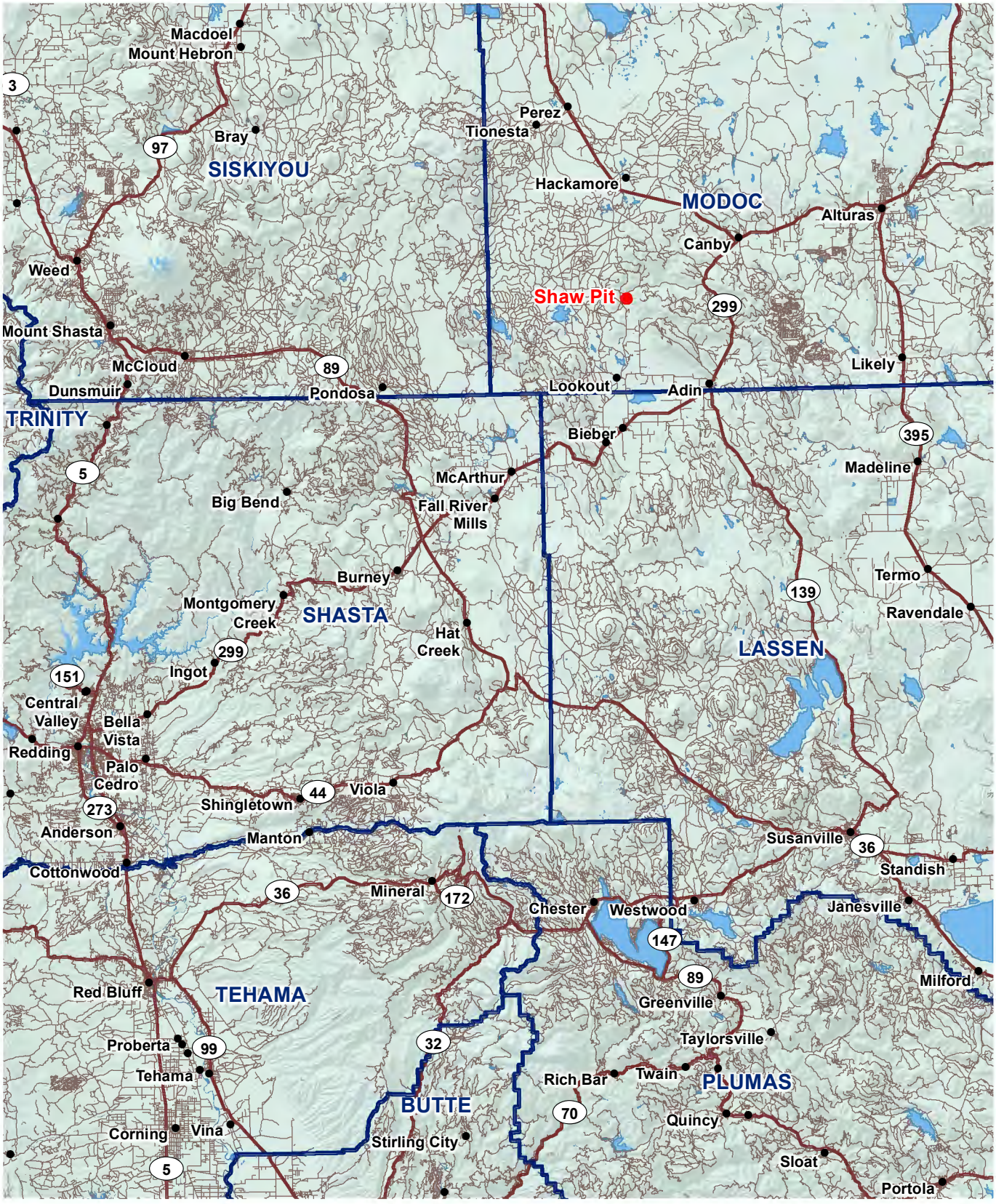
Existing Baseline Conditions

A baseline condition is one that is inexistence at the point of review and only the conditions that will change and therefore create potential environmental impacts by this proposed expansion require further review and evaluation. As noted above, in 1997 the County approved a 21-acre expansion through Use Permit and Reclamation Plan No. 96-52. The approval allowed the following:

- Expansion of an additional 21 acres (7 acres in the southern leg and 14 acres in the northern leg).
- Use permit amendment to extend mining operations to July 2022.
- Processing of up to 200,000 cubic yards over an expected 25 year period.

In addition, a California Environmental Quality Act (CEQA) Mitigated Negative Declaration, with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08* were also adopted, approving the various entitlements. Impacts were determined to have no impact, have a less than significant impact, or result in a less than significant impact with mitigation incorporated. For the purpose of this Initial Study, subsequent onsite mining activities authorized by these entitlements reflect the existing or baseline environmental condition for which impacts are assessed. The environmental factors with potential impacts include:

- Aesthetics
- Agriculture Resources
- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Mineral Resources



VESTRA

FIGURE 1
GENERAL SITE LOCATION
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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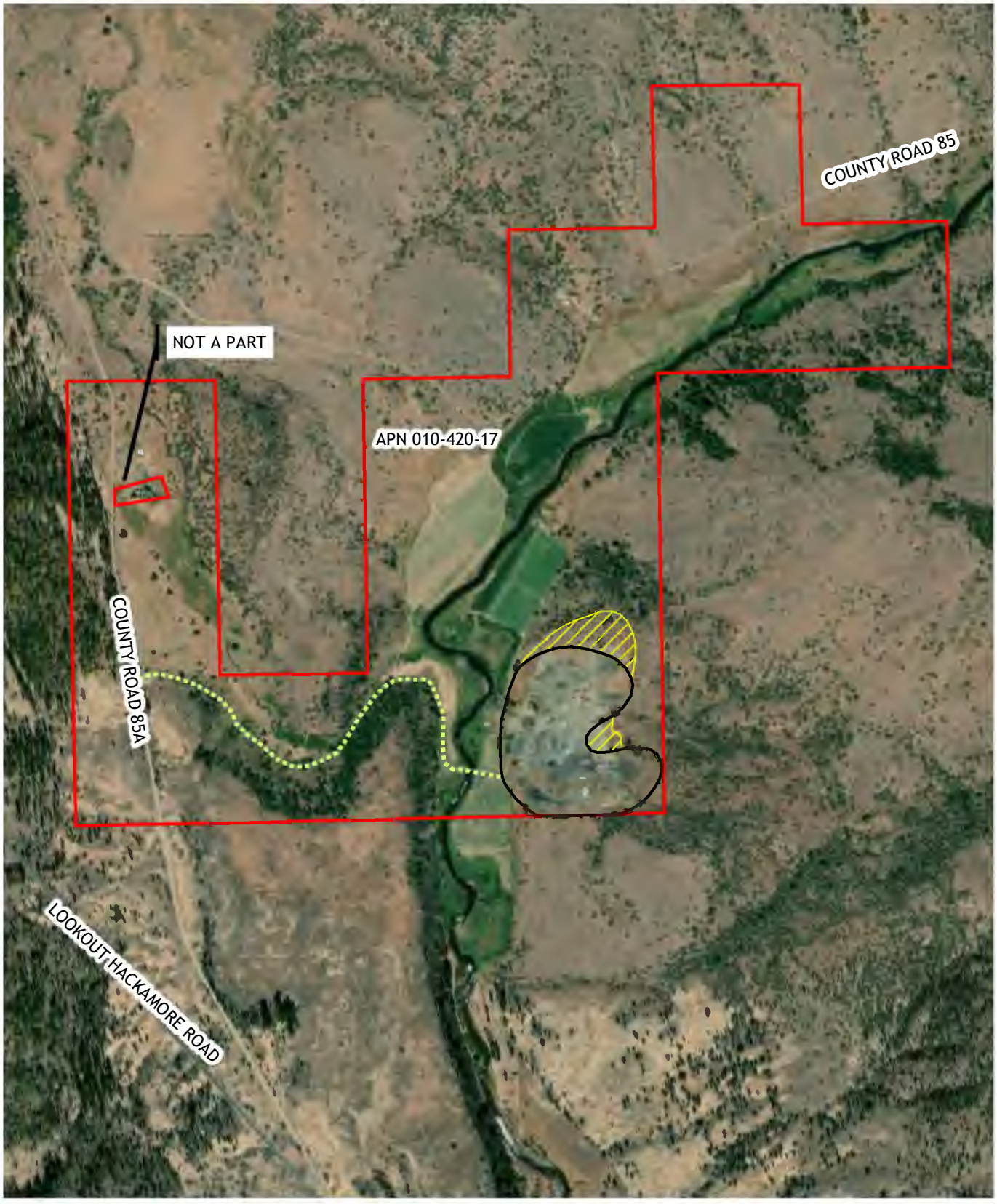

Approximate Reclamation Plan Boundary (Current)

Approximate Parcel Boundary

Approximate Reclamation Plan Boundary (Proposed)

Access Road to Mine

VESTRA

0 625 1,250 2,500 Feet

SOURCE: AUGUST 13, 2019, AERIAL PHOTOGRAPH

FIGURE 2
PARCEL BOUNDARY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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Approximate Parcel Boundary

Topsoil Storage

Settling Pond

Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

Mine Pit Face

VESTRA

0 125 250 500 Feet

N

SOURCE: DIGITALGLOBE 2018 AERIAL PHOTOGRAPH

FIGURE 3
MINE LAYOUT
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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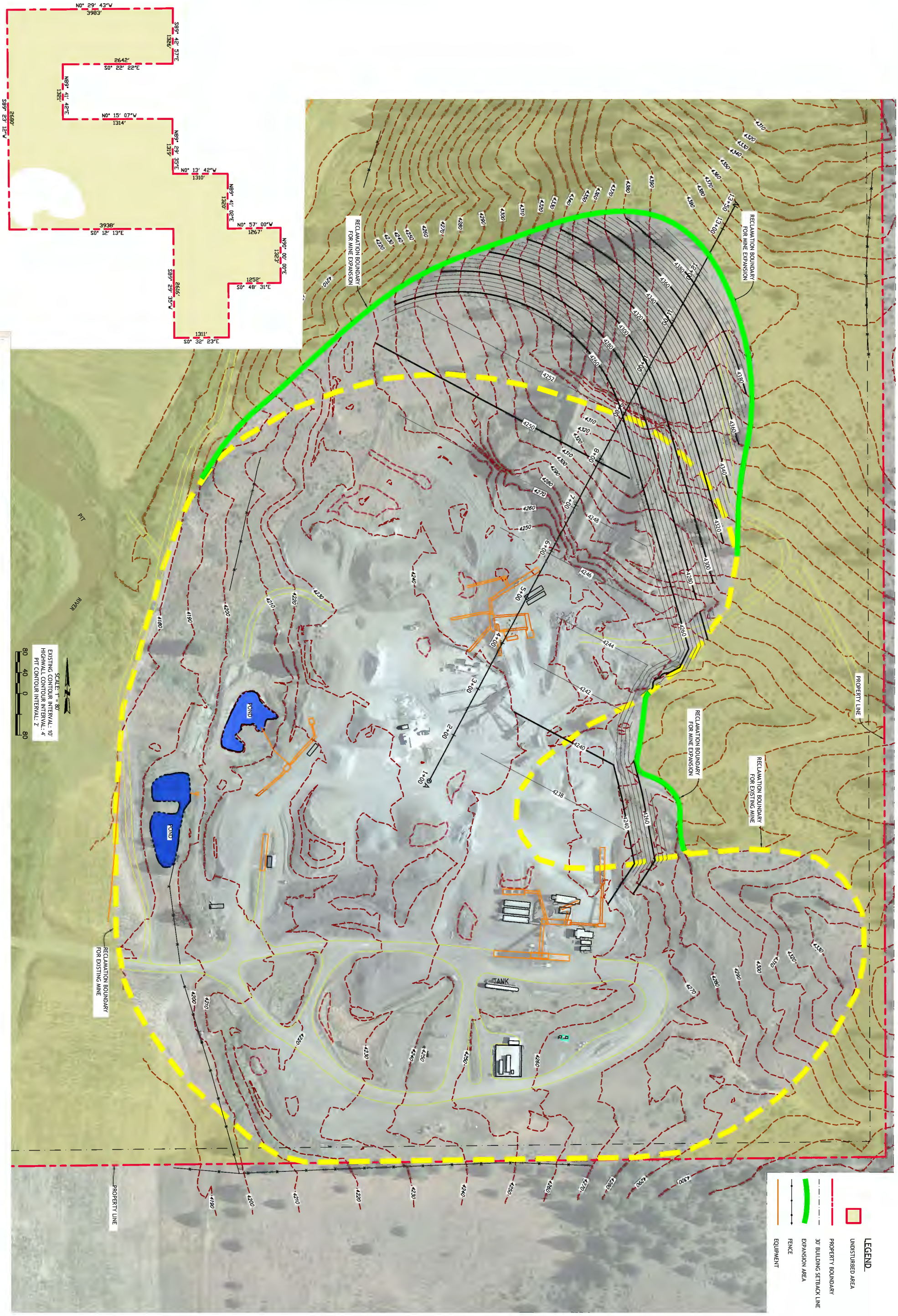
P:\CAD\71305 Hat Creek Shaw Mine\DWG\71305 HAT CREEK SHAW PIT – GRADING PLAN.dwg

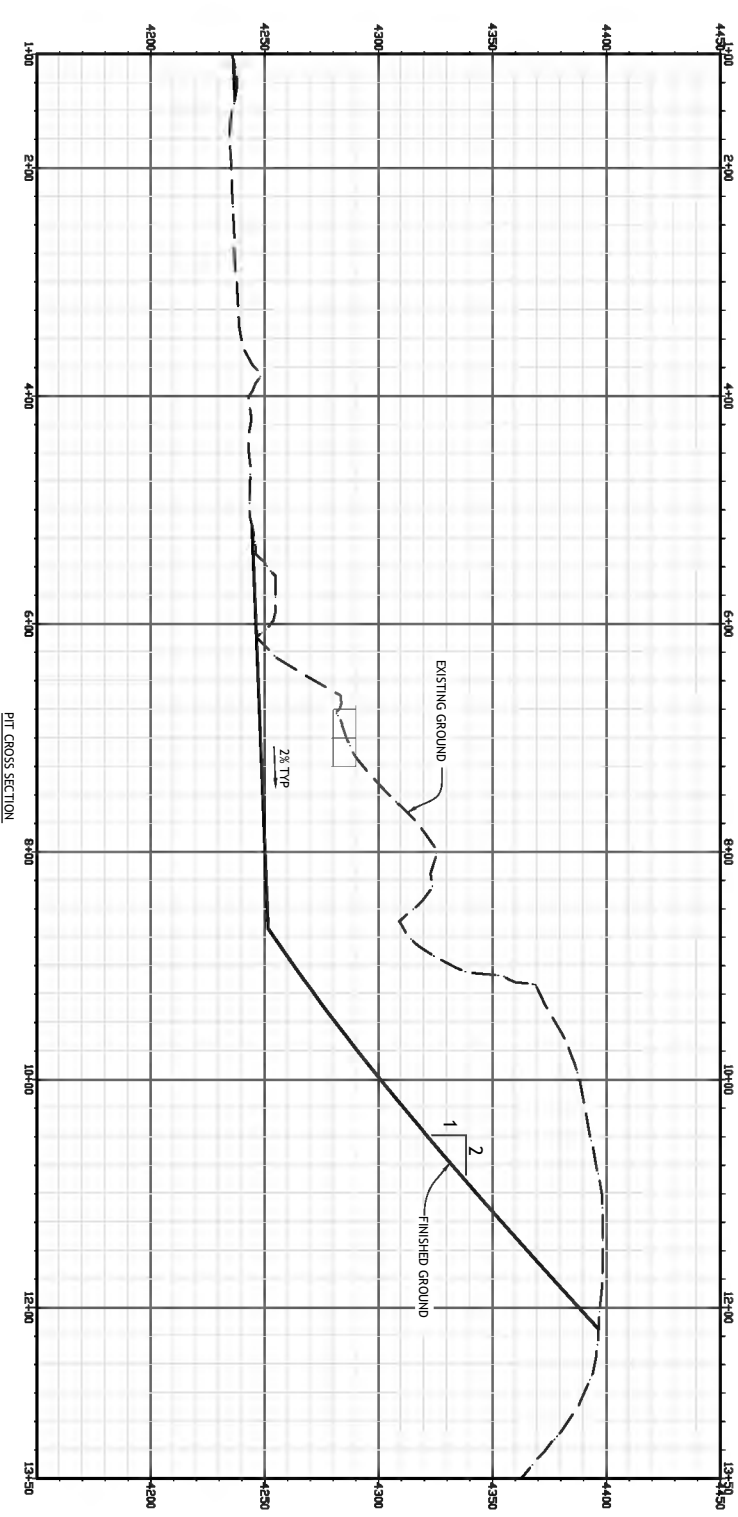


JOB NO. 71305	DATE 10/08/20	SHEET 2 OF 3	FIGURE 4 FINAL TOPOGRAPHY SHAW PIT MODOC COUNTY, CALIFORNIA	DSGN: CS DR: CS CHK: SG APVD: SG	NO.	DATE	REVISION / BY

VESTRA
5300 AVIATION DRIVE ~ REDDING, CA 96002
www.vestra.com
(530) 223-2585
FAX (530) 223-1145

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

P:\CAD\71305 Hat Creek Shaw Mine\DWG\71305 HAT CREEK SHAW PIT.dwg



PIT CROSS SECTION
HORIZONTAL SCALE: 1" = 80'
VERTICAL SCALE: 1" = 40'

JOB NO. 71305	DATE 10/08/20	SHEET 3 OF 3	FIGURE 5 CROSS SECTIONS SHAW PIT MODOC COUNTY, CALIFORNIA	DSGN: CS DR: CS CHK: SG APVD: SG	NO. / DATE / REVISION / BY

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FAX (530) 223-1145

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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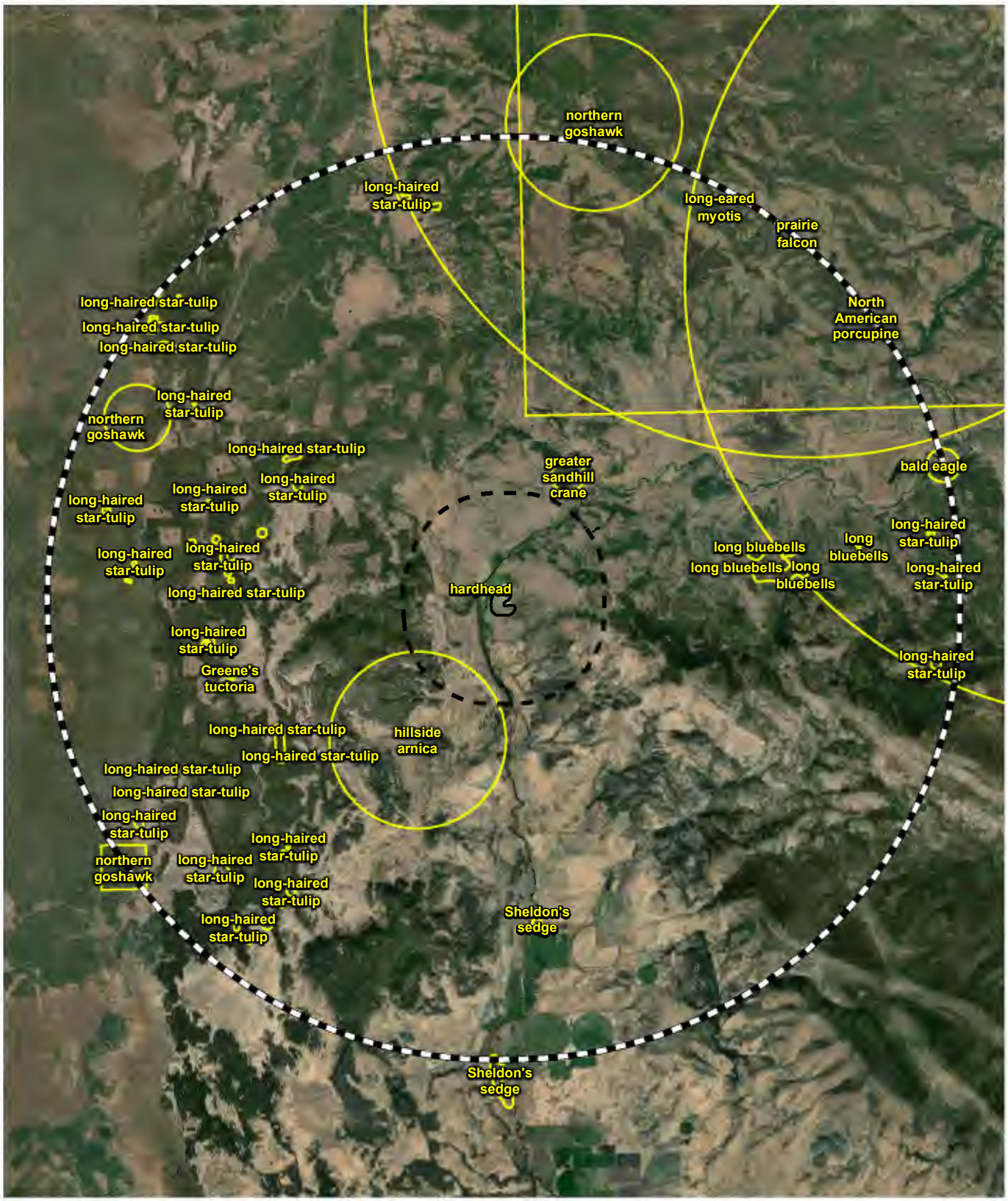

Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

CNDDB Occurrence

5-Mile Buffer Around Project Boundary

1-Mile Buffer Around Project Boundary

VESTRA

SOURCE: CDFW CNDDB AUGUST 2020

0 4,250 8,500 17,000 Feet

FIGURE 6
CNDDB OCCURRENCES
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact or Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture & Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☐	Geology & Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology & Water Quality	☐	Land Use & Planning	☐	Mineral Resources
☐	Noise	☐	Population & Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities & Service System	☐	Wildfire	☒	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Sean Curtis

Sean Curtis, Planning Director
Modoc County Planning Department

November 4, 2024
Date

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

This section provides an evaluation of the potential environmental impacts of the proposed Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project (proposed project) as well as the CEQA Mandatory Findings of Significance. A discussion of cumulative impacts is also included at the end of this chapter. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology & Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities & Service Systems
- Wildfire

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the State CEQA Guidelines and used by Modoc County in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the proposed project's impacts and identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact.* The project will not have any measurable impact on the environment.

- *Less Than Significant Impact.* The project will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- *Potentially Significant Impact Unless Mitigation Incorporated.* The project will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- *Potentially Significant Impact.* The project will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

All answers must take into account the whole action involved, including potential off and onsite, indirect, direct, construction, and operation, except as provided for under State CEQA Guidelines Section 15183 and State CEQA Statute Section 21083. The setting discussion under

each resource section in this chapter is followed by a discussion of impacts and applicable mitigation measures.

This Initial Study identifies several potentially significant environmental effects related to the proposed project. Some effects are mitigated by implementation of existing provisions of law and standards of practice related to environmental protection. Such provisions are considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed. Additional mitigation measures are specifically identified, when necessary, to avoid potential environmental effects or to reduce them to a level that is less than significant.

Format of the Environmental Analysis

Each topical section of this Initial Study is organized into the following subsections:

- *Environmental Setting.* The environmental settings present the existing environmental conditions, in accordance with CEQA Guidelines Section 15125. The subsection describes the baseline conditions against which the environmental impacts associated with the proposed project are assessed.

- *Impact Analysis.* The impact analysis presents thresholds of significance used and discusses potential effects of the proposed project on the existing environmental conditions (in accordance with CEQA Guidelines sections 15126.2(a) and 15143).

- *Mitigation Measures.* Mitigation measures provide measures to reduce potentially significant effects associated with the proposed project to the extent feasible (in accordance with CEQA Guidelines sections 15002(a)(3), 15021(a)(2), and 15091(a)(l)).

- *Findings.* This subsection is presented in accordance with CEQA Guidelines Section 15091(a)(1), 15092(b)(2)A), and 15126.2(b), which require identification of impacts capable of avoidance or mitigation, as well as those that cannot be avoided.

I. AESTHETICS Except as provided in Public Resources Code Section 21099, Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Environmental Setting

Shaw Pit is located in a remote area within the Shaw Ranch in unincorporated Modoc County. The existing visual character of the site is that of open, sloping, livestock grazing land on a portion of the Shaw homestead. The existing quarry is not readily visible from County roads. The land currently disrupted by mining activities is not a significant regional aesthetic feature and is not directly accessible or visible to the public. The nearest residence is located approximately ¾ of a mile to the northwest of the existing quarry site. There are no scenic vistas or State designated scenic highways within the vicinity of the project site.

Impact Analysis

Degradation of the visual character of a site is usually addressed through a qualitative evaluation of the changes to the aesthetic characteristics of the existing environment and the proposed project-related modification that would alter the visual setting. For the purpose of this analysis, visual impacts associated within the existing permitted mine boundary, including impacts to scenic vistas, degradation of visual character, and light and glare impacts have been previously addressed through the County's 1997 Mitigated Negative Declaration Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* and are therefore not considered further in this Initial Study.

The following includes an analysis of environmental parameters related to *Aesthetics* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Have a substantial adverse effect on a scenic vista?*

The County has not designated specific scenic vistas in the immediate project area and there is no designated State or federal scenic highways or scenic highway corridors in the vicinity of the proposed project. The operation of the proposed expansion area of this mine will be conducted in the same manner as is currently permitted. Upon termination of mining activities, the site will be reclaimed back to grazing land.

The project would not introduce new structures nor would the project be located adjacent to nearby receptors such that the proposed project would preclude long-distance views. Due to these factors, the project would result in a less than significant impact and would not substantially have a substantial adverse effect on a scenic vista. Less than significant impacts would occur in this regard.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

There are no designated State or federal scenic highways or scenic highway corridors in the vicinity of the proposed project. Therefore, the implementation of the proposed project would not substantially damage any scenic resource within a State scenic highway. No impact would occur in this regard.

c) *In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that area experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project area is not located within direct sight of the public and located outside of an urbanized area. Therefore, implementation of the proposed would not conflict with applicable zoning or other regulations governing scenic quality. No impact would occur in this regard.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Light pollution occurs when nighttime views of the stars and sky are diminished by an over-abundance of light coming from the ground. Light pollution is a potential impact from the operation of any light source at night. Proper light shields, lighting design, and landscaping are commonly used to reduce light pollution generated from lighting by blocking the conveyance of light upwards. The proposed project does not include the installation of any new permanent exterior lighting and quarry operations will remain as currently permitted. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Aesthetics* would be less than significant and no mitigation measures were required. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Aesthetics*.

II. AGRICULTURE AND FORESTRY RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature that could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The Modoc County General Plan land use designation of the project area is General/Agriculture. The area is zoned as Unclassified. The project area and surrounding land have been used primarily for livestock grazing. The project area will be reclaimed to livestock grazing land upon termination of mining activities.

The California Land Conservation Act of 1965, commonly known as the Williamson Act, allows local governments to form contracts with private landowners to restrict specific parcels of land to agricultural or open space use. The Shaw Ranch property is currently included in a Williamson Act contract. Additionally, no timberlands or forest land are present within the project site.

Agricultural land, as defined in PRC 21060.1, means prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria. The soil type in the project area is not listed as a candidate for prime or statewide important farmland in Modoc County.

Impact Analysis

CEQA Section 21095 and CEQA Guidelines Appendix G, together, define Prime, Unique, and Farmland of Statewide Importance as "Important Farmland," whose conversion may be considered significant. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model (1997, as updated) prepared by the California DOC as an optional model to use in assessing impacts on agriculture and farmland.

In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CAL FIRE) regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

The following includes an analysis of environmental parameters related to *Agricultural Resources* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Convert Prime Farmland, Unique Farmland, or Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Although there is prime farmland in the vicinity of the site, no prime farmland, unique farmland, or farmland of statewide importance will be impacted by the proposed quarry expansion. The project will not convert farmland to a non-agricultural use. No impact would occur in this regard.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

The Shaw Ranch property is included in a Williamson Act contract. Mining is a permitted use under the Williamson Act in Modoc County. No impact would occur in this regard.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 5110(g))?*

The project site is not timberland as defined in section 4526 of the PRC. The end use of the site included in the Reclamation Plan Amendment for the mine is livestock grazing land. No impact would occur in this regard.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

The project area is not located on forest land and, therefore, will not result in any loss of forest land or the conversion of forest land to non-forest use. No impact would occur in this regard.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest land?*

The project area is currently used as rangeland land and will be reclaimed to rangeland land for livestock grazing. This project will not result in the conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Agriculture and Forestry Resources*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Agriculture and Forestry Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Environmental Setting

Modoc County Air Pollution Control District notes the area is currently classified as "nonattainment" for respirable particulate matter (PM_{10}) and "attainment" or "unclassified" for all other criteria air pollutants. Dust may be generated by processing of aggregate materials as well as by truck and heavy equipment movement throughout the site. The Modoc County Air Pollution Control District manages the requirements for the dust-and particulate-generating activities. Dust is produced from mining activities and will continue to be produced at a comparable level in the proposed expansion area. Best Management Practices (BMPs) will continue to be used for dust control. This is considered a baseline condition.

Impact Analysis

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur. This section analyzes the short-term air quality impacts associated with the long-term operational impacts that may result due to implementation of the proposed project.

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

The project is located within the Modoc County Air Pollution Control District and is currently classified as "nonattainment" for respirable particulate matter (PM_{10}) and "attainment" or "unclassified" for all other criteria air pollutants. The project area will add approximately 7 acres of expansion area. There will be no new equipment and no change in operations. All equipment is currently onsite and will remain in operation as permitted. There is no change over baseline condition. There is no conflict with or obstruction on implementation of the applicable air quality plan. No impact would occur in this regard.

b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.*

Modoc County is classified as "nonattainment" for particulate matter (PM_{10}) and "attainment" or "unclassified" for all other criteria air pollutants. Dust is produced from mining activities. As approved in the current Use Permit/Reclamation Plan 96-52, dust is controlled by the implementation of the BMPs which include pumping water out of onsite settling ponds or trucked onsite to be used to suppress dust during mining activities. Site operations will not change under the project and are considered baseline conditions. The project will not result in a cumulatively considerable net increase in any criteria pollutant for which the region is in non-attainment under an applicable federal or State ambient air quality standard. Less than significant impacts would occur in this regard.

c) *Expose sensitive receptors to substantial pollutant concentrations?*

Emissions generated by the current mine site include diesel exhaust of the mobile and processing equipment and material haul trucks, dust from aggregate excavation and processing. Dust generated by the project will be localized to the immediate work area and will be addressed by maintaining an adequate supply of water onsite during mining operations to be used as needed to control dust. Site operations will not change under the project and are considered baseline conditions. The project will not expose sensitive receptors to substantial pollutant concentrations. No impact would occur in this regard.

d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

This project site is remote with no residences in the vicinity. Site operations will not change under the project and are considered baseline conditions. This project will not result in other emissions that will adversely affect a substantial number of people. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Air Quality* would be less than significant with incorporation of the following mitigation measures:

The County shall reduce dust emissions at the Shaw Gravel Pit by incorporating the following measures into mining plans:

- *A water truck and operator shall be kept on-site during all dry-weather mining activity.*
- *Extraction areas and disturbed soils shall be kept moist via regular watering to reduce fugitive dust emissions.*
- *Stockpiles of dust producing processed materials shall be kept damp.*
- *Wetting of dirt and gravel haul roads as well as processing areas during episodes of dry weather mining activity and hauling operations.*

The County shall update its existing Permit to Operate with the Modoc County Air Pollution Control District to include amendments and additions to the mining plan at the Shaw Gravel Pit.

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Air Quality*.

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The project site is located in an established agricultural area of Modoc County. It has been used primarily for livestock grazing. There are no wetlands within the proposed expansion area. The vegetation within the proposed expansion area is primarily comprised of annual and perennial grass communities, bitter brush and low sage shrubs and sparsely scattered ponderosa pine and western juniper trees. The site is dominated by sagebrush with evident juniper tree encroachment and a large presence of non-native annual grass understory. A Biological Resource Assessment was completed for the Shaw Pit in September of 2020 and is included in Appendix C.

A list of regionally occurring special-status wildlife species was compiled based on a review of pertinent literature and consultations with the USFWS Information for Planning and Consultation (iPAC) database, California Natural Diversity Database (CNDDB) records, and a query of the California Wildlife Habitats Relationship (CWHR) system. Project impact determinations for potentially occurring special-status species are included in Table 4-1. CNDDB occurrences within five miles of the site are shown on Figure 6.

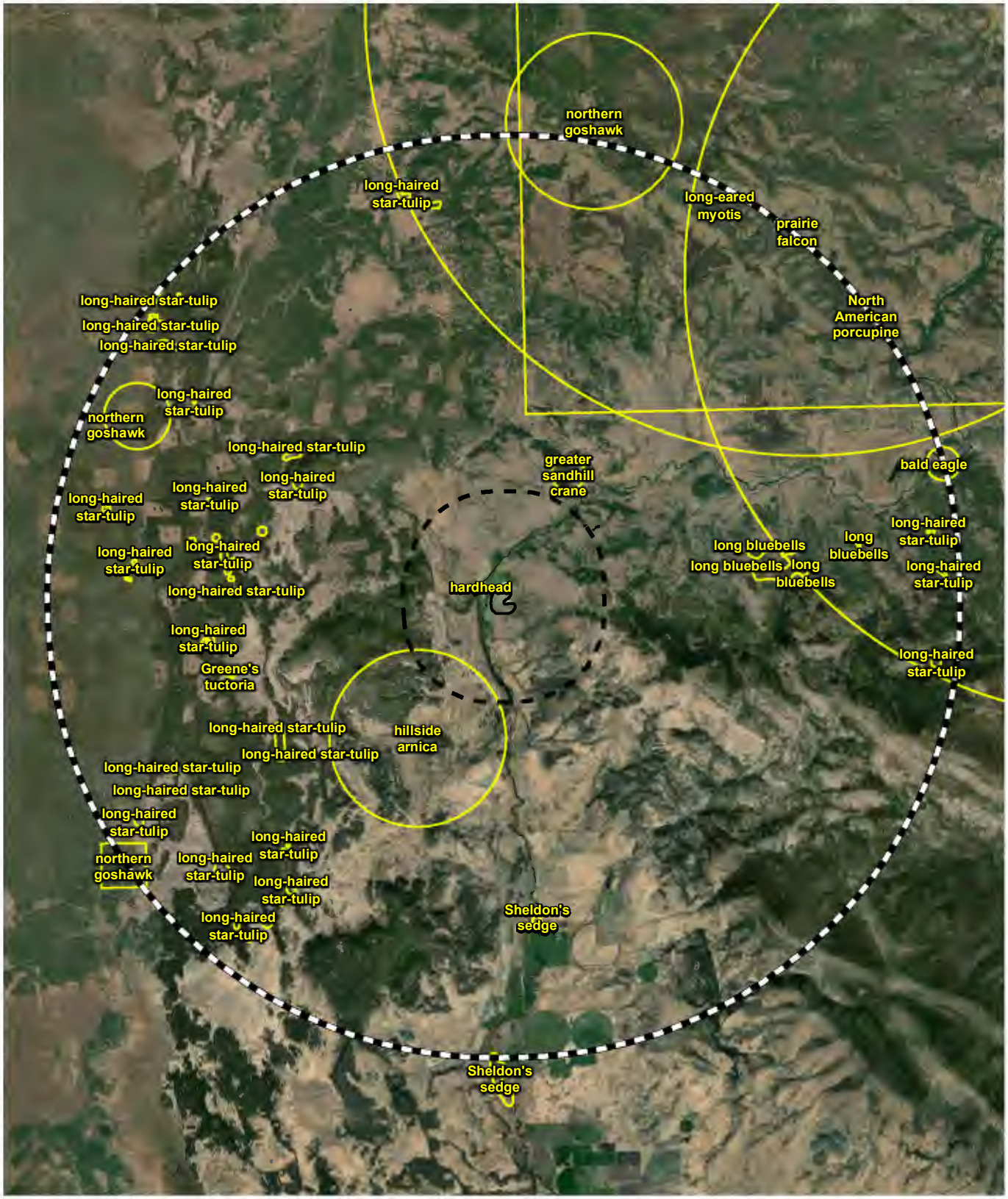
Table 4-1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requirements	Project Impact
Bald eagle	*Haliaeetus leucocephalus*	FD	CE, CDFW Fully protected	--	Tall trees in dense riparian corridors, near open water	Habitat adjacent to current mine site. Area may be foraging habitat. No nesting habitat onsite. No impact.
Hardhead	*Mylopharodon conocephalus*	--	SSC	--	Sacramento-San Joaquin and Russian River drainages in California	Habitat outside of mine site. No impact due to existing SWPPP and BMPs.
Greater sandhill crane	*Antigone canadensis tabida*	--	CT. CDFW Fully protected	--	Emergent wetlands, wet meadows, irrigated pasture	Habitat adjacent to current mine site. No foraging or nesting habitat onsite. Noise from site activity is a baseline condition. No impact.
Long-eared myotis	*Myotis evotis*	--	--	--	Rock crevices and tree cavities near perennial water sources	Habitat outside of mine site. No impact.
Swainson's hawk	*Buteo swinasoni*	--	CT	--	Migratory; Large, open grasslands in riparian systems	Foraging habitat onsite, no nesting habitat onsite. No new impacts from proposed project area.
Gray wolf	*Canis lupus*	FE	--	--	Highly variable with large home ranges	Habitat may include mine site. Very transitory species. No impact.
Prairie falcon	*Falco mexicanus*	--	CDFW WL	--	Nest on cliff ledge overlooking open meadows in grasslands and forests	No habitat onsite
Northern goshawk	*Accipiter gentilis*	--	SSC	--	Nest in mature and old-growth forest stands >40 percent cover	No habitat onsite
Yellow-billed cuckoo	*Coccyzus americanus*	FT	--	--	Dense riparian thickets, wooded foraging spaces in excess of 300 ft. in width and 25 acres in area	No habitat onsite
North American wolverine	*Gulo gulo luscus*	PFT			Del Norte, Trinity, Shasta, Plumas and south; between 4300-7300 ft in Northern Sierras	No habitat onsite

Table 4-1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requirements	Project Impact
Ephemeral monkeyflower	*Erythranthe inflatula*	--	--	1B.2	Among rocks and boulders on moist gravel, previously flooded	No habitat onsite
Greene's tuctoria	*Tuctoria greenei*	FE	Rare	1B.1	Valley Grassland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Sheldon's sedge	*Carex sheldonii*	--	--	2B.2	Wetlands; "obligate" wetland indicator plant	No habitat onsite
Slender Orcutt grass	*Orcuttia tenuis*	FT	CE	1B.1	Valley Grassland, Foothill Woodland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Long-haired star-tulip	*Calochortus longebarbatus var. longebarbatus*	--	--	1B.2	Great Basin scrub, Lower montane coniferous forest Meadows and seeps, vernal pools	No habitat onsite
Long bluebells	*Mertensia longiflora*	--	--	2B.2	Seasonally moist plains and foothills in Yellow pine forest and sage steppe; Elev. 5000-7000 ft.	Site outside of elevation range
Hillside arnica	*Arnica fulgens*	--	--	2B.2	Open, damp depressions in sagebrush scrub or grassland	No habitat onsite

Key: federally Endangered (FE), proposed federally Endangered (PFE); federally Threatened (FT); proposed federally Threatened (PFT), federally delisted (FD); California Endangered (CE); California Threatened (CT); California Fully Protected (CFP); California Species of Special Concern by DFG (SSC); California Rare Plant Ranking (CRPR)



Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

CNDDB Occurrence

5-Mile Buffer Around Project Boundary

1-Mile Buffer Around Project Boundary

N

VESTRA

SOURCE: CDFW CNDDB AUGUST 2020

0 4,250 8,500 17,000 Feet

FIGURE 6
CNDDB OCCURRENCES
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\CEQA\71305_2020_CNDDB.mxd

For each special-status wildlife species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat.

Impact Analysis

The following includes an analysis of environmental parameters related to *Biological Resources* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service*?

Special-status species identified by the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), and CWHR database searches and literature review were evaluated for their potential to occur within the project area. Potential for occurrence was based on habitat requirements and proximity to known recorded occurrences of a species.

The potentially occurring species that were generated through desktop review were assessed based on the actual observed habitat types onsite. The assessment found that the following species have the potential to occur:

- Bald eagle (*Haliaeetus leucocephalus*)
- Hardhead (*Mylopharodon conocephalus*)
- Greater sandhill crane (*Grus canadensis tabida)*
- Long-eared myotis (*Myotis evotis*)
- Northern goshawk (*Accipiter gentilis)*
- Swainson's hawk *(Buteo swinasoni)*
- Gray wolf *(Canis lupus)*

No impacts were determined for all of the previous species but two: Swainson's hawk and gray wolf. Discussion of the impacts for these species is provided below:

Swainson's hawk *(Buteo swinasoni)*

The Swainson's hawk was listed as a threatened species in 1983. This species breeds in the western United States and Canada and winters in isolated areas in California, Mexico, and Central and South America, though only a small number have been documented to overwinter in California (Herzog 1996). Historically found throughout California except in the Sierra Nevada, North Coast Ranges, and Klamath Mountains, loss of suitable habitat has now restricted breeding areas to the Great Basin and the Central Valley. Nesting Swainson's hawks require large open areas of grassland for foraging adjacent to riparian forests or corridors, juniper-sage flats, or oak savannah for nesting. The main cause of the decline of this species in California is the significant loss and degradation of open areas, such as agricultural lands and grasslands, due to urban development.

According to observation data from the past five years, Swainson's hawks are prevalent in the Lookout, California, area surrounding the mine site (Cornell 2020). This is likely due to the abundance of agricultural fields and natural grassland in the area. Several Swainson's hawks were observed over an agricultural field located several miles away from the proposed mine site. During the site visit, one adult Swainson's hawk was observed onsite soaring in between two stands of trees within the juniper habitat that exists to the north and to the east of the project site.

At the time of the survey, the currently approved operations were active at the site. An excavator-mounted drill was being used for rock drilling in the quarry, which is immediately adjacent to the proposed expansion area. The asphalt plant was actively processing materials approximately 700 feet away from the proposed expansion area. Because no changes to activities are proposed onsite, noise levels at the time of observation represent the typical noise levels that would continue to occur once the expansion area is mined. The survey found that, while most Swainson's hawks that inhabit the region select vast agricultural fields as foraging habitat, the mine activity at Shaw Pit does not deter Swainson's hawks from utilizing the site.

Potential nesting habitat exists in the riparian corridor and the juniper forest that surrounds the mine site. The proposed quarry expansion would not remove any riparian habitat. A maximum of five trees would be removed throughout the expansion process. Nesting Swainson's hawks in the area would likely still utilize the site because no change in noise levels or hours of operations would occur. Because abundant nesting habitat exists in the grasslands and riparian corridors that surround the site, impacts to Swainson's hawk nesting would be less than significant.

Gray wolf *(Canis lupus)*

The gray wolf was listed as endangered on March 9, 1978 (USDI FWS 1978). Gray wolves are habitat generalists and can potentially occur in a wide range of habitats including temperate forest, mountains, tundra, taiga, and grasslands, so long as there is suitable prey. Prey species primarily include ungulates, such as moose, caribou, deer, and elk, but they will also take smaller prey such as beaver and small mammals and will readily scavenge.

This species is highly territorial and defends territories in packs. Territory size is a function of prey density and can range from 25 to 1,500 square miles. Both male and female wolves disperse at equal rate and equal distances, sometimes more than 600 miles. Gray wolves once ranged throughout the northern hemisphere, but widespread trapping and extermination efforts severely reduced their distribution and caused dramatic population declines. Current threats to the gray wolf include continued conflict with humans, primarily resulting from livestock depredation, and habitat loss, degradation and fragmentation due to land development.

There are two documented occurrences of gray wolves in Modoc County. The nearest documented occurrence is approximately twenty miles north of the project site and occurred in 1922. Due to the small project footprint relative to the large home range size of the gray wolf, the proposed expansion will not alter an amount of habitat significant enough to have any impact on the species. Further, gray wolves are highly mobile and capable of avoiding project-related disturbance. Therefore, the proposed action will have a less than significant impact, if any, on the gray wolf.

Special-status species identified by CNDDB, CNPS, and CWHR database searches and literature review were evaluated for their potential to occur within the project area. Of all 14 species identified as potentially to occur, 12 were determined to have no impact by this project and 2 were determined to have less than significant impact, therefor, there is no substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate sensitive, or special status species in the project area. Less than significant impacts would occur in this regard.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The project area is adjacent to the Pit River. The currently permitted mine area contains two, intermittent watercourses as well as two man-made sediment retention basins. The CNDDB search shows that hardhead fish (*Mylopharodon conocephalus*) were identified in the Pit River within one mile of the project site as shown on Figure 6.

The range of hardhead extends from the Pit River (south of the Goose Lake drainage), Modoc County, in the north to the Kern River, Kern County, in the south. Their distribution may be limited to well-oxygenated streams and reservoir surface waters by low oxygen levels at warm temperatures (Santos et al. 2014). They prefer pools and runs with deep (>80 cm) clear water, slow (20-40 cm/sec) velocities and sand-gravel-boulder substrates. The nearest CNDDB records of hardhead to the Shaw Pit site occurred adjacent to the site; the record states that two adults and twelve juveniles were observed during a survey on June 14, 1994.

The operations at Shaw Pit have a Stormwater Pollution Prevention Plan (SWPPP) in place and currently avoid impacts to the aquatic habitats in the area. The proposed expansion will not alter these buffers. There is no riparian habitat or other sensitive natural community located on the project site**.** No impact would occur in this regard.

c) *Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No impacts to Waters of the United States (WOTUS) will occur as no WOTUS are present within the expansion area. The USGS National Hydrography Dataset shows WOTUS in the area including the stream and wet meadows that are located to the west of the project site and intermittent streams that run through the already-approved mine site. Impacts to these WOTUS are avoided by the implementing of Best Management Practices (BMP) in the SWPPP that were previously designed and permitted. Less than significant impacts would occur in this regard.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Nesting migratory birds, if present, could be directly or indirectly affected by the expanded mine activities. Direct effects could include mortality resulting from removal of a tree/shrub containing an active nest with eggs or chicks, or construction equipment operating in an area containing an active nest. Indirect effects could include nest abandonment by adults in response to loud noise levels or human encroachment, or a reduction in the amount of food available to young birds due to changes in feeding behavior by adults.

In the local area, most birds nest between March 1 and August 31. As required by Mitigation Measure BIO-1, the potential for adversely affecting nesting birds can be greatly minimized by removing vegetation and conducting construction activities either before March 1 or after August 31. If this is not possible, a nesting survey would be conducted within one week prior to removal of vegetation and/or the start of construction. If active nests are found in the project area, work would need to be postponed in the vicinity of the nests until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, vegetation removal and construction activities would not occur within 500 feet of an active nest unless a smaller buffer zone is authorized by the California Department of Fish and Wildlife (CDFW) and/or the United States Fish and Wildlife Service (USFWS). If required by the agencies, a qualified biologist would monitor active nests during construction for signs of disturbance to the nesting birds.

Therefore, because mining activities that may impede the movement of wildlife are a temporary impact that would cease at completion of the project, and Mitigation Measure BIO-1 would reduce the potential for adversely affecting nesting birds, the proposed project would have a less than significant impact on the movement of any native resident or migratory fish, or wildlife species and would not impact migratory wildlife corridors. Less than significant impacts would occur in this regard.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

There are no local policies or ordinances in place to protect any biological resource. No impact would occur in this regard.

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plan?*

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the Federal Endangered Species Act (FESA). A Natural Community Conservation Plan (NCCP) is a State planning document administered by CDFW. There are no HCPs, NCCPs or other habitat conservation plans that apply to the proposed project. No impact would occur in this regard.

Mitigation Measures

The following mitigation measure will be implemented for the expansion area:

Mitigation Measure BIO-1

To avoid impacts to nesting birds, and/or raptors, protected under California Fish and Game Code Section 3503 and Section 3503.5, including their nests and eggs, one of the following shall be implemented:

- Tree and vegetation removal activities shall avoid the nesting season (March 1 – August 31); or

- If vegetation removal will occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the project area.

Surveys shall begin prior to sunrise and continue until vegetation and nests have been thoroughly observed. The survey shall take into account acoustic impacts and line-of-sight project disturbances to determine a sufficient survey radius to maximize observations of nesting birds. A nesting bird survey report should be prepared and, at a minimum, the report should include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, presence of predators).

If an active nest is located during pre-construction surveys, a non-disturbance buffer should be established around the nest by a qualified biologist in consultation with CDFW and United States Fish and Wildlife Service to comply with Fish and Game Code Sections 3503 and 3503.5 and the Migratory Bird Treaty Act. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified during the survey, as well as ongoing monitoring by biologists. Nesting bird surveys should be conducted no more than seven days prior to the initiation of construction. If mining activities are delayed or suspended for more than seven days after the pre-construction nesting bird survey, the site should be resurveyed.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Biological Resources* would be less than significant with incorporation of the following mitigation measures:

The County shall reduce impacts to biological resources by incorporating the following measures into mining plans:

- *A raptor nest survey should be conducted prior to removal of trees in future mining areas. The survey should be conducted during the spring nesting season of the year tree removal would occur. If an occupied raptor nest is located in a tree to be removed, the tree must be retained until fledging of the young has occurred.*

- *To mitigate potential impacts to nesting bald eagles or Swainson's hawks as a consequence of pit activities (blasting, rock crushing, etc.), the County shall conduct a nest survey to a radius of one mile from the pit site. A qualified biologist will conduct the survey immediately prior to pit operation anytime*

the pit is to be operated during the period of February I through August 31. Should the nest survey identify nesting activities, the County shall consult the Department of Fish and Game in order to determine and implement the appropriate mitigation measures for the affected species.

- *To mitigate impacts to surface streams and downstream siltation of the perennial stream, mitigation A and B should be implemented. Implementation of these mitigation measures will prevent any potential Pit River water quality impacts and associated impacts to river fauna, including the Modoc sucker.*

- *All necessary permits including a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers and a Streambed Alteration Agreement from the California Department of Fish and Game shall be obtained.*

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project, as mitigated by Mitigation Measure BIO-1, will have a less than significant impact with respect to *Biological Resources*.

V. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Environmental Setting

An archaeological resources survey of the Shaw Pit was conducted in July 1996 by a certified cultural resource specialist (Coyote and Fox, 1996). No archaeological sites were identified in or around the 1997 expansion area. Three prehistoric isolated artifacts were noted. These locations were not recorded as sites due to the limited number of artifacts. Previous studies identified several prehistoric village sites one quarter of a mile south of the mine located along the Pit River. At that time, mitigation was established to reduce impacts to potentially unknown cultural or historical resources to less than significant levels.

Impact Analysis

The following includes an analysis of environmental parameters related to *Cultural Resources* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

The proposed project would result in a significant impact if it caused a substantial adverse change in the significance of an archaeological resource. Based on the results of the Coyote and Fox investigation (1996) described there are no resources in the project area with intact visible surface manifestations that qualify as archaeological resources or historical resources as defined by CEQA Guidelines Section 15064.5. However, there is the possibility of encountering buried archaeological resources during project activities, including ground disturbing activities onsite. Inadvertent discovery procedures should be implemented for resources found as a result of project development would reduce potential impacts on undocumented resources to less than significant levels. To minimize potential impacts to prehistoric and historic resources, including Native American cultural resources, Mitigation Measure CR-1 and Mitigation Measure CR-2 are required. With implementation of these measures, impacts to cultural resources would be less than significant.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Refer to impact discussion V.a, above. Any undocumented resources encountered during operation of the quarry will be mitigated through implementation of Mitigation Measure CR-1 and Mitigation Measure CR-2. Adherence to protocols established by both mitigation measures would serve to avoid impacts that would result in a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.

c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

There are no known burial sites on or immediately adjacent to the proposed project site. If human remains are unearthed during future development of the site, the provisions of California Health and Safety Code Section 7050.5 shall apply. Under this Section, no further disturbance shall occur until the Modoc County Coroner has made the necessary findings as to origin and disposition, pursuant to California PRC Section 5097.98 and Mitigation Measure CR-2. Impacts are less than significant in this regard.

Mitigation Measures

The following mitigation measures will be implemented for the expansion area:

Mitigation Measure CR-1

If cultural resources, such as chipped or ground stone, or bone are discovered during disturbance activities, work shall be stopped within 50 feet of the discovery, as required by the California Environmental Quality Act (CEQA; January 1999 Revised Guidelines, Title 14 California Code of Regulations [CCR] 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the material and offered recommendations for further action.

Mitigation Measure CR-2

If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Modoc County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the North American Heritage Commission (NAHC) (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Cultural Resources* would be less than significant with incorporation of the following mitigation measures:

Should any cultural resources, such as structural features, or unusual amounts of bone or shell, artifacts, human remains, or architectureal remains be encountered during any mining activities, work shall be suspended and a qualified cultural resources specialist shall be immediately notified. At that time, the county will coordinate any necessary investigations to determine the sgnifcance of the find. The County shall then implement any mitigation deemed necessary for the recordation and/or protection of the curltural resources. In addition, pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code and Section 7050.5 ot the State Health and Safety Code, in the event of the discovery of human remains, all work shall be halted and the County Coroner shall be immediately notified. If the remains are determined to be of Native American origin, then as per the Public Resources Code, Section 5097, the North American Heritage Commission (NACH) will be contacted by the County.

No cultural, historical resources or human remains have been discuvered in the currently permitted mine site during mine activities. In the proposed expansion area, the current CEQA guidelines (Title 14 California Code of Regulations [CCR] 15064.5 and Public Resources Code, Section 7050.5 and 5097) will be used to reduce potential impacts to less than significant.

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project, as mitigated by CR-1 and CR-2, will have a less than significant impact with respect to *Cultural Resources*.

VI. ENERGY Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state of local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Setting

The project does not include new or expanded sources of energy consumption onsite. Site operations will not change under the project and are considered baseline conditions. The project will utilize diesel fuel to power the equipment onsite as well as haul trucks transporting materials extracted from the site as previously permitted. The project will not result in a substantial increase in energy consumption beyond existing conditions.

Impact Analysis

The following includes an analysis of environmental parameters related to *Energy* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

The proposed expansion area does not change the consumption of energy at the mine site. The increase of mine life-time will continue energy consumption further into the future. However, compliance with State, federal, and local regulations (limiting engine idling times, etc.) will reduce and/or minimize energy demand during the project to the extent feasible and will not result in wasteful or inefficient use of energy. Therefore, energy consumption is considered temporary and will continue to occur until reclamation is complete. Less than significant impacts would occur in this regard.

b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. State and local agencies regulate the use and consumption of energy through various methods and programs. The proposed project is a consumer and end user of electricity and fuel. It is assumed that electricity consumed by the proposed project would be provided by Surprise Valley Electric in accordance with State renewable energy plans and that equipment and vehicles used by the proposed project would conform with State regulations and plans regarding fuel efficiency. Impacts would be less than significant in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that the project would have no impacts related to *Energy*. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Energy*.

VII. GEOLOGY AND SOILS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Environmental Setting

The site, including the current and proposed expansion area, is located within the southwestern margin of the Modoc Plateau physiographic province. The mine site sits near the juncture of three major physiographic provinces of California: the Modoc Plateau, the Cascade Range, and the Basin and Range. The Modoc Plateau is bordered to the east by the Basin and Range, to the west by the Cascade Range, and to the south by both the Sierra Nevada Mountains and the Cascade Range. At the mine site, the geology is dominated by the extrusive volcanics of the Modoc Plateau and the extensional tectonics of the Basin and Range. Bedrock geology in the vicinity of the site consists entirely of extrusive volcanic rocks of the Modoc Plateau, specifically the units of the Manzanita Range. Two named units are mapped onsite: basaltic andesite of the Manzanita Range and the Turner Creek Tuff.

The soils within the proposed project area belong to the Jacket-Deven-Hiibner Families Association, which have developed from volcanic ash derived from basalt. At the mine site, the geology is dominated by the extrusive volcanics of the Modoc Plateau and the extensional tectonics of the Basin and Range. Bedrock geology in the vicinity of the site consists entirely of

extrusive volcanic rocks of the Modoc Plateau. The principal geological unit onsite is the basaltic andesite of the Manzanita Range. The basaltic andesite flows of the Manzanita Range are more resistant than surrounding pyroclastic rocks and thus tend to form topographic promontories such as ridges and hills. These flows are the principal resource being exploited at the mine site.

There are no Holocene-active faults within 25 miles of the current or expanded project area. The nearest mapped fault is an unnamed high-angle normal fault present on the western site boundary. According to the USGS Earthquake Hazards database, the most recent movement along this fault occurred pre-late Quaternary period. The next nearest mapped fault is a splay of the Mayfield Fault Zone located approximately 20 miles west of the site. The Likely Fault Zone is located approximately 22 miles east of the site.

Impact Analysis

The following includes an analysis of environmental parameters related to *Geology and Soils* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i. Rupture of a known earthquake fault:

There are no Holocene-active faults within 25 miles of the current or expanded project area. The nearest mapped fault is an unnamed high-angle normal fault present on the western site boundary. This unnamed fault strikes nearly north-south and dips steeply to west. According to the USGS Earthquake Hazards database, the most recent movement along this fault occurred pre-late Quaternary (<130 Ka). The next nearest mapped fault is a splay of the Mayfield Fault Zone located 20 miles west of the site. This is also a high-angle, westward-dipping normal fault. The most recent movement along this fault is believed to have occurred in the latest Quaternary (< 15 Ka). Slip is estimated at 1-5 mm/year. The Likely Fault Zone is located 22 miles east of the site. This is a late Quaternary active fault with a dextral-slip-normal sense of motion. The potential for rupture of a known earthquake fault, strong seismic ground shaking, and seismic related ground failure at the site is low. No impact would occur in this regard**.**

ii. Strong seismic ground shaking:

The entire northern California region is subject to the potential for moderate to strong seismic shaking due to distant seismic sources. Seismic shaking can be generated on faults many miles from the project vicinity. An earthquake is caused by a sudden slip on a fault. Stresses in the earth's outer layer push the sides of the fault together. Stress builds up, and the rocks slip suddenly, releasing energy in waves that travel through the earth's crust and cause the shaking that is felt during an earthquake. Seismic shaking potential is, therefore, a regional hazard; the hazard is not higher or lower at the project site than throughout the region. It should be noted however that no region is immune from potential earthquake damage. Seismic shaking potential is considered minimal, and the hazard is not higher or lower at the project site than throughout the region. Impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction:

Liquefaction results from an applied stress on the soil, such as earthquake shaking or other sudden change in stress condition, and is primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. This is most likely to occur in alluvial (geologically recent, unconsolidated sediments) and stream channel deposits, especially when the groundwater table is high. Seismic ground settlement is not considered a hazard at the site due to the fact that the site is underlain by solid granitic rock and is not submit to seismic ground failure. No impact would occur in this regard.

iv. Landslides:

Landslides occur throughout Modoc County, although they have not been considered a major problem. The current mine area ranges in elevation from 4,180 to 4,400 feet above mean sea level. The overall area has gentle slopes, shallow soils and low precipitation rates making impacts related to landslides null. No impact would occur in this regard.

b) *Result in substantial soil erosion or the loss of topsoil?*

The principal resource being exploited at the mine site are the basaltic andesite flows that are more resistant to weathering and erosion than the surrounding pyroclastic rocks and thus tend to form topographic promontories such as ridges and hills. The proposed expansion area is on one of these hills and soil is relatively shallow. Any soil present will be removed and stockpiled. The topsoil (and/or other growth media) stockpiles will be protected from wind and water erosion by planting with an erosion-control mix, as well as keeping the stockpiles in a low profile with moderate slopes. Upon reclamation, the final slope of the proposed expansion area will be 2:1 as allowed by SMARA; Article 9- section 3704.

The site's topography is gently sloping and water is directed across the active mine area using a combination of ditches, temporary culverts and settling ponds. In most cases, stormwater is contained and there is no discharge. If stormwater is discharged it is after passing through settling ponds that act as a filter before being discharged from the site into the Pit River. Sediment and erosion controls are addressed in the Storm Water Pollution Prevention Plan (SWPPP) for the site.

Erosion and sedimentation will be controlled during and after reclamation activities. Surface runoff will be controlled using appropriate grading along with the implementation of BMPs including the use of:

- Mulches
- Vegetative cover
- Straw wattles
- Water bars/rolling dips
- Rock-lined ditches

Due to the shallow soils and the BMPs in place, the project will not result in substantial soil erosion or loss of topsoil. Less than significant impacts would occur in this regard.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

The quarry is not located on a geologic unit or soil that is unstable or that will become unstable as a result of the project. The project site contains a minimal amount of topsoil over basaltic andesite rock; therefore, the potential for liquefaction is low. Mining of the quarry will continue to be conducted in accordance with Use Permit/Reclamation Plan 96-52 and will not result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur in this regard.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Expansive soils have high shrink-swell potential that expand when wet and shrink when dry. This can result in damage to foundations and structures. Expansive soils are not known to exist at the project site or in the project vicinity. The project site consists of shallow soils over basaltic andesite flows. No impact would occur in this regard.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project does not propose the installation of alternative wastewater disposal systems. Mining operations will continue to utilize portable toilets. No impact would occur in this regard.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No paleontological resources or unique geologic features have been identified since the quarry began operations in the 1970s, and the potential for their occurrence is considered minimal. No impact is anticipated in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Geology and Soils* would be less than significant with incorporation of the following mitigation measures:

To control downstream siltation of the streams traversing the pit and the Pit River, a sedimentation pond shall be constructed in a reach of the perennial stream downstream of all mining activity. This pond shall be twenty feet long and two feet deep, large enough to temporarily impound water to allow for stream water to drop its sediment load before flowing into the Pit River. The pit will be engineered to withstand damage in the case of a high water storm episode and should be similarly engineered to last the operationai life of the Shaw pit. If the pond should be damaged because of winter stonn weather, the pond shall be repaired prior to continued mining activity. Upon pit closure and final reclamation, the pond shall be removed and the streambed restored.

The pond iaelf will hold back water for a short period of time before allowing water to spill over and continue its flow to the Pit River. The pond will not be large enough to be classified as a dam and reservoir by the State Department of Safery of Dams (DSOD). The pond wiil not significantly impact downstream resources. In the typical dry summer season, downstream flows leaving the pit site follow a subsurface path to the Pit River, leaving the streambed dry. The pond will not alter this rypical summer regime of flows and will continue to allow subsurface movement of water. In the typical wet winter season, water will only be held back in the pond until the water level meets the "spillway" (because of the ponds shailow depth and overall size, a very short time period). Water leaving the pond via the "spillway" will continue to flow along the sueambed to the Pit River, clean of pit debris and sediments. Pond design specifics can be found on the Mining Plan (Appendix B).

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Geology and Soils*.

VIII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Greenhouse gases (GHG) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere though a three-fold process. In short, GHGs in the upper atmosphere absorb and emit longwave radiation into space and toward the Earth. The longwave radiation emitted back towards the Earth is the underlying process of the greenhouse effect. Gases that contribute to GHGs are carbon dioxide (CO_2), nitrous oxide (N_20), methane (CH_4), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). GHG from one project, even a large one, does not generate enough GHGs to make an environmental impact. California passed Assembly Bill 32 in 2006 mandating a reduction in GHG emissions and evaluating that under Senate Bill 97 in 2007 under CEQA. As a CEQA guideline, lead agencies are obligated to determine whether a project's GHG emissions significantly affect the environment. The California Environmental Quality Act (CEQA) standard is to mitigate that to a level of less than significant.

GHG emissions have been on the decline since 2016 when the California Air Resource Board (CARB) announced in July 2018 that GHG emissions have continued to decrease since 2007. Emissions vary from year to year depending on weather and other factors. California will continue to implement GHG reductions program to ensure the state remains on track for 2020 and beyond.

The existing quarry is located in the Northeast Plateau Air Basin and is under the jurisdiction of the Modoc County Air Pollution Control District (APCD).

Impact Analysis

At this time, neither the Modoc County APCD nor Modoc County has adopted numerical thresholds of significance for GHG emissions that would apply to the proposed project. In light of the lack of established GHG emissions thresholds that would apply to the proposed project, CEQA allows lead agencies to identify thresholds of significance applicable to a project that are supported by substantial evidence. Substantial evidence is defined in the CEQA statute to mean "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts" (14 CCR 15384(b)).[1] Substantial evidence can be in the form of technical studies, agency staff

[1] 14 CCR 15384 provides the following discussion: "Substantial evidence" as used in the Guidelines is the same as the standard of review used by courts in reviewing agency decisions. Some cases suggest that a higher standard, the so called "fair argument standard" applies when a court is reviewing an agency's decision whether to prepare an EIR. Public Resources Code section 21082.2 was amended in 1993 (Chapter 1131) to provide that substantial evidence shall include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The statute further provides that "argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or

reports or opinions, expert opinions supported by facts, and prior CEQA assessments and planning documents. Therefore, to establish additional context in which to consider the order of magnitude of the proposed project's GHG emissions, this analysis accounts for the following considerations by other government agencies and associations about what levels of GHG emissions constitute a cumulatively considerable incremental contribution to climate change:

- Sacramento Metropolitan Air Quality Management District established thresholds, including 1,100 metric tons of CO_2e per year for the construction or operational phase of land use development projects, or 10,000 direct metric tons of CO_2e per year from stationary source projects.[2]

- Placer County Air Pollution Control District recommends a tiered approach to determine if a project's GHG emissions would result in a significant impact. First, project GHG emissions are compared to the de minimis level of 1,100 metric tons of CO_2e per year. If a project does not exceed this threshold, it does not have significant GHG emissions. If the project exceeds the de minimis level and does not exceed the 10,000 metric tons of CO_2e per year bright line threshold, then the project's GHG emissions can be compared to the efficiency thresholds. These thresholds are 4.5 metric tons of CO_2e per-capita for residential projects in an urban area, and 5.5 metric tons of CO_2e per-capita for residential projects in a rural area.[3]

- Bay Area Air Quality Management District has adopted 1,100 metric tons of CO_2e per year as a project-level bright-line GHG significance threshold that would apply to operational emissions from mixed land-use development projects, a threshold of 10,000 metric tons of CO_2e per year as the significance threshold for operational GHG emissions from stationary-source projects, and an efficiency threshold of 4.6 metric tons of CO_2e per service population per year.[4]

As described, the 1,100 metric tons of CO_2e per year threshold is used by other air districts for land use development projects. Therefore, the proposed project's GHG emissions were compared to the 10,000 metric tons of CO_2e per year quantitative threshold. The substantial evidence for this GHG emissions threshold is based on the expert opinion of various California air districts, which have applied the 10,000 metric tons of CO_2e per year threshold in numerous CEQA documents where those air districts were the lead agency.

The following includes an analysis of environmental parameters related to *Greenhouse Gas Emissions* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence."

[2] Sacramento Metropolitan Air Quality Management District, Guide to Air Quality Assessment in Sacramento County, May 2018, http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools

[3] Placer County Air Pollution Control District, 2017 CEQA Handbook – Chapter 2, Thresholds of Significance. https://placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDf

[4] Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The project will not generate new greenhouse gases beyond existing conditions. Mining activities will be extended from 2036 to 2050 (approximately 14 years). Mine operations would occur based on market demand and therefore would not typically operate on a daily basis.

In an effort to provide an estimate of greenhouse gas emissions associated with the proposed quarry expansion and the associated 14-year operational extension of mining activities, staff reviewed the *Revised Initial Study/Mitigated Negative Declaration – Amendment 23-0003 and Amendment 23-0004* prepared by Shasta County in 2023 for Crystal Creek Aggregates. The following provides a brief synopsis of the project evaluated in the revised IS/MND (SCH No. 2023080240):

The project proposes to amend Use Permit 07-020 to modify the design, but not the boundaries of the existing quarry of approximately 57.31 acres and the plant area of approximately 53.38 acres, which total 110.69 acres that will remain as the Reclamation Plan area with associated boundaries. In addition, the Use Permit area is proposed to be expanded by an additional 69.28 acres referenced as the remaining Mineral Resource Area (MR).

The total aggregate amount to be processed for sale yearly is proposed to increase from 250,000 to 500,000 tons. The estimated amount proposed to be mined will increase from 15.92 million tons to 25.4 million tons over three phases. Extraction for Phases 1, 2, and 3 will be 4.84, 5.42, and 2.15 million cubic yards per phase, respectively. The estimated life of the mining operation will increase from the currently approved end of the Year 2072 by 30 years to the end of the Year 2102.

The revised IS/MND included an analysis of environmental parameters related to Greenhouse Gas Emissions based on Appendix G of the State CEQA Guidelines. Based on the project details noted above, the estimated GHG project-related operational emissions would be approximately 2,247 metric tons of CO_2e, which is below the significance threshold of 10,000 metric tons of CO_2e.

The above referenced revised IS/MND reflects mining activities and operations that significantly exceed those of the proposed project. Based on this comparison, it can be determined that implementation of the proposed project would result in greenhouse gas emissions well below the significance threshold of 10,000 metric tons of CO_2e. Therefore, project implementation will not generate greenhouse gases emissions that may have a significant impact on the environment. Less than significant impacts would occur in this regard.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should

be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions.

In September of 2016, SB 32 extended the goals of AB 32 and set a goal to achieve reductions in GHG of 40 percent below 1990 levels by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. Since the proposed project will be operational post 2020, the principal State plan and policy adopted for the purpose of reducing GHG emissions is SB 32. Statewide plans and regulations such as GHG emissions standards for vehicles and the low carbon fuel standard are being implemented at the statewide level, and compliance at the specific plan or project level is not addressed.

The assumption is that SB 32 and other regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions statewide. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG. Therefore, the proposed project would result in a significant impact if it would conflict with State regulations such as AB 32 and SB 32. The proposed project has been reviewed relative to the climate change policies and measures in CARB's 2017 Climate Change Scoping Plan and it has been determined that the proposed project would not conflict with State GHG reduction goals. Furthermore, the proposed project would be below the GHG significance threshold, as discussed under impact discussion VIII.a, above. Less than significant impacts would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The 1997 Mitigated Negative Declaration did not contain a separate analysis related to *Greenhouse Gas Emissions* as this evaluation was not required at the time the previous environmental review was conducted. Based upon the impact analysis above, implementation of the proposed project will have a less than significant impact with respect to *Greenhouse Gas Emissions*.

IX. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport/use/disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

Industrial activities include the sorting and crushing of aggregate and asphalt grindings and the lime treatment and washing of aggregate. Asphalt is also manufactured onsite. Construction equipment operation, storage, and minor maintenance occur onsite. Potential sources for pollution onsite include fuels and oils used in machinery, heavy equipment, and trucks. The vehicles and equipment used in the project operation are maintained to prevent leaks. Minor routine onsite maintenance is conducted within the processing area in such a manner as to minimize the potential for leaks and spills. Major repairs, other than emergency repairs, are conducted at an offsite facility. Petroleum products are stored onsite within a concrete secondary containment structure. Three onsite aboveground storage tanks (ASTs) are located onsite, within the secondary containment structure. Pollutant and sediment controls are addressed in the SWPPP for the site.

Impact Analysis

The following includes an analysis of environmental parameters related to *Hazards and Hazardous Materials* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Hazardous materials are typically chemicals or processes that are used or generated by a project that could pose harm to people working at the site or on adjacent areas. Many of these chemicals can cause hazardous conditions to occur should they be improperly disposed of or accidentally spilled as part of project development or operations. Hazardous materials are also those listed as hazardous pursuant to Government Code Section 65962.5.

The proposed project will result in the continued use of hazardous materials for mining operations. All fuel storage tanks onsite have secondary containment structures. The Modoc County Environmental Health Department (EHD) is the Certified Unified Program Agency (CUPA) for Modoc County with responsibility for regulating hazardous materials handlers, hazardous waste generators, underground storage tank facilities, above ground storage tanks, and stationary sources handling regulated substances. The existing quarry and aggregate processing operation utilize small amounts of fuel and lubricants and is subject to the County's HMBP program, which is regulated by the Modoc County EHD as part of the Certified Unified Program. The program requires the preparation of a document that provides an inventory of hazardous materials onsite, emergency plans and procedures in the event of an accidental release, and training for employees on safety procedures for handling hazardous materials and in the event of a release or threatened release. These plans are routine documents that are intended to disclose the presence of hazardous materials and provide information on what to do if materials are inadvertently released.

There is a business plan on file with the Modoc County EHD which conducts periodic site inspections. Blasting of quarry rock has historically occurred onsite and the frequency of blasting will not increase with implementation of the proposed project. Explosives are handled by a licensed operator and are not stored onsite and are only onsite when a blast is being set up.

The proposed project does not include changes to the current storage or use of hazardous materials. Operations will continue to follow the applicable laws and regulations regarding hazardous material transport, as defined in Section 353 of the California Vehicle Code. Therefore, the level of risk associated with the accidental release of hazardous substances is not considered significant. Onsite operations would be required to continue to use standard operational controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. Less than significant impacts would occur in this regard.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The project could release hazardous materials to the environment if a spill of fuel or equipment leaks were to occur onsite. These potential pollutants are addressed in the SWPPP for the site. Site operations will not change under the project and are considered baseline conditions. Less than significant impacts would occur in this regard.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The proposed project site is not located within a quarter mile of a school and will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur in this regard.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Under Government Code Section 65962.5, both the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations on the project site. Therefore, the site is not on a parcel included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, implementation of the proposed project would not create a significant hazard to the public or to the environment. No impact would occur in this regard.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport. The project will not result in a safety hazard related to airports for the people working in the project area. No impact would occur in this regard.

f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project will occur off a remote county road that is not a public evacuation route for the county. Therefore, implementation of the proposed project will not interfere with any emergency response plan or evacuation plan. No impact would occur in this regard.

g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The risk of potential ignitions resulting from mining activities onsite would be considered low for the existing cleared areas of the site with non-combustible land cover. The expanded mining area would be cleared and graded prior to initiating mining activities. The clearing and grading activities would remove nearly all vegetation and fire fuels from these active areas of the site. However, areas on the project site outside of the current mining area would continue to be vegetated.

All mining operations are conducted in compliance with the standards of the Mining Safety and Health Act (MSHA) and the California Occupational Safety and Health Act (CAL-OSHA) division of mines. The proposed project will continue to maintain onsite fire suppression

apparatus to assist in a fire-related response should an incident occur onsite. Less than significant impacts would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Hazards and Hazardous Materials* would be less than significant and no mitigation measures were required. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Hazards and Hazardous Materials*.

X. HYDROLOGY Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:				
i) result in substantial erosion or siltation on or offsite;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite?	☐	☐	☐	☒
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk of release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Environmental Setting

The project site is located adjacent to the Pit River, a perennial watercourse. There are no drainages in the proposed expansion area. The following discussion describes the baseline condition of the current mine site.

The Shaw Pit site is traversed by two ephemeral streams. The stream near the middle of the mine area flows through the current area of non-disturbance into a culvert that directs the flow towards the settling ponds. The other stream borders the pit on the south flowing along a ditch and through a culvert before exiting the mine site. Surface water enters the site via these streams from the east and exits the site to the west. The site's topography is gently sloping and water is directed across the active mine area using a combination of ditches, temporary culverts and settling ponds. Stormwater is discharged from four locations onsite. Stormwater from the two northern locations pass through settling ponds that act as a filter before being discharged from the site into the Pit River.

The quarry is made up of mostly fractured and weather rock; therefore, the site is pervious and a majority of stormwater infiltrates. Stormwater runoff generally sheet flows in a westerly direction toward the settling basins, or in the active mining areas, in an easterly direction, where it is captured against the cut slope of the mine, essentially acting as a settling basin.

The predominant source of groundwater recharge of the mine area is percolation through the soil and weathered bedrock into the subsurface. The soils report indicates a groundwater depth of over 80 inches. Present mining operations have not encountered groundwater.

According to the msc.fema.gov website map number 06049C1700E dated June 4, 2010, for Modoc County; this mine site is not in a flood zone. There are no drainages located in the proposed expansion area.

Impact Analysis

The following includes an analysis of environmental parameters related to *Hydrology and Water Quality* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The Pit River is located to the west of the Shaw Pit. The site's topography is gently sloping from east to west and water is directed across the current active mine area using a combination of ditches, temporary culverts and settling ponds. Stormwater is primarily captured in the settling ponds.

The existing quarry operates under National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ) issued by the State Water Resources Control Board (SWRCB). The General Industrial Storm Water Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Storm Water Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described.

In addition, the General Industrial Storm Water Permit requires the mine operator to perform stormwater quality monitoring, water testing, and reporting certain stormwater discharges from the property and submit an annual report to the SWRCB each July 1st. Since permitted, the mine operator has historically undertaken and will continue to conduct water quality monitoring and testing in accordance with NPDES permit conditions. Stormwater will continue to be covered under the General Industrial Stormwater Permit for the expanded quarry. The project area has no additional drainages and will not substantially degrade surface or ground water quality. Less than significant impacts would occur in this regard.

b) *Substantially decease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Site operations will not change under the project and are considered baseline conditions. The expanded project will not utilized groundwater. Therefore, implementation of the proposed project will not decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. No impact would occur in this regard.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i. *Result in substantial erosion or siltation on- or offsite:*

The addition of the approximately 7-acre expansion area will not substantially alter the existing drainage pattern of the site or area, will not alter a stream or river, and will not create additional impervious surfaces. In addition, the proposed project will not result in substantial erosion or siltation onsite or offsite with continued implementation of the seasonal erosion control measures included in the permit conditions of Use Permit/Reclamation Plan 96-52 and the SWPPP in place for the pit. Surface flow from the project area will run through the same storm water system as is permitted by the SWPPP in place for the site. No impact would occur in this regard.

ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite:*

Water management and stormwater runoff control in the future will be done similarly to the current operations and will be conducted in a manner to protect onsite and downstream beneficial uses of water. As a result, implementation of the proposed project will not substantially increase the rate or amount of surface runoff in a manner which will result in flooding onsite or offsite. No impact would occur in this regard.

iii. *Create or contribute runoff water which would exceed the capacity of existing planned stormwater drainage systems or provide substantial additional sources of polluted runoff:*

This project includes continued operation of an existing quarry and will not result in an increase in runoff. The project will not contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. No impact would occur in this regard.

iv. *Impede or redirect flood flows:*

This project will not impede or redirect flood flows. See above. No impact would occur in this regard.

d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

There are no levees near the proposed project. The threat of a tsunami wave is not applicable to inland areas; there is no potential for the generation of a seiche. No impact would occur in this regard.

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The proposed project is located within the Sacramento River Basin. The *Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board (CVRWQCB) Central Valley Region (Fifth Edition)* was prepared for the Sacramento River Basin and the San Joaquin River Basin. The Basin Plan includes water quality objectives for the San Joaquin River. Implementation of the plan is conducted through the NPDES permits and waste discharge requirements for pollution.

The project would only require temporary water supplies for dust control during mining activities. The proposed project would continue to comply with the NPDES General Permit for Stormwater Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ) and comply with SWPPP requirements to prevent degradation of water quality.

The project site and surrounding area is located within the Alturas Groundwater Basin, South Fork Pit River Subbasin. The basin is comprised of 114,000 acres or 178 square miles. The Alturas Ground Water Basin, South Fork Pit River Subbasin is considered a low priority groundwater basin and therefore not subject to the requirement of development and implementing a Sustainable Groundwater Plan (SGP). Given the relatively minor expansion proposed by the project, the potential for interference with groundwater recharge that would impact the Alturas Groundwater Basin would not be significant. Therefore, implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Less than significant impacts would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Hydrology and Water Quality* would be less than significant with incorporation of the following mitigation measures:

A 50 foot buffer shall be maintained on both sides of all three streams. Buffer zones shall be delineated with obstructing boulders or fencing and flags to prevent disturbance of the buffer zones by heavy equipment. No mining activity, including blasting, scraping, excavating, mounding of spoils, or any disturbance with the exception of reclamation activities shall take place within the buffer zone. Reclamation activities within the buffer zone shall be kept to a minimum.

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Hydrology and Water Quality*.

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Environmental Setting

The project area is very remote and removed from public use. The Modoc County General Plan land use designation for the site is General/Agriculture. The General/Agriculture land use designation allows for mining activities. The site is zoned Unclassified. No special land use designations exist for the project site. Reclamation of the mining site will convert it back to general agricultural uses, allowing for continued livestock grazing upon pit closure.

Impact Analysis

The following includes an analysis of environmental parameters related to *Land Use and Planning* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Physically divide an established community?*

The proposed project does not include the creation of any road, ditch, wall, or other feature which would physically divide an established community. No impact would occur in this regard.

b) *Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Existing land use and zoning designations provide for land use compatibility with the proposed use permit and reclamation plan amendments and overall mine operations. Furthermore, this compatibility preserves and protects a mineral resource of regional and local importance to meet the future needs of the north state and in particular Modoc County. In addition, the project is consistent with the policies of the Modoc County General Plan. All existing and proposed uses are allowed under the existing general plan and zoning designations.

The proposed project is consistent with applicable policies and objectives of the Modoc County General Plan and regulations of the regulatory agencies identified in the Environmental Checklist Form of this Initial Study. Were necessary, mitigation measures are included to reduce impacts to less than significant levels. Therefore, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Land Use and Planning*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Land Use and Planning* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XII. MINERAL RESOURCE Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Environmental Setting

Shaw Pit is an existing hard rock open pit mine. The principal geological unit onsite is the basaltic andesite of the Manzanita Range. The basaltic andesite flows of the Manzanita Range are the principal resource being exploited at the mine site.

Impact Analysis

The following includes an analysis of environmental parameters related to *Mineral Resources* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?*

Regarding mineral resources on the project site, because of productive use the proposed project would result in the utilization, not loss, of known mineral resources of value to the region through the extraction and sale of the aggregate resources onsite. The continued use of the mineral resources extracted as part of the proposed expansion would create local jobs and make available the raw materials for projects that would be of value to the region and residents of the State. Because the proposed project would continue to produce and make these mineral resources available for beneficial use within Modoc County and residents of the State, this loss is not considered adverse in terms of the County's environmental review pursuant to the CEQA.

Because the proposed project would use mineral resources and would not preclude the future extraction of additional mineral resources and would not result in the loss of availability of any known statewide or regionally important mineral resources, this evaluation concludes that the project would not have an impact associated with the loss of availability of a known mineral resources of value to the region or residents of the State. No impact would occur in this regard.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan, or other land use plan?*

As discussed above, regarding aggregate resources on the project site, as a result of productive use the proposed project would result in the utilization of a known mineral resource of value to

the region through the extraction and sale of the aggregate resources present onsite. Because the project would produce and make these mineral resources available for beneficial use within Modoc County and surrounding areas, this loss is not considered adverse in terms of the County's environmental review pursuant to CEQA.

Because the proposed project would use mineral resources and would not preclude the future extraction of additional mineral resources and would not result in the loss of availability of any known statewide or regionally important mineral resources, this evaluation concludes that the project would not have an impact associated with the loss of availability of a locally important mineral resource recovery site. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Mineral Resources*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Mineral Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

This project area is very remote. Adjacent parcels are primarily USDA Forest Service lands and one parcel privately owned by W. Doddridge and not extensively used by the public. Surrounding land use includes grazing and agriculture.

As currently permitted, the processing plant can operate Monday through Saturday, for 24 hours a day, depending on project needs. There may be periods of high activity and periods of no activity. Due to the very remote location of this mine, noise is not a significant impact. Blasting and processing plant operation hours, and noise levels, will not change and are considered baseline conditions.

Impact Analysis

The following includes an analysis of environmental parameters related to *Noise* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Site operations will not change under the project and are considered baseline conditions. The project includes continued operation of the quarry and will not result in a substantial temporary or permanent increase in ambient noise levels in the project vicinity. Less than significant impacts would occur in this regard.

b) *Generation of excessive ground-borne vibration or ground-borne noise levels?*

Site operations will not change under the project and are considered baseline conditions. The project will include continued drilling and blasting which can generate groundborne vibration and groundborne noise. Blasting will be the strongest source of vibration generated by project activities and can generate a vibration velocity level of 100 VdB at a distance of 50 feet from the source (FTA, 2018). The closest residence is over three quarters of a mile away. Less than significant impacts would occur in this regard.

c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project is not within an airport land use plan, or within two miles of a public airport, or within the vicinity of a private airstrip. The project will not expose people residing or working in the project area to excessive noise levels from aircraft. Less than significant impacts would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Noise* would be less than significant with incorporation of the following mitigation measures:

The County shall reduce noise levels reaching the sensitive land uses to the southwest by implementing the following mitigation measures:

- *Stationary sources of noise (i.e. rock crushing processing activities) shall be placed as far away from sensitive land uses as feasibly possible.*
- *Stockpiled material shall be placed between stationary equipment and sensitive land uses to reduce noise.*

Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Noise*.

XIV. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The project area is remote and is a continued use of the mine site with no new planned roads or infrastructure. Upon reclamation, the area will be returned to grazing land.

Impact Analysis

The following includes an analysis of environmental parameters related to *Population and Housing* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly. The proposed project would result in the continued operation of an existing quarry and does not include the development of new homes or businesses. Project implementation would not require additional employees. Therefore, the project would not induce unplanned population growth and does not propose the extension of any new roads or utilities not anticipated by the General Plan. No impact would occur in this regard.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed project would not displace people or existing housing. The proposed project does not include the demolition of any existing housing. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County*

Planning Commission Resolution No. 96-08. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts on *Population and Housing*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Population and Housing* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XV. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The project area is remote and is a continued use of the mine site with no new planned roads or infrastructure. Upon reclamation, the area will be returned to grazing land.

Impact Analysis

The following includes an analysis of environmental parameters related to *Public Services* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Fire Protection

The project site and surrounding area are currently served by CAL FIRE for fire protection and project implementation would not increase the response time required for CAL FIRE not create an additional burden on exiting fire facilities. The provision of new or physically altered fire facilities is not associated with providing service to the proposed project. No impact would occur in this regard.

Police Protection

Implementation of the proposed project would not result in a significant increase in demand for law enforcement resulting in new or expanded law enforcement facilities. The need for expanded facilities is based on the staffing levels these facilities must accommodate. Law enforcement staffing levels are generally based on the population/officer ratio, and an increase in population is usually the result of an increase in housing or employment. The proposed project would result in minimal employment opportunities. As the proposed project would neither increase the population nor result in substantial employment gains, project implementation would not result in the need for increase in law enforcement or related facilities. The provision of new or physically altered law enforcement facilities is not associated with providing service to the proposed project. The proposed project would not result in the need to alter or construct facilities for law enforcement services. No impact would occur in this regard.

Schools

The proposed project would not result in the construction of new residential uses; therefore, the proposed project would not directly require the construction of additional school facilities and/or expansion of existing school facilities. No impact would occur in this regard.

Parks

The project will not cause a physical deterioration of an existing park facility or cause an adverse physical impact associated with a new park facility. No impact would occur in this regard.

Other Public Facilities

The proposed project does not involve a substantial change in the land use, does not substantially increase the numbers of people employed in the region, and does not create or require new housing or related facilities, an increased demand on public facilities is unlikely to occur. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts on *Public Services*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Public Services* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XVI. RECREATION. Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

The project area is remote and is a continued use of the mine site with no new planned roads or infrastructure. Upon reclamation the area will be returned to grazing land.

Impact Analysis

The following includes an analysis of environmental parameters related to *Recreation* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The proposed project would not require new employees nor would the it result in an increase in housing or population in the County resulting in an increased use of neighborhood or regional parks. No impact would occur in this regard.

b) *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed project does not include recreational facilities, or would it require the construction or expansion of recreational facilities which might have an adverse effect on the environment. Implementation of the proposed project would not result in substantially increased use of any area recreational facilities and would therefore not require construction of new or expansion of any other existing recreational facilities. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Recreation*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Recreation* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA guidelines 15064.3, subdivision?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Environmental Setting

Operation of the Shaw Pit and subsequent delivery of Shaw Pit gravel to construction sites as needed is a baseline condition as it currently generates haul traffic on County Roads and State highways. Average extraction rates at the Shaw Pit fluctuates depending on need. Traffic fluctuations are in response to project-specific demand. The Shaw Pit has produced as little as zero material to as much as 150,000 cubic yards per year, depending on need. These types of fluctuations are expected to continue.

Regulatory Setting

With the introduction of the California Governor's Office of Planning and Research (OPR) Technical Advisory, vehicle miles traveled (VMT) has become an important indicator for determining if a new development will result in a "significant transportation impact" under CEQA. Passed in 2013, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change has been made by replacing level of service (LOS) with VMT. This shift in transportation impact focus is intended to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. Level of service or other delay metrics may still be used to evaluate the impact of projects but is not used to determine a significant impact under CEQA.

Impact Analysis

The following includes an analysis of environmental parameters related to *Transportation* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Site operations will not change under the project and are considered baseline conditions. The project includes continued operation of the quarry. Operations will be intermittent. Traffic volumes generated by the quarry depend on the demand for material and specific job requiring the material. The project is not anticipated to result in a significant increase in traffic from current or past operations. The project will not conflict with any program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities. Less than significant impacts would occur in this regard.

b) *Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?*

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective statewide on July 1, 2020. Under SB 743, impacts will be determined by changes to VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

Because of SB 743, for a CEQA analysis, determining the potential for exceeding an agency's LOS thresholds transportation/traffic impacts is no longer valid and VMT thresholds are used instead. However, Modoc County has not yet established VMT thresholds. In order to assist in this type of circumstance, in December 2018, the California Governor's Office of Planning and Research (OPR) released its final *Technical Advisory on Evaluating Transportation Impacts* in CEQA (OPR, 2018). Generally, the OPR recommends that a reduction of 15 percent or more in existing VMT should be the target.

Absent of any adopted or screening criteria for threshold values for VMT, the County has assumed screening thresholds for land use project from OPR's Technical Advisory (December 2018). These types of development projects are presumed to have a less than significant impact on vehicle miles traveled and therefore, a less than significant adverse impact on transportation. OPR's Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing based on the following:

- Projects that are consistent with the Sustainable Communities Strategy (SCS) or General Plan and generate or attract fewer than 110 light duty vehicle daily trips (per CEQA). Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 light duty vehicle trips or fewer trips could be considered not to lead to a significant impact. VMT is not applicable to heavy vehicle trips

- Map-based screening for residential and office projects located in low VMT areas, and incorporate similar features (density, mix of uses, transit accessibility).

- Certain projects within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor. However, this will not apply if information indicates that the project will still generate high levels of VMT.

- Affordable Housing Development in infill locations.

- Locally-serving retail projects, typically less than 50,000 square feet.

The current Use Permit/Reclamation Plan 96-52 for the site does not include limits to the number of trips or vehicle miles from quarry-generated traffic. The use of the mine and traffic generated by the project will not change and is considered a baseline condition. The project will not result in a substantial increase in vehicle miles traveled by project-related traffic. Therefore, implementation of the proposed use permit and reclamation plan amendment is assumed to cause a less than significant transportation impact, and no further VMT analysis is required. Less than significant impacts would occur in this regard.

c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project will not include a change in road design or construction. No impact would occur in this regard.

d) *Result in inadequate emergency access?*

The project will not change the existing emergency access to the project site, which is an existing private roadway. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Transportation* would be less than significant and no mitigation measures were required. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, implementation of the proposed project will have a less than significant impact with respect to *Transportation*.

XVIII. TRIBAL CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Environmental Setting

The Achumawi, along with the neighboring Atsu-gewi, are generally referred to as the Pit River tribes. Like the Modoc, the Pit River tribes experienced considerable conflict with the flood of Europeans who began to settle the region in the 1850s; and by 1859 many of the region's native inhabitants were forcibly rounded up by the Anglo militia and driven to Round Valley. Conditions there became so bad by 1863 that many of the Pit River people escaped and returned to their traditional homes, joining the Modoc in an uprising in 1867. An uneasy truce was established when hostilities subsided the following year, and many of the Pit River people were eventually allowed to remain in their homeland where they continue to reside and maintain an intimate knowledge of their traditional territory.

Achumawi translates to "river (literally "it flows") people;" and they occupied lands extending from Mount Shasta on the northwest to Lassen Peak on the southwest, and from Goose Lake on the northeast to Eagle Lake on the southeast. There were reportedly nine Achumawi tribelets, each of which occupied a portion of the Pit River and its tributaries, as well as lands extending some distance away from the river. The nine tribelets functioned as self-governing units but were closely related through inter-marriage. They shared a common language from the Palaihnihan branch of the Hokan family of languages, and, although there were some dialectal differences, they were not different enough to prohibit communication.

In general, the Achumawi depended heavily on the plant and animal resources available in the fertile lowlands and rich marshes of the Pit River Valley, with additional species procured from the surrounding uplands. Winters were spent in permanent villages of multi-family semi-subterranean houses, excavated three to five feet deep and covered with an insulating layer of earth. By contrast, summer occupations saw a shift to more tem-porary encampments located near productive resource areas, where shelters consisted of relatively informal brush windbreaks. Located east of the distributional limit of oaks and upstream migration of Pacific salmon, the latter stopped by a natural barrier at Fall River, subsistence among the eastern Pit River bands concentrated on the many native fish of the Pit River system and its tributaries. Suckers, trout, lamprey, and smaller minnows were speared or netted throughout much of the year.

Local marshes also supported seasonally immense flocks of resi-dent and migratory waterfowl and shorebirds that provided an important source of food during all but a few of the coldest months. Wetlands also provided an important source of nutritious roots and tubers, as well as tulles and other essential raw materials for the manufacture of mats, twine, clothing, and balsa rafts. In drier settings were numerous other plant resources such as epos, camass, buckwheat, and various berries. Many of these dryland plants were gathered in large quantities beginning in April and either sun-dried or processed and stored for winter use. Elsewhere, men hunted deer in the uplands and plains north of the Pit River, a favorite location being in the Warner Moun-tains, where the fall deer drive attracted guests from neighbor-ing bands to the west.

Project Setting

The project does not include additional disturbance beyond the permitted boundary. This mine has been in existence since the early 1900s. No previously recorded cultural or historical resources exist within the mining area. There are no known historical or archaeological resources onsite. Much of the site has been disturbed by previous activities and the potential to encounter cultural resources or to disturb human bodies is very low since the site consists of exposed bed rock and boulders.

Regulatory Context

AB 52 was enacted on July 1, 2015, and establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource when feasible (PRC Section 21084.3).

Public Resources Code Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California cities, counties, and tribes regarding tribal cultural resources. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Tribal Consultation

Consultation and correspondence with various culturally affiliated Tribal groups and agencies were conducted in accordance with Public Resources Code (PRC) Section 21080.3.1 (AB 52). On September 25, 2024, the County initiated environmental review under the California Environmental Quality Act (CEQA) for the proposed Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project. The County sent a certified project notification letter to traditionally and culturally affiliated Tribes with the geographic area of the proposed project on September 25, 2024, pursuant to PRC Section 21080.3.1, notifying that the project was under review and to provide the Tribes 30 days from the receipt of the letter to request consultation on the project in writing. No responses were received requesting initiation of consultation under the provisions of AB 52.

Impact Analysis

The following includes an analysis of environmental parameters related to *Tribal Cultural Resources* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

No Tribal Cultural Resources (TCR) were identified within or immediately adjacent to the project area and, therefore, the proposed project would not result in a significant impact to known TCRs. Impacts to unknown TCRs that may be discovered continued mining operations or during construction of offsite improvements would be less than significant with the incorporation of Mitigation Measure TCR-1, below. Less than significant impacts would occur in this regard.

b) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

As described above, no known TCRs have been identified (as defined in PRC Section 21074) within the project area. Therefore, the project would not cause a significant adverse change in the significance of a TCR that is either listed in, or eligible for listing in, the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k). The proposed project would not cause a substantial adverse effect to a known TCR. No impact would occur in this regard.

Mitigation Measures

The following mitigation measure will be implemented for the expansion area:

Mitigation Measure TCR-1

Unanticipated Discovery - If any suspected TCRs are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The County shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a TCR (PRC Section 21074) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures determined by the County to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the County.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The 1997 Mitigated Negative Declaration did not contain a separate analysis related to *Tribal Cultural Resources* as this evaluation was not required at the time the previous environmental review was conducted.

Based upon the impact analysis above, implementation of the proposed project will have a less than significant impact with respect to *Tribal Cultural Resources*.

XIX. UTILITIES AND SERVICE SYSTEMS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the construction of new water or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The following agencies provide public or private services or utilities to the project site:

- Fire Protection: CAL FIRE, USDA Forest Service
- Law Enforcement: Modoc County Sheriff
- Electricity: Surprise Valley Electric
- Natural Gas: Not used onsite
- Water: Potable water hauled to site
- Solid Waste: Waste Management
- Telephone: Not used onsite

Utilities and services were approved under the current use permit and will not change with the proposed expansion and are considered a baseline condition.

Impact Analysis

The following includes an analysis of environmental parameters related to *Utilities and Service Systems* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The project will not result in the construction of new or relocated water or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. Portable toilets will be used onsite. No impact would occur in this regard.

b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

The only water use onsite includes watering of the haul road to maintain dust control. Water will be transported to the site in a water truck or pumped from the settling ponds and used from the water truck or stored in tanks onsite. The project will have sufficient water supplies to serve the project. No impact would occur in this regard.

c) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The project will not result in the generation of wastewater requiring treatment. Sanitary facilities will include portable toilets. No impact would occur in this regard.

d) *Generate solid waste in excess of State or local standards, or infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Large quantities of solid waste will not be generated by the project. Small quantities of solid waste generated by the project will be bagged, removed from the site, and transported to a county transfer site for disposal. No impact would occur in this regard.

e) *Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?*

The project will comply with all federal, State and local statues and regulations relating to solid waste and disposal. No impact would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The Mitigated Negative Declaration evaluated environmental impacts associated with expansion of an additional 21 acres; amending the use permit to extend the termination date of the operation July 2022; and the processing of up to 200,000 cubic yards over an expected 25 year period. The County subsequently granted a request

to renew and extend Use Permit and Reclamation Plan No. 96-52 in 2016, extending the life of the quarry by 20 years until 2036.

Making the appropriate findings in 1997, the County determined that impacts to *Utilities and Service Systems*, would have no impact. Based upon the impact analysis above, and in consideration of the County's previous CEQA findings, impacts associated with *Utilities and Service Systems* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XX. WILDFIRE If located on or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☒	☐
c) Require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Environmental Setting

The project is a proposed expansion area which will be part of an existing mine and will not change in operation or scope from the currently permitted procedures. The project is located within a federal responsibility area. The project site is located in a Fire Hazard Severity Zone classified as "Moderate to High" (Modoc County Fire Hazard Severity Zones in SRA [State Responsibility Area] Adopted by CAL FIRE on November 7, 2007).

Impact Analysis

The following includes an analysis of environmental parameters related to *Wildfire* based on Appendix G of the State CEQA Guidelines. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Refer to impact discussion under IX.f, above. Less than significant impacts would occur in this regard.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose projects occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?*

The proposed project will continue to maintain onsite fire suppression apparatus to assist in a fire-related response should an incident occur onsite. Onsite water ponds will continue to be available for fire suppression purposes onsite and local fire suppression, if needed. In addition,

all mining operations are conducted in compliance with the standards of the Mining Safety and Health Act (MSHA) and the California Occupational Safety and Health Act (CAL-OSHA) division of mines.

As described in Section IX, HAZARDS AND HAZARDOUS MATERIALS, the existing quarry is subject to the County's Hazardous Materials Business Plan (HMBP) program, which is regulated by the Modoc County Environmental Health Division (EHD) as part of the Certified Unified Program (CUPA). The existing quarry maintains a current business plan on file with the Modoc County EHD which conducts periodic site inspections. The mine operator will continue to manage and update the HMBP to the satisfaction of Modoc County EHD. Therefore, it is not anticipated that the handling, storage, and use of hazardous materials onsite would result in a significant impact related to wildfire risk. Less than significant impacts would occur in this regard.

c) *Require installation or maintenance of associated infrastructure (such as roads, fuel sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Implementation of the proposed project, in compliance with applicable defensible space standards, reduces the potential for the proposed project to impact adjacent areas from wildfire events, as well as reducing the potential that the proposed project would be significantly damaged from offsite wildfires burning onto the project site. The proposed use permit and reclamation plan amendments would continue to be subject to defensible space requirements pursuant to California Public Resources Code 4291. As a result, the proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Less than significant impacts would occur in this regard.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result, post-fire slope instability, or drainage changes?*

The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The location of the proposed project does not fall within a Federal Emergency Management Agency (FEMA) flood zone, nor are there any sheer or unstable cliffs in the immediate area.

Implementation of the proposed project would not significantly alter existing onsite drainage patterns or impervious services compared to existing conditions. During each mine phase stormwater runoff will continue to be routed through the various ponds. As a result, overall water management and stormwater runoff control of the proposed project will be similar to current operations. The proposed project will continue to be covered under the General Industrial Storm Water Permit and implement Best Management Practices (BMPs) to reduce impacts to storm water quality.

Considering these project site features and characteristics, potential future post-fire conditions are not expected to increase risks associated with runoff and erosion. Considering the project's phased reclamation and implementation of erosion control BMPs, potential impacts associated

with runoff, post-fire slope instability, or drainage changes are considered to be less than significant. Less than significant impacts would occur in this regard.

Mitigation Measures

No mitigation measures are required.

Findings

In 1997 the County approved a Mitigated Negative Declaration for the *Shaw Gravel Pit Expansion – Use Permit and Reclamation Plan No. 96-52* with findings specifically set forth in *Modoc County Planning Commission Resolution No. 96-08*. The 1997 Mitigated Negative Declaration did not contain a separate analysis related to *Wildfire* as this evaluation was not required at the time the previous environmental review was conducted. Based upon the impact analysis above, implementation of the proposed project will have a less than significant impact with respect to *Wildfire*.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☒	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impact Analysis

a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Evaluation of the proposed project as provided in Section IV, BIOLOGICAL RESOURCES, has shown that the activities of the proposed project do not have the potential to degrade the quality of the environment and will not substantially reduce the habitat or cause wildlife populations to drop below self-sustaining levels. Mitigation measures for biological resources have been developed to reduce potential impacts on sensitive habitats and species to less than significant levels. Refer to Mitigation Measure BIO-1 in Section IV, BIOLOGICAL RESOURCES.

Also, based on the discussion and findings in Section V, CULTURAL RESOURCES, there is evidence to support a finding that the proposed project is eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR) under any significance criteria. The project is located in an area that does not appear to be sensitive for prehistoric or historic occupation and is considered to have a low to moderate sensitivity for surface sites and very low sensitivity for subsurface sites. Although no archaeological deposits or features are known to occur onsite, implementation of mitigation

measures will ensure that any additional archaeological deposits or features that may be discovered are fully protected during implementation of the project. Refer to Mitigation Measures CR-1 and CR-2 in Section V, CULTURAL RESOURCES.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

As discussed throughout this document, implementation of the proposed project has the potential to result in impacts to the environment that are individually limited, but are not cumulatively considerable, including impacts to biological and cultural resources. In addition, as discussed in Section III, AIR QUALITY, the project will contribute to regionwide cumulative air quality impacts. However, as approved in the current Use Permit/Reclamation Plan 96-52, dust is controlled by the implementation of the Best Management Practices (BMPs) which include pumping water out of onsite settling ponds or trucked onsite to be used to suppress dust during mining activities. As a result, impacts would be less than significant.

In all instances where the project has the potential to contribute to cumulatively considerable impacts to the environment (including the resources listed above) mitigation measures have been imposed to reduce the potential effects to less than significant levels. As such, with incorporation of the mitigation measures imposed throughout this Initial Study, including compliance with local, State, and federal rules and regulations, the proposed project would not contribute to environmental effects that are individually limited, but cumulatively considerable, and impacts would be less than significant.

c) *Does the project have potential environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly?*

The potential for the proposed project to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this document. In instances where the proposed project has the potential to result in direct or indirect adverse effects to human beings, including impacts to air quality and cultural resources, mitigation measures have been applied to reduce the impact to below a level of significance. In other instances, the project design and compliance with existing laws and regulations would reduce impacts of the project to less than significant levels. Therefore, the proposed project as designed, mitigated, and in compliance with existing regulatory requirements, would not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

The following mitigation measures shall be implemented to reduce or eliminate future impacts associated with the proposed quarry expansion:

Mitigation Measure BIO-1

To avoid impacts to nesting birds, and/or raptors, protected under California Fish and Game Code Section 3503 and Section 3503.5, including their nests and eggs, one of the following shall be implemented:

- Tree and vegetation removal activities shall avoid the nesting season (March 1 – August 31); or
- If vegetation removal will occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the project area.

Surveys shall begin prior to sunrise and continue until vegetation and nests have been thoroughly observed. The survey shall take into account acoustic impacts and line-of-sight project disturbances to determine a sufficient survey radius to maximize observations of nesting birds. A nesting bird survey report should be prepared and, at a minimum, the report should include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, presence of predators).

If an active nest is located during pre-construction surveys, a non-disturbance buffer should be established around the nest by a qualified biologist in consultation with CDFW and United States Fish and Wildlife Service to comply with Fish and Game Code Sections 3503 and 3503.5 and the Migratory Bird Treaty Act. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified during the survey, as well as ongoing monitoring by biologists. Nesting bird surveys should be conducted no more than seven days prior to the initiation of construction. If mining activities are delayed or suspended for more than seven days after the pre-construction nesting bird survey, the site should be resurveyed.

Mitigation Measure CR-1

If cultural resources, such as chipped or ground stone, or bone are discovered during disturbance activities, work shall be stopped within 50 feet of the discovery, as required by the California Environmental Quality Act (CEQA; January 1999 Revised Guidelines, Title 14 California Code of Regulations [CCR] 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the material and offered recommendations for further action.

Mitigation Measure CR-2

If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Modoc County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the North

American Heritage Commission (NAHC) (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

Mitigation Measure TCR-1

Unanticipated Discovery - If any suspected TCRs are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The County shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a TCR (PRC Section 21074) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures determined by the County to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the County.

5.0 MITIGATION MONITORING PROGRAM

This section contains the proposed Mitigation and Monitoring Program (MMP) for the proposed Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project. The MMP includes a brief discussion of the legal basis for and the purpose of the program, discussion, and direction regarding complaints about noncompliance, a key to understanding the monitoring matrix, and the monitoring matrix itself.

California Public Resources Code §21081.6(a)(1) requires public agencies to adopt mitigation monitoring or reporting programs whenever the agencies adopt CEQA Findings in connection with the approval of projects requiring Environmental Impact Reports (EIRs) and whenever agencies adopt Mitigated Negative Declarations (MNDs). This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The MMP contained herein is intended to satisfy the requirements of CEQA as they relate to the MND prepared for the proposed project. It is intended to be used by County staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the proposed project. Mitigation is defined by State CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

Table 5-1, MITIGATION MONITORING PROGRAM, below, identifies the mitigation measures proposed for the Shaw Pit Expansion Use Permit and Reclamation Plan Amendment project. The table has four columns that are defined as follows:

- *Mitigation Measure/Condition.* Lists the mitigation measures identified within the MND for a specific impact, along with the number for each measure enumerated in the MND.
- *Timing.* Identifies at what point in time, review process, or phase the mitigation measures will be completed.
- *Enforcement/Monitoring.* References the responsible entity or any other public agency with which coordination is required to satisfy the identified mitigation measure.
- *Verification.* Provides a space to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the proposed project. The complaint shall be directed to the Modoc County Planning Director in written form, providing specific information on the asserted violation. The County shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the County shall take

appropriate action to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

Table 5-1
MITIGATION MONITORING PROGRAM

Mitigation Measure / Condition	Timing / Implementation	Enforcement / Monitoring	Verification (Date & Initials)
BIOLOGICAL RESOURCES			
Mitigation Measure BIO-1 To avoid impacts to nesting birds, and/or raptors, protected under California Fish and Game Code Section 3503 and Section 3503.5, including their nests and eggs, one of the following shall be implemented: • Tree and vegetation removal activities shall avoid the nesting season (March 1 – August 31); or • If vegetation removal will occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the project area. Surveys shall begin prior to sunrise and continue until vegetation and nests have been thoroughly observed. The survey shall take into account acoustic impacts and line-of-sight project disturbances to determine a sufficient survey radius to maximize observations of nesting birds. A nesting bird survey report should be prepared and, at a minimum, the report should include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, presence of predators). If an active nest is located during pre-construction surveys, a non-disturbance buffer should be established around the nest by a qualified biologist in consultation with CDFW and United States Fish and Wildlife Service to comply with Fish and Game Code Sections 3503 and 3503.5 and the Migratory Bird Treaty Act. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified during the survey, as well as ongoing monitoring by biologists. Nesting bird surveys should be conducted no more than seven days prior to the initiation of construction. If mining activities are delayed or suspended for more than seven days after the pre-construction nesting bird survey, the site should be resurveyed.	Prior to Tree/Vegetation Removal	Mine Operator / County Planning Department / CDFW	
CULTURAL RESOURCES			
Mitigation Measure CR-1 If cultural resources, such as chipped or ground stone, or bone are discovered during disturbance activities, work shall be stopped within 50 feet of the discovery, as required by the California Environmental Quality Act (CEQA; January 1999 Revised Guidelines, Title 14 California Code of Regulations [CCR] 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the material and offered recommendations for further action.	During Mining Activities	Mine Operator / County Planning Department	
Mitigation Measure CR-2 If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human	During Mining Activities	Mine Operator / County Planning Department	

Table 5-1
MITIGATION MONITORING PROGRAM

Mitigation Measure / Condition	Timing / Implementation	Enforcement / Monitoring	Verification (Date & Initials)
remains (Public Resources Code, Section 7050.5). The Modoc County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the North American Heritage Commission (NAHC) (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation.			
TRIBAL CULTURAL RESOURCES			
Mitigation Measure TCR-1 Unanticipated Discovery - If any suspected TCRs are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The County shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a TCR (PRC Section 21074) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures determined by the County to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the County.	During Mining Activities	Mine Operator / County Planning Department	

6.0 REFERENCES

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Appendix A

Current Use Permit and Reclamation Plan 96-52

Appendix A

Current Use Permit/Reclamation Plan 96-52

RECORDING REQUESTED/
MODOC COUNTY PLAN
202 W. 4th Street
Alturas, California 96101

003275

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RECORDED AT THE REQUEST OF
MODOC COUNTY

OFFICIAL RECORDS
MODOC CTY, CA FEE WAIVED
JUDITH STEVENS,
RECORDER

MODOC COUNTY PLANNING DEPARTMENT
202 W. 4th Street
Alturas, California 96101
(916)233-6406

USE PERMIT NO: UP96-52
GRANTED TO: Modoc County Road Department

USE PERMIT

THIS USE PERMIT IS HEREBY GRANTED BY THE COUNTY OF MODOC PLANNING COMMISSION UNDER THE PROVISIONS OF THE ZONING ORDINANCE OF THE MODOC COUNTY CODE FOR THE USE SPECIFIED BELOW, SUBJECT TO THE CONDITIONS SET FORTH HEREIN.

DATE OF PLANNING COMMISSION APPROVAL: June 11, 1997

USE: Shaw Gravel Pit

PROJECT INFORMATION

Modoc County Road Department is requesting approval of a Reclamation Plan for the existing vested Shaw Pit. The county currently leases approximately 80 acres, with approximately 20 acres mined. Future operation of the pit will involve the mining of an additional 21 acres; 7 acres to the south and 14 acres to the north with a maximum disturbed depth of 60 feet below grade and the extraction of 200,000 additional cubic yards of crushed material over the anticipated life of 20 years. Mining operations include the blasting of hardrock and subsequent rock crushing/processing. A portable hot mix plant will also be used at the site.

Owner: Robert J. & Mildred K. Shaw, P O Box 120, Lookout, Calif. 96054
Applicant: Modoc County Road Department, 202 W. 4th Street, Alturas, Calif. 96101
Project Type: Amend Use Permit and Reclamation Plan
Project Reference Number: ER96-52
Location: The gravel pit is approximately 14 miles northwest of Adin off of County Road 85A, T.41 N., R.7 E., portion of Section 35.
Assessor's Parcel Number: 010-420-08
Project Site Size: 80 acres
Zoning: Unclassified
General Plan Designation: General Agricultural
Environmental Document: Mitigated Negative Declaration
Other Permits Identified: Air Quality Permit

SERVICES:
Access: County Road 85A
Water Supply: No water supply is necessary
Sewage Disposal: portable facilities will be available.

BK 0434 PG 0577

Electrical: Surprise Valley Electric
Telephone: Telephone service is not necessary
Fire protection: State Responsibility Area
Solid Waste: Modoc County Transfer Station
OTHER FACTORS:
CDF Fire Hazard Severity Zone: High Hazard
DFG Wildlife Maps: Within the area of antelope migration corridor; within the area of deer winter range.
General Plan Background Report: Groundwater Basins-Older Volcanic; Groundwater Recharge & Artesian Pressure Areas - Recharge Area; Natural Vegetation - Chaparral, Sage Brush Shrub; Deer Winter Range - Critical; Antelope Migration Route; within a fault area; Wildland Fire Hazard Severity-High; Within 100-year flood area; Routes of Early Trappers & Trailblazers-Warner Expedition 1849; Early Wagon Trails-Lassen Trail
Soils/Slope: 202 Lawyer-Elmore Families, 20 to 40 percent slopes - Lawyer soil is brown to reddish brown stony loam cobbly loam and very cobbly loam, granular and blocky structure, soft to slightly hard. Maximum erosion hazard is moderate; soil permeability is moderately slow; drainage class-well drained;

runoff is moderate. Elmore soil is dark brown to reddish brown loam, granular structure. Maximum erosion hazard is moderate; soil permeability is moderately slow; drainage class-well drained; runoff is moderate.

225 Pass Canyon-Fordice-Gwin Families, 30 to 40 percent slopes - Pass Canyon is very dark grayish brown to dark brown very cobbly loam and loam, granular and platy structure slightly hard. Maximum erosion hazard is moderate to high; soil permeability is moderately slow; runoff is rapid. Fordice is dark grayish brown and grayish brown very stony loam and extremely cobbly loam, granular structure. Maximum erosion hazard is moderate; soil permeability is moderately slow; runoff is slow. Gwin is dark grayish brown very cobbly loam, granular and blocky structure, slightly hard. Maximum erosion hazard is moderate to high; soil permeability is moderately slow; runoff is rapid.

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CONDITIONS OF APPROVAL: THE FOLLOWING CONDITIONS MUST BE COMPLIED WITH IN CONNECTION WITH THE USE ALLOWED BY THIS PERMIT OR THIS PERMIT WILL BE INVALID. **Noncompliance constitutes a violation of the Zoning Ordinance. The conditions of this permit shall be binding on the parties hereto, their heirs, successors and assigns.**

Attached Exhibit "A" for Conditions of Approval:
California Environmental Quality Act Checklist and Summary of Mitigation Measures

FINDINGS:

1. Notice of public hearing was given by mail on May 23, 1997 and publication in the Modoc County Record on May 29, 1997 per Modoc County Code Title 18, Section 18.140.

2. Due to the remoteness, the use will not be detrimental to the public health, safety, peace, morals, comfort and general welfare of the persons residing or working in the vicinity.

3. The use will not be detrimental or injurious to property in the vicinity, or to the general welfare of the county.

4. The use is a conditional use in the zone and is consistent with the purpose of the zone as set forth in Chapter 18.24, Section 18.24.050 (G).

5. A Negative Declaration was prepared in accordance with the California Environmental Quality Act (CEQA) and adopted on March 27, 1997.

USE PERMIT

I hereby certify that I understand and will comply with the conditions of this use permit.

Signature of Owner — Date

Signature of Applicant, if different — Date 11/4/97

Scott Kessler, Planning Director — Date 10/29/97

2[illegible]0[illegible]678

MODOC COUNTY PLANNING COMMISSION
RESOLUTION NO. 96-08

WHEREAS, pursuant to Chapter 18.24, Section 18.24.050 (G) of Title 18, Modoc County Zoning Ordinance, Modoc County Road Department is requesting Use Permit and Reclamation Plan for the Shaw Gravel Pit; and

WHEREAS, the project is approximately 15 miles northwest of Adin off County Road 85A, T.41N., R. 7E., portion of Section 35; and

WHEREAS, the Modoc County Planning Commission, after due and lawful public notice, has held a public meeting on June 11, 1997, to determine the merits of the Use Permit and Reclamation Plan, and has considered the facts and testimony presented in connection with the proposed use; and

WHEREAS, the Modoc County Planning Commission has reviewed the Environmental Review Initial Study and Mitigated Negative Declaration, prepared in accordance with the California Environmental Quality Act, identifying no significant environmental effects, attached hereto as Exhibit A; and

WHEREAS, the Modoc County Planning Commission has considered the facts and testimony presented in connection with the and finds the following pursuant to Section 18.24.050 (G) of the Zoning Ordinance:

1. The proposed use, at the location proposed, is consistent with the purpose of the zone in which it is located.
2. Due to the obscure location, the project will not be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the vicinity of the proposed use.
3. The project will not be detrimental or injurious to property in the vicinity or to the general welfare of the County. The project is in compliance with all applicable codes and General Plan policies.
4. The use is consistent with the purposes of this title, therefore the purpose of would not be better achieved by changing the zone rather than by issuing the use permit.

Public Safety

NOW THEREFORE, BE IT RESOLVED, that the Modoc County Planning Commission finds the request is in compliance with all applicable codes, adopts the Mitigated Negative Declaration and grants the Use Permit and Reclamation Plan.

On the motion of Commissioner Cockrell and seconded by Commissioner Hastings, the above and foregoing Resolution was passed and adopted by the Modoc County Planning Commission on the eleventh day of June, 1997, by the following vote, to wit:

AYES: Commissioners Chrysler, Hays, Cockrell, Hastings and Hamel.

NOES: None

ABSENT: None

ABSTAIN: None

Richard Hamel, Chairman
Modoc County Planning Commission

Patricia A. Clark, Secretary
Modoc County Planning Commission

SHAW GRAVEL PIT

OPERATOR: Modoc County Road Department
202 W. 4th St.
Alturas, CA 96101

OWNER: Robert & Mildred Shaw
P.O. Box 120
Lookout, CA 96054

LOCATION: SW ¼ of Section 35, Township 41 North, Range 7 East, M.D.B. & M.
Access to the project site is County Road 91, Modoc County, California.

DESCRIPTION:

The property is dry rangeland used for cattle grazing. Adjacent land uses are non irrigated agriculture. There are two seasonal and one perennial stream within the project boundary. Active mining will leave a 50 foot buffer strip at these locations. The site is not susceptible to flooding from any source and is not in any mapped flood plane.

Shaw Pit is an existing mining operation that will continue to be mined and reclaimed. The mining operation is to mine and process construction aggregates, gravel and sand for use on county roads and construction. Screening, crushing and asphalt processing are secondary uses to the mining process. Processed aggregate will be removed from the site by trucks over county roads.

It is anticipated the floor elevation of the pit will be approximately elevation 4250.. At the northeast corner of the site the maximum cut bank will be elevation 4360. The average depth of cut will be sixty feet in the pit. At these elevations approximately 200,000 yards of material is available. The expected life of the pit is 20 years. The pit has already been initiated with the expected termination date of 2021. At closure the area will be mined to final contour grade and no future mining of the area is expected.

Any top soil is scalped and stored on site prior to ground disturbance. The mining operation is initiated by ripping of the rock face. The loose material is then excavated and fed into a crushing and screening plant. The larger material is reduced to useable size by means of a mechanical crusher. Processed material is screened and separated into various sizes according projected need. Processed material is stored in piles on the site until needed. The mining will be a continuous operation but is dependent on the need for processed material. There may be months that no active mining is being done.

A mechanical crusher, transport conveyors, screening machinery, asphalt processing plant, truck scales, and mechanical earth moving equipment are typical equipment used in the mining operation. It is anticipated that all of this equipment is portable and will be removed from the site at the end of each season. All equipment and any foundations and appurtenances will be removed during final reclamation of the site. The mining plan shows areas of the site reserved for storage of processed material and equipment placement.

Before the continuation of any mining, top soil in the disturbed area shall be removed down to aggregate and stored in the designated area. Prior to any work in undisturbed areas the top soil shall also be removed and stored for future reclamation. Removal of topsoil and vegetation shall not proceed mining activities by more than one year. The piles of top soil shall be seeded with mammoth wildrye and siberian wheat grass to reduce wind erosion.

The mining plan has divided the site into two phased mining areas. Due to prior disturbance of the site and lack of reclamation the areas shall be mined and partially reclaimed in a continuous manner. Site A will be completely mined and reclaimed prior mining Site B. A common area for Site A & B is shown on the Mining plan for top soil storage and material storage. Mining shall begin by excavating Site A from west to east to grades according to the mining plan. Cut slopes will be trimmed and shaped to a slope of not steeper than 1½:1. A seasonal stream borders the south side of the mining area. A buffer strip 25' from the center of the stream will be left undisturbed to protect the stream from the mining activity. A ridge north of Area A is shown on the mining plan as an area of non-disturbance at the request of the property owner. This area is to remain natural and no mining is to encroach into this area.

Mining of Site B. shall begin with construction of the continuous culvert and the settling basin. Two existing culverts are in the perennial stream. These culverts should be extended to form a continuous culvert in the work area. A settling basin will be constructed at the end of the culverts to remove any sediment that may accidently enter the channel. A defined course will be constructed to divert the seasonal stream into the perennial scream and through the culverts.

Reclamation of Site A will begin with the excavation of the material and cut slopes as shown on the mining plan. At the end of each season, cut slopes on the north and south side of the work area shall be sloped to final cut and seeded. The east face and the pit floor shall be seeded upon completion of the mining operation. During reclamation of Site B, the culverts shall be removed and the settling pond removed. The remainder of the reclamation shall proceed the same as Site A. All equipment and structures shall be removed during final reclamation. A mixture of wheat grass and alfalfa shall be used for all revegetation during reclamation. The seed shall be broadcast applied at a rate of twelve pounds per acre. Seeding shall take place in the late fall of the year to take advantage of early rains. No fertilizing of the site is required. The end use of the reclaimed sites will be dry rangeland.

Appendix B

Reclamation Plan Amendment

MINING AND RECLAMATION PLAN AMENDMENT
MINE BOUNDARY AMENDMENT

SHAW PIT
MODOC COUNTY, CALIFORNIA

Prepared for

Hat Creek Construction and Materials, Inc.

Prepared by

VESTRA Resources Inc.
5300 Aviation Drive
Redding, California 96002

NOVEMBER 2020

Division of Mine Reclamation
Required Checklist

Reclamation Plan Content
Checklist

The Division of Mine Reclamation (DMR) reviews reclamation plans for compliance and completeness pursuant to Public Resources Code (PRC) Section 2772.1(b)(1). When submitting a reclamation plan to DMR, the lead agency must certify that the reclamation plan is a complete submission and is in compliance with SMARA and associated regulations and the lead agency's mining ordinance pursuant to PRC 2772.1(a)(3)(A-E). Additionally**,** pursuant to PRC 2772.1(a)(2), information prepared as part of a permit application or environmental document (pursuant to CEQA) shall be incorporated into the reclamation plan if it is used to satisfy the requirements of SMARA and associated regulations. These items shall be properly indexed in a Required Contents Chart and included in an appendix to the reclamation plan.

This checklist may assist operators and lead agencies when preparing and reviewing draft proposed reclamation plans and reclamation plan amendments in determining if they meet the minimum content requirements of the Surface Mining and Reclamation Act of 1975 (SMARA) and associated regulations (see box below for sections relevant to reclamation plans).

Surface Mining and Reclamation Act of 1975
Public Resources Code (PRC)
Division 2. Geology, Mines and Mining
Chapter 9. Surface Mining and Reclamation Act of 1975
Section 2710 et seq.

This portion includes requirements for reclamation plans.

Associated Regulations
California Code of Regulations (CCR)
Title 14. Natural Resources
Division 2. Department of Conservation
Chapter 8. Mining and Geology
Subchapter 1. State Mining and Geology Board

Article 1. Surface Mining and Reclamation Practice. Commencing with Section 3500

This portion includes minimum acceptable mining and reclamation practices for surface mining operations.

Article 9. Reclamation Standards. Commencing with Section 3700

This portion includes performance standards, which may apply to surface mining operations pursuant to CCR Section 3700.

The checklist is divided into seven topical areas: General Considerations, Geology and Geotechnical, Hydrology and Water Quality, Sensitive Species and Habitat, Topsoil, Revegetation, and Agriculture. To use the checklist, place a checkmark next to items that have been addressed by the reclamation plan or leave it blank if the reclamation plan is deficient. Alternatively, write N/A if the item is not applicable to the specific surface mining operation being reviewed.

Disclaimer: This checklist, prepared by DMR, paraphrases portions of SMARA and associated regulations that address the content of reclamation plans and plan amendments. DMR staff uses this checklist internally in performing our review of reclamation plans. However, use of this checklist is not required and it is provided only as a helpful tool. DMR always recommends consulting the full text of SMARA and associated regulations, available at the link below. Additionally, completion of this checklist does not guarantee completeness or compliance of the reclamation plan pursuant to PRC Section 2772.1(b)(1). Analysis of completeness and compliance requires thorough review of each specific project.

http://www.conservation.ca.gov/index/Pages/lawsregs.aspx

Mine Name: Shaw Pit	Checklist Completed by: KAC
End Use: Open Space/Ag Preserve	Date: 10/29/2020

GENERAL CONSIDERATIONS

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2772(b)	Required contents chart: A chart identifying the location (e.g. page number, chapter, appendix, or other location in the reclamation plan) of content that meets the requirements of PRC Sections 2772, 2773, 2773.3 and CCR Articles 1 and 9 (as delineated in this checklist).	✓
PRC 2772(c)(1)	Contact information: Name and address of the surface mining operator and any person designated by the operator as an agent for service of process (must reside in CA).	1,2
PRC 2772(c)(2)	Material quantity and type: The anticipated total quantity and type of minerals to be mined (see Annual Report Instructions, Exhibit B, for mineral types and units of measure).	3
PRC 2772(c)(3)	Dates: The initiation and termination dates of mining (be as specific as possible, e.g. December 31, 2030).	3
PRC 2772(c)(4)	Depth of mining: The maximum anticipated depth of the surface mining operation.	15
PRC 2772(c)(5) (A-F)	Reclamation plan maps shall include**:** Size and legal description of lands affected by surface mining operations;	Fig. 4
	Names and addresses of owners of all surface interests and mineral interests;	Fig. 4
	Property lines, setbacks, and the reclamation plan boundary;	Fig. 2,3,6
	Existing and final topography with contour lines at appropriate intervals;	Fig. 6,13,14
	Detailed geologic description of the area of the surface mining operation;	Fig. 5
	Locations of railroads, utility features, and roads (access roads, temporary roads to be reclaimed, and any roads remaining for the end use).	Fig. 2
	All maps, diagrams, or calculations that are required to be prepared by a California-licensed professional shall include the preparer's name, license number, signature & seal.	✓
PRC 2772(c)(6)	Mining method and schedule: A description of the mining methods and a time schedule that provides for completion of mining on each segment so that reclamation can be concurrent or phased.	3
PRC 2772(c)(7)	Subsequent use(s): A description of the proposed subsequent use(s) after reclamation	3
	Evidence that all landowners have been notified of the proposed use.	NA
PRC 2772(c)(9)	Impact on future mining: A statement regarding the impact of reclamation on future mining on the site.	3
PRC 2772(c)(10)	Signed statement: Statement signed by the operator accepting responsibility for reclamation of the mined lands per the reclamation plan.	
PRC 2776(b-c)	Pre-SMARA areas: Reclamation plans shall apply to operations conducted after January 1, 1976 or to be conducted in the future. Mined lands disturbed prior to January 1, 1976 *and not disturbed after that date* may be excluded from the reclamation plan.	NA
CCR 3502(b)(2)	Public health and safety: A description of how any potential public health and safety concerns that may arise due to exposure of the public to the site will be addressed.	17
CCR 3709(a)	Equipment storage and waste disposal: Designate areas for equipment storage and show on maps.	Fig. 3
	All waste shall be disposed of in accordance with state and local health and safety ordinances.	16
CCR 3709(b)	Structures and equipment removed:	20

	Structures and equipment should be dismantled and removed at closure, except as demonstrated to be necessary for the proposed end use.	20
CCR 3713(a)	Well closures: Drill holes, water wells, monitoring wells will be completed or abandoned in accordance with laws, unless demonstrated necessary for the proposed end use.	NA
CCR 3713(b)	Underground openings: Any portals, shafts, tunnels, or openings will be gated or protected from public entry, and to preserve access for wildlife (e.g. bats).	NA

GEOLOGY AND GEOTECHNICAL

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2772(c)(5)	A description of the general geology of the area	5,6
	A detailed description of the geology of the mine site.	5,6
PRC 2773.3	If a metallic mine is located on, or within one mile of, any "Native American sacred site" and is located in an "area of special concern, " the reclamation plan shall require that all excavations and/or excess materials be backfilled and graded to achieve the approximate original contours of the mined lands prior to mining.	NA
CCR 3502(b)(4)	The source and disposition of fill materials used for backfilling or grading shall be considered in the reclamation plan.	16
CCR 3502(b)(3)	The designed steepness and treatment of final slopes must consider the physical properties of slope materials, maximum water content, and landscaping.	7,15,19
	The reclamation plan shall specify slope angles flatter than the critical gradient for the type of slope materials.	15
	When final slopes approach the critical gradient, a Slope Stability Analysis will be required.	NA
CCR 3704.1	Backfilling required for surface mining operations for metallic minerals.	NA
CCR 3704(a)	For urban use, fill shall be compacted in accordance with Uniform Building Code, local grading ordinance, or other methods approved by the lead agency.	NA
CCR 3704(b)	For resource conservation, compact to the standards required for that end use.	18
CCR 3704(d)	Final reclamation fill slopes shall not exceed 2:1 (H:V), except when allowed by site-specific engineering analysis, and the proposed final slope can be successfully revegetated. See also Section 3502(b)(3).	7,15,19
CCR 3704(e)	At closure, all fill slopes shall conform with the surrounding topography or approved end use.	19
CCR 3704(f)	Final cut slopes must have a minimum slope stability factor of safety that is suitable for the end use and conforms with the surrounding topography or end use.	19

HYDROLOGY AND WATER QUALITY

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2770.5	For operations within the 100-year flood plain (defined by FEMA) and within one mile up- or downstream of a state highway bridge, Caltrans must be notified and provided a 45-day review period by the lead agency.	7
PRC 2772(c)(8)(A)	Description of the manner in which contaminants will be controlled and mine waste will be disposed.	7
PRC 2772(c)(8)(B)	The reclamation plan shall include a description of the manner in which stream banks/beds will be rehabilitated to minimize erosion and sedimentation.	NA
PRC 2773(a)	The reclamation plan shall establish site-specific sediment and erosion control criteria for monitoring compliance with the reclamation plan.	15
CCR 3502(b)(6)	Temporary stream and watershed diversions shall be detailed in the reclamation plan.	7,16
CCR 3503(a)(2)	Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.	15,19

CCR 3503(b)(2)	Operations shall be conducted to substantially prevent siltation of groundwater recharge areas.	4
CCR 3503(a)(3)	Erosion control facilities shall be constructed and maintained where necessary to control erosion.	15
CCR 3503(b)(1)	Settling ponds shall be constructed where they will provide a significant benefit to water quality.	4
CCR 3503(d)	Disposal of mine waste and overburden shall be stable and shall not restrict natural drainage without suitable provisions for diversion.	16
CCR 3503(e)	Grading and revegetation shall be designed to minimize erosion and convey surface runoff to natural drainage courses or interior basins.	15,17,19
	Spillway protection shall be designed to prevent erosion.	NA
CCR 3706(a)	Surface mining and reclamation activities shall be conducted to protect on-site and downstream beneficial uses of water.	7
CCR 3706(b)	Water quality, recharge potential, and groundwater storage that is accessed by others shall not be diminished.	19
CCR 3706(c)	Erosion and sedimentation shall be controlled during all phases of construction, operation, reclamation, and closure of surface mining operations to minimize siltation of lakes and water courses as per RWQCB/SWRCB.	19
CCR 3706(d)	Surface runoff and drainage shall be controlled to protect surrounding land and water resources.	7
	Erosion control methods shall be designed for not less than 20 year/1 hour intensity storm event.	13
CCR 3706(e)	Impacted drainages shall not cause increased erosion or sedimentation. Mitigation alternatives shall be proposed in the reclamation plan.	19
CCR 3706(f)(1)	Stream diversions shall be constructed in accordance with the Lake and Streambed Alteration Agreement (LSAA) between the operator and the Department of Fish and Wildlife.	NA
CCR 3706(f)(2)	Stream diversions shall also be constructed in accordance with Federal Clean Water Act and the Rivers and Harbors Act of 1899.	NA
CCR 3706(g)	All temporary stream diversions shall eventually be removed and the affected land reclaimed.	NA
CCR 3710(a)	Surface and groundwater shall be protected from siltation and pollutants in accordance with the Porter-Cologne Act, the Federal Clean Water Act, and RWQCB/SWRCB requirements.	7
CCR 3710(b)	In-stream mining shall be conducted in accordance with Section 1600 et seq. of the California Fish and Game Code, Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act of 1899.	NA
CCR 3710(c)	In-stream mining shall be regulated to prevent impacts to structures, habitats, riparian vegetation, groundwater levels, and banks.	NA
	In-stream channel elevations and bank erosion shall be evaluated annually using extraction quantities, cross-sections, and aerial photos.	NA
CCR 3712	Mine waste and tailings and mine waste disposal units are governed by SWRCB waste disposal regulations and shall be reclaimed in accordance with this article: CCR Article 1. Surface Mining and Reclamation Practice. Section 3500 et seq.	15

SENSITIVE SPECIES AND HABITAT

Authority	Requirements/Practices/Standards	✓ or N/A
CCR 3502(b)(1)	A description of the environmental setting (identify sensitive species, wildlife habitat, sensitive natural communities, e.g. wetlands).	8-12
	Impacts of reclamation on surrounding land uses.	4
CCR 3503(c)	Fish and wildlife habitat shall be protected by all reasonable measures.	12
CCR 3703(a)	Sensitive species shall be conserved or mitigated as prescribed by the federal and California Endangered Species Acts.	10
CCR 3703(b)	Wildlife habitat shall be established on disturbed land at least as good as pre-project, unless end use precludes its use as wildlife habitat.	18
CCR 3703(c)	Wetlands shall be avoided or mitigated at 1:1 minimum for both acreage and habitat value.	NA
CCR 3704(g)	Piles or dumps shall not be placed in wetlands without mitigation.	NA
CCR 3710(d)	In-stream mining shall not cause fish to be trapped in pools or off-channel pits, or restrict migratory or spawning activities.	NA

TOPSOIL

Authority	Requirements/Practices/Standards	✓ or N/A
CCR 3503(a)(1)	Removal of vegetation and overburden preceding mining shall be kept to a minimum.	16
CCR 3503(f)	When the reclamation plan calls for resoiling, mine waste shall be leveled and covered with a layer of finer material. A soil layer shall then be placed on this prepared surface.	16,19
	The use of soil conditioners, mulches, or imported topsoil shall be considered where such measures appear necessary.	24
CCR 3704(c)	Mine waste shall be stockpiled to facilitate phased reclamation and kept separate from topsoil or other growth media.	16
CCR 3705(e)	If soil is altered or other than native topsoil, soil analysis is required. Add fertilizers or soil amendments if necessary.	24
CCR 3711(a)	All salvageable topsoil shall be removed as a separate layer.	16
	Topsoil and vegetation removal should not precede mining by more than one year.	16
CCR 3711(b)	Topsoil resources shall be mapped prior to stripping and location of topsoil stockpiles shown on map included in the reclamation plan.	Fig.3
	Topsoil and other growth media shall be maintained in separate stockpiles.	16
	Test plots may be required to determine the suitability of growth media for revegetation purposes.	24
CCR 3711(c)	Soil salvage operations and phases of reclamation shall be set forth in the reclamation plan to minimize the area disturbed and to achieve maximum revegetation success.	16
CCR 3711(d)	Topsoil and growth media shall be used to phase reclamation as soon as can be accommodated following the mining of an area.	16
	Topsoil stockpiles shall not be disturbed until needed for reclamation.	16
	Topsoil stockpiles shall be clearly identified.	16
	Topsoil shall be planted with vegetation or otherwise protected to prevent erosion and discourage weeds.	16
CCR 3711(e)	Topsoil shall be redistributed in a manner resulting in a stable, uniform thickness consistent with the end use.	19

REVEGETATION

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2773(a)	The reclamation plan shall be specific to the property and shall establish site-specific criteria for evaluating compliance with the reclamation plan with respect to revegetation.	8
CCR 3503(g)	Available research regarding revegetation methods and selection of species given the topography, resoiling characteristics, and climate of the mined areas shall be used.	25
CCR 3705(a)	Baseline studies shall be conducted prior to mining activities to document vegetative cover, density, and species richness.	8
	Vegetative cover shall be similar to surrounding habitats and self-sustaining.	25,26
CCR 3705(b)	Test plots shall be conducted simultaneously with mining to ensure successful implementation of the proposed revegetation plan.	24
CCR 3705(c)	Decompaction methods, such as ripping and disking, shall be used in areas to be revegetated to establish a suitable root zone for planting.	18
CCR 3705(d)	Roads shall be stripped of roadbase materials, resoiled, and revegetated, unless exempted.	18
CCR 3705(f)	Temporary access shall not disrupt the soil surface on arid lands except where necessary for safe access. Barriers shall be installed to keep unauthorized vehicles out.	18
CCR 3705(g)	Use local native plant species (unless non-native species meet the end use).	25
	Areas to be developed for industrial, commercial, or residential shall be revegetated for the interim period to control erosion.	NA
CCR 3705(h)	Planting shall be conducted during the most favorable period of the year for plant establishment.	18
CCR 3705(i)	Use soil stabilizing practices and irrigation when necessary to establish vegetation.	24

CCR 3705(j)	If irrigation is used, demonstrate that revegetation has been self-sustaining without irrigation for two years prior to the release of financial assurance.	24
CCR 3705(k)	Noxious weeds shall be monitored and managed.	24
CCR 3705(l)	Plant protection measures such as fencing and caging shall be used where needed for revegetation success. Protection measures shall be maintained until revegetation efforts are successfully completed and the lead agency authorizes removal.	24
CCR3705(m)	Quantitative success standards for vegetative cover, density, and species richness shall be included in the reclamation plan.	25,26
	Monitoring to occur until success standards have been achieved.	25
	Sampling techniques for measuring success shall be specified. Sample size must be sufficient to provide at least an 80 percent statistical confidence level.	25,26

AGRICULTURE

Authority	Requirements/Practices/Standards	✓ or N/A
CCR 3707(a)	Where the end use will be agriculture, prime agricultural land shall be returned to a fertility level specified in the reclamation plan.	NA
CCR 3707(b)	Segregate and replace topsoil in proper sequence by horizon in prime agricultural soils.	NA
CCR 3707(c)	Post reclamation productivity rates for prime agricultural land must be equal to pre-project condition or to a similar site for two consecutive years.	25
	Productivity rates shall be specified in the reclamation plan.	25
CCR 3707(d)	If fertilizers and amendments are applied, they shall not cause contamination of surface or groundwater.	24
CCR 3708	For sites where the end use is to be agricultural, non-prime agricultural land must be reclaimed to be capable of sustaining economically viable crops common to the area.	23

Mining and Reclamation Plan Amendment

MINING AND RECLAMATION PLAN AMENDMENT
MINE BOUNDARY AMENDMENT

SHAW PIT
MODOC COUNTY, CALIFORNIA

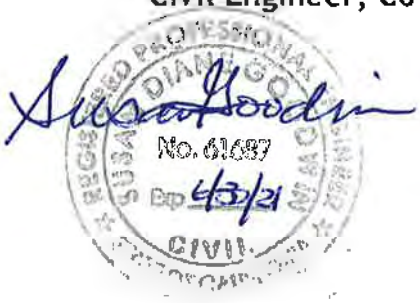
Prepared for

Hat Creek Construction and Materials, Inc.

This report was prepared under the
direction of a Professional Civil Engineer
& a Professional Geologist

Susan Goodwin, P.E.
Civil Engineer, C61687

John Andrews, P.G.
Professional Geologist, 4269



Prepared by

VESTRA Resources Inc.
5300 Aviation Drive
Redding, California 96002

71305

NOVEMBER 2020

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FIGURES

APPENDICES

1.0 PROJECT SUMMARY

The Shaw Pit is an existing hard rock open pit mine. The mine is located on land owned by Donald Edward Lindsey Trustee. The mine has been in operation since at least the mid to late 1970s and is vested. From 1981 until 2010 the mine was leased and operated by the Modoc County Road Department. In 1996, an expansion of 20 acres was proposed and in June of 1997 Use Permit and Reclamation Plan No. 96-52 were approved. Hat Creek Construction took over the site lease in 2010. A request to renew and extend the Use Permit was submitted to the Modoc County Planning Department in 2016, extending the life of the site by 20 years until 2036. Current Use Permit and Reclamation Plan are included in Appendix A.

The original Reclamation Plan boundary was vague with many approximations not tied to any physical "on ground" location. The proposed Reclamation Plan Amendment serves to clarify and properly document the mine boundary to match the current mine footprint and to permit an approximately 7-acre expansion. In addition, Hat Creek Construction wishes to extend the site life to 2050.

Hat Creek Construction will continue operating under the original conditions outlined in the Use Permit/Reclamation Plan 96-52 on Assessor's Parcel Number (APN) 010-420-17. This document amends the Use Permit and Reclamation Plan 96-52 to include an approximately 7-acre expansion, revised removal volume, and extension of end date.

CEQA review will be limited to the expansion area, and will not include review of other previously disturbed, reviewed and permitted operations.

The general site location is shown on Figure 1. The parcel boundary of APN 010-420-17 is shown on Figure 2. The mine layout with current mine and proposed expansion is shown on Figure 3.

1.1 Project Name

Shaw Pit

1.2 California Mine Identification Number

CA # 91-25-0008

1.3 Mine Operator

Perry Thompson, Vice President
Hat Creek Construction & Materials, Inc.
24339 Highway 89 North
Burney, California 96013
(530) 335-5501

1.4 Owner of Property and/or Mineral Rights

Donald Edward Lindsey JR Trustee
P.O. Box 60
Lookout, California 96065
(530) 294-3554

1.5 Designated Agent

Hat Creek Construction & Materials, Inc.
24339 Highway 89 North
Burney, California 96013
(530) 335-5501

1.6 Location

The Shaw Pit is located approximately 14 miles northwest of Adin off of County Road 85A on the Shaw Ranch along the Pit River. The general site location is shown on Figure 1.

1.6.1 Section, Township, and Range

The current mining area and proposed expansion area are located in Section 35, Township 41 North, Range 7 East, MDB&M.

1.6.2 Latitude and Longitude

The latitude and longitude at the center of the project are 41° 20'36.46"N and 121° 08'02.73"W, respectively.

1.6.3 Directions to Site

Highway 299 E to Bieber, turn north (left) on Lookout Hackmore Road (approximately 15 miles), turn north (right) on County Road 85A for less than a mile, then right turn at sign to Shaw Pit.

1.7 Legal Description/Total Parcel Size

This Reclamation Plan Amendment addresses mining and reclamation activities within portions of APN 010-420-17. The parcel is 557 acres and is shown on Figure 2. Title report is included in Appendix B.

1.8 Total Area to be Mined

The current area to be mined under the existing reclamation plan was approximately 41 acres. The physical boundaries of the 41 acres are not specified. The Shaw Pit is a vested mine that has been in operation since before the county leased it in 1981. The project boundary was established then with little accuracy. This Reclamation Plan Amendment is to accurately depict the reclamation plan boundary and to expand the actual mining area in the northeastern corner.

The current disturbed area is approximately 30 acres and the inclusion of the proposed approximately 7-acre expansion will make the total disturbed area approximately 37 acres.

1.9 Total Area to be Reclaimed

The total area to be reclaimed will be approximately 37 acres.

1.10 Quantity and Type of Material to be Mined

Shaw Pit will continue to mine and process construction aggregates, gravel and sand for use on construction and road projects. The inclusion of the revised area increases the total volume to 588,000 cubic yards. Quantity of material to be mined is dependent upon the subsurface basement elevations, the thickness of the rock deposit, and market conditions.

There is approximately 30 acres of disturbed land in the current mining footprint. With the inclusion of the proposed expansion area of approximately 7 acres, the disturbed footprint can increase to approximately 37 acres. The anticipated final pit floor elevation will reside at an elevation of approximately 4250- 4400 feet. The proposed mine boundary amendment will clarify the boundary for current and future use and reclamation of the mine and will encompass approximately 37 acres.

1.11 Proposed Startup and Termination Dates

Under the current Use Permit and Reclamation Plan 96-52 issued in 1997, a total of 41 acres was to be mined over the course of 20 years. An extension of the use permit approved in 2016, added 20 years putting the end at 2036. This amendment requests an end date of 2050.

1.12 Proposed Land Use Following Reclamation

Already disturbed areas, covered under the existing reclamation plan, and proposed additional disturbed areas will be restored to a primary use of general agriculture following reclamation of mined lands. The end use will be grazing land.

1.13 Introduction and Description of Proposed Activity

This Reclamation Plan Amendment is to:

- Address the proposed 7-acre expansion area
- Clarify the mine boundary of the currently permitted area.
- Extend site life.

Current mining operations will not change. The project area currently supports mining operations.

This revised Reclamation Plan has been prepared in compliance with Modoc County requirements (Modoc County Title 18 Zoning Code) and SMARA, as amended and meets the California Code of Regulations, Article 9, *Reclamation Standards*.

2.0 SITE CONDITIONS

2.1 General Site Characteristics

The current mine site is located within the Modoc Plateau geologic province of northeastern California. This hard rock mine site is located on a ridge of Tertiary Volcanic pyroclastic rock.

The Shaw Pit is located in an arid region of high desert plant communities. Two small ephemeral streams run through the pit. The upper portion of the more northern creek is located within the established area of non-disturbance and the lower portion runs through a temporary culvert pipe into one of two settling ponds where siltation can settle at the bottom of the pond. The more southern of these creeks runs along the southern boundary in ditches and a culvert pipe. No new disturbance will take place in these drainages. There are no wet areas within the proposed expansion area. The vegetation within the proposed expansion area is primarily comprised of annual and perennial grass communities, bitterbrush, and low sage shrubs and sparsely scattered ponderosa pine and western juniper trees.

There is no engineered storm drainage system onsite. Because site topography is gently sloping, water is directed across the site using a combination of ditches, temporary culverts and settling ponds. Stormwater discharges from three locations onsite, two of which pass through settling ponds that help to filter the stormwater before possible discharge from the site.

2.1.1 Project Site

The current land use is mining of rock and aggregate. The Shaw Pit is a hard rock, open pit mine. Equipment onsite includes a portable crusher, asphalt batch plant with lime plant and wash plant, conveyors, screens, truck scales, and earth-moving equipment. Historically, gravel has been excavated from the quarry as needed for specific projects.

2.1.2 General Plan and Zoning Information

The Modoc County General Plan land use designation for the site is General/Agriculture. The General/Agriculture land use designation allows for mining activities. The site is zoned Unclassified. No special land use designations exist for the project site.

2.1.3 Surrounding Land Use

Lands immediately adjacent to the project area are classified by the Modoc County General Plan as General/Agriculture and unclassified. Surrounding site uses include agriculture and grazing. Adjacent landowners include the USDA Forest Service and William Doddridge as shown on Figure 4. The proposed project expansion area is primarily used for livestock grazing. Implementation of the project will not substantially reduce the total rangeland available for livestock grazing in the vicinity and will not impact a particularly productive area of rangeland.

Reclamation of the current mining site will include revegetation of topsoil over the site, as well as returning mine face slopes to at least 1.5:1 (in the already permitted areas). The expansion area will have final slopes of 2:1. Land will be converted to general agricultural uses, allowing for continued livestock grazing upon pit closure.

2.1.4 Transportation

Average extraction rates at the Shaw Gravel Pit fluctuate depending on need. Traffic fluctuations are in response to project-specific demand. The Shaw Pit has produced as little as zero material to as much as 150,000 cubic yards per year, depending on need. These types of fluctuations are typical and expected to continue. There is no modification to traffic or operations onsite under this proposal.

2.1.5 Utilities and Services

The following agencies provide public or private services or utilities to the project site:

- Fire Protection: CAL FIRE, USDA Forest Service
- Law Enforcement: Modoc County Sheriff
- Electricity: Surprise Valley Electric
- Natural Gas: Not used onsite
- Water: Potable water hauled to site
- Solid Waste: Waste Management
- Telephone: Not used onsite

Utilities and services were approved under the current use permit and will not change with the proposed expansion.

2.1.6 Aesthetics

The existing visual character of the site is that of open, sloping, livestock grazing land. The Shaw Pit is located out of sight of County Roads on a portion of the Shaw homestead. The land disrupted by mining is not a significant regional aesthetic feature and is not directly accessible or visible to the public. Operation of the Shaw Pit will not affect any scenic vistas or scenic highways.

2.2 Geologic Description

This geologic description is based on publically available data, review of the geological literature, and observations made during visits to the site.

2.2.1 Geologic Setting

The site, including the current and proposed expansion area, is located within the southwestern margin of the Modoc Plateau physiographic province. The mine site sits near the juncture of three major physiographic provinces of California: the Modoc Plateau, the Cascade Range, and the Basin and Range. The Modoc Plateau is bordered to the east by the Basin and Range, to the

west by the Cascade Range, and to the south by both the Sierra Nevada Mountains and the Cascade Range. At the mine site, the geology is dominated by the extrusive volcanics of the Modoc Plateau and the extensional tectonics of the Basin and Range. Bedrock geology in the vicinity of the site consists entirely of extrusive volcanic rocks of the Modoc Plateau, specifically the units of the Manzanita Range. Two named units are mapped onsite: basaltic andesite of the Manzanita Range and the Turner Creek Tuff. Surface geology is shown on Figure 5. Individual deposits are described further below.

The principal geological unit onsite is the basaltic andesite of the Manzanita Range. This unit consists of gray sparsely micro to fine-porphyritic basaltic andesite. Phenocrysts to less than 2 mm of plagioclase, pyroxene, and olivine are commonly present. Morphologically, this unit is comprised of a thick sequence of flows (>700m) with local platy flow structure and medium to thick flow layering. Individual flows show a lenticular to tabular geometry. The flows dip gently to the northeast and are cut by northwest-trending high angle normal faults (Grose et al, 2016). Some of these faults have dextral slip component and have laterally displaced this unit, resulting in longitudinal repetition of flows across strike. The basaltic andesite flows of the Manzanita Range are more resistant than surrounding pyroclastic rocks and thus tend to form topographic promontories such as ridges and hills. These flows are the principal resource being exploited at the mine site. K-Ar dating of this unit has produced and estimated age of 9-12 Ma (Grose, 2003).

This unit underlies the Tmra flows and is exposed in shallow ephemeral drainages onsite. It consists of light tuff composed of medium to coarse lapilli with sandy tuff interbeds. Both the age and stratigraphic relationships of this unit are problematic, but it appears to be conformably overlain by the Miocene Tmra flows (Grose et al, 2016).

Geological structures onsite are limited to an unnamed high-angle normal fault that strikes north-south along the western property boundary. Outcrop patterns and repetition of flow units along strike indicate that this fault also has a dextral-slip motion component. They also indicate that the down-dropped block is located on the western side of the fault, which is also consistent with the observed geomorphology. This fault is part of the larger Big Valley Fault Zone.

The flow units that make up the site bedrock geology strike to the northwest-southeast and dip gently (5-10°) to the east.

There are no Holocene-active faults within 25 miles of the current or expanded project area. The nearest mapped fault is an unnamed high-angle normal fault present on the western site boundary. This unnamed fault strikes nearly north-south and dips steeply to west. According to the USGS Earthquake Hazards database, the most recent movement along this fault occurred pre-late Quaternary (<130 Ka). The next nearest mapped fault is a splay of the Mayfield Fault Zone located 20 miles west of the site. This is also a high-angle, westward-dipping normal fault. The most recent movement along this fault is believed to have occurred in the latest Quaternary (< 15 Ka). Slip is estimated at 1-5 mm/year. The Likely Fault Zone is located 22 miles east of the site. This is a late Quaternary active fault with a dextral-slip-normal sense of motion.

2.3 Topography and Landform

The active project area encompasses approximately 27 acres and ranges from 4180 to 4400 feet above mean sea level. Portions of the site have been graded and act as the landings for the processing plant, aggregate stockpile area, office, parking, and topsoil storage area. The proposed final site topography for the expansion area will not exceed 2:1 (H:V). Current site topography is shown on Figure 6.

2.4 Hydrology

2.4.1 Surface Water Characteristics

The project site is located adjacent to the Pit River, a perennial watercourse. Surface hydrology is shown on Figure 7.

The current pit is traversed by two ephemeral streams. The stream near the middle of the mine area flows into a culvert that directs the flow towards the settling ponds. The other stream borders the pit on the south flowing along a ditch and through a culvert before exiting the mine site. Surface water enters the site via these streams from the east and exits the site to the west. The site's topography is gently sloping and water is directed across the active mine area using a combination of ditches, temporary culverts and settling ponds. Stormwater is discharged from three locations onsite. See SWPPP Appendix E. Stormwater from the two northern locations pass through settling ponds that act as a filter before possible discharge from the site. Surface mining and reclamation activities will be conducted in order to protect onsite and downstream beneficial uses of water.

In most cases, stormwater is contained onsite and there is no discharge. Discharge from all three locations is in accordance with the General Permit for Stormwater Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ). Sediment and erosion controls are addressed in the Stormwater Pollution Prevention Plan (SWPPP) for the site, located on the state of California SMARTS website.

According to the msc.fema.gov website map number 06049C1700E dated June 4, 2010, for Modoc County; this mine site is not in a flood zone.

The quarry site is made up of mostly fractured and weather rock; therefore, the site is pervious and a majority of stormwater infiltrates. Stormwater runoff generally sheet flows in a westerly direction toward the settling basins, or in the active mining areas, in an easterly direction, where it is captured against the cut slope of the mine, essentially acting as a settling basin.

There are no streams or watercourses in the expansion area. Stormwater will continue to be managed as it is currently.

2.4.2 Groundwater Characteristics

The predominant source of groundwater recharge of the mine area is percolation through the soil and weathered bedrock into the subsurface. The soils report indicates a groundwater depth of over 80 inches. Present mining operations have not encountered groundwater.

2.5 Soils

General soil data provided by the Natural Resource Conservation Service (NRCS, 2020) for the project vicinity are included on Figure 8. The soils within the proposed project area belong to the Jacket-Deven-Hiibner Families Association, which have developed from volcanic ash derived from basalt. The soils in the Jacket Family are characterized by cobbly loam (0 to 9 inches), clay (9to 34 inches) and weathered bedrock (34 to 44 inches) above lithic bedrock. The Deven Family soils are characterized by cobbly loam (0 to 2 inches), clay (2 to 16 inches), and unweathered bedrock (16 to 26 inches) above lithic bedrock. The soils in the Hiibner Family are comprised of very stony loam (0 to 12 inches), very gravelly clay (12 to 25 inches), and unweathered bedrock (25 to 35 inches) above lithic bedrock. All soils within the project area are well drained with a depth to groundwater of more than 80 inches.

2.6 Natural Resources

A Biological Resources Assessment was completed for the project area. A reconnaissance-level search of the site was conducted to define site-specific vegetation types within the project area and a baseline botanical survey was conducted on September 8, 2020. The Biological Resource Assessment report is included as Appendix C.

2.6.1 Terrestrial Biological Resources

Vegetation at the project site has been identified via the CDFW's Vegetation Classification and Mapping Program (VegCAMP) data and field surveys as low sage, sagebrush, and juniper habitats within the proposed expansion area and the surrounding area. The California Wildlife Habitat Relationship (CWHR) map is included as Figure 9.

The site visit found that the site is predominantly sagebrush with evident juniper tree encroachment and a large presence of non-native annual grass understory. The typical structure and composition of habitat types that were observed onsite are described below.

Sagebrush

Sagebrush stands are typically large, open, discontinuous stands of big sagebrush of fairly uniform height. Plant heights range from 0.5 to 3 m (1.6 to 9.8 feet) and density ranges from very open, widely spaced, small plants to large, closely spaced plants with canopies touching. Onsite this habitat is composed of a mosaic of small stands of big sagebrush (*Artemisia tridentata*), and some stands dominated by antelope bitterbrush (*Purshia tridentata*). In between, scattered Rubber rabbitbrush (*Ericameria nauseosa*), perennial grasses, and annual grasses comprise the understory. This habitat comprises approximately 3 acres of the proposed mine site.

Low Sage

This habitat is generally dominated by broad-leaved, evergreen shrubs ranging in height from about 0.1 to 0.5 m (4 to 19 inches). Although approximately 4 acres of this habitat is mapped within the proposed expansion area, no low sage (*A. arbuscula*) shrubs were observed onsite. Antelope bitterbrush (*Purshia tridentata)* stands with annual grass understory exist in the area depicted as "low sage" on Figure 9 (CWHR). Young and Evans (1970) found that overgrazed stands are reduced to stark shrub communities with much bare ground between the low shrubs. The displaced low sage habitat onsite may be due to encroachment of the sage brush and/or juniper habitats and displacement of perennial grasses and forbs due to historic cattle grazing onsite.

Juniper

Juniper habitats are characterized as woodlands of open to dense aggregations of junipers in the form of arborescent shrubs or small trees (Laudenslayer 2010). Dispersion of junipers ranges from small clumps to widely scattered single plants (Dealy et al. 1978). Denser stands are commonly associated with a grassy understory; whereas, a shrub understory is found where junipers are more open. Less than 1 acre of this habitat occurs within the proposed expansion area and a number of western juniper (*Juniperus occidentalis*) trees have encroached into the low sage habitat onsite. Dense juniper habitat is abundant north and east of the site, outside of the mine area. Tree density is much lower onsite and has an understory comprised of sparse antelope bitterbrush and perennial and annual grasses and forbs.

Barren

This habitat occurs adjacent to the proposed expansion area. Barren habitat is defined by the absence of vegetation. Any habitat with less than two percent total herbaceous vegetation cover or less than ten percent cover in forest or shrub dominant communities is considered to be barren. Urban settings that have been developed or graded that meet these vegetative cover criteria are also considered to be barren habitat. This occurs in the surrounding area where an existing approximately 30-acre surface mine site currently operates. Barren areas, although void of vegetation, can provide habitat for birds, mammals, and reptiles.

2.6.2 Aquatic Biological Resources

The project area is adjacent to the Pit River. The currently permitted mine area contains two, intermittent watercourses as well as two man-made sediment retention basins. The California Natural Diversity Database (CNDDB) states that hardhead fish (*Mylopharodon conocephalus*) were identified in the Pit River within one mile of the project site as shown on Figure 10.

The range of hardhead extends from the Pit River (south of the Goose Lake drainage), Modoc County, in the north to the Kern River, Kern County, in the south. Their distribution may be limited to well-oxygenated streams and reservoir surface waters by low oxygen levels at warm temperatures (Santos et al. 2014). They prefer pools and runs with deep (>80 cm) clear water, slow (20-40 cm/sec) velocities and sand-gravel-boulder substrates. The nearest CNDDB records of hardhead to the Shaw Pit site occurred adjacent to the site; the record states that two adults and twelve juveniles were observed during a survey on June 14, 1994.

The operations at Shaw Pit currently avoid impacts to the aquatic habitats in the area by Best Management Practices (BMPs) in place in the SWPPP. The proposed expansion will not alter these management practices. No impact to hardhead will occur.

2.6.3 Special-Status Plants and Wildlife

Special-status species identified by CNDDB, California Native Plant Society (CNPS), and California Wildlife Habitat Relationships (CWHR) database searches and literature review were evaluated for their potential to occur within the project area. CNDDB occurrences within five miles of the site are shown on Figure 10. No special-status plant or wildlife species were identified within the proposed expansion area during field surveys. Potential for occurrence was based on habitat requirements and proximity to known recorded occurrences of a species. Table 1 shows project impact determinations for all potentially occurring special-status species.

Table 1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requirements	Project Impact
Bald eagle	*Haliaeetus leucocephalus*	FD	CE, CDFW Fully protected	--	Tall trees in dense riparian corridors, near open water	Habitat adjacent to current mine site. Area may be foraging habitat. No nesting habitat onsite. No impact.
Hardhead	*Mylopharodon conocephalus*	--	SSC	--	Sacramento-San Joaquin and Russian River drainages in California	Habitat outside of mine site. No impact due to existing SWPPP and BMPs.
Greater sandhill crane	*Antigone canadensis tabida*	--	CT. CDFW Fully protected	--	Emergent wetlands, wet meadows, irrigated pasture	Habitat adjacent to current mine site. No foraging or nesting habitat onsite. Noise from site activity is a baseline condition. No impact.
Long-eared myotis	*Myotis evotis*	--	--	--	Rock crevices and tree cavities near perennial water sources	Habitat outside of mine site. No impact.
Swainson's hawk	*Buteo swinasoni*	--	CT	--	Migratory; Large, open grasslands in riparian systems	Foraging habitat onsite, no nesting habitat onsite. No new impacts from proposed project area.
Gray Wolf	*Canis lupus*	FE	--	--	Highly variable with large home ranges	Habitat may include mine site. Very transitory species. No impact.

Table 1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requirements	Project Impact
Prairie falcon	*Falco mexicanus*	--	CDFW WL	--	Nest on cliff ledge overlooking open meadows in grasslands and forests	No habitat onsite
Northern goshawk	*Accipiter gentilis*	--	SSC	--	Nest in mature and old-growth forest stands >40 percent cover	No habitat onsite
Yellow-billed Cuckoo	*Coccyzus americanus*	FT	--	--	Dense riparian thickets, wooded foraging spaces in excess of 300 ft. in width and 25 acres in area	No habitat onsite
North American Wolverine	*Gulo gulo luscus*	PFT			Del Norte, Trinity, Shasta, Plumas and south; between 4300-7300 ft in Northern Sierras	No habitat onsite
Ephemeral monkeyflower	*Erythranthe inflatula*	--	--	1B.2	Among rocks and boulders on moist gravel, previously flooded	No habitat onsite
Greene's tuctoria	*Tuctoria greenei*	FE	Rare	1B.1	Valley Grassland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Sheldon's sedge	*Carex sheldonii*	--	--	2B.2	Wetlands; "obligate" wetland indicator plant	No habitat onsite
Slender Orcutt grass	*Orcuttia tenuis*	FT	CE	1B.1	Valley Grassland, Foothill Woodland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Long-haired star-tulip	*Calochortus longebarbatus* var. *longebarbatus*	--	--	1B.2	Great Basin scrub, Lower montane coniferous forest Meadows and seeps, vernal pools	No habitat onsite

Table 1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requirements	Project Impact
Long bluebells	*Mertensia longiflora*	--	--	2B.2	Seasonally moist plains and foothills in Yellow pine forest and sage steppe; Elev. 5000-7000 ft.	Site outside of elevation range
Hillside arnica	*Arnica fulgens*	--	--	2B.2	Open, damp depressions in sagebrush scrub or grassland	No habitat onsite

Key: federally Endangered (FE), proposed federally Endangered (PFE); federally Threatened (FT); proposed federally Threatened (PFT), federally delisted (FD); California Endangered (CE); California Threatened (CT); California Fully Protected (CFP); California Species of Special Concern by DFG (SSC); California Rare Plant Ranking (CRPR)

The potentially occurring species that were generated through desktop review were assessed based on the actual observed habitat types onsite. The assessment found that the following species have the potential to occur and require further discussion (Appendix C) about the potential project impacts:

- Bald eagle (*Haliaeetus leucocephalus*)
- Hardhead (*Mylopharodon conocephalus*)
- Greater sandhill crane (*Grus canadensis tabida)*
- Long-eared myotis (*Myotis evotis*)
- Northern goshawk (*Accipiter gentilis)*
- Swainson's hawk *(Buteo swinasoni)*
- Gray Wolf *(Canis lupus)*

All reasonable measures will be taken to protect fish and wildlife habitat associated with this mine site.

2.7 Climate

Average maximum temperatures approach 90 degrees during the summer months of July and August. Minimum temperatures are often below freezing from late fall through spring (Canby Ranger Station ID 041476; years of record 1943-2012).

Average total precipitation and pan evaporation by month are shown on Table 2. Average monthly precipitation is low, staying below 3 inches even in the wetter fall and winter months (Canby Ranger Station ID 041476; years of record 1943-2012). Evaporation data was not taken at Canby Ranger Station, so Nearby Fall River Mills data was used. Monthly average pan evaporation far exceeds precipitation in the dry spring and summer months, reaching an average of just over 12 inches in the month of July (Fall River Mills Intake ID 042964; years of record

1948-2005, Table 3). The average precipitation balance (defined by average monthly precipitation minus evaporation) is negative during most of the year, reflecting the average sparse precipitation observed in this arid region. The 25-year, 24-hour storm event amount is 2.84 inches, as shown from the Canby Station ID: 041476. Settling ponds are dry and drainages are cleared every fall to ensure adequate storage for rain events. Settling ponds are designed to hold this capacity in the event that a 25-year, 24-hour storm does happen.

Table 2
PRECIPITATION SUMMARY(1943-2012)
CANBY RANGER STATION ID041476 (inches per month)

Month	Precipitation	Snow
Jan	1.89	5.4
Feb	1.52	2.3
Mar	1.58	4
Apr	1.21	2.6
May	1.33	0.4
Jun	0.95	0
Jul	0.22	0
Aug	0.35	0
Sep	0.58	0
Oct	1.18	0.1
Nov	1.78	1.7
Dec	2.13	5.1
Average	**14.71**	**21.4**

Table 3
EVAPOTRANSPIRATION (1948-2005)
FALL RIVER MILLS ID 042964
(inches per month)

Month	Monthly Average
Jan	0
Feb	0
Mar	2.47
Apr	5.8
May	7.54
Jun	9.48
Jul	12.14
Aug	10.57
Sep	7.59
Oct	3.78
Nov	1.14
Dec	0
Total Yearly Average	60.51

A wind rose from the Alturas Municipal Airport 725958 was developed using data from 2009 to 2014. The wind rose is shown on Figure 11. Predominant wind direction is from the west and south.

Dust has historically not been a problem at the site. Dust will continue to be controlled as necessary through the application of water from a spray truck onto surface roads or through the application of dust palliative agents.

2.8 Archaeological and Historical Resources

The current site underwent CEQA review in 1997. Archeological review was completed at that time which included the current site area and a buffer.

3.0 EXCAVATION AND MINING PLAN

The following description of mining will supersede the existing reclamation plan where discrepancies occur.

3.1 Project Activities and Timeline

The current active and proposed clarified boundary will include approximately 37 acres of mine footprint. No other changes to site operations will occur. The applicant estimates that mining will take place onsite through 2050 at a rate governed by market demand and depth of rock fields. The estimated timeline may be adjusted based onsite conditions.

3.2 Mining Plan

3.2.1 Material Removal

Surface mining procedures will continue in areas already under the current use permit, and will be the same in the areas proposed in this expansion. The historic mining plan included two operating areas: Site A to the south and Site B to the north. The proposed mine expansion would include an additional area northeast of Site B. There will be no additional mining in the area of Site A. Previous mine areas are shown on Figure 12.

The average depth of cut will be approximately 60 feet. The anticipated final pit floor will reside at an elevation of approximately 4250 feet. The maximum cut bank elevation will occur in the northeast corner of the pit at an elevation of approximately 4400 feet. Under the current plan, the mine was to yield approximately 200,000 cubic yards of crushed material over the life of the plan which was to be the year 2036. With this expansion, and extension of an additional 14 years, the yield will increase to an additional 588,000 cubic yards and the termination date will be the year 2050. Cut slopes in the expansion area will be reduced to no steeper than 2:1. The operation will continue to involve blasting, screening, and crushing operations.

The proposed expansion area and overall project boundary clarification are shown on Figure 3. Current topography is shown on Figure 7. Final topography is depicted on Figure 13. Cross-sections of the area are shown on Figure 14.

3.2.2 Soil Erosion Control

Standard soil erosion control protocols are currently practiced throughout the site and will continue during mining operations. These include:

- Use of berms, water bars, or rolling dips
- Diverting run-on from stockpile areas
- Planting vegetation/installing stabilizers as necessary
- Directing runoff within quarry to the settling ponds on the western border.

The facility is covered under General Order 2014-0057-DWQ *General Permit for Storm Water Discharges Associated with Industrial Activities.* Best management practices are in place at the site

pursuant to the SWPPP for the site. The SWPPP is available on State of California SMART's website WDID 5R251026882.

3.2.3 Topsoil

Little topsoil is available onsite, as rock is located near the surface. The little topsoil available will be removed using a loader. The topsoil stockpile is treated with standard soil erosion practices as necessary.

Where available, topsoil will be salvaged in the expansion area; stockpiled and labeled separately from other mined materials. The topsoil (and/or other growth media) stockpiles are clearly signed in the field to prevent inadvertent use. In addition, the location of the soil stockpile in areas not used for other materials will prevent inadvertent use. The topsoil (and/or other growth media) stockpiles are protected from wind and water erosion by planting with an erosion-control mix, as well as keeping the stockpiles in a low profile with moderate slopes.

When available, topsoil may be imported to the site to assist in the future restoration and reclamation activities, such as from construction project spoils or landslide. Topsoil will not be disturbed until needed for reclamation. Soil salvage operations and phasing reclamation will minimize the areas disturbed to achieve maximum revegetation success. Topsoil will not precede mining by more than one year.

3.2.4 Vegetation Removal

Vegetation removal in the expansion area will be completed using an excavator, loader, and dozer. Due to the predominant low sage and sage brush vegetation type, there is little vegetation to be removed.

3.3 Disposal of Mine Waste

The proposed project does not anticipate producing mine waste. The quarry currently processes and markets all materials removed from the site. Any detritus will be taken to a local landfill on a regular basis.

3.4 Water Use

Water is pumped out of the stormwater detention ponds in the early portion of the year and used to suppress dust during mining activities. There is a well located close to the mine but not within the mine boundary.

3.5 Water Diversions

Water from the ephemeral drainage near the middle of the mine area, flows into a culvert, directing the flow toward the settling ponds. Water from the southern drainage follows along the southern boundary in ditches and then into a culvert also being directed toward the settling ponds.

3.6 Pollution Prevention

The only potential sources of pollution onsite are the fuels and oils used in equipment and within the processing plant and sediment into waterways. Above ground double walled fuel storage tanks are used at the site. As required by the Industrial Stormwater permit, the site SWPPP will be amended to include the expansion areas as necessary. Standard erosion control practices, as detailed in Section 4.3.3, are used to prevent sedimentation to natural waterways.

3.7 Noise Control

The processing plant can operate Monday through Saturday, for 24 hours a day, depending on project needs. There may be periods of high activity and periods of no activity. Due to the very remote location of this mine, noise is not a significant impact. Blasting and processing plant operation hours, and noise levels, will not change.

3.8 Crusher/ Processing Operation

The crusher and other operations will operate in the manner approved in the 1997 UP96-52 Use Permit and Reclamation Plan. No change in operation will take place.

3.9 Public Safety

Unauthorized access to the project site is prevented by a locked gate. Access from interior boundaries would require overland travel across the privately owned Shaw Ranch. Therefore, hazard to the public would be insignificant.

4.0 RECLAMATION PLAN

Site reclamation activities were approved by Use Permit 96-52 in the Reclamation Plan. The previous Reclamation Plan will apply to all areas other than the proposed quarry expansion to the northeast. This Reclamation Plan Amendment covers expansion of area and clarification of mine boundaries.

4.1 Overview of Reclamation Process

The overall goal of reclamation is to return the site to a condition similar to pre-mining, or similar to reference sites located on adjacent, undisturbed land. Returning land to pre-mining condition would ensure its use as wildlife habitat or grazing land.

The current Use Permit/Reclamation Plan 96-52 lists activities to restore areas impacted by mining. Under the current reclamation plan (shown on Figure 12), reclamation is a phased process, with Site A being restored first. This was not completed and the area of the mine floor will be reclaimed at close of operations. Under this reclamation plan, areas will be reclaimed after operations to the specifications stated in the Use Permit/Reclamation Plan 96-52. As indicated in the current use permit, reclamation of the site will include the removal of the culvert and sedimentation ponds and restoration of the northern drainage streambed in the disturbed area. All equipment, stockpiled materials, and any structures will be removed upon final reclamation. Roads will be left in place for the property owners to use to access that portion of their property. Other areas will be decompacted by ripping and disking. Decompaction will help successful revegetation by establishing a suitable root zone. Grading and revegetation will help minimize erosion and help channel surface runoff to natural drainage courses.

Revegetation of the approximately 30 acre pit floor area under Use Permit/Reclamation Plan 96-52 will include a mixture of 10 pounds crested wheat grass and 2 pounds dry alfalfa broadcast applied per disturbed acre in the late fall to take advantage of early rains. No fertilization will be required.

The approximately 7 acre proposed expanded area will be seeded with a mix of bluebunch wheatgrass (*Elymus spicatus*) at ten pounds of pure live seed (PLS) per acre, bottlebrush squirreltail (*Elymus elymoides*) at seven pounds of PLS per acre, and antelope bitterbrush (*Purshia tridentata*) at 5 pounds of PLS per acre. In addition, four ponderosa pine plugs will be planted for each individual removed using locally collected seed. Due to the evident encroachment of juniper trees onto the site, none will be planted during reclamation. Natural recruitment may occur following reclamation in which case the trees will be left in place.

Signs will be posted and barriers will be put in place as needed to keep revegetation areas undisturbed.

4.2 Schedule

Reclamation is to be completed either at the time of mine closure or concurrently with mining operations, depending on what is practicable.

4.3 Engineering Data

Engineering control methods proposed for the reclamation process are described in this section.

4.3.1 Final Slope of Project Area

The final slope of the current reclaimed mine site under the Use Permit/Reclamation Plan 96-52 is 1.5:1. The final slope of the proposed expansion area will be 2:1 (per section 3704 of SMARA). Current and final contours, with cross-sectional views of the final slope proposed for the reclaimed mining area at the site, are provided on Figure 7, Figure 13, and Figure 14.

4.3.2 Reclaimed Land Use

Reclamation will return the area to dryland grazing. This area has primarily been used for livestock grazing, with adjacent areas used for irrigated agriculture.

4.3.3 Erosion and Drainage Control

Erosion and sedimentation will be controlled during and after reclamation activities. Surface runoff will be controlled using appropriate grading along with the implementation of BMPs including the use of:

- Mulches
- Vegetative cover
- Straw wattles
- Water bars/rolling dips
- Rock-lined ditches

4.3.4 Topsoil Replacement

The topsoil will be transferred from the stockpile and into the reclamation area using the same techniques as specified in Use Permit/Reclamation Plan 96-52. When the excavation operations and the construction of embankment slopes have ceased for the proposed area or upon completion of site mining activities, the topsoil will be spread to a uniform depth. The topsoil will be compacted to stabilize the material; however, compaction will not occur to a point where the topsoil is not an effective growing medium. Mined areas will be sloped and seeded. Where possible, soil will be placed on headwall slopes.

4.4 Streambed Restoration

4.4.1 Reclamation of Diverted Waterways

As indicated in the current use permit and reclamation plan, reclamation of the site will include the removal of the culvert and sedimentation ponds and restoration of the northern drainage stream bed in the disturbed area. Stream bed restoration will include reshaping to a uniform slope. There are no drainages in the proposed expansion area. No changes from the original plan will take place.

4.4.2 Groundwater Quality Protection

No impacts on groundwater due to mining are anticipated.

4.5 Building and Equipment Removal

All equipment, stockpiled materials, and any structures will be removed upon final reclamation.

4.6 Revegetation Plan Design

4.6.1 Revegetation Overview

The total project area, including the proposed expansion area, encompasses approximately 41 acres of dry rangeland. Revegetation of the disturbed area will control erosion and support grazing. Revegetation of the current mine area will follow the plan laid out in the current use permit and reclamation plan.

The property owner would like to minimize the encroachment of juniper species into the area and therefore will not plant them in the reclamation process.

4.6.2 Baseline Studies

Baseline studies for vegetation cover, density, and species richness were conducted on September 8, 2020. The studies followed *Rehabilitation of Disturbed Lands in California: A Manual for Decision Making* (Newton 2003). Surveys were completed within the Low Sagebrush habitat which dominates the proposed expansion area. Methods were repeated via systematic sampling in order to achieve greater than eighty percent confidence in results.

The project site was surveyed for cover, density, and species richness using one square meter quadrants. The initial transect location was determined by random point projection. Subsequent plots were spaced five feet apart and placed end to end. Plots number one through seven progressed in a western direction. Plots eight through fourteen progressed in a southern direction. This resulted in an "L" shaped plot design which covered the range of elevation within the survey area. Plot method was used to determine perennial cover (mean= 36.80 percent cover) perennial plant density (mean=7 perennial plants/50m^2) and species richness (mean=3 perennial plant species).

The plant species observed in the proposed expansion area are listed in order of dominance within the plant community onsite: medusa head grass (*Elymus caput-medusae*), cheatgrass (*Bromus tectorum*), bluebunch wheatgrass (*Elymus spicatus*), bottlebrush squirreltail (*Elymus elymoides*). Antelope bitterbrush (*Purshia tridentata*), big sagebrush (*Artemesia tridentata)*, Hooker's balsamroot (*Balsamorhiza hookeri*), peppergrass (L*epidium* sp.), sulfur flower buckwheat (*Eriogonum umbellatum* ssp.), western juniper (*Juniperus occidentalis*), tarweed (*Deinandra labbii*), other annual and perennial forbs species, and ponderosa pine (*Pinus ponderosa).* Due to the timing of the survey, annual forbs and some herbaceous perennial species were either no longer present or were unidentifiable to species level. Results are included in Table 4 and Table 5. Field data sheets are included in Appendix D.

Table 4 BASELINE DATA						
Plot	**Lat/Long**	**% Cover (Raw)**	**% Cover (Avg)**	**Perennial Basal Density**	**Species Richness**	**Site Species List**
1	41.34709, -121.131072	50	58.75	6	3	Medusahead (*Elymus caput-medusae*) *PG1/Bluebunch wheatgrass (*Elymus spicatus)* *PG2/Bottlebrush squirreltail (*Elymus elymoides*) *PG3 Western Juniper (*Juniperus occidentalis)* Hooker's balsamroot (*Balsamorhiza hookeri)* Cheatgrass (*Bromus tectorum)* Antelope bitterbrush (*Purshia tridentata)* Mountain Big Sagebrush (*Artemisia tridentata)* Ponderosa Pine (*Pinus ponderosa*) **Peppergrass (*Lepidium* sp.) *PF1/Tarweed (*Deinandra lobbii*) **PF2 *PF3/Sulphur flower buckwheat (*Eriogonum umbellatum*)
		75				
		20				
		90				
2	41.34711, -121.131115	25	36.25	4	4	
		20				
		90				
		10				
3	41.34712, -121.131150	5	21.25	7	3	
		10				
		30				
		40				
4	41.34712, -121.131188	20	45	5	4	
		10				
		100				
		50				
5	41.347130, -121.131219	35	12.5	7	2	
		0				
		5				
		10				
6	41.347138, -121.131249	55	21.25	21	4	
		10				
		10				
		10				
7	41.347139, -121.131277	80	31.25	9	3	
		10				
		10				
		25				
8	41.347159, -121.131280	0	50	7	3	
		100				
		50				
		50				

Table 4
BASELINE DATA

Plot	Lat/Long	% Cover (Raw)	% Cover (Avg)	Perennial Basal Density	Species Richness	Site Species List
9	41.347177, -121.131289	25	20	5	4	
		5				
		10				
		40				
10	41.347196, -121.131302	\	75	3	3	
		\				
		\				
11	41.347220, -121.131305	15	12.5	9	4	
		5				
		20				
		10				
12	41.347241, -121.131308	55	38.75	4	3	
		0				
		75				
		25				
13	41.347262, -121.131310	25	57.5	7	4	
		25				
		85				
		95				
14	41.347290, -121.131324	\	35	5	2	
		AVERAGES	**36.78571429**	**7.071428571**	**3.285714286**	

* Indicates that specimens were collected and were identified following the survey (PG: perennial grass, PF: perennial forb)
**Indicates that the species was unidentifiable to species level due to the late season survey

Table 5 BASELINE PLOT SUMMARY			
Plot No.	**Percent Cover**	**Basal Density**	**Species Richness**
1	58.75	6	3
2	36.25	4	4
3	21.25	7	3
4	45	5	4
5	12.5	7	2
6	21.25	21	4
7	31.25	9	3
8	50	7	3
9	20	5	4
10	75	3	3
11	12.5	9	4
12	38.75	4	3
13	57.5	7	4
14	35	5	2
AVERAGE VALUES	36.78	7.07	3.28
ROUNDED	37	7	3

4.6.3 Plant Procurement and Installation Procedures

Per Use Permit/Reclamation 96-52, revegetation of the mine will include a mixture of 10 pounds crested wheat grass and 2 pounds dry alfalfa broadcast applied per disturbed acre in the late fall to take advantage of early rains. No fertilization will be required. In the event that fertilizer is needed to help establish revegetation an environmentally friendly fertilizer would be used as to not contaminate any water source or have adverse effects on wildlife.

The approximately 7-acre proposed expanded area will be seeded with a mix of bluebunch wheatgrass (*Elymus spicatus*) at ten pounds of PLS per acre, bottlebrush squirreltail (*Elymus elymoides*) at seven pounds of PLS per acre, and antelope bitterbrush (*Purshia tridentata*) at 5 pounds of PLS per acre. In addition, four ponderosa pine plugs will be planted for each individual removed using locally collected seed. Due to the evident encroachment of juniper trees onto the site, no juniper trees will be planted during reclamation. Natural recruitment may occur following reclamation in which case the trees will be left in place.

Seed will be ordered from a reputable supplier that collected or grew out seed from a source as close to the project site as possible. Seed will be properly labeled as genus, species, subspecies, variety, and source and will be handled and packed in a manner that ensures the purity and viability of the materials. Weed seed will not exceed 0.5 percent of the pure live seed and inert material. Seeding rates will be given in pounds of pure live seed (PLS) per acre. The seed mix will be measured and packaged by the seed supplier.

Propagated stock grown from seed collected onsite, or from adjacent or nearby areas, will be used for ponderosa pine plugs. No more than 30 percent of any individual plant or cluster of individuals will be harvested for propagation.

4.6.4 Irrigation

No irrigation is planned.

4.6.5 Test Plots

Test plots will be implemented. The purpose of the plots is to determine the effectiveness of planting and survival of native perennial grass seeds, native shrub seeds and the cultivated plugs of target tree species.

If simple regeneration efforts are unsuccessful, additional treatments, such as the use of mulches and ripping, will be applied. The individual treatments will be determined at the time of reclamation planting. Treatments may include:

- Chip mulch
- Commercially available mulches
- Ripping
- Fertilizers
- Weed matts/fabrics
- Plant solar protection (cartons)
- Plant deer protection (Vexar tubes)

4.7 Monitoring and Maintenance

4.7.1 Vegetation Monitoring

Vegetation surveys will be conducted once annually following reclaiming when dominant vegetation has matured and both early and late season species can be correctly identified. Surveys will be conducted by a professional experienced in undertaking field surveys and knowledgeable of plant taxonomy and ecology. The results of vegetation surveys will be used to compare site conditions over the maintenance and monitoring period.

4.7.2 Invasive Plant Control

Some invasion by noxious weeds, primarily medusahead and cheatgrass, is anticipated as a number of invasive species are ubiquitous in the region. It is unlikely the operator will be able to completely eliminate these species due to the large sources of seed on the site. Most mechanical, cultural, and chemical treatments are ineffective in situations where overseeding with other grasses is desired.

Milestone® (aminopyralid), applied at a rate of 14 ounces/acre as a fall pre-emergent, can provide some success.

Milestone is broadleaf-selective herbicide that is safe on most grasses. A supplemental label (2ee) has been issued for medusahead control in Arizona, California, Colorado, Idaho, Oregon, Washington, Wyoming, and Utah. In the northern Central Valley, research shows that 14

ounces/acre can provide control. The treatment must be applied as a pre-emergent in the fall of year 2.

In this specific application, seeding for revegetation will also be conducted in the fall so the applications of herbicide will need to be conducted in the year following establishment.

Please note the herbicide application will remove all broadleaf native and nonnative plants. The effect on native grasses (bunchgrass) is unknown, and the application will also inhibit the sprouting of other annual species. For this reason, the herbicide application will be conducted only if determined to be necessary.

4.7.3 Monitoring Report

By December 1 of each monitoring year, a report will be prepared containing the results of the monitoring and an assessment of the data. Included will be a summary of those performance criteria attained and those for which corrective measures were undertaken to achieve compliance. Photographic and other evidence (i.e., maps, laboratory reports, etc.) will be used to support the final assessment. Raw data and maintenance log sheets will also be included as appendices.

4.7.4 Performance Criteria

Performance criteria have been developed for plant types planted during reclamation of the proposed expansion area. Should the evaluation of performance criteria reveal that revegetated areas are significantly behind in their target percentages, the reasons for insufficient plant germination and/or growth will be determined and appropriate remedial actions will be undertaken to meet the established criteria.

Remedial actions could include planting additional material of the species or substitutions of other species better suited to the sites failing to attain desired performance criteria. Remedial actions will be applied to all areas requiring them, not merely to the monitored plots.

Revegetation of these areas will meet the following success standards:

- Shrub and grass species will achieve 15 percent cover in year 1, 25 percent by year 2, and 35 percent in years 3 to 5. If survival drops below these numbers, plants will be replaced the following fall;
- Establish a minimum species richness of at least one native tree species, one native shrub species, and one perennial grass species in three years over the reclaimed expansion area;
- Average basal density of 7 perennial plants within three years as quantified within 1 meter plots;
- The survival of at least one of every four ponderosa pine trees planted will be ensured. If survival drops below this number, trees will be replaced the following fall;
- Invasive exotic species will not compose greater than 30 percent of the cover in any year.

Maintenance of the reclaimed areas during the early stages of plant establishment is essential to the attainment of reclamation objectives and performance criteria. The revegetation areas will be maintained in good condition through regular monitoring to detect problems before they affect the attainment of performance criteria.

Monitoring by a qualified biologist or forester will be conducted following completion of reclamation until performance criteria have been met for two consecutive years with no human intervention. Corrective or remedial actions will be undertaken if success criteria are not attained in a given monitoring year.

4.8 Natural Regeneration

Some natural regeneration will occur within portions of the project area. Seeds will be dispersed onto the reclamation area by natural sources (wind, gravity, animals, etc.) and may be transported from relatively long distances. Natural regeneration will produce volunteers of a variety of indigenous species, such as juniper.

The natural revegetation of native species will be encouraged and allowed to occur. If undesirable species not native to the area begin to invade such that they become a threat to the establishment of desirable native species, these species will be eradicated by hand, mechanical means, controlled burning, use of herbicides, or a combination of these methods as discussed in Section 4.7.2.

4.9 Impact on Future Mining

This Reclamation Plan Amendment precludes future mining on the site after reclamation.

4.10 Public Safety

A locked access gate is installed and maintained at the entrance to the site from County Road 85A. Due to the remoteness of the area, access to the site by other means is unlikely.

5.0 ADMINISTRATIVE REQUIREMENTS

5.1 Financial Assurance

Hat Creek Construction and Materials, Inc., previously accepted responsibility for reclamation per Use Permit/ Reclamation Plan No. 96-52 and this Reclamation Plan Amendment, and has provided financial assurance for completion of site reclamation in compliance with SMARA. The most recent Financial Assurance Cost Estimate was submitted in 2020.

5.2 Annual Inspections

Hat Creek Construction and Materials, Inc. will allow access to Lead Agency officials for the purpose of annual inspections of the mining project. The required annual report will be prepared in conclusion to the annual inspection and provided to the State Mining and Geology Board by July 1 of each year.

5.3 Reclamation Plan Amendments

An amended reclamation plan will be submitted to the Lead Agency prior to any substantial deviations from approved plans.

6.0 REFERENCES

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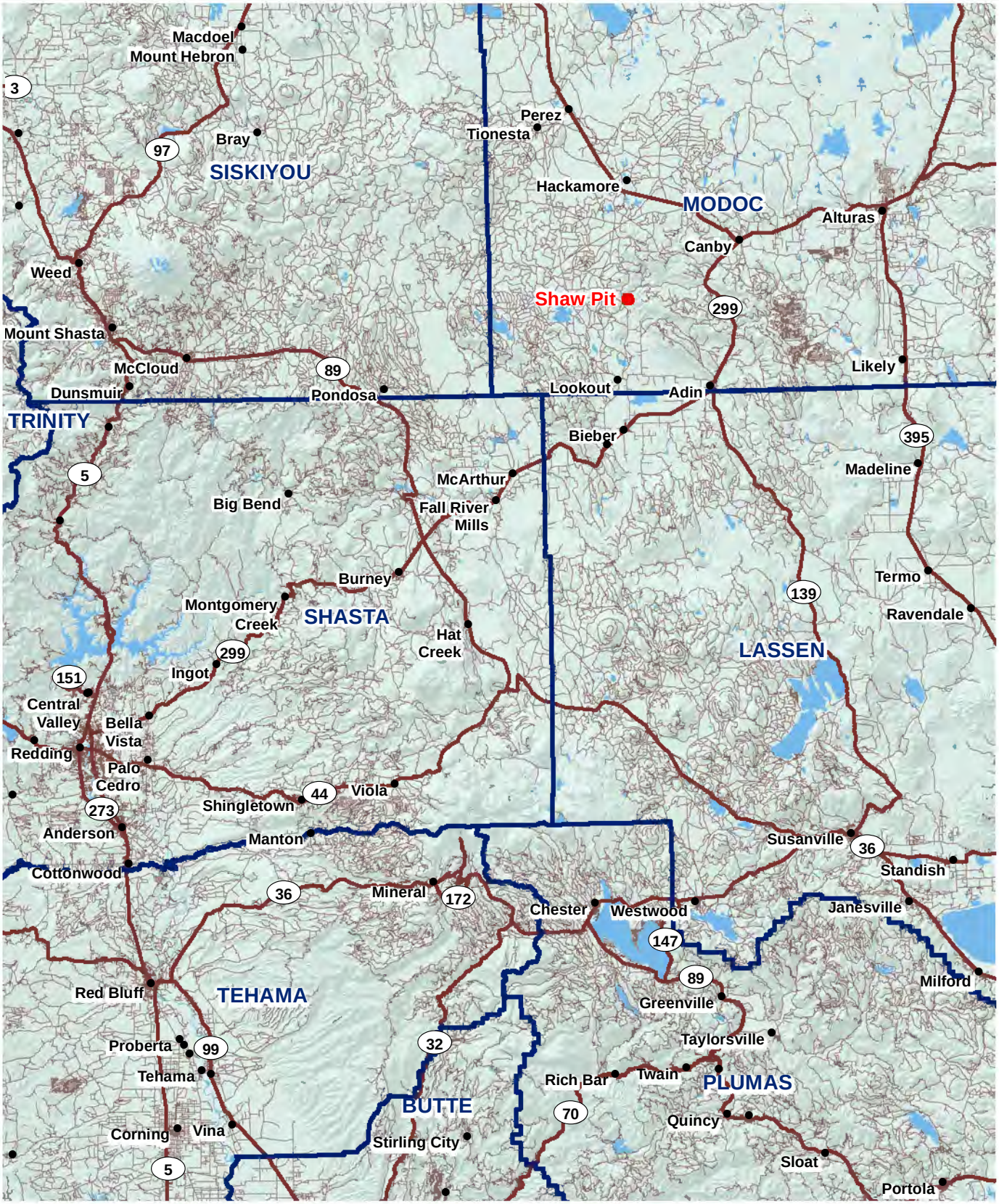
Figures



VESTRA

FIGURE 1
GENERAL SITE LOCATION
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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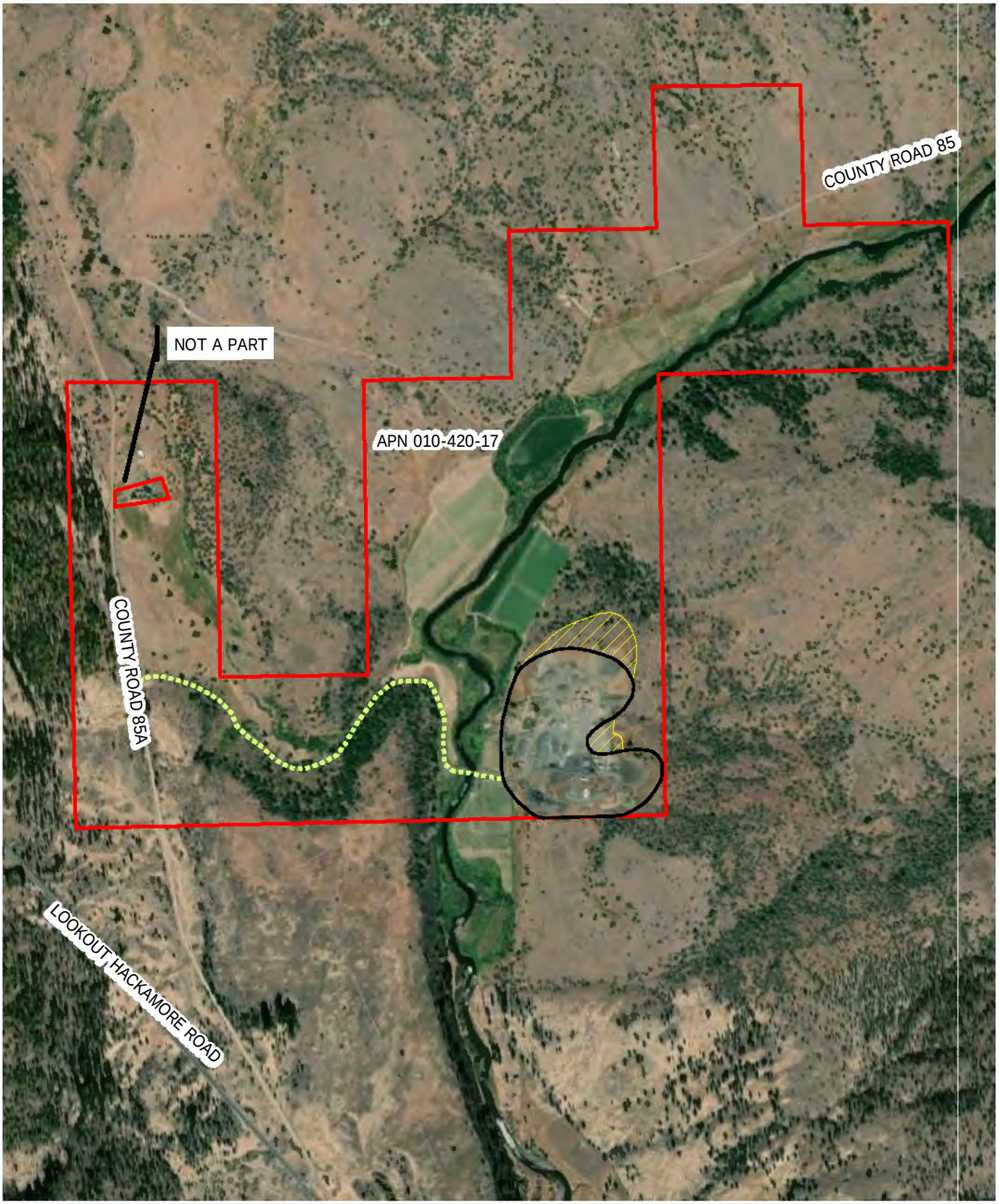

Approximate Reclamation Plan Boundary (Current)

Approximate Parcel Boundary

Approximate Reclamation Plan Boundary (Proposed)

Access Road to Mine

N

VESTRA

0 625 1,250 2,500 Feet

SOURCE: AUGUST 13, 2019, AERIAL PHOTOGRAPH

FIGURE 2
PARCEL BOUNDARY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\RecPlan 2020\71305_2020_Parcels.mxd

Approximate Parcel Boundary

Approximate Reclamation Plan Boundary (Current)

Topsoil Storage

Approximate Reclamation Plan Boundary (Proposed)

Settling Pond

Mine Pit Face

VESTRA

0 125 250 500 Feet

SOURCE: DIGITALGLOBE 2018 AERIAL PHOTOGRAPH

FIGURE 3
MINE LAYOUT
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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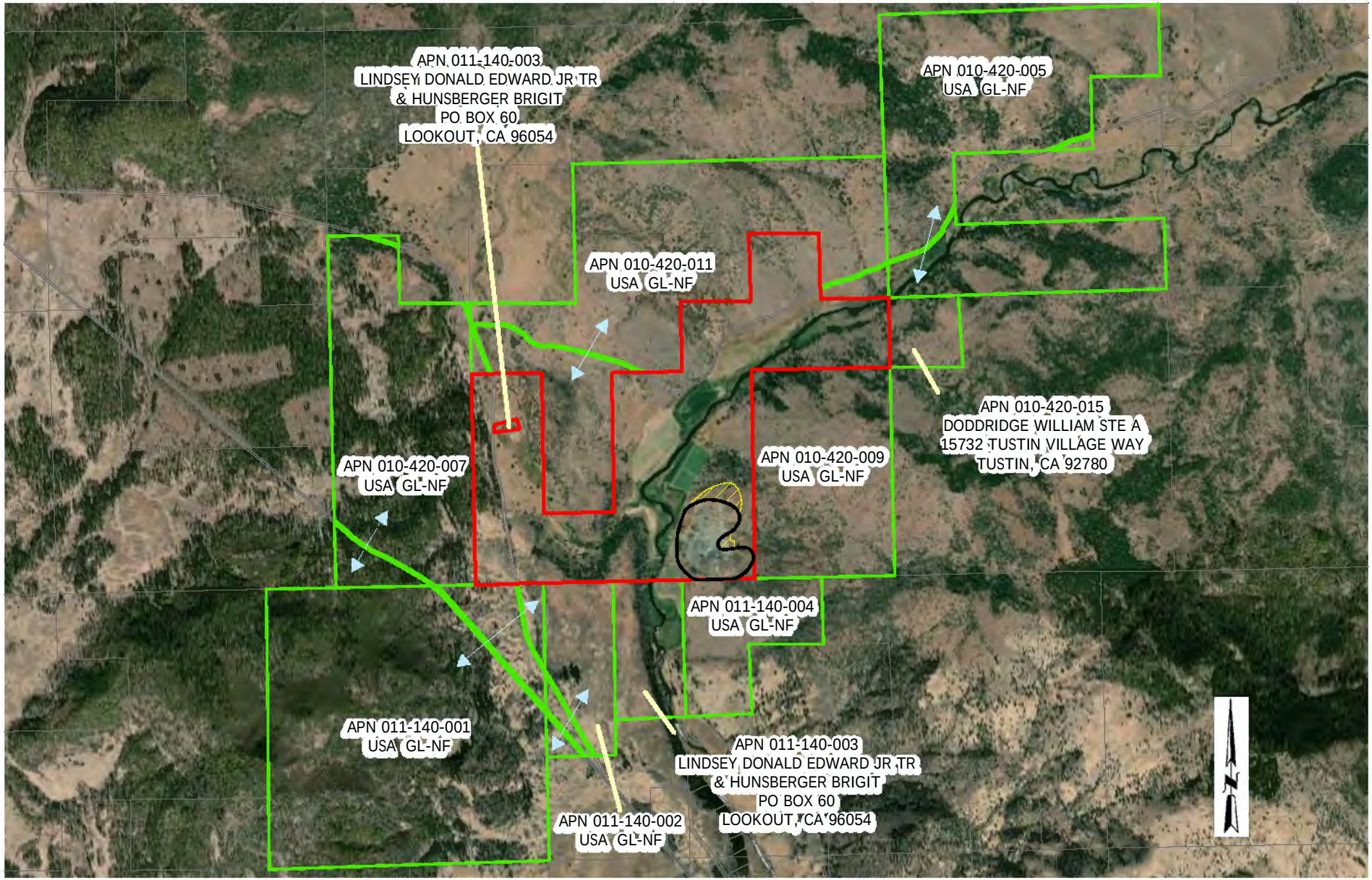

VESTRA

SOURCE: AUGUST 13, 2019, AERIAL PHOTOGRAPH

FIGURE 4
ADJACENT LANDOWNERS
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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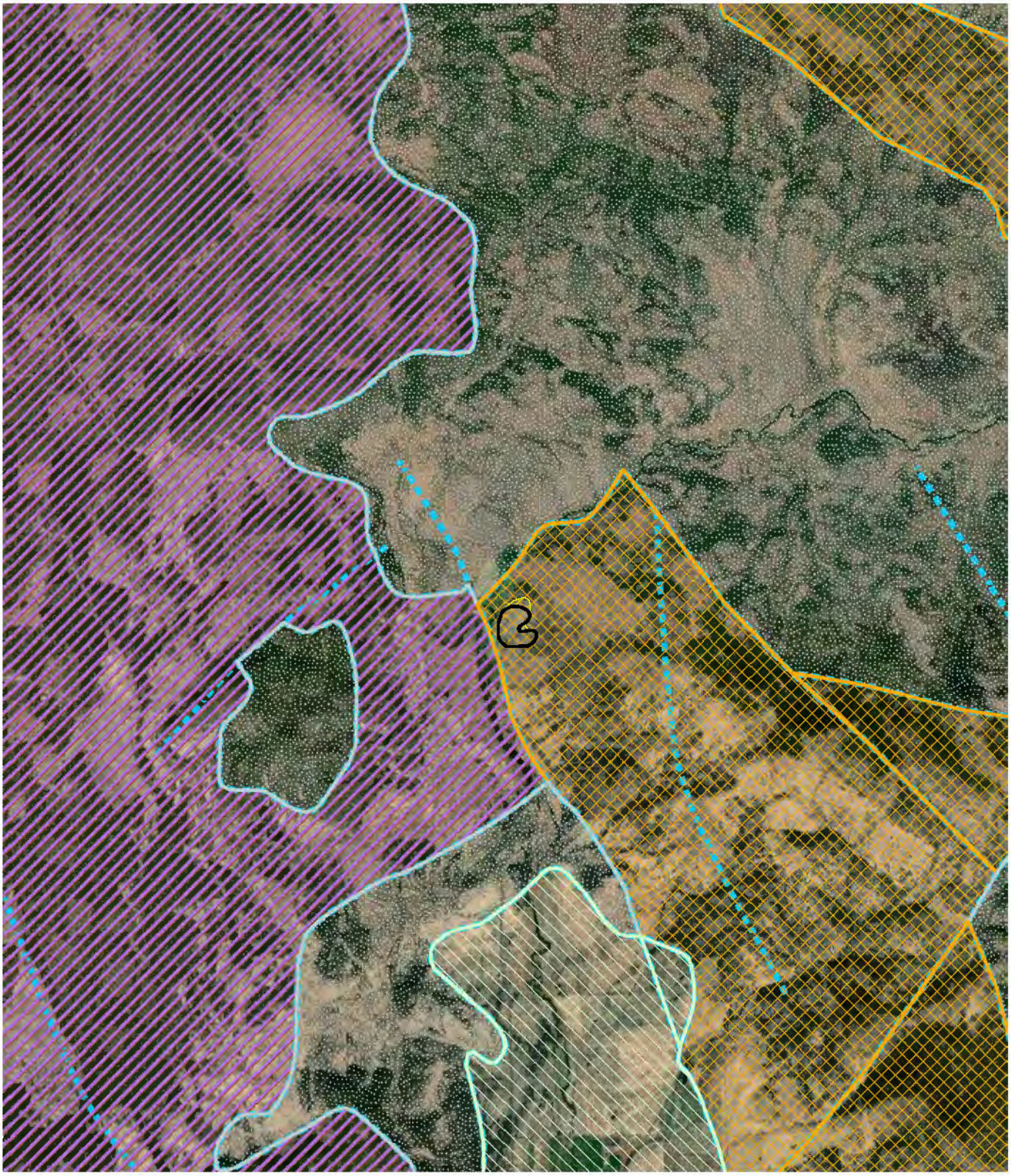


Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

Tv: Tertiary volcanic flow rocks

Qv: Quaternary volcanic flow rocks

QPc: Plio-Pleistocene and Pliocene loosely consolidated deposits

Tvp: Tertiary pyroclastic and volcanic mudflow deposits

FAULTS

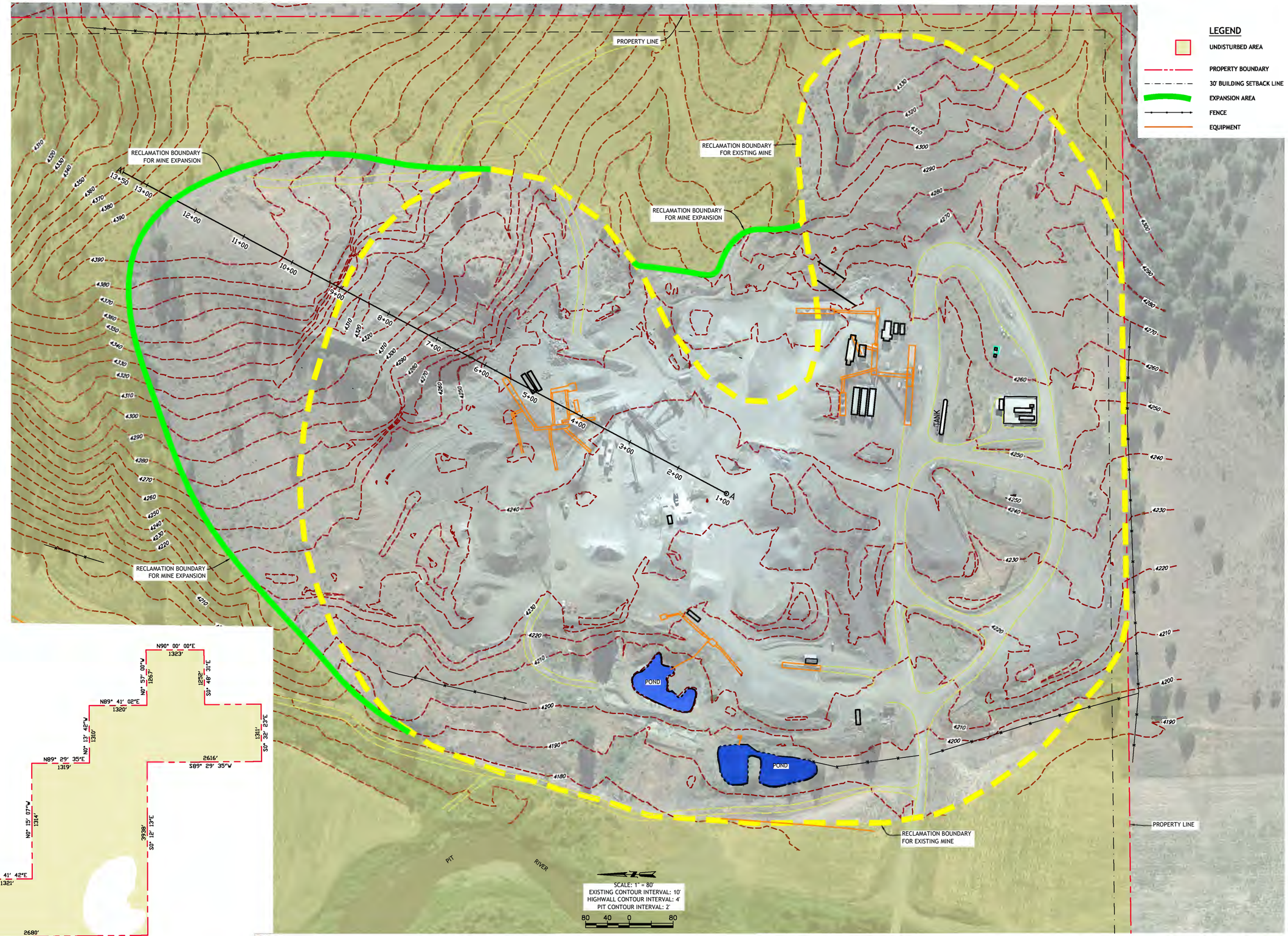
VESTRA

SOURCE: GEOLOGIC UNITS OF CALIFORNIA

0 0.5 1 2 Miles

FIGURE 5
SURFACE GEOLOGY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\RecPlan 2020\71305_2020_Geology.mxd



REGISTERED PROFESSIONAL ENGINEER
SUSAN DIANE GOODWIN
No. 81657
CIVIL
STATE OF CALIFORNIA

P:\CAD\71305 Hat Creek Shaw Mine\DWG\71305 HAT CREEK SHAW PIT – GRADING PLAN.dwg

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

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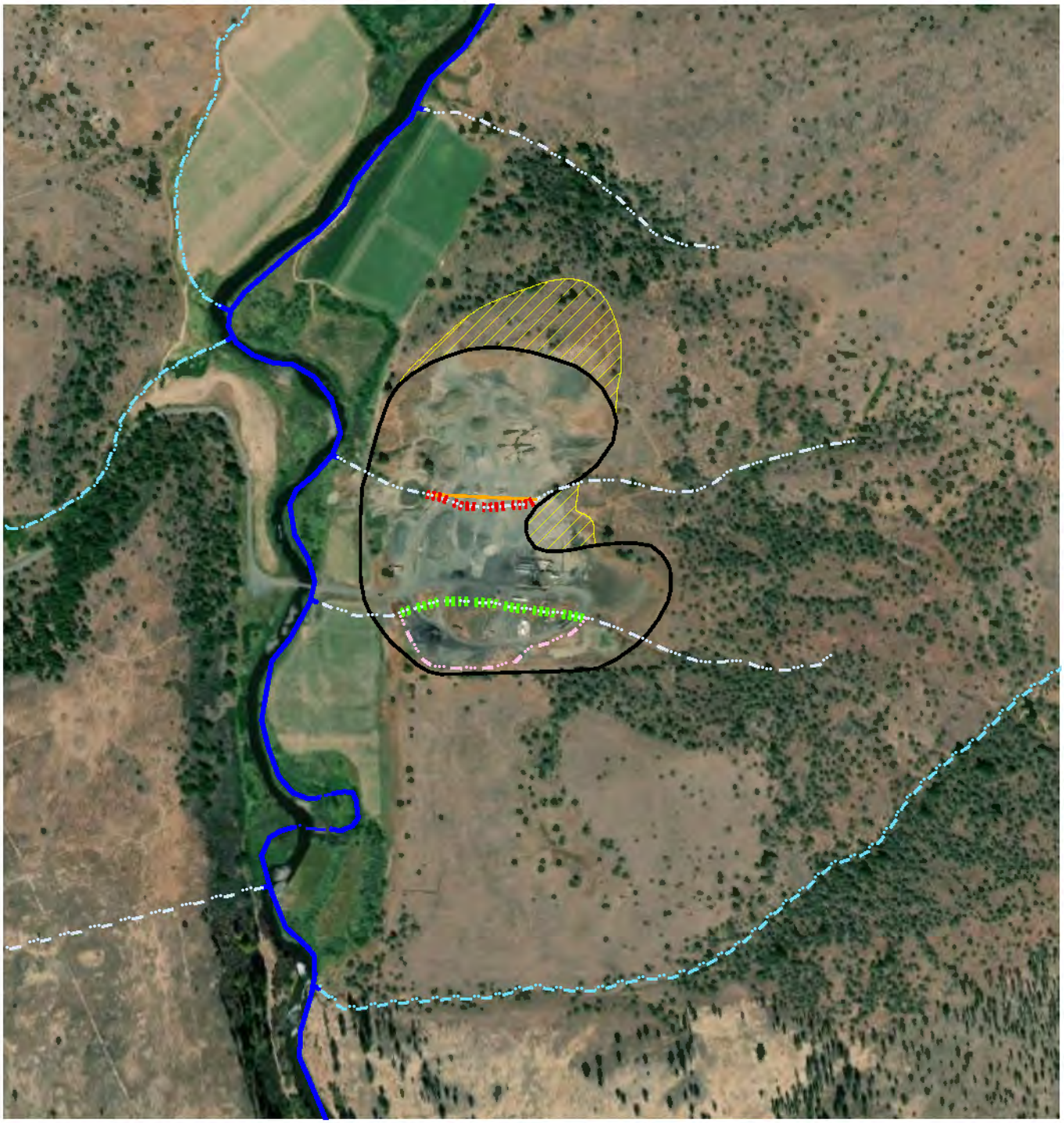
FAX (530) 223-1145
5300 AVIATION DRIVE ~ REDDING, CA 96002

NO.	DATE	REVISION	BY

DSGN: CS
DR: CS
CHK: SG
APVD: SG

FIGURE 6
EXISTING TOPOGRAPHY
SHAW PIT
MODOC COUNTY, CALIFORNIA

SHEET 1 OF 3
DATE 10/13/20
JOB NO. 71305



Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

Historic National Hydrography Dataset:

Pit River

Perennial Stream

Intermittent Stream

Ephemeral Stream

Ephemeral Stream Detail:

Historic Ephemeral Stream now in Culvert

Culvert

Historic Ephemeral Stream Re-Routed South

Current Ephemeral Stream

VESTRA

SOURCE: NHD

0 350 700 1,400 Feet

N

FIGURE 7
SURFACE HYDROLOGY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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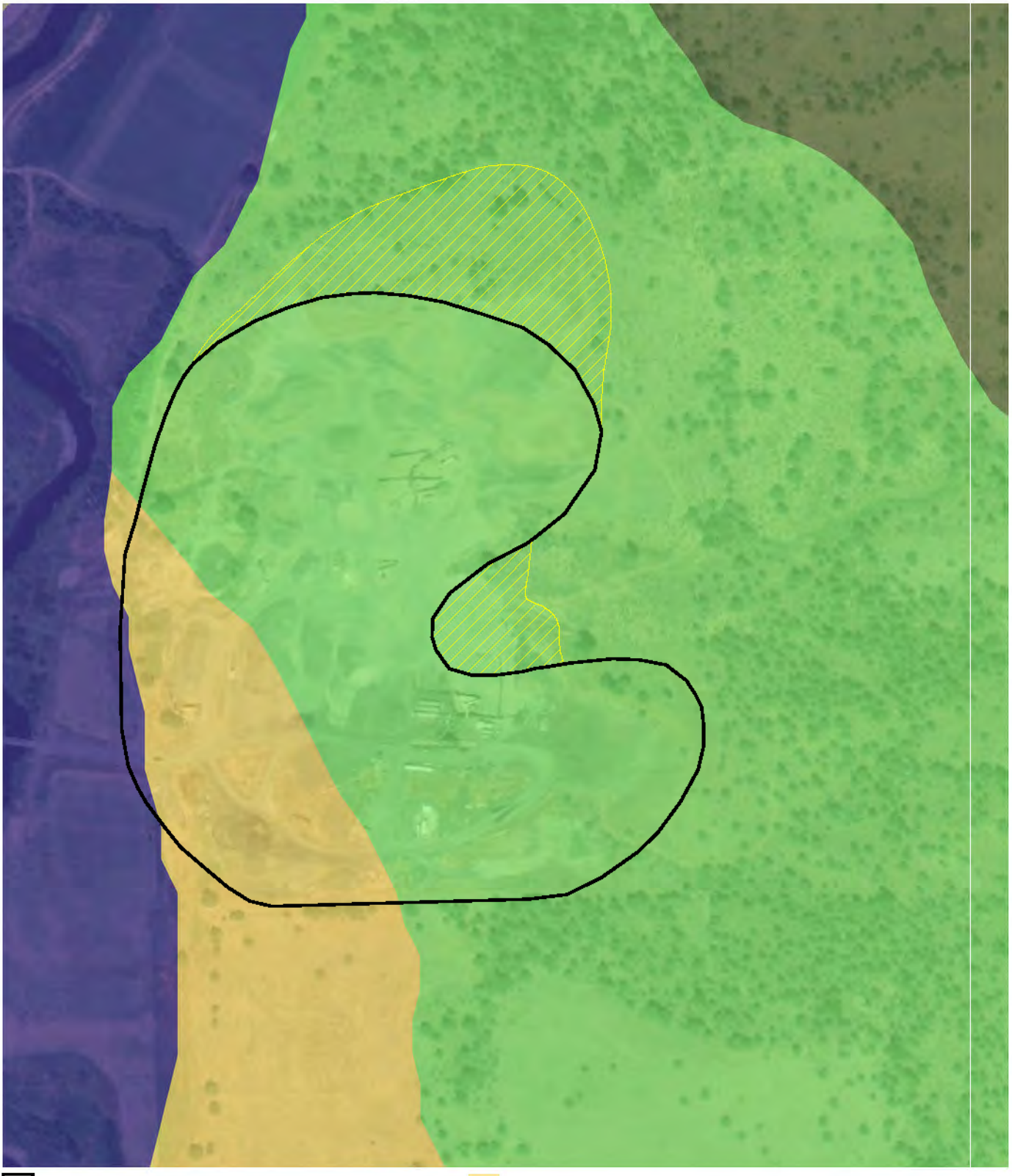

Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

Jacket-Deven-Hiibner 15-35% slopes

Deven-Pass-Canyon-Keating 15-35% slopes

Lithic xerorthents, Mesic xerofluvents, Mesic Aquolls 0-20% slopes

Deven-Pass-Canyon-Keating 35-60% slopes

VESTRA

SOURCE: WEB SOIL SURVEY

N

0 175 350 700 Feet

FIGURE 8
DOMINANT SOIL ASSOCIATIONS
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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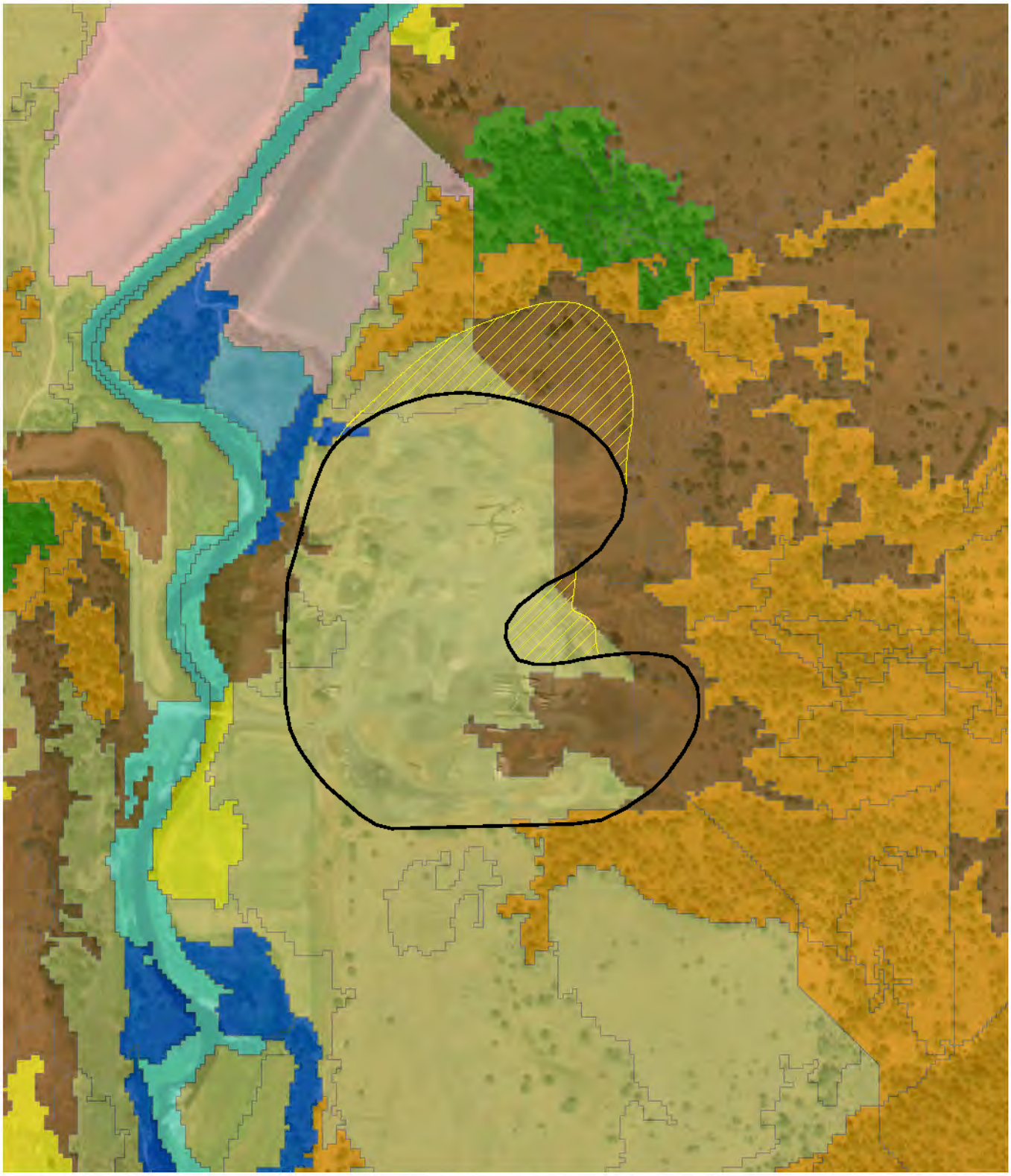

SOURCE: USFS CALVEG 2014

FIGURE 9
CWHR
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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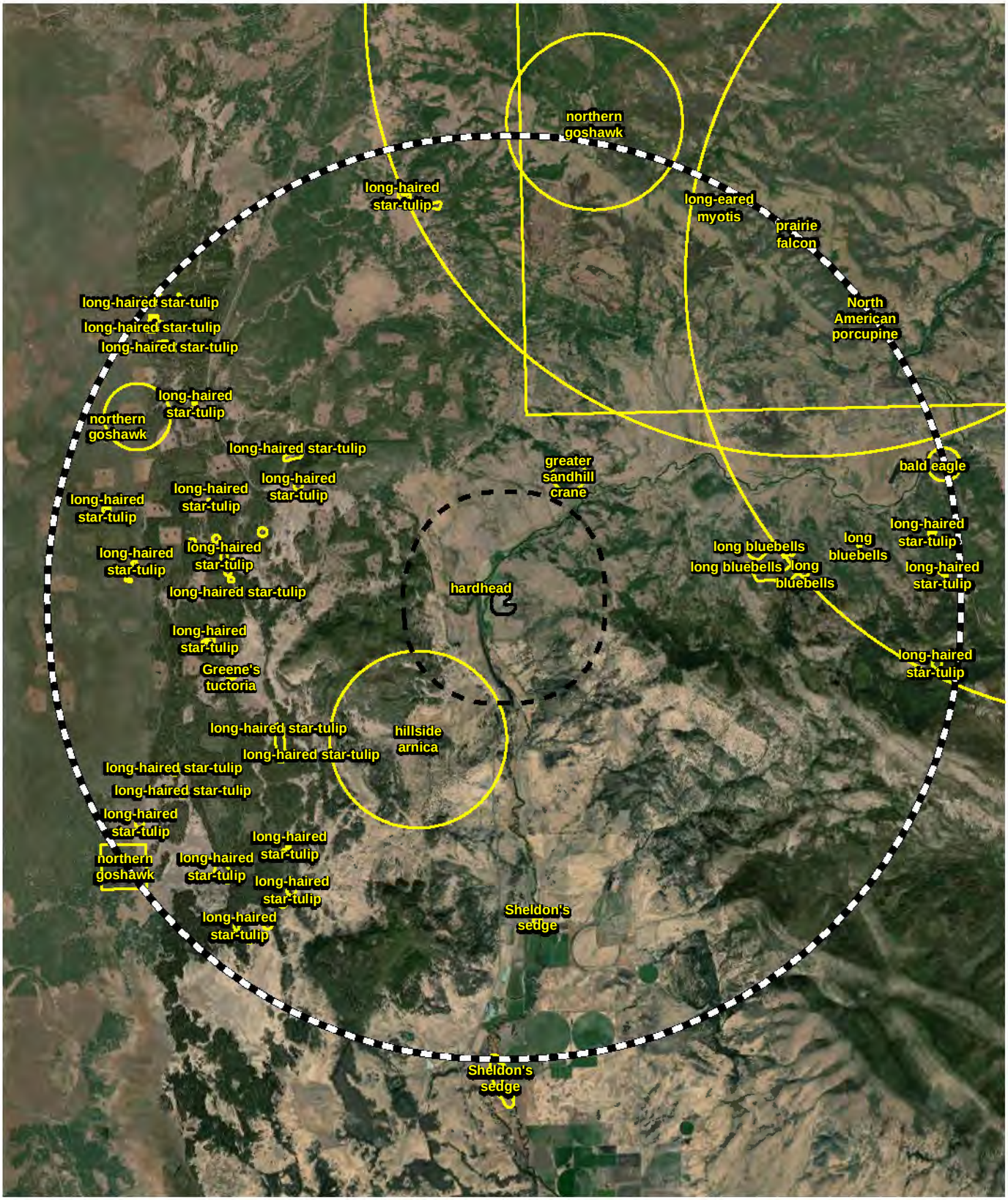


Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

CNDDB Occurrence

5-Mile Buffer Around Project Boundary

1-Mile Buffer Around Project Boundary

N

VESTRA

0 4,250 8,500 17,000 Feet

SOURCE: CDFW CNDDB AUGUST 2020

FIGURE 10
CNDDB OCCURRENCES
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

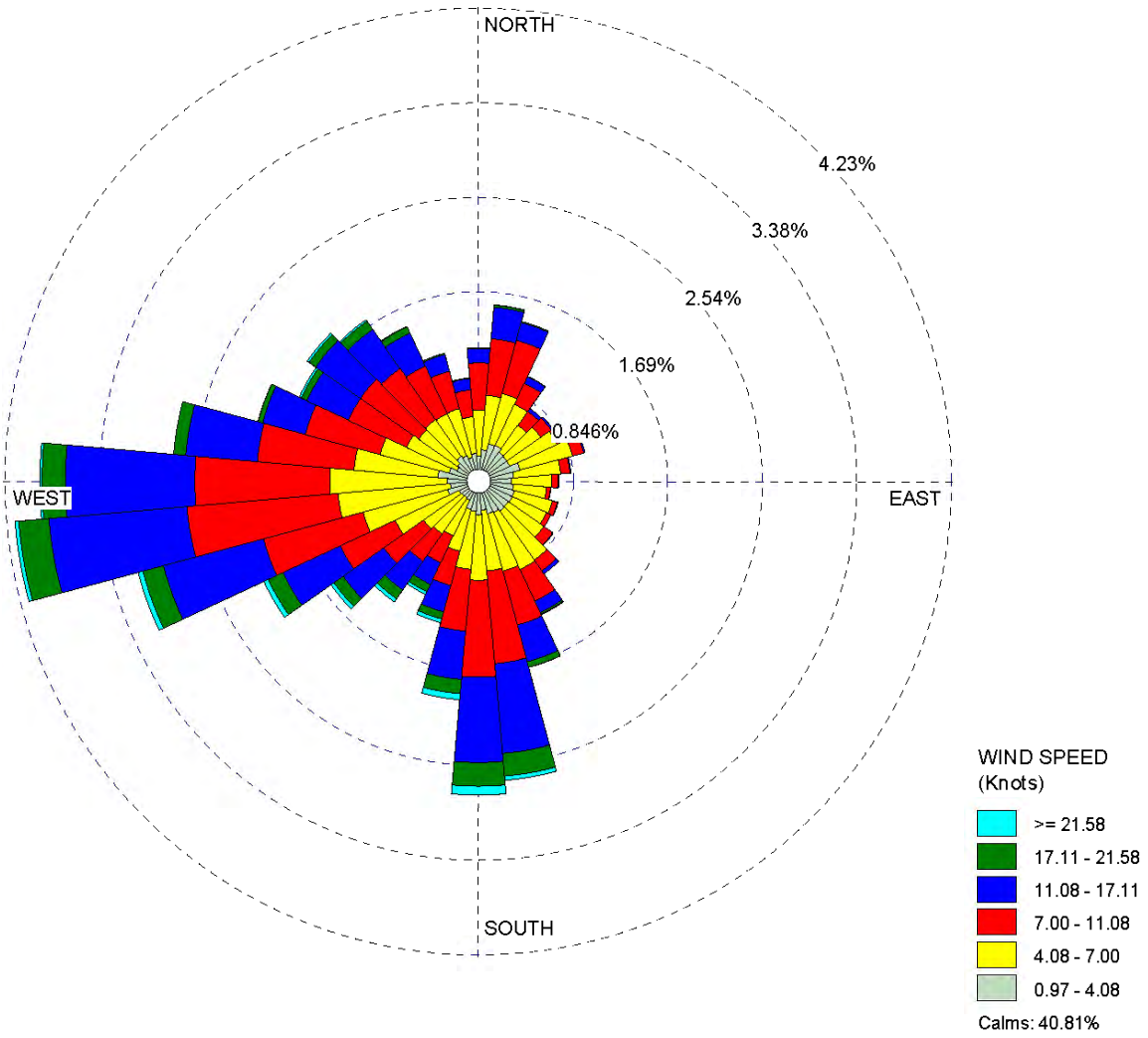
P:\GIS\71305\ShawPit\RecPlan 2020\71305_2020_CNDDB.mxd

WIND ROSE PLOT:

Alturas Municipal Airport
725958

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2009 - 00:00 **End Date: 1/2/2014 - 23:59**	MODELER:	
	CALM WINDS: **40.81%**	TOTAL COUNT: **41687 hrs.**	
	AVG. WIND SPEED: **4.72 Knots**	DATE: **8/28/2020**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

SOURCE:

FIGURE 11
WIND ROSE
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\Shawpit\Recplan 2020\71305_2020_Wind Rose.Doc

P:\CAD\71305 Hot Creek Shaw Mine\DWG\71305 HAT CREEK SHAW PIT - GRADING PLAN.dwg

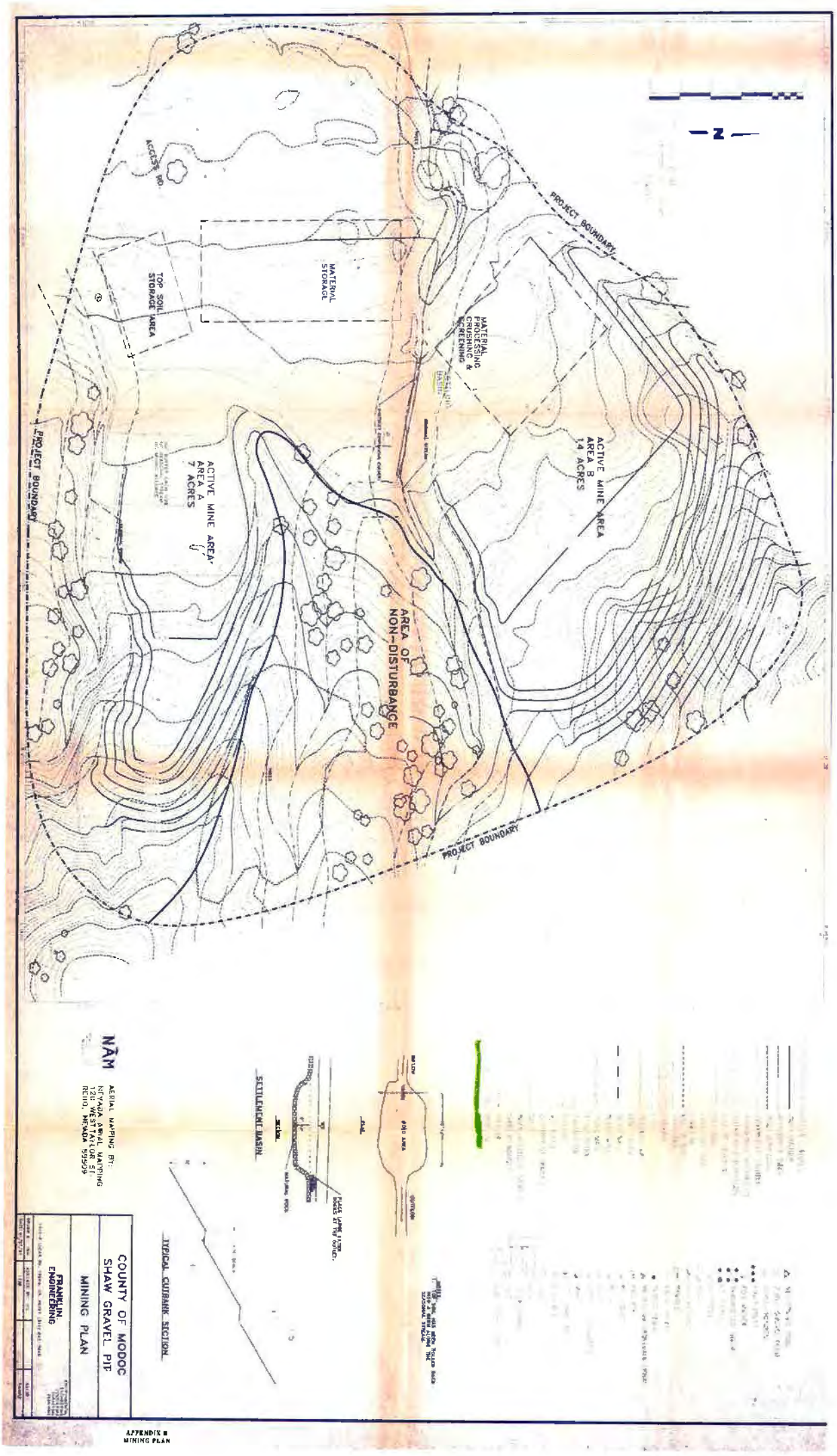


FIGURE 12
ORIGINAL RECLAMATION PLAN - AREAS A & B
SHAW PIT
MODOC COUNTY, CALIFORNIA

JOB NO. 71305
DATE 10/13/20
SHEET OF

DSGN: CS
DR: CS
CHK: SG
APVD: SG

NO.	DATE	REVISION	BY

VESTRA
www.vestra.com
(530) 223-2585
FAX (530) 223-1145
5300 AVIATION DRIVE ~ REDDING, CA 96002

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REGISTERED PROFESSIONAL ENGINEER
SUSAN DIANE GOODWIN
No. 61827
CIVIL
STATE OF CALIFORNIA

VERIFY SCALES
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0 1"
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NO.	DATE	REVISION	BY

DSGN: CS
DR: CS
CHK: SG
APVD: SG

FIGURE 13
FINAL TOPOGRAPHY
SHAW PIT
MODOC COUNTY, CALIFORNIA

SHEET 2 OF 3
DATE 10/13/20
JOB NO. 71305

P:\CAD\71305 Hat Creek Shaw Mine\DWG\71305 HAT CREEK SHAW PIT – GRADING PLAN.dwg

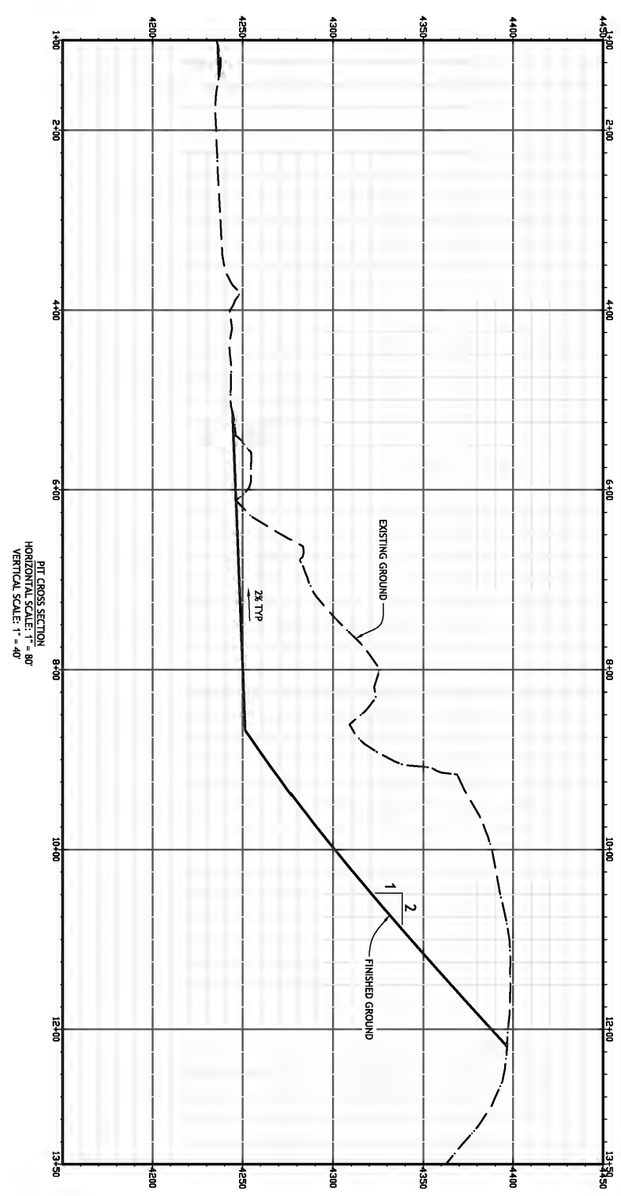

FIGURE 14
CROSS SECTIONS
SHAW PIT
MODOC COUNTY, CALIFORNIA

DSGN:	CS
DR:	CS
CHK:	SG
APVD:	SG

NO.	DATE	REVISION	BY

VESTRA
5300 AVIATION DRIVE ~ REDDING, CA 96002
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BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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JOB NO. 71305
DATE 10/13/20
SHEET 3 OF 3

Appendix C

Biological Resources Assessment

Appendix C

Biological Resources Assessment

BIOLOGICAL RESOURCES ASSESSMENT

SHAW PIT
MODOC COUNTY, CALIFORNIA

Prepared for

Hat Creek Construction & Materials, Inc.

Prepared by

VESTRA Resources Inc.
5300 Aviation Drive
Redding, California 96002

71305

OCTOBER 2020

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FIGURES

APPENDIX

1.0 INTRODUCTION

The Shaw Pit is an existing hard rock open pit mine. The mine is located on land owned by Donald Edward Lindsey Trustee. The mine has been in operation since at least the mid to late 1970s and is vested. From 1981 until 2010 the mine was leased and operated by the Modoc County Road Department. In 1996, an expansion of 20 acres was proposed and in June 1997 Use Permit and Reclamation Plan No. 96-52 were approved. Hat Creek Construction and Materials, Inc., took over the site lease in 2010. A request to renew and extend the Use Permit was submitted to the Modoc County Planning Department in 2016, extending the life of the site by 20 years until 2036.

The original Reclamation Plan boundary was vague with many approximations not tied to any physical "on ground" location. The proposed Reclamation Plan Amendment serves to clarify and properly document the mine boundary to match the current disturbed area and to permit an approximately 7-acre expansion. In addition, Hat Creek Construction wishes to extend the site life to by 30 years to 2050.

Hat Creek Construction will continue operating under the original conditions outlined in the Use Permit/Reclamation Plan 96-52 on Assessor's Parcel Number (APN) 010-420-17. This document amends the Use Permit and Reclamation Plan 96-52 to include an approximately 7-acre expansion, revised removal volume, and extension of end date.

The general site location is shown on Figure 1. The parcel boundary of APN 101-420-17 is shown on Figure 2. The mine layout with current mine boundary and proposed expansion is shown on Figure 3.

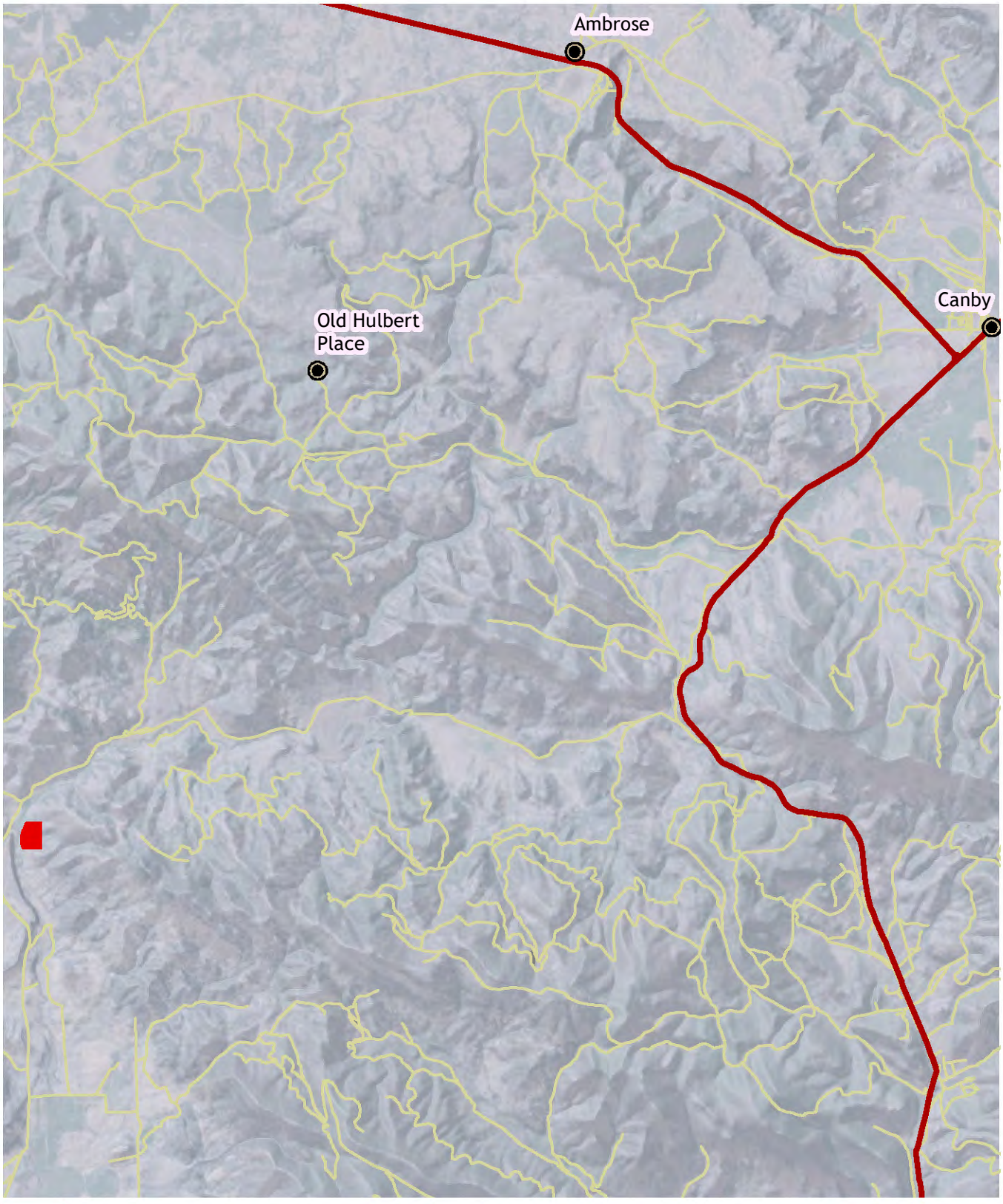

FIGURE 1
GENERAL SITE LOCATION
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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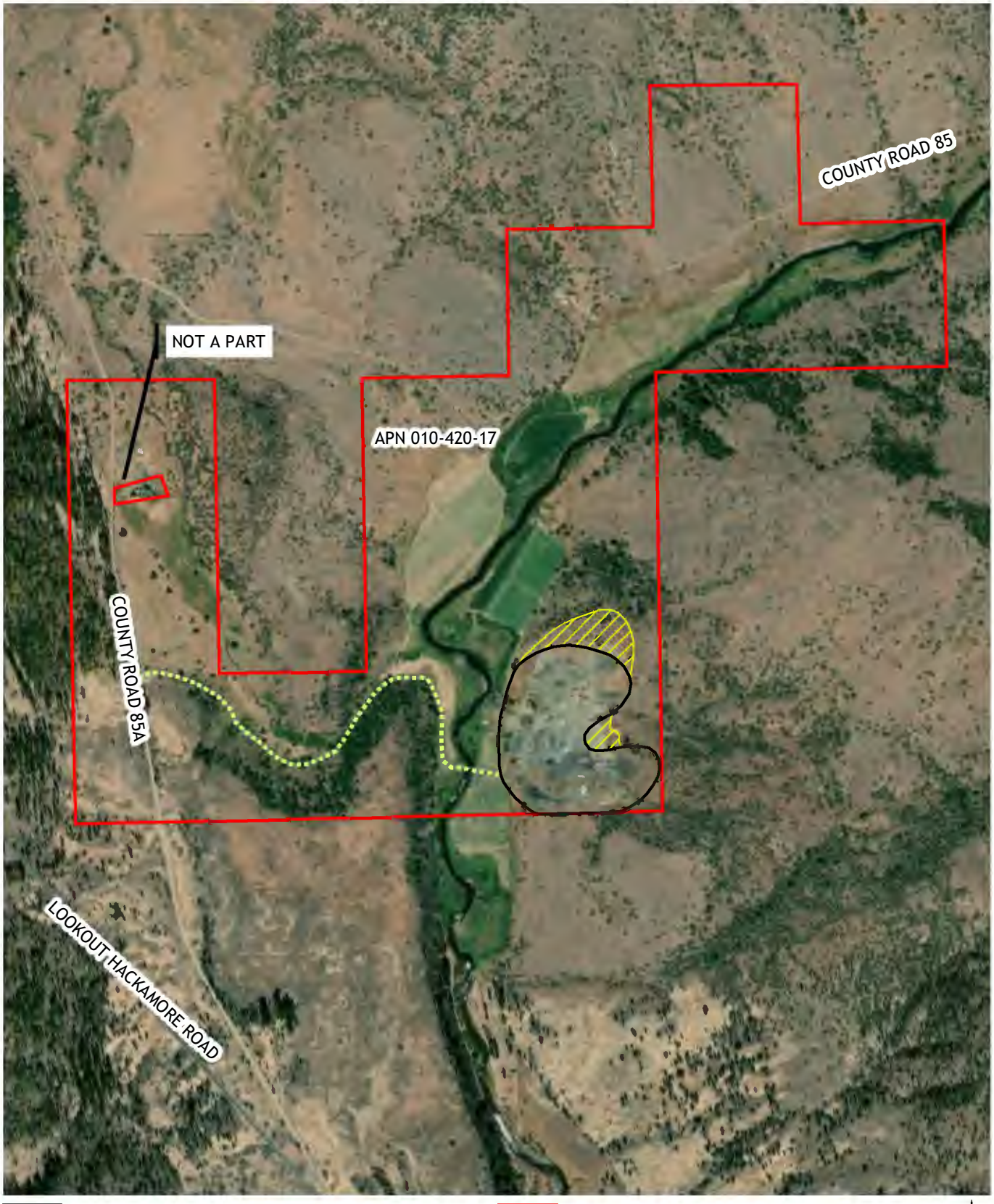


Approximate Reclamation Plan Boundary (Current)

Approximate Parcel Boundary

Approximate Reclamation Plan Boundary (Proposed)

Access Road to Mine

VESTRA

0 625 1,250 2,500 Feet

SOURCE: AUGUST 13, 2019, AERIAL PHOTOGRAPH

FIGURE 2
PARCEL BOUNDARY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\RecPlan 2020\71305_2020_Parcels.mxd

Approximate Parcel Boundary

Approximate Reclamation Plan Boundary (Current)

Topsoil Storage

Approximate Reclamation Plan Boundary (Proposed)

Settling Pond

Mine Pit Face

VESTRA

0 125 250 500 Feet

N

SOURCE: DIGITALGLOBE 2018 AERIAL PHOTOGRAPH

FIGURE 3
MINE LAYOUT
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\RecPlan 2020\71305_2020_MineLayout.mxd

2.0 REGULATORY FRAMEWORK FOR BIOLOGICAL RESOURCES

This section describes the federal and state regulation of special-status botanical and wildlife species and critical habitats, federally jurisdictional Waters of the United States, and other sensitive biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

Section 9 of the federal Endangered Species Act of 1973 (ESA) prohibits acts that result in the "take" of threatened or endangered species. As defined by the federal ESA, "endangered" refers to any species that is in danger of extinction throughout all or a significant portion of its current range. The term "threatened" is applied to any species likely to become endangered within the foreseeable future throughout all or a significant portion of its current range. "Take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Sections 7 and 10 of the federal ESA provide methods for permitting otherwise lawful actions that may result in "incidental take" of a federally listed species. Incidental take refers to take of a listed species that is incidental to, but not the primary purpose of, an otherwise lawful activity. Incidental take is permitted under Section 7 for projects on federal land or involving a federal action; Section 10 provides a process for non-federal actions. The act is administered by the U.S. Fish and Wildlife Service (USFWS) for terrestrial species.

2.1.2 Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Mitigation measures can be identified to avoid or minimize adverse effects on migratory birds.

2.2 State Regulatory Requirements

2.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) lists species of plants and animals as threatened or endangered. Projects that may have adverse effects on state-listed species require formal consultation with California Department of Fish and Wildlife (CDFW). "Take" of protected species incidental to otherwise lawful activities may be authorized under Section 2081 of the California Fish and Game Code. Authorization from the CDFW is in the form of an Incidental Take Permit, and measures can be identified to minimize take. CDFW Species of Special Concern are considered under the California Endangered Species Act.

2.2.2 Birds of Prey

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take,

possess, or destroy the nest or eggs of any such bird, except as otherwise provided by this code or any regulation adopted pursuant thereto.

2.2.3 Migratory Birds

California Fish and Game Code, Section 3513, states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

2.2.4 Fully Protected Species

California statutes also accord "fully protected" status to a number of specifically identified birds, mammals, reptiles, amphibians, and fish. These species cannot be "taken," even with an incidental take permit (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, and 5515).

2.2.5 Surface Mining and Reclamation Act of 1975 (SMARA)

Public Resources Code, Sections 2710-2796, provide a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA, Chapter 9, Division 2, of the Public Resources Code requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources (California Code of Regulations, Title 14, Division 2, Chapter 8).

3.0 AFFECTED ENVIRONMENT

3.1 Project Location

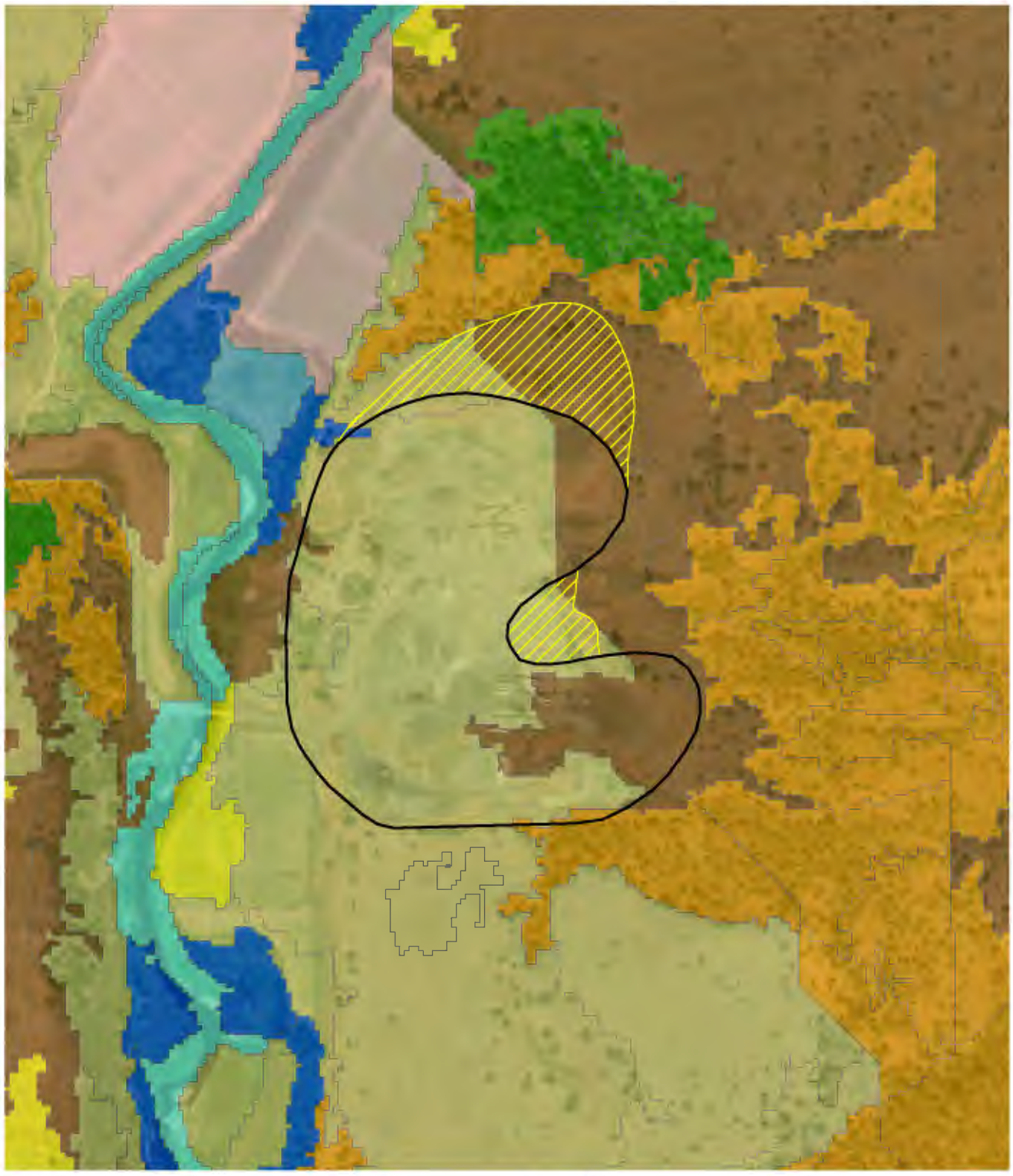
The Shaw Pit is located approximately 14 miles northwest of Adin off of County Road 85A on the Shaw Ranch along the Pit River. The current mining area and proposed expansion area are located in Sections 35, Township 41 North, Range 7 East. The latitude and longitude at the center of the project are 41° 20'36.46"N and 121° 08'02.73"W, respectively. The general site location is shown on Figure 1.

3.2 Natural Resources

3.2.1 Vegetation Communities

Vegetation at the project site has been identified via the CDFW's Vegetation Classification and Mapping Program (VegCAMP) data and field surveys as low sage, sagebrush, and juniper habitats within the proposed expansion area and the surrounding area. The CWHR map is included as Figure 4. Photographs of the habitat onsite are included as Figure 5 and Figure 6.

Figure 5. Habitat Onsite – West Side of Knoll- Expansion Area



SOURCE: USFS CALVEG 2014

FIGURE 4
CWHR
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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Figure 6. Habitat Onsite – East Side of Knoll- Expansion Area

The site is predominantly sagebrush with evident juniper tree encroachment and a large presence of non-native medusahead (*Taeniatherum caput-medusae*) annual grass understory. The typical structure and composition of habitat types that were observed onsite are described below.

Sagebrush

Sagebrush stands are typically large, open, discontinuous stands of big sagebrush of fairly uniform height. Plant heights range from 0.5 to 3 m (1.6 to 9.8 ft) and density ranges from very open, widely spaced, small plants to large, closely spaced plants with canopies touching. Onsite this habitat is composed of a mosaic of small stands of big sagebrush (*Artemisia tridentata*), and some stands dominated by antelope bitterbrush (*Purshia tridentata*). In between, scattered rubber rabbitbrush (*Ericameria nauseosa*), perennial grasses, and annual grasses comprise the understory. This habitat comprises approximately 3 acres of the proposed mine expansion area.

Low Sage

This habitat is generally dominated by broad-leaved, evergreen shrubs ranging in height from about 0.1 to 0.5 m (4 to 19 inches). Although approximately 4 acres of this habitat is mapped within the proposed expansion area, no low sage (*A. arbuscula*) shrubs were observed onsite. Antelope bitterbrush (*Purshia tridentata)* stands with annual grass understory exist in the area depicted as "low sage" on Figure 4 (CWHR). Young and Evans (1970) found that overgrazed stands are reduced to stark shrub communities with much bare ground between the low shrubs. The displaced low sage habitat onsite may be due to encroachment of the sage brush and/or juniper habitats and displacement of perennial grasses and forbs due to historic cattle grazing onsite.

Juniper

Juniper habitats are characterized as woodlands of open to dense aggregations of junipers in the form of arborescent shrubs or small trees (Laudenslayer 2010). Dispersion of junipers ranges

from small clumps to widely scattered single plants (Dealy et al. 1978). Denser stands are commonly associated with a grassy understory; whereas, a shrub understory is found where junipers are more open. Less than 1 acre of this habitat occurs within the proposed expansion area and a number of western juniper (*Juniperus occidentalis*) trees have encroached into the low sage habitat onsite. Dense juniper habitat is abundant north and east of the site, outside of the mine area. Tree density is much lower onsite and has an understory comprised of sparse antelope bitterbrush and perennial and annual grasses and forbs.

Juniper berries are an important food source for wintering birds. Juniper foliage is also consumed by several mammals and may be an important food source for some of these animals, especially during harsh winters (Maser and Gashwiler 1978).

Barren

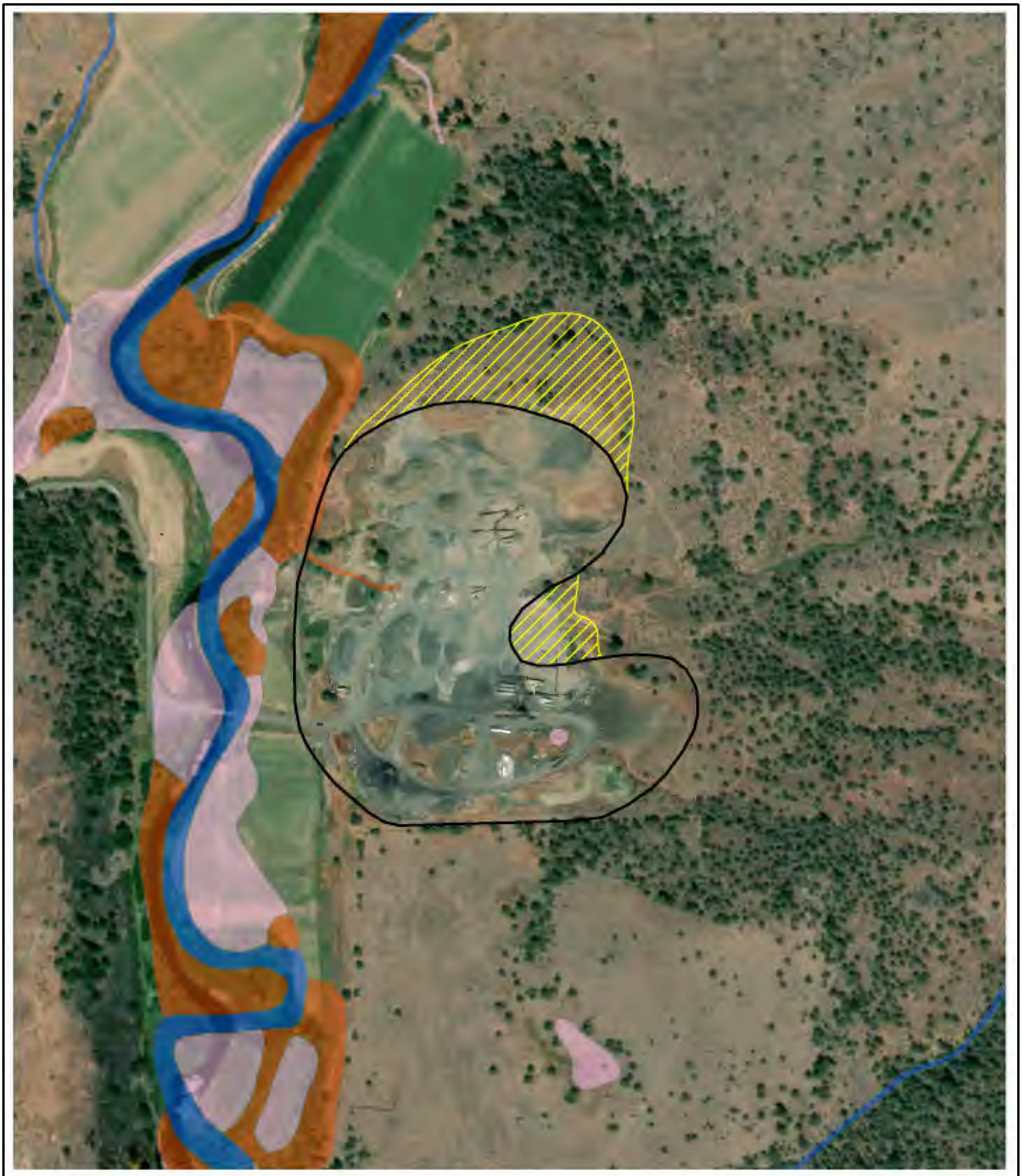
This habitat occurs adjacent to the proposed expansion area. Barren habitat is defined by the absence of vegetation. Any habitat with less than two percent total herbaceous vegetation cover or less than ten percent cover in forest or shrub dominant communities is considered to be barren. Urban settings that have been developed or graded that meet these vegetative cover criteria are also considered to be barren habitat. The current surface mine site is identified as barren. Barren areas, although void of vegetation, can provide habitat for birds, mammals, and reptiles.

3.2.2 Soils

General soil data provided by the Natural Resource Conservation Service (NRCS) shows that the soils within the proposed project area belong to the Jacket-Deven-Hiibner Families Association, which have developed from volcanic ash derived from basalt. The soils in the Jacket Family are characterized by cobbly loam (0 to 9 inches), clay (9to 34 inches) and weathered bedrock (34 to 44 inches) above lithic bedrock. The Deven Family soils are characterized by cobbly loam (0 to 2 inches), clay (2 to 16 inches), and unweathered bedrock (16 to 26 inches) above lithic bedrock. The soils in the Hiibner Family are comprised of very stony loam (0 to 12 inches), very gravelly clay (12 to 25 inches), and unweathered bedrock (25 to 35 inches) above lithic bedrock. All soils within the project area are well drained with a depth to groundwater of more than 80 inches.

3.2.3 Hydrology

National Wetlands Inventory is shown on Figure 7. The project site is located adjacent to the Pit River, a perennial watercourse. The Shaw Pit site is traversed by two ephemeral streams. The stream near the middle of the mine area flows through the current area of non-disturbance into a culvert that directs the flow towards the settling ponds. The other stream borders the pit on the south flowing along a ditch and through a culvert before exiting the mine site. Surface water enters the site via these streams from the east and exits the site to the west. The site's topography is gently sloping and water is directed across the active mine area using a combination of ditches, temporary culverts and settling ponds. Stormwater is discharged from four locations onsite. Stormwater from the two northern locations pass through settling ponds that act as a filter before being discharged from the site into the Pit River.



VESTRA

SOURCE: CDFW CNDDB AUGUST 2020

FIGURE 7
NATIONAL WETLANDS INVENTORY
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

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3.3 Special-Status Species

3.3.1 Special-Status Plants

Special-status plant species include plants that are (1) designated as rare by CDFW or USFWS or are listed as threatened or endangered under the California Endangered Species Act (CESA) or ESA; (2) proposed for designation as rare or listing as threatened or endangered; (3) designated as state or federal candidate species for listing as threatened or endangered; and/or (4) ranked as California Rare Plant Rank (CRPR) 1A, 1B, 2A, or 2B. A list of regionally occurring special-status plant species was compiled based on a review of pertinent literature, the results of the field surveys, a review of the USFWS species list and California Natural Diversity Database (CNDDB), and a nine-quad search (Whiskeytown, Shasta Dam, Project City, Igo, Redding, Enterprise, Ono, Olinda, Cottonwood) of California Native Plant Society (CNPS) database records.

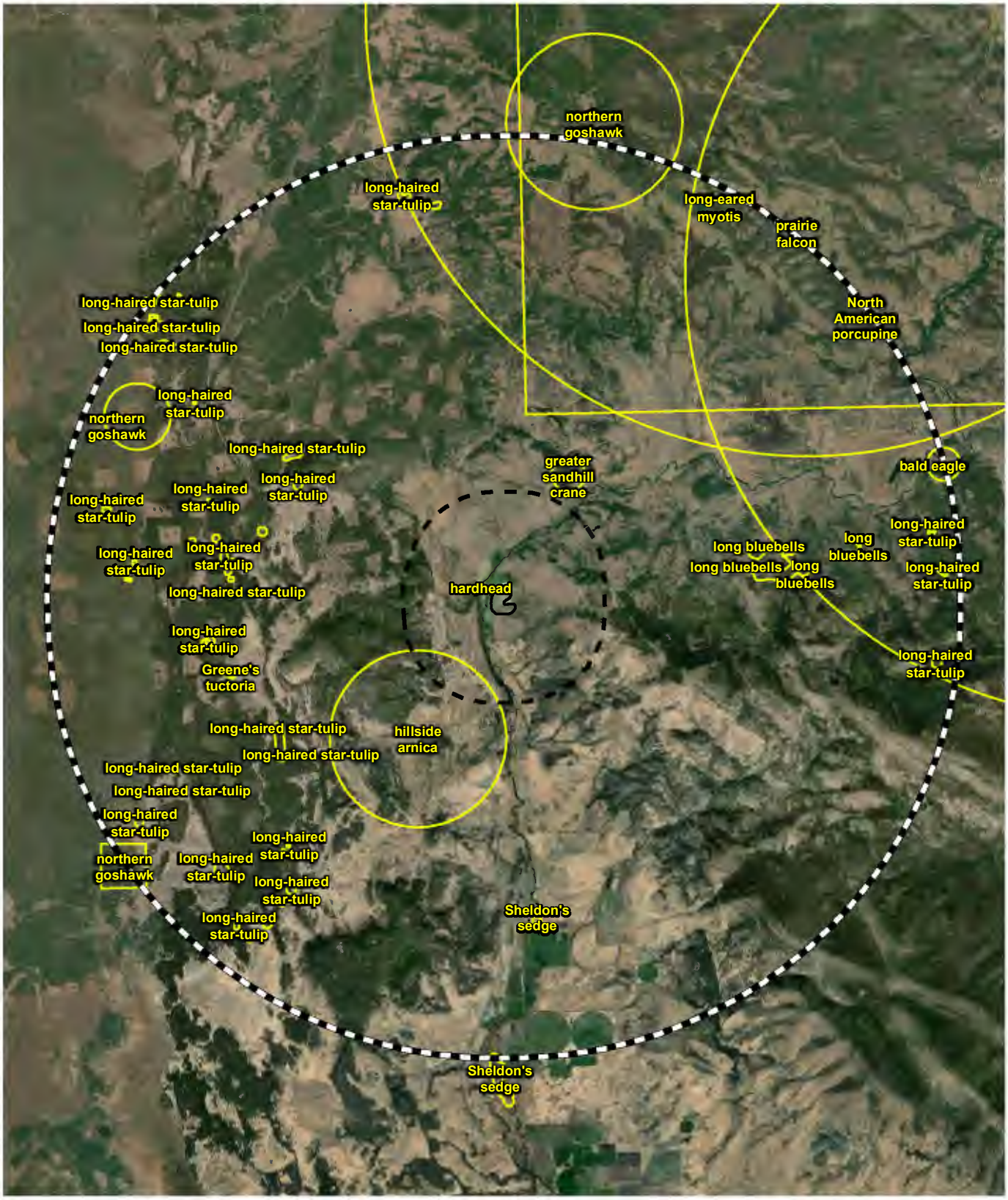
For each special-status plant species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat. The habitat assessment is provided in Table 1 (Section 5).

3.3.2 Special-Status Animals

Special-status animal species include species that are (1) listed as threatened or endangered under the CESA or the ESA; (2) proposed for federal listing as threatened or endangered; (3) identified as state or federal candidates for listing as threatened or endangered; and/or (4) identified by the CDFW as Species of Special Concern or California Fully Protected Species.

A list of regionally occurring special-status wildlife species was compiled based on a review of pertinent literature and consultations with the USFWS Information for Planning and Consultation database, CNDDB database records, and a query of the California Wildlife Habitats Relationship (CWHR) system. The CNDDB query results are shown on Figure 8.

For each special-status wildlife species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat. The habitat assessment is provided in Section 5.



Approximate Reclamation Plan Boundary (Current)

Approximate Reclamation Plan Boundary (Proposed)

CNDDB Occurrence

5-Mile Buffer Around Project Boundary

1-Mile Buffer Around Project Boundary

N

VESTRA

0 4,250 8,500 17,000 Feet

SOURCE: CDFW CNDDB AUGUST 2020

FIGURE 8
CNDDB OCCURRENCES
SHAW PIT
HAT CREEK CONSTRUCTION
MODOC COUNTY, CALIFORNIA

P:\GIS\71305\ShawPit\Biological Assessment 2020\71305_2020_CNDDB.mxd

4.0 BIOLOGICAL SITE SURVEY

4.1 Desktop Review

Special-status plant and animal species and sensitive habitats that have the potential to occur within the project area were determined, in part, by reviewing agency databases, literature, and other relevant sources. The following information sources were reviewed in August 2020 to aid this determination:

- Donica Mountain, California, USGS 7.5-minute quadrangle;
- Aerial imagery of the project area and vicinity;
- The U.S. Fish and Wildlife Service (USFWS) official list of endangered and threatened species that may occur, or be affected by projects, as provided by the information for Planning and Consultation (iPAC) database;
- The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife 2015a) records for the Donica Mountain, California, USGS 7.5-minute quadrangle and the eight surrounding quadrangles;
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (California Native Plant Society 2015) records for the Donica Mountain, California, USGS 7.5-minute quadrangle and the eight surrounding quadrangles;
- California Wildlife Habitat Relationships (CWHR) System (California Department of Fish and Game 2019);
- GIS shapefiles of designated critical habitat from the USFWS Critical Habitat Portal website;
- CDFW publications including State and Federally Listed Endangered, Threatened and Rare Plants of California (California Department of Fish and Wildlife 2015b); State and Federally Listed and Threatened Animals of California (California Department of Fish and Wildlife 2015d); and Special Animals List (California Department of Fish and Wildlife 2015e); and
- Pertinent biological literature including Bird Species of Special Concern in California (Shuford and Gardali 2008).

4.2 Field Methods

A site biological survey was completed on September 8, 2020, to determine the onsite presence of habitat that may support special-status species. The survey included pedestrian transects which covered the entire proposed mine area. Site features considered during the habitat assessment included components of micro-habitats that may support special-status plants or animals, including habitat type, vegetative community, forest density and height, soil types, elevation, and hydrology of the site.

Plot vegetation surveys were completed to collect baseline vegetation data from the proposed expansion area. This baseline will provide guidance for successful revegetation of the site during reclamation phases.

4.3 Results

Wildlife documentations include direct observations as well as indirect signs (i.e. scat, tracks, feathers, etc.) that were observed during the survey. Wildlife documented onsite includes ground squirrel (*Otospermophilus* sp.), mule deer (*Odocoileus* sp.), and Great Basin fence lizard (*Sceloporus occidentalis longipes*). Several avian species were observed generally utilizing the area, including Swanson's hawk (*Buteo swainsoni*), Stellar's jay (*Cyanocitta stelleri*), common raven (*Corvus corax*), and turkey vulture (*Cathartes aura*).

The plant community varied throughout the site depending on slope, soil type, and aspect. The dominant plant species observed in the area include in order of dominance; medusa head grass (*Taeniatherum caput-medusae*), cheatgrass (*Bromus tectorum*), antelope bitterbrush (*Purshia tridentata*), big sagebrush (*Artemesia tridentate)*, sulfur flower buckwheat (*Eriogonum umbellatum* ssp.), western juniper (*Juniperus occidentalis*), and ponderosa pine (*Pinus ponderosa).* Due to the time of the survey, annual forbs were either no longer present or were unidentifiable to species level.

5.0 POTENTIAL IMPACTS TO BIOLOGICAL RESOURCES

5.1 Special-Status Species

The regionally occurring species identified during the pre-survey consultation were assessed based on the potential for their habitat to occur within the proposed mining area. The habitat of each species and determination of whether the species is likely to occur in the project area is summarized in Table 1. The potential impacts to these species are discussed below.

Table 1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requiremants	Project Impact
Bald eagle	*Haliaeetus leucocephalus*	FD	CE, CDFW Fully protected	--	Tall trees in dense riparian corridors, near open water	Habitat adjacent to current mine site. Area may be foraging habitat. No nesting habitat onsite. No impact.
Hardhead	*Mylopharodon conocephalus*	--	SSC	--	Sacramento-San Joaquin and Russian River drainages in California	Habitat outside of mine site. No impact due to existing SWPPP and BMPs.
Greater sandhill crane	*Antigone canadensis tabida*	--	CT. CDFW Fully protected	--	Emergent wetlands, wet meadows, irrigated pasture	Habitat adjacent to current mine site. No foraging or nesting habitat onsite. Noise from site activity is a baseline condition. No impact.
Long-eared myotis	*Myotis evotis*	--	--	--	Rock crevices and tree cavities near perennial water sources	Habitat outside of mine site. No impact.
Swainson's hawk	*Buteo swinasoni*	--	CT	--	Migratory; Large, open grasslands in riparian systems	Foraging habitat onsite, no nesting habitat onsite. No new impacts from proposed project area.
Gray wolf	*Canis lupus*	FE	--	--	Highly variable with large home ranges	Habitat may include mine site. Very transitory species. No impact.
Prairie falcon	*Falco mexicanus*	--	CDFW WL	--	Nest on cliff ledge overlooking open meadows in grasslands and forests	No habitat onsite

Table 1
PROJECT IMPACT DETERMINATIONS FOR POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Common Name	Scientific Name	Fed	State	CRPR	Habitat Requiremants	Project Impact
Northern goshawk	*Accipiter gentilis*	--	SSC	--	Nest in mature and old-growth forest stands >40 percent cover	No habitat onsite
Yellow-billed cuckoo	*Coccyzus americanus*	FT	--	--	Dense riparian thickets, wooded foraging spaces in excess of 300 ft. in width and 25 acres in area	No habitat onsite
North American wolverine	*Gulo gulo luscus*	PFT			Del Norte, Trinity, Shasta, Plumas and south; between 4300-7300 ft in Northern Sierras	No habitat onsite
Ephemeral monkeyflower	*Erythranthe inflatula*	--	--	1B.2	Among rocks and boulders on moist gravel, previously flooded	No habitat onsite
Greene's tuctoria	*Tuctoria greenei*	FE	Rare	1B.1	Valley Grassland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Sheldon's sedge	*Carex sheldonii*	--	--	2B.2	Wetlands; "obligate" wetland indicator plant	No habitat onsite
Slender Orcutt grass	*Orcuttia tenuis*	FT	CE	1B.1	Valley Grassland, Foothill Woodland, Freshwater Wetlands, wetland-riparian	No habitat onsite
Long-haired star-tulip	*Calochortus longebarbatus var. longebarbatus*	--	--	1B.2	Great Basin scrub, Lower montane coniferous forest Meadows and seeps, Vernal pools	No habitat onsite
Long bluebells	*Mertensia longiflora*	--	--	2B.2	Seasonally moist plains and foothills in Yellow pine forest and sage steppe; Elev. 5000-7000 ft.	Site outaside of elevation range
Hillside arnica	*Arnica fulgens*	--	--	2B.2	Open, damp depressions in sagebrush scrub or grassland	No habitat onsite

Key: federally Endangered (FE), proposed federally Endangered (PFE); federally Threatened (FT); proposed federally Threatened (PFT), federally delisted (FD); California Endangered (CE); California Threatened (CT); California Fully Protected (CFP); California Species of Special Concern by DFG (SSC); California Rare Plant Ranking (CRPR)

The potentially occurring species that were generated through desktop review were assessed based on the actual observed habitat types onsite. The assessment found that the following species have the potential to occur, and require further discussion about the potential project impacts:

- Bald eagle (*Haliaeetus leucocephalus*)
- Hardhead (*Mylopharodon conocephalus*)
- Greater sandhill crane (*Grus canadensis tabida)*
- Long-eared myotis (*Myotis evotis*)
- Northern goshawk (*Accipiter gentilis)*
- Swainson's hawk *(Buteo swinasoni)*
- Gray wolf *(Canis lupus)*

Bald eagle
Haliaeetus leucocephalus
Bald eagles are large birds of prey that winter in California along rivers, lakes, or reservoirs that provide adequate foraging opportunities. This species forages on fish, waterfowl, other small animals, and carrion. They prefer tall, mature trees that provide a wide view of surrounding open water. Bald eagles typically nest in forested areas adjacent to large bodies of water, staying away from heavily developed areas when possible.

Although the bald eagle was federally delisted in 2007, the Bald and Golden Eagle Protection Act (16 USC 668-668c) continues prohibitions on take including disturbance, such as injury, decreasing productivity, or substantially interfering with normal breeding, feeding, or sheltering, or nest abandonment. Under California Endangered Species Act, the bald eagle is listed as endangered and is designated as Fully Protected by CDFW. Additionally, the Bald and Golden Eagle Protection Act upholds prohibitions of take including disturbance, injury, decreasing productivity, or substantially interfering with normal breeding, feeding, or sheltering, or nesting.

The nearest documented observation of a bald eagle was approximately 1 mile northeast of the project area. The nesting bald eagle female has exhibited site fidelity, returning with various mates to the nest since it was first established. The proposed project will not create additional noise or disturbance as no changes in operations will occur. This bald eagle nest will not be impacted by the proposed project. With implementation of the Conservation Measures (Section 6.1), project activities will have no impact on bald eagles.

Greater sandhill crane
Grus canadensis tabida
The greater sandhill crane is recognized as a threatened species by the State of California and is "Fully Protected" by the California Department of Fish and Wildlife, meaning that permits to allow incidental "take" of the species are not available in California. This species historically wintered in the Sacramento and San Joaquin valleys from Tehama County south to Kings County and spent the summer season breeding in northeastern California. Numbers in California have been greatly reduced and within California, and this species now only breeds in the counties of Siskiyou, Modoc, Lassen, Plumas, and Sierra.

Greater sandhill cranes utilize shortgrass plains, agricultural fields, and shallow open wetlands for foraging, and they nest in remote areas of wetlands. The species can utilize certain croplands for foraging, they rely heavily on large expanses of wetland habitat for reproduction. Breeding pairs return to the same breeding territory annually, but will not nest if nesting conditions are unfavorable. They are highly sensitive to human disturbance during the nesting period (April through August). With a few exceptions, most pairs select sites rather isolated from human activity (NW Council 2004).

Greater sandhill crane nesting in their summer range generally begins in April/May and extends through July/August. By September, the Central Valley greater sandhill crane population begins their southwestern migration and arrives onto the wintering grounds of the Central Valley by late September, where they remain until approximately late February/early March, when they begin their northward migration back to the breeding grounds (Butte County Conservation Plan 2019).

There are no records of greater sandhill cranes within five miles of the Shaw Pit site. However, possible habitat was identified within the irrigated fields, riparian corridor, and wet meadow habitats that occur in the surrounding area. Cranes have been observed in the Pit River irrigated agricultural corridor.

These potential habitat areas are outside of the mine boundary and will continue to be avoided by mine operations. The proposed project will not create additional noise or disturbance as no changes in operations will occur. Any greater sandhill cranes in the area would likely still utilize the site because no change in noise levels or hours of operations would occur. Therefore, no impacts to greater sandhill cranes would occur.

Hardhead
Mylopharodon conocephalus
The range of hardhead extends from the Pit River (south of the Goose Lake drainage), Modoc County, in the north to the Kern River, Kern County, in the south. Their distribution may be limited to well-oxygenated streams and reservoir surface waters by low oxygen levels at warm temperatures (Santos et al. 2014). They prefer pools and runs with deep (>80 cm) clear water, slow (20-40 cm/sec) velocities and sand-gravel-boulder substrates. The nearest CNDDB records of hardhead to the Shaw Pit site occurred adjacent to the site; the record states that 2 adults and 12 juveniles were observed during a survey on June 14, 1994.

The operations at Shaw Pit currently avoid impacts to the aquatic habitats in the area by BPMs in place in the SWPPP. The proposed expansion will not alter these management practices. No impact to hardhead will occur.

Long-eared myotis
Myotis evotis
Ecological requirements for bat roosts, including maternity roosts, include an appropriate thermal gradient, shelter from predators, and close proximity to foraging sites. During the summer when bats are most active and raising their young, they frequently use one roost during the day where they sleep and keep their young, and another roost at night for resting and digesting food. Long-eared bats roost in tree cavities and beneath exfoliating bark in both living trees and dead snags. Pregnant long-eared myotis often roost at ground level in rock crevices, fallen logs, and even in the crevices of sawed-off stumps, but they cannot rear young in such vulnerable locations.

A recent study found that lactating females selected rock crevices (i.e. vertical crevices and boulder fields) as maternity roosts more frequently than tree cavities, whereas males used tree roosts and rock roosts more evenly. Trees were selected for roosts at sites where rock crevices were relatively less abundant. Proximity to at least one perennial water source was found to be a priority for long-eared bat roost selection; bats were found to select roosts that were an average of 600 feet from a water source (Snider 2013).

The nearest occurrence to the project site is approximately 2.5 miles north of the proposed expansion area. There is no potential roost habitat within the mine site, as the site does not have any rock outcrops with crevices nor is the site heavily vegetated with trees containing cavities. There is potential habitat outside of the project area where vertical rock cliffs occur adjacent to the Pit River. This is located approximately 0.35 miles southwest of the project site.

The proposed project will not create additional noise or disturbance as no changes in operations will occur. Bats in the area are likely acclimated to the activities that occur at the mine site. No changes to these noise levels will occur as a result of the mine expansion. Because this potential roost site is offsite, no habitat removal will occur. No impacts to long-eared bats will occur.

Northern goshawk
Accipiter gentilis
Northern goshawks inhabit middle to high elevations within old growth stands of conifer and deciduous forests in the North Coast Range through the Sierra Nevada, Klamath, Cascade, and Warner Mountains. This species typically remains within their breeding grounds throughout the year; some migration to lower elevations in search of food has been documented irregularly throughout the year. Nesting site selection by northern goshawks is typically in densely vegetated stands growing on northern slopes within close proximity to a water source. Northern goshawk pairs occupy nesting areas from February to early April. Some pairs may remain in their nesting areas year-round. Outside of a nesting area, the home range of a breeding pair may not be defended and may overlap with the home range of adjacent pairs.

The species is documented throughout Modoc County. The nearest occurrence to the project site is approximately four miles from the project site. Radio tracking completed in California found an average canopy closure at the nest site of 84 percent (Richter 2000). Field studies also concluded that adult goshawks generally avoid open areas with less than forty percent canopy cover. Additionally, goshawks have demonstrated a preference for nesting sites that are surrounded by one hundred or more acres of forestland (Austin 1993). While there is some juniper canopy within the proposed expansion area, it does not meet these canopy closure requirements and will not provide nesting habitat for Northern goshawks.

Northern goshawk foraging habitat characteristics includes dense canopy cover, presence of large (>18 inches) snags, and presence of downed logs. The proposed mine expansion area lacks these characteristics; therefore, no foraging habitat occurs onsite. No impact to northern goshawks are anticipated.

Swainson's hawk
Buteo swinasoni
The Swainson's hawk was listed as a threatened species in 1983. This species breeds in the western United States and Canada and winters in isolated areas in California, Mexico, and Central and South America, though only a small number have been documented to overwinter in California (Herzog 1996). Historically found throughout California except in the Sierra Nevada, North Coast Ranges and Klamath Mountains, loss of suitable habitat has now restricted breeding areas to the Great Basin and the Central Valley. Nesting Swainson's hawks require large open areas of grassland for foraging adjacent to riparian forests or corridors, juniper-sage flats, or oak savannah for nesting. The main cause of the decline of this species in California is the significant loss and degradation of open areas, such as agricultural lands and grasslands, due to urban development.

According to observation data from the past five years Swainson's hawks are prevalent in the Lookout, California, area surrounding the mine site (Cornell 2020). This is likely due to the abundance of agricultural fields and natural grassland in the area. Several Swainson's hawks were observed over an agricultural field located several miles away from the proposed mine site. During the site visit, one adult Swainson's hawk was observed onsite soaring in between two stands of trees within the juniper habitat that exists to the north and to the east of the project site.

At the time of the survey, the currently approved operations were active at the site. An excavator-mounted drill was being used for rock drilling in the quarry, which is immediately adjacent to the proposed expansion area. The asphalt plant was actively processing materials approximately 700 feet away from the proposed expansion area. Because no changes to activities are proposed onsite, noise levels at the time of observation represent the typical noise levels that would continue to occur once the expansion area is mined. The survey found that, while most Swainson's hawks that inhabit the region select vast agricultural fields as foraging habitat, the mine activity at Shaw Pit does not deter Swainson's hawks from utilizing the site.

Potential nesting habitat exists in the riparian corridor and the juniper forest that surrounds the mine site. The proposed quarry expansion would not remove any riparian habitat. There are a maximum of five trees that would be removed throughout the expansion process. Nesting Swainson's hawks in the area would likely still utilize the site because no change in noise levels or hours of operations would occur. Because abundant nesting habitat exists in the grasslands and riparian corridors that surround the site, impacts to Swainson's hawk nesting would be less than significant.

Gray wolf
Canis lupus
On March 9, 1978, the gray wolf was listed as endangered by the U.S. Fish and Wildlife Sevice under the rule 43 FR 9607. Gray wolves are habitat generalists and can potentially occur in a wide range of habitats including temperate forest, mountains, tundra, taiga, and grasslands, so long as there is suitable prey. Prey species primarily include ungulates, such as moose, caribou, deer, and elk, but they will also take smaller prey such as beaver and small mammals, and will readily scavenge.

This species is highly territorial and defends territories in packs. Territory size is a function of prey density and can range from 25 to 1,500 square miles. Both male and female wolves disperse at equal rate and equal distances, sometimes more than 600 miles. Gray wolves once ranged throughout the northern hemisphere, but widespread trapping and extermination efforts severely reduced their distribution and caused dramatic population declines. Current threats to the gray wolf include continued conflict with humans, primarily resulting from livestock depredation, and habitat loss, degradation and fragmentation due to land development.

There are two documented occurrences of gray wolves in Modoc County. The nearest documented occurrence is approximately twenty miles north of the project site, and occurred in 1922, likely since extripated. Due to the small project footprint relative to the large home range size of the gray wolf, the proposed expansion will not alter an amount of habitat significant enough to have any impact on the species. Further, gray wolves are highly mobile and capable of avoiding project-related disturbance. Therefore, the proposed action will have a less than significant impact, if any, on the gray wolf.

Migratory Birds

Migratory birds may nest in trees and other vegetation located within or in the immediate vicinity of the study area. All raptors and migratory birds, including common species and their nests, are protected from "take" under the California Fish and Game Code, Section 3503, and 3503.5, and federal Migratory Bird Treaty Act. Large trees onsite and in the surrounding forest provide potential nesting habitat for migratory birds. Impacts to migratory birds and raptors would be avoided by implementing measures listed in Section 6.0.

5.2 Rare Natural Communities and Sensitive Habitats

In addition to inventorying reported occurrences of special-status species, the CNDDB serves to inventory the locations of rare natural communities. Communities respond to environmental changes and can be thought of as an indicator of the overall health of an ecosystem and its component species. Rare natural communities are those communities that are of highly limited distribution. They may or may not contain rare, threatened, or endangered species. The CNDDB ranks natural communities according to their rarity and endangerment in California. No rare natural communities or sensitive habitats occur within the proposed mining boundary.

5.3 Waters of the United States

No impacts to Waters of the United States (WOTUS) will occur as no WOTUS are present within the expansion area. The USGS National Hydrography Dataset shows WOTUS in the area including the stream and wet meadows that are located to the west of the project site and intermittent streams that run through the already-approved mine site. Impacts to these WOTUS are avoided by the implementing of Best Management Practices in the SWPPP that were previously designed and permitted.

6.0 RECOMMENDED MEASURES AND CONSIDERATIONS

The potential impacts to locally common wildlife and special-status wildlife and plant species will be less than significant with the incorporation of pre-project surveys and avoidance or mitigation measures listed below.

6.1 Nesting Migratory Birds and Raptors

- Tree removal activities will avoid the nesting season (March 1 – August 31).
- If vegetation removal will occur during the nesting season for birds (March 1 through August 31), a qualified biologist shall conduct a preconstruction survey 7 days before construction activities begin. If nesting birds are found, California Department of Fish and Wildlife (CDFW) will be notified and consulted. An appropriate buffer, as determined by CDFW and the qualified biologist, will be placed around the nest until the young have fledged.

6.2 Revegetation of Disturbed Areas

- During reclamation, the site will be revegetated to restore the site's ecological function for beneficial uses. The overall goal of reclamation is to return the site to a condition similar to pre-mining, or similar to reference sites located on adjacent, undisturbed land.

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Appendix A

U.S. Fish & Wildlife Service Species List (September 2020)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Klamath Falls Fish And Wildlife Office
1936 California Avenue
Klamath Falls, OR 97601
Phone: (541) 885-8481 Fax: (541) 885-7837

In Reply Refer To:
Consultation Code: 08EKLA00-2020-SLI-0112
Event Code: 08EKLA00-2020-E-00300
Project Name: Shaw Pit Expansion

September 11, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). For anadromous fish species (i.e., salmon), please contact the National Marine Fisheries Service at http://www.westcoast.fisheries.noaa.gov/protected_species/species_list/species_lists.html.

Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat. These provisions apply to non-Federal lands when there is a Federal nexus (e.g., funding or permits).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally threatened, endangered, proposed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.;* http://www.fws.gov/midwest/eagle/protect/laws.html). The Service developed the National Bald Eagle Management Guidelines (http://www.fws.gov/northeast/ecologicalservices/eaglenationalguide.html) to provide guidance on measures that may be used to avoid and minimize adverse impacts to bald eagles. Projects affecting bald or golden eagles may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds, including bald and golden eagles, and bats.

The Migratory Bird Treaty Act (16 U.S.C. 703-712; http://www.fws.gov/midwest/eagle/protect/laws.html) implements protections for migratory birds. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project that you submit to our office.

For projects in California, the office shown in the letterhead may not be the lead office for your project. Table 1 below provides lead Service field offices by county and land ownership/project type for northern California. Please refer to this table when you are ready to contact the field office corresponding to your project; a map and contact information for the Pacific Southwest Region field offices is located here: http://www.fws.gov/cno/es/.

Table 1: Lead Service offices by County and Ownership/Program in Northern California

County	Ownership/Program	Office Lead*
Lassen	Modoc National Forest	KFFWO
	Lassen National Forest	SFWO
	Toiyabe National Forest	RFWO
	BLM Surprise and Eagle Lake Resource Areas	RFWO
	BLM Alturas Resource Area	KFFWO
	Lassen Volcanic National Park	SFWO
	All other ownerships	By jurisdiction

		(see map)
Modoc	Modoc National Forest	KFFWO
	BLM Alturas Resource Area	KFFWO
	Klamath Basin National Wildlife Refuge Complex	KFFWO
	BLM Surprise and Eagle Lake Resource Areas	RFWO
	All other ownerships	By jurisdiction
		(see map)
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District	YFWO
	(administered by Lassen National Forest)	
	Hat Creek Ranger District	SFWO
	Whiskeytown National Recreation Area	YFWO
	BLM Alturas Resource Area	KFFWO
	Caltrans	SFWO/ AFWO
	Ahjumawi Lava Springs State Park	SFWO
	All other ownerships	By jurisdiction
		(see map)
Siskiyou	Klamath National Forest	YFWO
	(except Ukonom District)	
	Six Rivers National Forest and Ukonom District of Klamath National Forest	AFWO
	Shasta Trinity National Forest	YFWO
	Lassen National Forest	SFWO
	Modoc National Forest	KFFWO

	Lava Beds National Volcanic Monument	KFFWO
	BLM Alturas Resource Area	KFFWO
	Klamath Basin National Wildlife Refuge Complex	KFFWO
	All other ownerships	By jurisdiction (see map)
All	FERC-ESA	By jurisdiction (see map)

*Office Leads:

AFWO=Arcata Fish and Wildlife Office

BDFWO=Bay Delta Fish and Wildlife Office

KFFWO=Klamath Falls Fish and Wildlife Office

RFWO=Reno Fish and Wildlife Office

YFWO=Yreka Fish and Wildlife Office

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Klamath Falls Fish And Wildlife Office
1936 California Avenue
Klamath Falls, OR 97601
(541) 885-8481

Project Summary

Consultation Code: 08EKLA00-2020-SLI-0112

Event Code: 08EKLA00-2020-E-00300

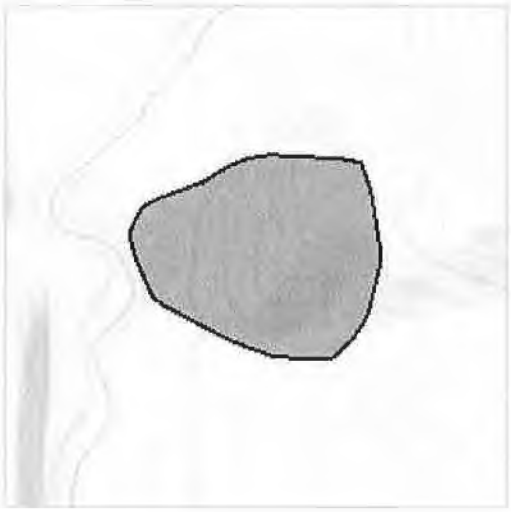
Project Name: Shaw Pit Expansion

Project Type: MINING

Project Description: mine expansion

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.346176509928455N121.13209581781194W



Counties: Modoc, CA

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Wolf *Canis lupus* Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4488	Endangered
North American Wolverine *Gulo gulo luscus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Flowering Plants

NAME	STATUS
Greene's Tuctoria *Tuctoria greenei*	Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573	
Slender Orcutt Grass *Orcuttia tenuis*	Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Williamson's Sapsucker *Sphyrapicus thyroideus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8832	Breeds May 1 to Jul 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ( )

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

probability of presence breeding season | survey effort — no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Williamson's Sapsucker BCC - BCR												

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are poteutially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, yon may download the bird model results files nnderlying the portal maps throngh the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distribntions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details abont occnrrence and habitat nse throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

- PSSC

RIVERINE

- R3UBH

Appendix D

Cultural Resources Reconnaissance

NOTE TO REVIEWER

The *Archaeological Reconnaissance of Three Gravel Quarries in Modoc County, California: Johnson Pit, Shaw Pit, Lake City Pit* (Coyote & Fox, 1996) is not available for public distribution. This report identifies the locations of cultural resource sites. Disclosure of this information to the public may be in violation of both federal and State laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3). In California, such laws include, but may not be limited to, Government Code Section 6254.10. Site location information should be kept confidential and is not for public disclosure.

Additionally, records maintained or in the possession of the Native American Heritage Commission or State and local agencies that are exempt from public disclosure include those that contain information on Native American graves, cemeteries, and sacred places, and include records obtained during consultation with Native Americans (California Government Code Section 6254(r) and Section 6254.10).

Information contained in the above referenced reports related on the specific location of prehistoric and historic sites is confidential and exempt from the Freedom of Information Act (FOIA) and the California Public Records Act (CPRA); therefore, site specific cultural resource investigations are not appended to this Initial Study. Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the Modoc County Planning Department directly in order to inquire about its availability.

Appendix E

1997 Initial Study / Mitigated Negative Declaration

RECORDING REQUESTED/
MODOC COUNTY PLANN
202 W. 4th Street
Alturas, California 96101

003275

PG 577

97 NOV -5 AM 11:33

RECORDED AT THE REQUEST OF

MODOC COUNTY

OFFICIAL RECORDS
MODOC CTY, CA FEE WAIVED
JUDITH STEVENS,
RECORDER

MODOC COUNTY PLANNING DEPARTMENT

202 W. 4th Street
Alturas, California 96101
(916)233-6406

USE PERMIT NO: UP96-52
GRANTED TO: Modoc County Road Department

THIS USE PERMIT IS HEREBY GRANTED BY THE COUNTY OF MODOC PLANNING COMMISSION UNDER THE PROVISIONS OF THE ZONING ORDINANCE OF THE MODOC COUNTY CODE FOR THE USE SPECIFIED BELOW, SUBJECT TO THE CONDITIONS SET FORTH HEREIN.

DRAFT

DATE OF PLANNING COMMISSION APPROVAL: June 11, 1997

USE: Shaw Gravel Pit

PROJECT INFORMATION

Modoc County Road Department is requesting approval of a Reclamation Plan for the existing vested Shaw Pit. The county currently leases approximately 80 acres, with approximately 20 acres mined. Future operation of the pit will involve the mining of an additional 21 acres; 7 acres to the south and 14 acres to the north with a maximum disturbed depth of 60 feet below grade and the extraction of 200,000 additional cubic yards of crushed material over the anticipated life of 20 years. Mining operations include the blasting of hardrock and subsequent rock crushing/processing. A portable hot mix plant will also be used at the site.

Owner: Robert J. & Mildred K. Shaw, P O Box 120, Lookout, Calif. 96054
Applicant: Modoc County Road Department, 202 W. 4th Street, Alturas, Calif. 96101
Project Type: Amend Use Permit and Reclamation Plan
Project Reference Number: ER96-52
Location: The gravel pit is approximately 14 miles northwest of Adin off of County Road 85A. T.41 N., R.7 E., portion of Section 35.
Assessor's Parcel Number: 010-420-08
Project Site Size: 80 acres
Zoning: Unclassified
General Plan Designation: General Agricultural
Environmental Document: Mitigated Negative Declaration
Other Permits Identified: Air Quality Permit

SERVICES:
Access: County Road 85A
Water Supply: No water supply is necessary
Sewage Disposal: portable facilities will be available.

BK0434PG0577

Electrical: Surprise Valley Electric
Telephone: Telephone service is not necessary
Fire protection: State Responsibility Area
Solid Waste: Modoc County Transfer Station

OTHER FACTORS:
CDF Fire Hazard Severity Zone: High Hazard
DFG Wildlife Maps: Within the area of antelope migration corridor; within the area of deer winter range.
General Plan Background Report: Groundwater Basins-Older Volcanic; Groundwater Recharge & Artesian Pressure Areas - Recharge Area; Natural Vegetation - Chaparral, Sage Brush Shrub; Deer Winter Range - Critical; Antelope Migration Route; within a fault area; Wildland Fire Hazard Severity-High; Within 100-year flood area; Routes of Early Trappers & Trailblazers-Warner Expedition 1849; Early Wagon Trails-Lassen Trail
Soils/Slope: 202 Lawyer-Elmore Families, 30 to 40 percent slopes - Lawyer soil is brown to reddish brown stony loam cobbly loam and very cobbly loam, granular and blocky structure, soft to slightly hard. Maximum erosion hazard is moderate; soil permeability is moderately slow; drainage class-well drained;

runoff is moderate. Elmore soil is dark brown to reddish brown loam, granular structure. Maximum erosion hazard is moderate; soil permeability is moderately slow; drainage class-well drained; runoff is moderate.

225 Pass Canyon-Fordice-Gwin Families, 30 to 40 percent slopes - Pass Canyon is very dark grayish brown to dark brown very cobbly loam and loam, granular and platy structure slightly hard. Maximum erosion hazard is moderate to high; soil permeability is moderately slow; runoff is rapid. Fordice is dark grayish brown and grayish brown very stony loam and extremely cobbly loam, granular structure. Maximum erosion hazard is moderate; soil permeability is moderately slow; runoff is slow. Gwin is dark grayish brown very cobbly loam, granular and blocky structure, slightly hard. Maximum erosion hazard is moderate to high; soil permeability is moderately slow; runoff is rapid.

[illegible] 96678

CONDITIONS OF APPROVAL: THE FOLLOWING CONDITIONS MUST BE COMPLIED WITH IN CONNECTION WITH THE USE ALLOWED BY THIS PERMIT OR THIS PERMIT WILL BE INVALID. **Noncompliance constitutes a violation of the Zoning Ordinance. The conditions of this permit shall be binding on the parties hereto, their heirs, successors and assigns.**

Attached Exhibit "A" for Conditions of Approval:
California Environmental Quality Act Checklist
and Summary of Mitigation Measures

FINDINGS:

1. Notice of public hearing was given by mail on May 23, 1997 and publication in the Modoc County Record on May 29, 1997 per Modoc County Code Title 18, Section 18.140.

2. Due to the remoteness, the use will not be detrimental to the public health, safety, peace, morals, comfort and general welfare of the persons residing or working in the vicinity.

USE PERMIT

3. The use will not be detrimental or injurious to property in the vicinity, or to the general welfare of the county.

4. The use is a conditional use in the zone and is consistent with the purpose of the zone as set forth in Chapter 18.24, Section 18.24.050 (G).

5. A Negative Declaration was prepared in accordance with the California Environmental Quality Act (CEQA) and adopted on March 27, 1997.

I hereby certify that I understand and will comply with the conditions of this use permit.

Signature of Owner — Date

Signature of Applicant, if different — Date 11/4/97

Scott Kessler, Planning Director — Date 10/29/97

[illegible] 96678

MODOC COUNTY PLANNING COMMISSION
RESOLUTION NO. 96-08

WHEREAS, pursuant to Chapter 18.24, Section 18.24.050 (G) of Title 18, Modoc County Zoning Ordinance, Modoc County Road Department is requesting Use Permit and Reclamation Plan for the Shaw Gravel Pit; and

WHEREAS, the project is approximately 15 miles northwest of Adin off County Road 85A, T.41N., R. 7E., portion of Section 35; and

WHEREAS, the Modoc County Planning Commission, after due and lawful public notice, has held a public meeting on June 11, 1997, to determine the merits of the Use Permit and Reclamation Plan, and has considered the facts and testimony presented in connection with the proposed use; and

WHEREAS, the Modoc County Planning Commission has reviewed the Environmental Review Initial Study and Mitigated Negative Declaration, prepared in accordance with the California Environmental Quality Act, identifying no significant environmental effects, attached hereto as Exhibit A; and

WHEREAS, the Modoc County Planning Commission has considered the facts and testimony presented in connection with the and finds the following pursuant to Section 18.24.050 (G) of the Zoning Ordinance:

1. The proposed use, at the location proposed, is consistent with the purpose of the zone in which it is located.
2. Due to the obscure location, the project will not be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the vicinity of the proposed use.
3. The project will not be detrimental or injurious to property in the vicinity or to the general welfare of the County. The project is in compliance with all applicable codes and General Plan policies.
4. The use is consistent with the purposes of this title, therefore the purpose of would not be better achieved by changing the zone rather than by issuing the use permit.

Public Safety

NOW THEREFORE, BE IT RESOLVED, that the Modoc County Planning Commission finds the request is in compliance with all applicable codes, adopts the Mitigated Negative Declaration and grants the Use Permit and Reclamation Plan.

On the motion of Commissioner Cockrell and seconded by Commissioner Hastings, the above and foregoing Resolution was passed and adopted by the Modoc County Planning Commission on the eleventh day of June, 1997, by the following vote, to wit:

AYES: Commissioners Chrysler, Hays, Cockrell, Hastings and Hamel.

NOES: None

ABSENT: None

ABSTAIN: None

Richard Hamel, Chairman
Modoc County Planning Commission

Patricia A. Clark, Secretary
Modoc County Planning Commission

RECEIVED BY MODOC COUNTY
PLANNING DEPARTMENT
FEB 4 1997
By

County of Modoc
Shaw Gravel Pit Expansion

Mining and Reclamation Plan
Initial Study/Mitigated Negative Declaration

January 16, 1997

Prepared for:
County of Modoc
202 West 4th Street
Alturas, CA 96101

Prepared by:
Environmental Science Associates
1930 9th Street, Suite 220
Sacramento, CA 95814
(916) 325-9344
FAX: (916) 325-9349

Project Manager: David Zweig
Technical Staff: Brant Jorgenson
Lisa Webber
Nancy Barbic

960010

ESA

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SHAW GRAVEL PIT EXPANSION

Chapter 1

Project Description

CHAPTER 1

PROJECT DESCRIPTION

SHAW PIT PROJECT DESCRIPTION

INTRODUCTION

The County of Modoc Road Department (hereinafter referred to as County) proposes to reoperate its existing Shaw Pit gravel mine located in southwestern Modoc County. The purpose of the project is to provide the County with a supply of gravel for use in various road projects throughout the county and to comply with the regulatory provisions of the Surface Mining and Reclamation Act of 1975 (SMARA) and the California Environmental Quality Act (CEQA).

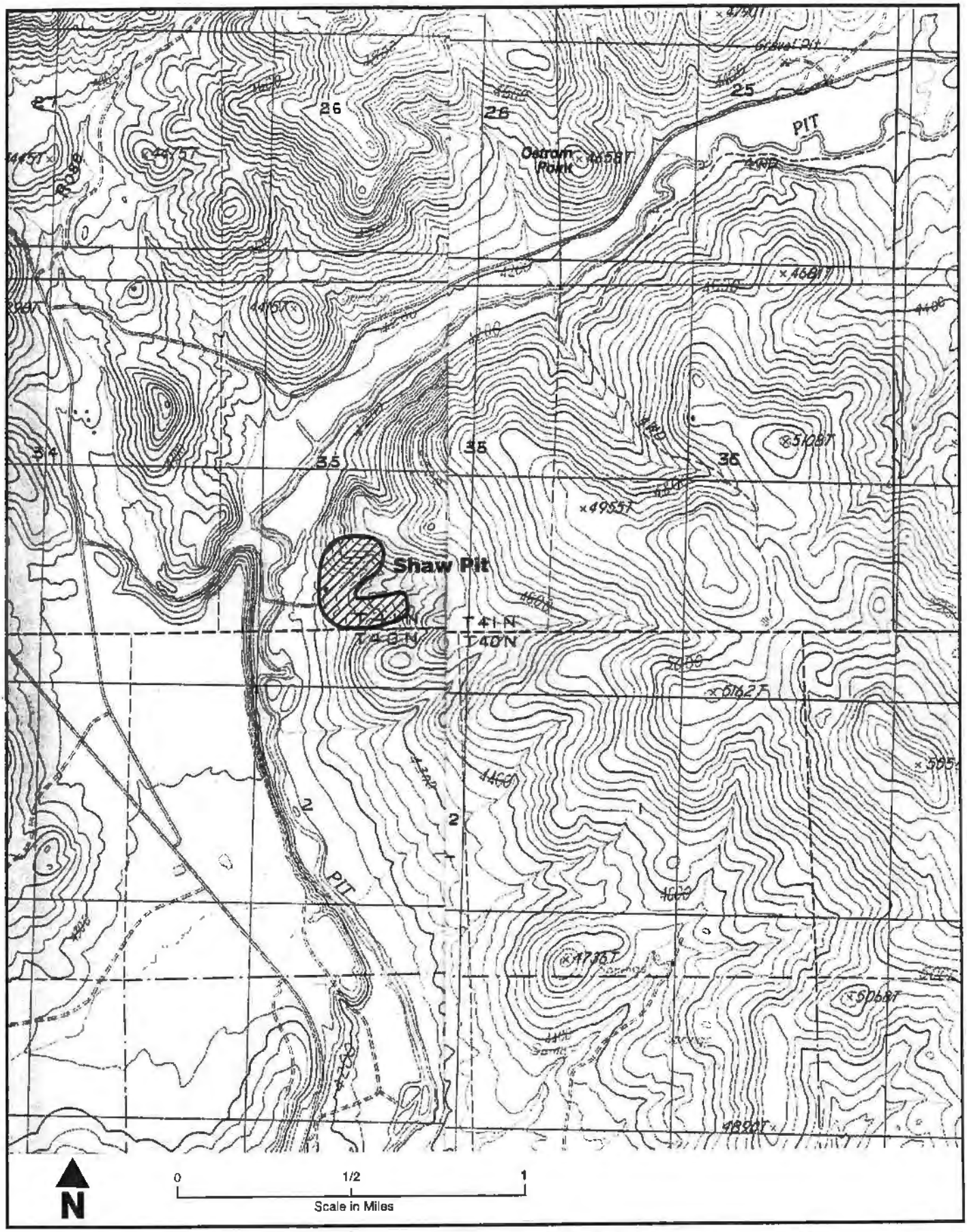
Mining operations at the Shaw Pit include the blasting of hardrock and subsequent rock crushing/processing. A portable hot mix plant would also be used at the site. Mining and reclamation plans as well as financial assurances have been prepared in accordance to SMARA and Modoc County ordinances and requirements.

REGULATORY BACKGROUND

SMARA requires the preparation of an acceptable reclamation plan and financial assurances for all surface mining operations. Reclamation plans are developed to meet various performance standards for the protection of wildlife habitat, revegitation, recontouring, erosion control, etc. and to eliminate or reduce residual public health and safety hazards as well as minimize environmental effects.

It is the intent of the County to bring its existing Shaw Pit gravel mine into complete conformance with SMARA through the preparation of an acceptable reclamation plan and financial assurances.

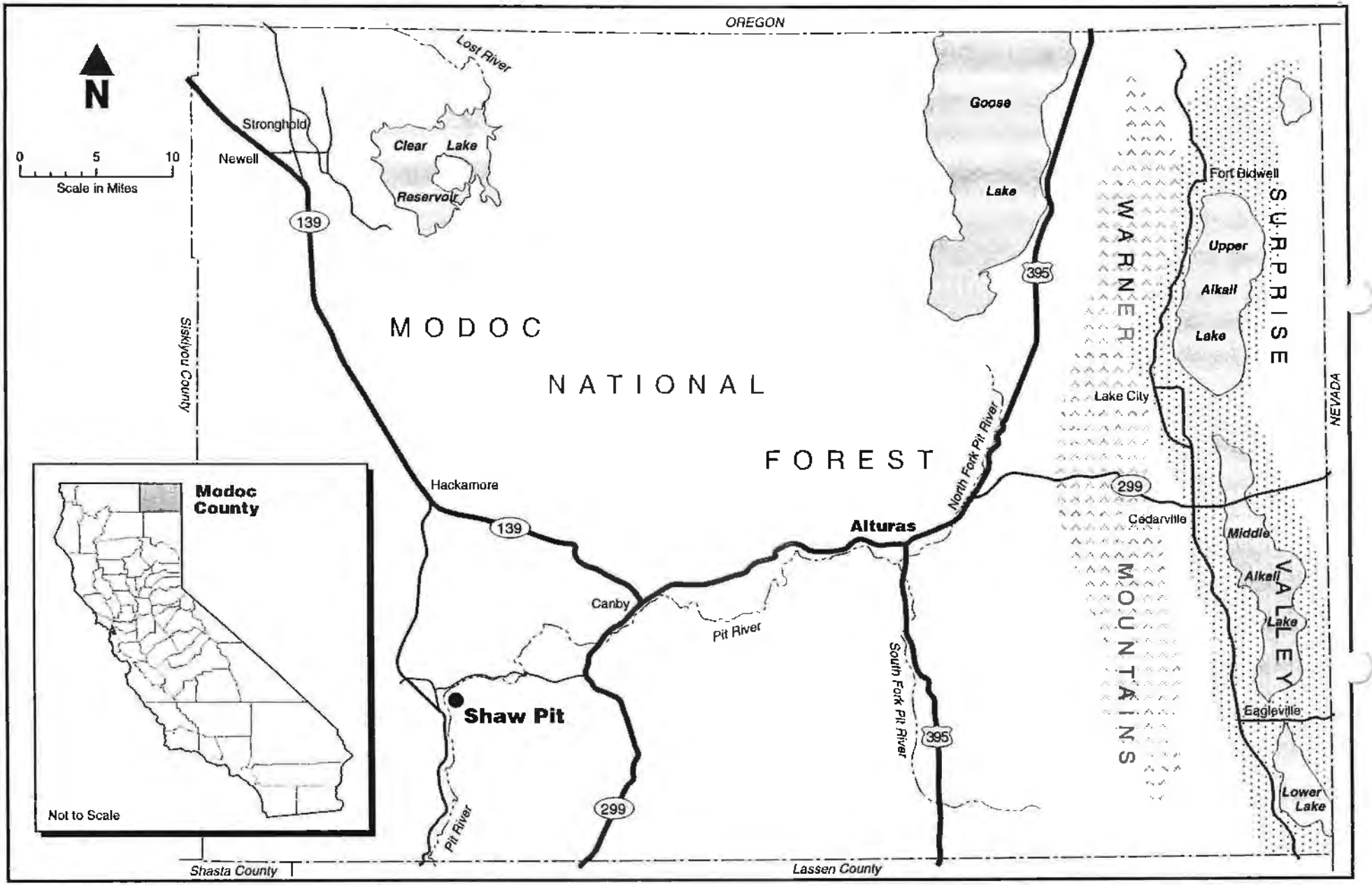
In addition to the requirements of SMARA, the County is also responsible for the preparation of the appropriate California Environmental Quality Act (CEQA) documentation. The



SOURCE: Environmental Science Associates; USGS Donica Mountain, Halls Canyon 7.5 min. quads. ——— *Shaw Gravel Pit Expansion Initial Study/960010* ■

Figure 2

Shaw Pit Site and Vicinity

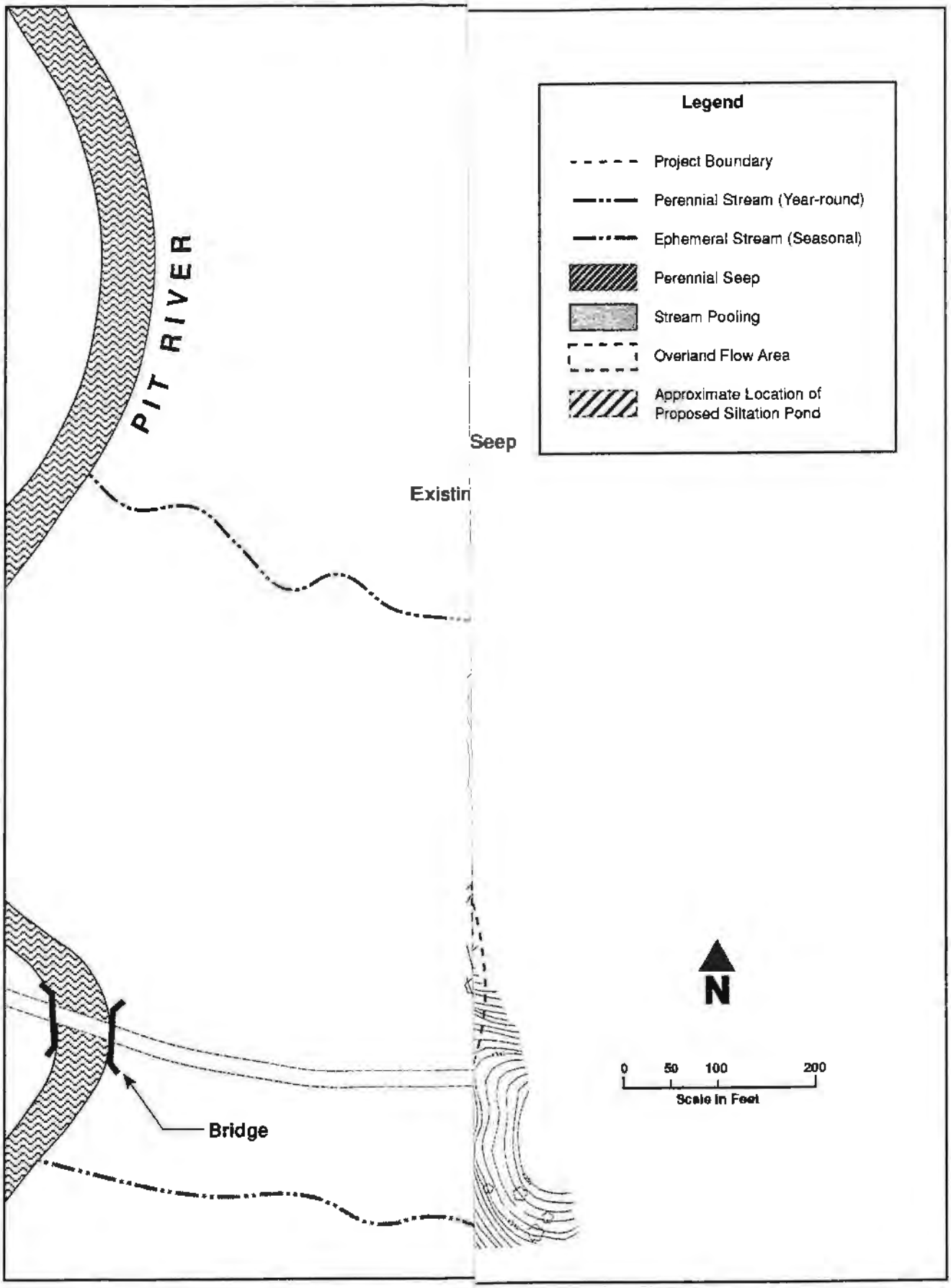


SOURCE: Environmental Science Associates

Shaw Gravel Pit Expansion Initial Study/960010 ■

Figure 1

Shaw Pit Regional Location



SOURCE: Franklin Engineering; Environmental Science Associates

Shaw Gravel Pit Expansion Initial Study/960010 ■

Figure 3
Shaw Pit Hydrology

The disturbed portion of the pit is essentially bare of vegetation. However, annual grasses grow along the spring fed stream and at the base of the rock outcropping. Undisturbed lands within the County leased area are predominantly covered in annual grasses and juniper trees of relatively large size.

ANTICIPATED FUTURE CONDITIONS

The County will ensure compliance and implementation of the policies and mitigation measures outlined in the Mining and Reclamation Plans (narrative and diagrammatic) and the Mitigated Negative Declaration through annual inspections of the Shaw Pit mine site.

MINING PLAN

Future operation of the pit will involve the disturbance of an additional 21 acres; 7 acres of the southern leg and 14 acres in the northern leg. The mine is to yield 200,000 additional cubic yards (cy) of crushed material over an expected 25 year period (approximately 8,000 cy per year depending on regional need for gravel). Mining activities will be terminated by July 2022 with pit reclamation being completed by July 2023.

The average depth of the cut will be approximately 60 feet. The anticipated final pit floor elevation will reside at an elevation of approximately 4250 feet. The maximum cut bank elevation in the pit will occur in the northeast corner of the pit at an elevation of approximately 4360 feet. Future operations are to include portable rock crushing and a portable hot mix plant. In addition, transport conveyors, screening machinery, truck scales, and earth moving equipment are typically used in similar mining operations.

Operation of the pit will follow the mining plan and will include phased mining activities. Mining activity will take place in two phased mining areas, Site A and Site B (Appendix B). Site A will involve further mining of the southern leg of the existing pit and include subsequent reclamation. A small quantity of additional material will be removed from this southern leg and will proceed in a west to east direction. Cut slopes will be reduced in a bench style to no steeper than 1.5:1. Benches will be a minimum of 10 feet wide at an interval of every 30 vertical feet of cut slope as shown on the mining plan map (Appendix B). All active cuts will be reduced to no steeper than 1.5:1 at the end of each season. As indicated in the mining plan (Appendix B), a 100-foot buffer zone (50 feet on each side of the stream) will surround all three streams traversing the pit. In addition, the existing undisturbed area between the two legs will not be mined as indicated on the Mining Plan map.

Mining of Site B will start first with the construction of a continuous culvert in place of the two existing culverts and a sedimentation pond at the outfall of the continuous culvert along the disturbed stretch of the perennial stream as indicated in the Appendix B. A defined stream course will be constructed to divert the central ephemeral stream into the perennial stream above the culvert entrance. The sedimentation basin will reduce stream water velocity allowing for the waters sediment load to drop to the bottom of the basin and prevent pit sediments from entering the Pit River. Sediment will be removed from the basin on an as-needed basis. Mining of Site B will then proceed to the boundary of the pit area to the north and northeast as indicated in the Appendix B. Benchmarks are provided on the Mining Plan and Reclamation Plan maps for verification in the field (Appendix B & C).

Before the continuation of any mining, top soil in the disturbed area will be removed down to the aggregate and stored in the designated areas (Appendix B). The topsoil storage pile is to be used for both mining phases A and B. Prior to any work in undisturbed areas the top soil will also be removed and stockpiled for future reclamation. Removal of topsoil and vegetation will not proceed mining activities by more than one year. All stockpiled top soil will be seeded with mammoth wildrye and Siberian wheat grass to reduce wind and water erosion.

RECLAMATION PLAN

Reclamation will occur during mining activity, starting with sections of the existing pit no longer containing useful material, and then successively following mining activity elsewhere in the pit. Final contour and grade for each site is indicated on the reclamation plan (Appendix C). Site A pit slopes will be cut to the appropriate grade and seeded as mining activity proceeds east. The pit floor of Site A will be seeded after completion of all mining and reclamation activity. Reclamation of Site B will include the removal of the culvert and sedimentation pond and restoration of the perennial stream's streambed in the disturbed area. Stream bed restoration will include reshaping to a uniform slope. The bottom of the stream bed will be lined with small gravel. The edges of the stream bed will be seeded with a mixture of 20 pounds crested wheat grass and 4 pounds dry alfalfa per disturbed acre. The remainder of the reclamation will proceed in the same manner as described for Site A. All equipment, stockpiled materials, and any structures will be removed upon final reclamation. Revegetation of the pit will include a mixture of 10 lbs crested wheat grass and 2 pounds dry alfalfa broadcast applied per disturbed acre in the late fall to take advantage of early rains. Revegitation of the stream edges will be twice this amount as previously indicated No fertilizing will be required.

Chapter 2

Environmental Checklist

CHAPTER 2

ENVIRONMENTAL CHECKLIST FORM

ENVIRONMENTAL AREAS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Land Use and Planning	☐ Transportation/Circulation	☐ Public Services
☐ Population and Housing	☒ Biological Resources	☐ Utilities and Service Systems
☒ Geological Problems	☐ Energy and Mineral Resources	☐ Aesthetics
☒ Water	☐ Hazards	☒ Cultural Resources
☒ Air Quality	☒ Noise	☐ Recreation
☐ Mandatory Findings of Significance		

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared. ☒

I find that the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ☐

Signature _____ Date _____

Printed Name _____ For _____

EVALUATION OF ENVIRONMENTAL IMPACTS:

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the proposal result in potential impacts involving:				
I. LAND USE AND PLANNING. Would the proposal:				
a) conflict with general plan designation or zoning?	☐	☐	☐	☒
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☐	☐	☒
c) Be incompatible with existing land use in the vicinity?	☐	☐	☐	☒
d) Affect agricultural resources or operations (e.g. impacts to soils or farmlands, or impacts from incompatible land uses)?	☐	☐	☐	☒
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☒
II. POPULATION AND HOUSING. Would the proposal:				
a) Cumulatively exceed official regional or local population projections?	☐	☐	☐	☒
b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	☒
c) Displace existing housing, especially affordable housing?	☐	☐	☐	☒
III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:				
a) Fault rupture?	☐	☐	☐	☒
b) Seismic ground shaking?	☐	☐	☐	☒
c) Seismic ground failure, including liquefaction?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d) Seiche, tsunami, or volcanic hazard?	☐	☐	☐	☒
e) Landslides or mudflows?	☐	☐	☒	☐
f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	☐	☒	☐	☐
g) Subsidence of the land?	☐	☐	☐	☒
h) Expansive soils?	☐	☐	☐	☒
i) Unique geologic or physical features?	☐	☐	☐	☒
IV. WATER. Would the proposal result in:				
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	☒	☐
b) Exposure of people or property to water related hazards such as flooding?	☐	☐	☐	☒
c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen, or turbidity)?	☐	☒	☐	☐
d) Changes in the amount of surface water in any water body?	☐	☐	☒	☐
e) Changes in currents, or the course or direction of water movements?	☐	☐	☒	☐
f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?	☐	☐	☒	☐
g) Altered direction or rate of flow of groundwater?	☐	☐	☐	☒
h) Impacts to groundwater quality?	☐	☐	☐	☒
i) Substantial reduction in the amount of groundwater otherwise available for public water supplies?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
V. AIR QUALITY. Would the proposal:				
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐
b) Expose sensitive receptors to pollutants?	☐	☒	☐	☐
c) Alter air movement, moisture, or temperature, or cause any change in climate?	☐	☐	☐	☒
d) Create objectionable odors?	☐	☐	☒	☐
VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:				
a) Increased vehicle trips or traffic congestion?	☐	☐	☒	☐
b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
c) Inadequate emergency access or access to nearby uses?	☐	☐	☐	☒
d) Insufficient parking capacity on-site or off-site?	☐	☐	☐	☒
e) Hazards or barriers for pedestrians or bicyclists?	☐	☐	☒	☐
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
g) Rail, waterborne or air traffic impacts?	☐	☐	☐	☒
VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:				
a) Endangered, threatened or rare species or their habitats (including, but not limited to plants, fish, insects, animals, and birds)?	☐	☒	☐	☐
b) Locally designated species (e.g., heritage trees)?	☐	☐	☐	☒
c) Locally designated natural communities (e.g., oak trees, coastal habitat, etc.)?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d) Wetland habitat (e.g., marsh, riparian and vernal pool)?	☐	☒	☐	☐
e) Wildlife dispersal or migration corridors?	☐	☐	☒	☐
VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:				
a) Conflict with adopted energy conservation plans?	☐	☐	☐	☒
b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	☒
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☒
IX. HAZARDS. Would the proposal involve:				
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	☐	☐	☒	☐
b) Possible interference with an emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
c) The creation of any health hazard or potential health hazard?	☐	☐	☒	☐
d) Exposure of people to existing sources of potential health hazards?	☐	☐	☐	☒
e) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☐	☐	☒
X. NOISE. Would the proposal result in:				
a) Increases in existing noise levels?	☐	☒	☐	☐
b) Exposure of people to severe noise levels?	☐	☒	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Maintenance of public facilities, including roads?	☐	☐	☐	☒
e) Other governmental services?	☐	☐	☐	☒
XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a) Power or natural gas?	☐	☐	☐	☒
b) Communications systems?	☐	☐	☐	☒
c) Local or regional water treatment or distribution facilities?	☐	☐	☐	☒
d) Sewer or septic tanks?	☐	☐	☐	☒
e) Storm water drainage?	☐	☐	☐	☒
f) Solid waste disposal?	☐	☐	☐	☒
g) Local or regional water supplies?	☐	☐	☐	☒
XIII. AESTHETICS. Would the proposal:				
a) Affect a scenic vista or scenic highway?	☐	☐	☐	☒
b) Have a demonsurable negative aesthetic effect?	☐	☐	☒	☐
c) Create light or glare?	☐	☐	☐	☒
XIV. CULTURAL RESOURCES. Would the proposal:				
a) Disturb paleontological resources?	☐	☒	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
b) Disturb archaeological resources?	☐	☒	☐	☐
c) Affect historical resources?	☐	☒	☐	☐
d) Have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☐	☒
e) Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☒
XV. RECREATION. Would the proposal:				
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	☒
b) Affect existing recreational opportunities?	☐	☐	☐	☒
XVI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☒	☐
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects)	☐	☐	☒	☐
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Chapter 3

Checklist Explanation

CHAPTER 3

CHECKLIST EXPLANATION

I. LAND USE AND PLANNING

Comments

(a-c) The Shaw Pit is located approximately 14 miles northwest of Adin off of County Road 85A on the Shaw ranch homestead along the Pit River. The Modoc County General Plan land use designation for the site is General/Agriculture. The General/Agriculture land use designation allows for mining activities with approval of a requisite conditional use permit. In addition, the site is zoned Unclassified. No special land use designations exist for the project site (Heiser, 1996). However, a high density residential development is planned for a parcel on the west bank of the Pit River approximately 1/4 mile to the south of the Shaw Pit. This development currently has no residents or structures. The Shaw pit will not substantially impact or interfere with this development. In addition, the Shaw pit not interfere with applicable environmental plans or policies adopted by agencies with jurisdiction of the project.

(d-e) The proposed project expansion area is primarily used for livestock grazing. Many acres of forage are required for suitable grazing. Implementation of the project will not substantially reduce the total rangeland available for livestock grazing in the vicinity and will not impact a particularly productive area of rangeland. In addition, reclamation of the mining site will include replacement and revegitation of topsoil over the entire site, allowing for continued livestock grazing upon pit closure. As required by SMARA, the productivity rate will be equal to or greater than the existing productivity rate.

Operation of the Shaw Gravel Pit will not affect any agricultural resources or operations. The gravel pit is not located in the vicinity of any existing community and therefore will not disrupt or divide the physical arrangement of an established community.

II. POPULATION AND HOUSING

Comments

(a-c) The Shaw gravel pit is located on a private in-holding owned by the Shaw family adjacent the Modoc National Forest, in an area of rural land uses. The

pit falls under the jurisdiction of the County. Gravel mining activities will not conflict with the land use designations or zoning ordinances of the County General Plan.

Shaw pit gravel will primarily be used for maintenance of County roads. Because the gravel pit is not located in area zoned for residential uses as well as the pits designated use for maintenance of county roadways, the Shaw gravel pit will not induce urban growth or adversely affect housing.

III. GEOLOGIC PROBLEMS

Comments

(a-d) The proposed gravel pit is not a seismically sensitive land use and will not alter existing stress regimes of adjacent faults. In addition the proposed gravel pit is not a land use sensitive to volcanic hazards.

(e-f) Operation of the Shaw Gravel Pit will include grading, blasting, excavation, and earth moving activities which will substantially alter the existing topography. As required by the Surface Mining and Reclamation Act (SMARA) a surface mining reclamation plan has been prepared and will be implemented. Reclamation will substantially reduce the topographical impacts associated with the gravel mining activities resulting in a less than significant impact.

Operation of the Shaw Gravel Pit could potentially result in erosion, unstable soils and landslides. Reclamation of the pit will be phased and will occur in portions of the pit no longer containing valuable material. Reclamation will include slope stabilization, recontouring, drainage control, and revegitation. Therefore, erosion problems will be limited to the area of active mining where the impact will be less than significant.

The pit is located on a perennial stream which could possibly be impacted by siltation from pit runoff. In addition, operation of the pit could potentially generate siltation problems in the Pit River and degradation of downstream Pit River beneficial uses. Without implementation of appropriate mitigation measures, this would be a potentially significant environmental impact.

(g-i) The Shaw pit is a hard rock mine located on a ridge of Tertiary Volcanic pyroclastic rocks. The Shaw Pit is situated on the Jacket-Deven-Hiibner Families Association as identified by the Modoc National Forest and Soil Conservation Service (commonly referred to as the National Resource Conservation Service (NRCS)) (NRCS, 1974). The soils of this association are common in mountainous areas of 15-35 percent slopes. Erosion potential for the group is moderate for the Jacket family, moderate to high for the Deven

family, and moderate for the Hiibner family. The slope stability hazard for all three families is low to moderate. No special geologic considerations exist.

Mitigation Measures

A. To control downstream siltation of the streams traversing the pit and the Pit River, a sedimentation pond shall be constructed in a reach of the perennial stream downstream of all mining activity. This pond shall be twenty feet long and two feet deep, large enough to temporarily impound water to allow for stream water to drop its sediment load before flowing into the Pit River. The pit will be engineered to withstand damage in the case of a high water storm episode and should be similarly engineered to last the operational life of the Shaw pit. If the pond should be damaged because of winter storm weather, the pond shall be repaired prior to continued mining activity. Upon pit closure and final reclamation, the pond shall be removed and the streambed restored.

The pond itself will hold back water for a short period of time before allowing water to spill over and continue its flow to the Pit River. The pond will not be large enough to be classified as a dam and reservoir by the State Department of Safety of Dams (DSOD). The pond will not significantly impact downstream resources. In the typical dry summer season, downstream flows leaving the pit site follow a subsurface path to the Pit River, leaving the streambed dry. The pond will not alter this typical summer regime of flows and will continue to allow subsurface movement of water. In the typical wet winter season, water will only be held back in the pond until the water level meets the "spillway" (because of the ponds shallow depth and overall size, a very short time period). Water leaving the pond via the "spillway" will continue to flow along the streambed to the Pit River, clean of pit debris and sediments. Pond design specifics can be found on the Mining Plan (Appendix B).

IV. WATER

Comments

(a-b) The Shaw Pit site is traversed by three streams. The stream to the furthest north is a spring-fed perennial stream and the middle and most southern streams are ephemeral. Surface water enters the site via these streams to the east and exits the site to the west. Mining activities will not take place within 50 feet of the undisturbed segments of the streams, and therefore will not alter drainage patterns. However, surface runoff drainage patterns related to storm water would be altered to some degree. In compliance to the provisions of SMARA, the Shaw pit will be reclaimed. Shaw pit reclamation will include recontouring to effectively and efficiently drain storm water runoff and prevent

erosion, land sliding and subsequent impacts to water resources. Reclamation will start immediately in the abandoned portions of the pit and will subsequently follow mining activity elsewhere in the pit. Therefore, impacts to drainage and surface runoff patterns over the site will be less than significant.

The Shaw Pit site is not susceptible to flooding from any source, including the Pit River, and is not located in any mapped flood plane. Operation of the Shaw Gravel Pit will not result in water related hazards that could potentially affect people or property. The Shaw pit will not produce any new flood hazards or exacerbate any current flood hazards.

(c) All three streams, during periods of high flow, discharge to the Pit River. During these high flow episodes water flowing through the site could potentially suspend pit debris, including debris from pit erosion, and transfer this debris to the Pit River, in turn degrading Pit River water quality and downstream beneficial uses. Water entering the Pit River could contain pit sediments as a consequence of mining activity. This would exacerbate the moderate to high erosion hazard potential of the native soils, resulting in increased turbidity in the Pit River. If unmitigated, this would be a potentially significant environmental impact.

(d-e) Operation of the Shaw Pit would not change the amount of surface water in a water body. Water flowing traversing the pit site through the three streams would not be diverted and would continue to flow to the Pit River. Operation of the Shaw Pit would not significantly alter currents, or the course or direction of water movements. Water would continue to flow through stream channels in a natural east to west direction.

(f-i) Operation of the Shaw Gravel Pit would not significantly effect ground water recharge, groundwater flow rate and direction, or overall groundwater quality. Gravel mining activities at the Shaw Gravel Pit would not significantly alter soil permeability rates. Gravel mining activities would not include the discharge or injection of contaminated waters to any groundwater body. In addition, processed gravel material will not require washing, effectively eliminating any impacts associated with contaminated wash waters infiltrating into underlying groundwater.

Operation of the Shaw Pit will not require pumping of groundwater. Therefore groundwater available for public water supplies will not be impacted.

Mitigation Measures

B. Refer to Mitigation Measures A. In addition, a 50 foot buffer shall be maintained on both sides of all three streams. Buffer zones shall be delineated with obstructing boulders or fencing and flags to prevent disturbance of the buffer zones by heavy equipment. No mining activity, including blasting, scraping, excavating, mounding of spoils, or any disturbance with the exception of reclamation activities shall take place within the buffer zone. Reclamation activities within the buffer zone shall be kept to a minimum.

V. AIR QUALITY

Comments

(a-b) Modoc County is classified under the provisions of the California Clean Air Act as non-attainment for respirable particulate matter (PM_{10}) and attainment or unclassified for all other criteria air pollutants. Operation of the Shaw Gravel Pit would involve the excavation and preparation of gravel material as well as the hauling of gravel to points of application and use throughout the County in the vicinity of the pit. Potentially significant amounts of dust, including potentially significant quantities of PM_{10}, will be produced from pit activity and associated haul trips over the dirt access road. Mining activities could potentially contribute to the continued violation of PM_{10} ambient air quality standards if mitigation measures were not incorporated into mining plans and operations.

Operation of a portable hot mix plant will directly emit reactive organic carbons and indirectly contribute to ozone formation. Modoc county is currently designated under both the state and federal Clean Air Acts as an attainment area for ozone. Operation of the portable hot mix plant will be intermittent and will contribute emissions only for short periods of time. The portable hot mix plant will not be a fixed permanent structure contributing emissions for extended periods of time in the long-term. In addition, the latest ozone measurements (1994 published) for Northeast Plateau Air Basin, including Modoc County, shows average daily ozone levels well below ambient air quality standards (CARB, 1994). Therefore, operation of the portable hot mix plant will not substantially contribute to ozone formation and subsequent change of attainment status for ozone. In addition, mining activities will not contribute significant quantities of any other criteria air pollutant or change the County's attainment designation for these criteria air pollutants. However, the County's existing Permit to Operate with the Modoc County Air Pollution Control District will need updating and amending (Wright, 1996).

(c-d) Operation of the Shaw Gravel Pit will not alter air movement, moisture, or temperature, or cause any change to local or regional climate.

Operation of the portable hot mix plant will not generate significant objectionable odors. The small size of the hot mix operation, the infrequent use of the hot mix plant, and the relatively long distance to the nearest receptor, Shaw Ranch, will not result in significant odor impacts.

Mitigation Measures

C. The County shall reduce dust emissions at the Shaw Gravel Pit by incorporating the following measures into mining plans:

- A water truck and operator shall be kept on-site during all dry-weather mining activity. Extraction areas and disturbed soils shall be kept moist via regular watering to reduce fugitive dust emissions.
- Stockpiles of dust producing processed materials shall be kept damp.
- Wetting of dirt and gravel haul roads as well as processing areas during episodes of dry weather mining activity and hauling operations

D. The County shall update its existing Permit to Operate with the Modoc County Air Pollution Control District to include amendments and additions to the mining plan at the Shaw Gravel Pit.

VI. TRANSPORTATION/CIRCULATION

Comments

(a-g) Operation of the Shaw Gravel Pit and subsequent delivery of Shaw Pit gravel to County construction sites will generate haul traffic on County Roads and State Highways. Average extraction rates at the Shaw Gravel Pit is 6,100 cubic yards of material per year. This correlates to an average 720 total truck trips on and off site along County Road 85A per year (17 cubic yards per truck times two trips by truck on and off site). However, this traffic will be of relatively low frequency and dispersed throughout the County. Therefore, pit operation will not significantly contribute to an adverse transportation or circulation impact.

County Road 85A and other adjacent County Highways could potentially suffer damage as a consequence of this traffic. The County will continue to perform regular maintenance and repair of County roads in order to maintain a standard level of safety and convenience.

VII. BIOLOGICAL RESOURCES

Comments

(a-e) No special status species were observed on the Shaw pit site. The potential for special status species occurrence is low to moderate based on review of the California Natural Diversity Data Base records (CNDDB, 1996), the California Native Plant Society Inventory (CNPS, 1994), and evaluation of on-site habitat. However, evidence of great-horned owl presence was found during the survey. Nesting habitat for owls and other raptor exists in the project area and immediate surrounding area. State and federally-listed endangered and threatened species which could potentially occur within one mile of the project site could include the bald eagle and Swainson's hawk. Impacts to raptor nesting habitat would be considered significant. In addition to these two raptor species, the Modoc sucker (*Catostomus microps*) is a federally and state listed fish species that has the potential to occur in the Pit River in the vicinity of the project site. Potential impacts to Pit River water quality and associated Modoc sucker habitat would be considered a potentially significant impact unless mitigated.

The Long-haired Star-tulip (*Calochortus longebarbatus* var *longebarbatus*), a federal species of concern, was listed in the CNDDB as occurring in the vicinity of the Shaw Pit Site (Department of Conservation, 1996). The tulip occurs along the banks of streams and creeks. Even though the presence of the tulips was not observed, the biological survey was not conducted during the tulips blooming season (June-July). As a consequence, the tulips presence along the streams of the Shaw Pit is a possibility. However, the buffer zone of 50 feet from either side of the stream will protect any possible tulips present and their habitat. Therefore, the potential impact is considered less than significant.

Plant communities on the Shaw Pit site include Western juniper series, Low sagebrush series, grass-dominated wetland communities along the three drainages through the site, a willow community along part of one drainage, and a small Sedge series adjacent to a seep (Sawyer and Keeler-Wolf, 1995). The Western juniper series is located at the perimeter of most of the existing disturbed area, and the Low sagebrush series is located in the southeast corner of the pit proposed for future mining. The Shaw Pit does not support sensitive plant communities other than the wetland areas. The native species composition of the area to be disturbed is well represented in the region, such that loss of this area would not significantly change the composition, abundance, or diversity of species in the region.

A small perennial seep is located next to a fractured rock face within the proposed mining area. The seep supports wetland vegetation within an area of

approximately 100 square feet. However, this seep was recently formed by bulldozer excavation of surrounding rock that exposed groundwater to the surface. The substrate of the seep is primarily rock, and hydric soil formation is unlikely to have occurred over the last several years. This seep is not anticipated to be a wetland feature under the jurisdiction of the U.S. Army Corps of Engineers.

Three small surface streams flow through or adjacent the Shaw pit. A perennial stream flows through the center of the pit and through two temporary culvert pipes before emptying into the Pit River. The portion of the stream between the culvert opening and the river supports a willow riparian habitat. Two ephemeral streams also flow through portions of the Shaw pit. The stream south and parallel to the perennial stream flows through an undisturbed leg of the pit where it pools and percolates into the soil. The stream furthest south of the others follows the southern perimeter of the pit and eventually flows overland to the Pit River. Further encroachment by proposed future mining activities on the perennial stream to the north and the ephemeral stream immediately south could significantly alter the streams and their habitat. Continued uncontrolled overland flow of the two ephemeral streams could potentially result in erosion and siltation impacts to stream segments downstream and off site of the pit. In addition, unmitigated flow of water from the perennial stream could result in detrimental siltation of the Pit River and possible degradation of downstream Pit River beneficial uses.

Wildlife observed in the project area included ground squirrel, black-tailed jackrabbit, skunk, great-horned owl, raven, and killdeer. No raptor nests were observed in the area to be disturbed, but could occur in the large trees in the project vicinity. Other typical wildlife species of the juniper woodland include red-tailed hawk, Townsend's solitaire, gray flycatcher, chipping sparrow, Great Basin pocket mouse, and mule deer. The Shaw pit is immediately adjacent to Modoc National Forest land and the Pit River. Due to the existing disturbance on-site and the proximity of this open space, additional mining activity would be unlikely to have a significant effect on any migration routes.

Mitigation Measures

E. The County shall reduce impacts to biological resources by incorporating the following measures into mining plans:

- A raptor nest survey should be conducted prior to removal of trees in future mining areas. The survey should be conducted during the spring nesting season of the year tree removal would occur. If an occupied raptor nest is located in a tree to be removed, the tree must be retained until fledging of the young has occurred.

- To mitigate potential impacts to nesting bald eagles or Swainson's hawks as a consequence of pit activities (blasting, rock crushing, etc.), the County shall conduct a nest survey to a radius of one mile from the pit site. A qualified biologist will conduct the survey immediately prior to pit operation anytime the pit is to be operated during the period of February 1 through August 31. Should the nest survey identify nesting activities, the County shall consult the Department of Fish and Game in order to determine and implement the appropriate mitigation measures for the affected species.

- To mitigate impacts to surface streams and downstream siltation of the perennial stream, mitigation A and B should be implemented. Implementation of these mitigation measures will prevent any potential Pit River water quality impacts and associated impacts to river fauna, including the Modoc sucker.

- All necessary permits including a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers and a Streambed Alteration Agreement from the California Department of Fish and Game shall be obtained.

VIII. ENERGY AND MINERAL RESOURCES

Comments

(a-c) Operation of the Shaw pit would utilize a known mineral resource that is of value to the region and the residents of the State of California. Operation would not use this resource in a wasteful or inefficient manner. Furthermore, operation would not consume energy in a wasteful or inefficient manner or substantially deplete an existing energy reserve. Therefore, operation of the Shaw Gravel Pit will not negatively impact energy and mineral resources.

Shaw Gravel Pit reclamation will not prevent long-term future utilization of the pit. Although proposed methods of reclamation will stabilize and restore the Shaw Gravel Pit, proposed reclamation methods will not prevent future mining activities should gravel from the Shaw Pit be desired.

IX. HAZARDS

Comments

(a-e) Operation of the Shaw Pit will not significantly expose the public to mining activity hazards. Unauthorized access to the project site is prevented by a locked gate and further would require overland travel across the privately owned Shaw Ranch. Therefore, hazards to the public associated with the Shaw pit are less than significant.

Gravel mining operations will not include the permanent storage of hazardous materials such as fuel or oil. These materials will be trucked onto site for use during mining operations, in turn reducing the risk and hazard of slow fuel or oil leaks to a level of less than significant.

X. NOISE

Comments

(a-b) The closest sensitive receptor to noise impacts would be the occupants of Shaw Ranch, approximately 4,500 feet to the northwest. Relatively high levels of noise would be produced from mining equipment and activities. A typical haul truck produces 88 dBA at 50 feet and blasting creates noise levels typically greater than construction equipment, however, blasting involves noise levels of short duration that are typically more tolerable to those exposed. At a typical attenuation rate of 6 dBA for every doubling of distance, a peak noise level of 88 dBA would attenuate to 49 dBA at the fenceline of the Shaw Ranch. Furthermore, the natural rolling and ridge filled terrain of the area will help attenuate noise to an even greater degree. It can be expected that noise levels at the Shaw Ranch would be extremely low and possibly inaudible over naturally occurring ambient noise. Noise exposure levels would similarly be low at the fenceline of the currently undeveloped high density residential properties 0.25 miles to the southwest of the proposed project. For these properties, noise would be expected to attenuate to a level of at least 59 dBA. Although this is a conditionally acceptable noise level in most urban communities, the desire of Modoc County citizens to keep the ambient noise environment at low levels is quite high. In order to attenuate noise impacts even further, implementation of the mitigation measures described below shall be incorporated into mining plans.

Mitigation Measures

F. The County shall reduce noise levels reaching the sensitive land uses to the southwest by implementing the following mitigation measures:

- Stationary sources of noise (i.e. rock crushing processing activities) shall be placed as far away from sensitive land uses as feasibly possible.

- Stockpiled material shall be placed between stationary equipment and sensitive land uses to reduce noise.

XI. PUBLIC SERVICES

Comments

(a-e) Operation of the Shaw Gravel Pit would provide the County with a source of needed gravel. This gravel will be used for the maintenance of County roads, which is a beneficial public services impact. Operation of the pit would not adversely effect fire or police protection services or any schools.

XII. UTILITIES AND SERVICE SYSTEMS

Comments

(a-g) Operation of the Shaw Gravel Pit will not significantly effect existing utilities and service systems or create the need for any new additional systems. All Utilities and service systems required to operate the Shaw pit are already in place.

XIII. AESTHETICS

Comments

(a-c) Operation of the Shaw Gravel Pit would result in changes to the local aesthetic environment. Implementation of the reclamation plan as required by SMARA will include the phased reclamation of the pit. Reclamation will follow mining activity, first taking place in abandoned portions of the pit and then succeeding any further mining activities. Complete reclamation of the pit will occur upon pit closure. Complete reclamation will include the removal of mining equipment and discarded debris, slope stabilization, recontouring, and revegitation. Revegitation will use a mixture of wheat grass and alfalfa in order to return the site to dry rangeland. Therefore, impacts to the local aesthetic environment will be less than significant.

The Shaw Pit is located out of sight of County Roads and State Highways on a portion of the Shaw homestead. The land disrupted by the Shaw Gravel Pit is not a significant regional aesthetic feature and is not directly accessible or visible to the public. Operation of the Shaw Gravel Pit will not affect any scenic vistas or scenic highways. The pit will not create light or glare.

XIV. CULTURAL RESOURCES

Comments

(a-c) An archaeological resources survey of the Shaw Gravel Pit site was conducted in July of 1996 by a qualified cultural resources specialist (Coyote & Fox, 1996). No archaeological sites were identified. However, three prehistoric isolated artifact locations were noted. These locations show evidence of human activity but were not formally recorded as sites because of the limited

number of artifacts. Although no sites were formally recorded in this archaeological survey, previous studies identified several prehistoric village sites one quarter of a mile to the south of the project site along the Pit River. Therefore, operation of the Shaw Gravel Pit could potentially uncover and disturb unknown cultural and/or historical resources. This would be a potentially significant impact if mitigation were not incorporated.

(d-e) Operation of the pit would not create a physical change or condition that would affect unique ethnic cultural values or restrict existing religious or sacred uses within the existing and future impact area.

Mitigation Measures

G. Should any cultural resources, such as structural features, or unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any mining activities, work shall be suspended and a qualified cultural resources specialist shall be immediately notified. At that time, the County will coordinate any necessary investigations to determine the significance of the find. The County shall then implement any mitigation deemed necessary for the recordation and/or protection of the cultural resources. In addition, pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work shall be halted and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

XV. RECREATION

Comments

(a-b) The Shaw Gravel Pit will not effect any existing recreational activities or increase the demand for recreation facilities. Therefore, no recreational impacts will occur.

XVI. MANDATORY FINDINGS OF SIGNIFICANCE

Comments

(a-d) Implementation of the project, as modified by the inclusion of the mitigation measures identified in this initial study, would not cause significant environmental impacts. The County has prepared a mining and reclamation plan as required by SMARA and has incorporated measures and safeguards into the project description in order to comply with required permits and eliminate adverse environmental impacts. The project, as modified, to re-operate the Shaw Gravel Pit would not degrade the quality of the environment,

adversely affect long-term environmental goals, cause adverse cumulative impacts, or have adverse impacts on human beings.

Chapter 4

Summary of Mitigation Measures

CHAPTER 4

SUMMARY OF MITIGATION MEASURES

Mitigation Measures - Geologic Problems

A. To control downstream siltation of the streams traversing the pit and the Pit River, a sedimentation pond shall be constructed in a reach of the perennial stream downstream of all mining activity. This pond shall be twenty feet long and two feet deep, large enough to temporarily impound water to allow for stream water to drop its sediment load before flowing into the Pit River. The pit will be engineered to withstand damage in the case of a high water storm episode and should be similarly engineered to last the operational life of the Shaw pit. If the pond should be damaged because of winter storm weather, the pond shall be repaired prior to continued mining activity. Upon pit closure and final reclamation, the pond shall be removed and the streambed restored.

The pond itself will hold back water for a short period of time before allowing water to spill over and continue its flow to the Pit River. The pond will not be large enough to be classified as a dam and reservoir by the State Department of Safety of Dams (DSOD). The pond will not significantly impact downstream resources. In the typical dry summer season, downstream flows leaving the pit site follow a subsurface path to the Pit River, leaving the streambed dry. The pond will not alter this typical summer regime of flows and will continue to allow subsurface movement of water. In the typical wet winter season, water will only be held back in the pond until the water level meets the "spillway" (because of the ponds shallow depth and overall size, a very short time period). Water leaving the pond via the "spillway" will continue to flow along the streambed to the Pit River, clean of pit debris and sediments. Pond design specifics can be found on the Mining Plan (Appendix B).

Mitigation Measures - Water

B. Refer to Mitigation Measures A. In addition, a 50 foot buffer shall be maintained on both sides of all three streams. Buffer zones shall be delineated with obstructing boulders or fencing and flags to prevent disturbance of the buffer zones by heavy equipment. No mining activity, including blasting, scraping, excavating, mounding of spoils, or any disturbance with the

exception of reclamation activities shall take place within the buffer zone. Reclamation activities within the buffer zone shall be kept to a minimum.

Mitigation Measures - Air Quality

C. The County shall reduce dust emissions at the Shaw Gravel Pit by incorporating the following measures into mining plans:

- A water truck and operator shall be kept on-site during all dry-weather mining activity. Extraction areas and disturbed soils shall be kept moist via regular watering to reduce fugitive dust emissions.

- Stockpiles of dust producing processed materials shall be kept damp.

- Wetting of dirt and gravel haul roads as well as processing areas during episodes of dry weather mining activity and hauling operations

D. The County shall update its existing Permit to Operate with the Modoc County Air Pollution Control District to include amendments and additions to the mining plan at the Shaw Gravel Pit.

Mitigation Measures - Biological Resources

E. The County shall reduce impacts to biological resources by incorporating the following measures into mining plans:

- A raptor nest survey should be conducted prior to removal of trees in future mining areas. The survey should be conducted during the spring nesting season of the year tree removal would occur. If an occupied raptor nest is located in a tree to be removed, the tree must be retained until fledging of the young has occurred.

- To mitigate potential impacts to nesting bald eagles or Swainson's hawks as a consequence of pit activities (blasting, rock crushing, etc.), the County shall conduct a nest survey to a radius of one mile from the pit site. A qualified biologist will conduct the survey immediately prior to pit operation anytime the pit is to be operated during the period of February 1 through August 31. Should the nest survey identify nesting activities, the County shall consult the Department of Fish and Game in order to determine and implement the appropriate mitigation measures for the affected species.

- To mitigate impacts to surface streams and downstream siltation of the perennial stream, mitigation A and B should be implemented. Implementation

of these mitigation measures will prevent any potential Pit River water quality impacts and associated impacts to river fauna, including the Modoc sucker.

- All necessary permits including a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers and a Streambed Alteration Agreement from the California Department of Fish and Game shall be obtained.

Mitigation Measures - Noise

F. The County shall reduce noise levels reaching the sensitive land uses to the southwest by implementing the following mitigation measures:

- Stationary sources of noise (i.e. rock crushing processing activities) shall be placed as far away from sensitive land uses as feasibly possible.

- Stockpiled material shall be placed between stationary equipment and sensitive land uses to reduce noise.

Mitigation Measures - Cultural Resources

G. Should any cultural resources, such as structural features, or unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any mining activities, work shall be suspended and a qualified cultural resources specialist shall be immediately notified. At that time, the County will coordinate any necessary investigations to determine the significance of the find. The County shall then implement any mitigation deemed necessary for the recordation and/or protection of the cultural resources. In addition, pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work shall be halted and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

Chapter 5
References

CHAPTER 5

REFERENCES

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Appendix D

Mining Plan Narrative

SHAW GRAVEL PIT

OPERATOR: Modoc County Road Department
202 W. 4th St.
Alturas, CA 96101

OWNER: Robert & Mildred Shaw
P.O. Box 120
Lookout, CA 96054

LOCATION: SW ¼ of Section 35, Township 41 North, Range 7 East, M.D.B. & M.
Access to the project site is County Road 91, Modoc County, California.

DESCRIPTION:

The property is dry rangeland used for cattle grazing. Adjacent land uses are non irrigated agriculture. There are two seasonal and one perennial stream within the project boundary. Active mining will leave a 100 foot buffer strip at these locations. The site is not susceptible to flooding from any source and is not in any mapped flood plane.

Shaw Pit is an existing mining operation that will continue to be mined and reclaimed. The mining operation is to mine and process construction aggregates, gravel and sand for use on county roads and construction. Screening, crushing and asphalt processing are secondary uses to the mining process. Processed aggregate will be removed from the site by trucks over county roads.

It is anticipated the floor elevation of the pit will be approximately elevation 4250.. At the northeast corner of the site the maximum cut bank will be elevation 4360. The average depth of cut will be sixty feet in the pit. At these elevations approximately 200,000 yards of material is available. The expected life of the pit is 25 years. The pit has already been initiated with the expected termination date of July 2022. Final reclamation should be completed by July 2023. At closure the area will be mined to final contour grade and no future mining of the area is expected.

Any top soil is scalped and stored on site prior to ground disturbance. The mining operation is initiated by ripping of the rock face. The loose material is then excavated and fed into a crushing and screening plant. The larger material is reduced to useable size by means of a mechanical crusher. Processed material is screened and separated into various sizes according projected need. Processed material is stored in piles on the site until needed. The mining will be a continuous operation but is dependent on the need for processed material. There may be months that no active mining is being done.

A mechanical crusher, transport conveyors, screening machinery, asphalt processing plant, truck scales, and mechanical earth moving equipment are typical equipment used in the mining operation. It is anticipated that all of this equipment is portable and will be removed from the site at the end of each season. All equipment and any foundations and appurtenances will be removed during final reclamation of the site. The mining plan shows areas of the site reserved for storage of processed material and equipment placement.

Before the continuation of any mining, top soil in the disturbed area shall be removed down to aggregate and stored in the designated area. Prior to any work in undisturbed areas the top soil shall also be removed and stored for future reclamation. Removal of topsoil and vegetation shall not proceed mining activities by more than one year. The piles of top soil shall be seeded with mammoth wildrye and siberian wheat grass to reduce wind erosion.

The mining plan has divided the site into two phased mining areas. Due to prior disturbance of the site and lack of reclamation the areas shall be mined and partially reclaimed in a continuous manner. Site A will be completely mined and reclaimed prior mining Site B. A common area for Site A & B is shown on the Mining plan for top soil storage and material storage. Mining shall begin by excavating Site A from west to east to grades according to the mining plan. Cut slopes will be trimmed and shaped to a slope of not steeper than 1½:1. A seasonal stream borders the south side of the mining area. A buffer strip 50' from the center of the stream will be left undisturbed to protect the stream from the mining activity. A ridge north of Area A is shown on the mining plan as an area of non-disturbance at the request of the property owner. This area is to remain natural and no mining is to encroach into this area. Any old mining and construction equipment shall be removed from the site upon completion of mining.

Mining of Site B. shall begin with construction of the continuous culvert and the settling basin. Two existing culverts are in the perennial stream. These culverts should be extended to form a continuous culvert in the work area. A settling basin will be constructed at the end of the culverts to remove any sediment that may accidently enter the channel. A defined course will be constructed to divert the seasonal stream into the perennial stream and through the culverts. The lead agency shall make annual inspections of the site for compliance with this plan.

Reclamation of Site A will begin with the excavation of the material and cut slopes as shown on the mining plan. At the end of each season, cut slopes on the north and south side of the work area shall be sloped to final cut and seeded. The east face and the pit floor shall be seeded upon completion of the mining operation. During reclamation of Site B, the culverts shall be removed and the settling pond removed. The remainder of the reclamation shall proceed the same as Site A. All equipment and structures shall be removed during final reclamation. A mixture of 10 lbs. crested wheat grass and 2 lbs. dryland alfalfa shall be used for all revegetation during reclamation. The seed shall be broadcast applied at a rate of twelve pounds per acre. Seeding shall take place in the late fall of the year to take advantage of early rains. No fertilizing of the site is required. The end use of the reclaimed sites will be dry rangeland. The stream bed shall shaped to a uniform slope. The bottom of the bed shall be lined with small gravels. The edge of the stream bed shall be seeded with a double mixture of seed.

Appendix E

Financial Assurances

SHAW PIT

RECLAMATION COST

1. Mobilization		$ 3,000
3. Contouring and shaping pit.		10,000
4. Removal of equipment.		3,000
5. Revegetation.		5,000
	Total	$ 21,000
	Contingency	4,000
	Administration	4,000
	Total	$ 29,000