# SAN BERNARDINO COUNTY
# INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
# ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

## PROJECT LABEL:

| | | | |
|---|---|---|---|
| ***APNs:*** | 0571-191-06 and 0571-181-03 | ***USGS Quad:*** | New Dale Lake Quadrangle |
| ***Applicant:*** | Iron Age Mine, LLC | ***T, R, Section:*** | **T1S, R13E, Section 7, 17, 18, 20, 29** |
| ***Location*** | The site is located on both unpatented claims and patented lands approx-imately 18 miles east/southeast of the City of Twentynine Palms, California. The site is in the historic Dale Mining District in the Northern Pinto Mountains . | ***Thomas Bros*** | San Bernardino and Riverside County 2005 Book, Page 390, Grid L-2 |
| ***Project No:*** | PROJ-2021-00009 | ***Community Plan:*** | NA |
| | | ***Land Use Category:*** | Resource Land Management (RLM) |
| ***Rep*** | Lilburn Corporation | ***Zoning District:*** | Resource Conservation (RC) including BLM Land |
| ***Proposal:*** | Iron Age Mine, LLC has submitted a Mining and Reclamation Plan to remove historical iron ore tailings on 71 acres of public (BLM) lands and 34 acres of patented (private) lands. The project will reclaim and revegetate 70 acres of prior disturbed land after tailings removal, and backfill 8 acres of the existing quarry. | ***Overlays:*** | None |

## PROJECT CONTACT INFORMATION:


***Lead agency:*** County of San Bernardino
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San Bernardino, CA 92415-0182

***Contact person:*** Reuben J. Arceo, Planner
***Phone No:*** (909) 387-4374 ***Fax No:*** (909) 387-3223
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## PROJECT DESCRIPTION:

### *Summary*

Iron Age Mine, LLC (Iron Age) has submitted a Mining and Reclamation Plan (Plan) for the Iron Age Mine. The Iron Age Mine is an iron ore deposit that has been explored and mined prior to the enactment of the Surface Mining and Reclamation Act of 1975 ("SMARA") and has been closed and un-reclaimed for over 50 years. It is located in the northern Pinto Mountains, approximately

18 miles east/southeast of the City of Twentynine Palms, California and approximately 3.4 miles south of State Route 62 (SR 62) in San Bernardino County, California (see Figure 1 - Regional Map). The site is accessed from SR 62 east of Twentynine Palms via Iron Age Mine Road (see Figure 2 - Vicinity Map).

The Proposed Project will remove, crush, and transport offsite the iron ore tailings deposited prior to the enactment of SMARA and then reclaim areas disturbed by the removal activities. There will be no new mining. The iron ore tailings are a lower grade iron previously stockpiled as an overburden or waste material that is now economical to utilize. The Plan is prepared in accordance with SMARA (Public Resources Code [PRC] 2710 et seq.) and San Bernardino County (County) Development Code requirements for implementing SMARA. The Iron Age Mine project totals 105 acres, of which 76 acres are currently disturbed. The site consists of approximately 71 acres of U.S. Bureau of Land Management (BLM) unpatented (public) lands and 34 acres of patented (private) land. The BLM lands consist of approximately 37.5 acres of recoverable tailings piles, 25 acres of re-construction and re-alignment of the existing roadways (Iron Age Mine Road) on BLM designated routes, and 8.5 acres of the 10-acre mill site claims. Approximately 34 of the 60.6 patented acres will be impacted by tailings removal, quarry backfill, a plant site, and access roads (see Table 1). Reclamation will be implemented on the 8.5 acres of disturbance at the mill site claims, 37.5 acres of tailings on unpatented land, and 32 acres of tailings and quarry areas on patented lands. The roadways will be left in place as these are designated BLM routes. Unlike most reclamation plans, which typically address areas planned for mining, the Iron Age Reclamation Plan includes reclamation of approximately 70 acres of land currently covered with historic iron ore tailings back to the original grade and establishes native vegetation and backfills approximately 8 acres of the old quarry.

**Table 1**
**Iron Age Mine**
**Operations Phasing, Areas and Approximate Schedule**

| Operational Phases | Unpatented Acres | Patented Acres | Total Acres (approx.) | Tons Removed (Millions) | Approx. Years |
|---|---|---|---|---|---|
| 1A | 33.5 | 7.0 | 40.5 | 0.5 | 1 |
| 1B | 22.8 | 8.0 | 30.8 | 5.5 | 7 |
| 2 | 0 | 19.0 | 19.0 | 2.4 | 3 |
| 3 | 14.7 | 0 | 14.7 | 3.6 | 4 |
| Phase 4 Final Reclamation[1] | | | --- | --- | 16 – 20[1] |
| **Total** | **71.0** | **34.0** | **105.0[2]** | **12** | **15 (operations) 5 (reclamation)[1]** |

Areas and tons are rounded and approximate.
[1] Active reclamation for approximately 5 years and monitoring and remediation as necessary until revegetation success criteria achieved.
[2] 84 acres currently disturbed; 78 acres to be reclaimed, approximately 27 acres of roads will be left in place per BLM direction as these are BLM designated routes and to maintain access to site for monitoring.

Note that the BLM has approved the Plan of Operations (POO) for the project and selected an alternative route that maintains the access entirely on BLM designated routes. The selected access route adds approximately 1.5 miles to the access route and approximately 8 acres. The BLM approved alignment areas have been incorporated in the discussion throughout this

document. The discussion on the BLM decision and the Environmental Assessment are discussed under Project Understanding starting on page 10 below.

The removal of the tailings will provide a marketable product and subsequently reclaim a heavily disturbed area back to open space and wildlife habitat. Based on an aerial photo reconnaissance and sampling of existing tailings stockpiles, the site has an estimated reserve of 12 million tons of iron ore with an average concentration of 62 percent iron. Maximum throughput at the plant will be approximately 2.3 million tons per year; 920,00 tons of product and approximately 1.4 million tons per year of waste rock and low-grade ore, which will be utilized for site reclamation.

The site will be mined at a maximum average production rate of 920,000 tons annually, which is expected to provide reserves for up to 13 years (through year 2027). Crushed iron ore concentrate will primarily be shipped by haul truck to the Long Beach/San Pedro port for overseas shipment as well as other markets. At the maximum proposed production rate of 2.3 million tons per year, the mine would be operated for approximately 8 years taking into account a construction and start-up period for two years. To account for variable production rates dependent on market demand, an operating life of 15 years, through 2036, is estimated. Concurrent and final reclamation is anticipated to conclude by 2041.

The mining operation would consist of excavating, drilling, and occasional blasting of the tailings faces and loading the broken iron rock into a feeder, screen sorter, and magnetic separator designed to increase iron concentration to exceed 60% iron. Upon separation, off-road haul trucks will transport the iron ore, via the mine access road, to a proposed mill site facility located south of SR 62. The mill site would be located approximately 3.4 miles north of the tailings area; iron ore transported from the tailings area to the mill site would be stockpiled and ultimately transferred to market. Waste rock and low-quality iron ore will be backfilled into the existing quarry. The tailings area will be graded back to the original surface and revegetated per the Reclamation Plan. Reclamation will include the removal of all equipment, structures, tanks, and debris from the site. Compacted surface material in the processing area, roads, and the former stockpile areas will be loosened and ripped to a depth of 18 to 36 inches by mechanical means and seeded with native plant species.

Elevation at the site ranges from 1,975 to 2,250 feet above mean sea level (amsl), a 275-foot difference. Approximately 100 acres of the site have been previously disturbed from previous mining activities conducted before 1965. The mine was not reclaimed but exhibits a moderate level of natural revegetation. The Project Site vegetation is characterized as Creosote Bush and Brittlebush series habitat types. The tailings and quarry area are mostly barren with scattered vegetation.

Operational water demand will be provided by an onsite well to be drilled at the plant site or at the mill site depending on anticipated drilling results. Process water will be recycled through a lined holding pond. A 10,000-gallon water storage tank will be placed at the plant site and/or the mill site. A water truck will be available for mobile use.

The operations will take place on two tailings disposal areas that extend to the south and north of the historic mine quarry and occupy approximately 54 acres. The operations will begin in the south tailings area on the patented property then extend further south to the adjacent unpatented claims. The next phase will extend to the north patented property then onto the unpatented claims (see Figure 3 – Plan of Operations Map). The phased operations, the processing area, and reclamation

with phased slopes and contours are depicted on the Mine Reclamation Plan sheets. The Proposed Plan was prepared with the following objectives:

- To remove an existing historic iron ore resource of stockpiled tailings that meets the Federal regulations and the State's and County's SMARA requirements;
- To provide adequate crushed iron ore reserves from a closer source to meet the increasing demand for high grade iron ore for overseas and cement manufacturing market needs;
- To reduce the distance traveled for hauling of the iron ore to market resulting in decreased truck mileage and related diesel fuel consumption and air pollutant emissions;
- To provide reclamation and revegetation to impacted mining sites to mitigate historic visual, biological, safety, and hydrological impacts;
- To partially backfill the existing quarry with waste rock to the extent feasible; and
- To reclaim the site for an end use that will support open space and wildlife habitat.

Reclamation will be concurrent with phased mining and completed as the tailings piles are depleted. Removed stockpile areas will be ripped and revegetated. At the completion of operations and within one year, all equipment and stockpiles will be removed and any remaining refuse will be disposed of at an appropriate offsite disposal site. The surface material will be re-graded to approximate natural contours. On BLM lands, approximately 46 acres of former tailings piles and the mill sites will be reclaimed and revegetated. The access road (25 acres) and the onsite roads (2 acres) will remain in place. In total, on both BLM and patented lands, approximately 78 acres will be reclaimed of which approximately 70 acres will be revegetated. Approximately 8 acres of existing quarries on patented land will be backfilled with waste rock not conducive for revegetation because of lack of available topsoil (see Figure 4 – Reclamation Plan Map).

With implementation of the reclamation and revegetation plan on tailings piles now devoid of vegetation and not suitable desert tortoise habitat, approximately 50 acres will be returned to desert vegetation.

### *Surrounding Land Uses and Setting*

Surrounding land uses predominately consist of historic mines, BLM designated roads, and vacant public lands administered by the BLM and designated for open space uses, which allows cross-country off-highway vehicle usage. There are no structures or human habitation in the area.

**Existing Land Use Categories and Zoning Districts**

| Location | Existing Land Use | Land Use Category | Zoning District |
|---|---|---|---|
| **Project Site** | Vacant/Stockpiled iron ore tailings, quarry, and access road | Resource Land Management (RLM) | Resource Conservation (RC) |
| North | Vacant BLM lands | RLM | RC |
| South | Vacant BLM lands | RLM | RC |
| East | Vacant BLM lands | RLM | RC |
| West | Vacant BLM lands | RLM | RC |

### *Project Site Location, Existing Site Land Uses and Conditions*

The subject property is located in an unincorporated Desert Region of San Bernardino County. The site is located on BLM managed public lands and patented private land owned by Iron Age Mine, LLC. The Project Site is located approximately 18 miles east/southeast of the City of Twentynine Palms, California and approximately 3.4 miles south of SR 62 in San Bernardino County, California (see Figure 1 - Regional Map) in the northern Pinto Mountains. The mine is within Sections 7, 17, 18, 20 and 29, Township 1 South, Range 13 East SBBM. The site is accessed from SR 62 east of Twentynine Palms via Iron Age Mine Road (unpaved road, 3.4 miles south) (see Figure 2 - Vicinity Map).

## ADDITIONAL APPROVAL REQUIRED BY OTHER PUBLIC AGENCIES

Bureau of Land Management (BLM): Plan of Operations approved by BLM Barstow field office on January 7, 2021, in Finding of No Significant Impact (FONSI) and Decision Record; and Environmental Assessment (EA) (DOI-BLM-CA-D0B0-2020-0025-EA) including Formal Section 7 Consultation / Biological Opinion with U.S. Fish and Wildlife Service Carlsbad Office (3809 (P) CACA 53897)
*See discussion under Project Understanding below.*

County of San Bernardino: Land Use Services Department- Code Enforcement, Building and Safety, Public Health-Environmental Health Services, and County Fire

Regional: Mojave Desert Air Quality Management District (MDAQMD)

Local: None

**Figure 1**

Regional Map

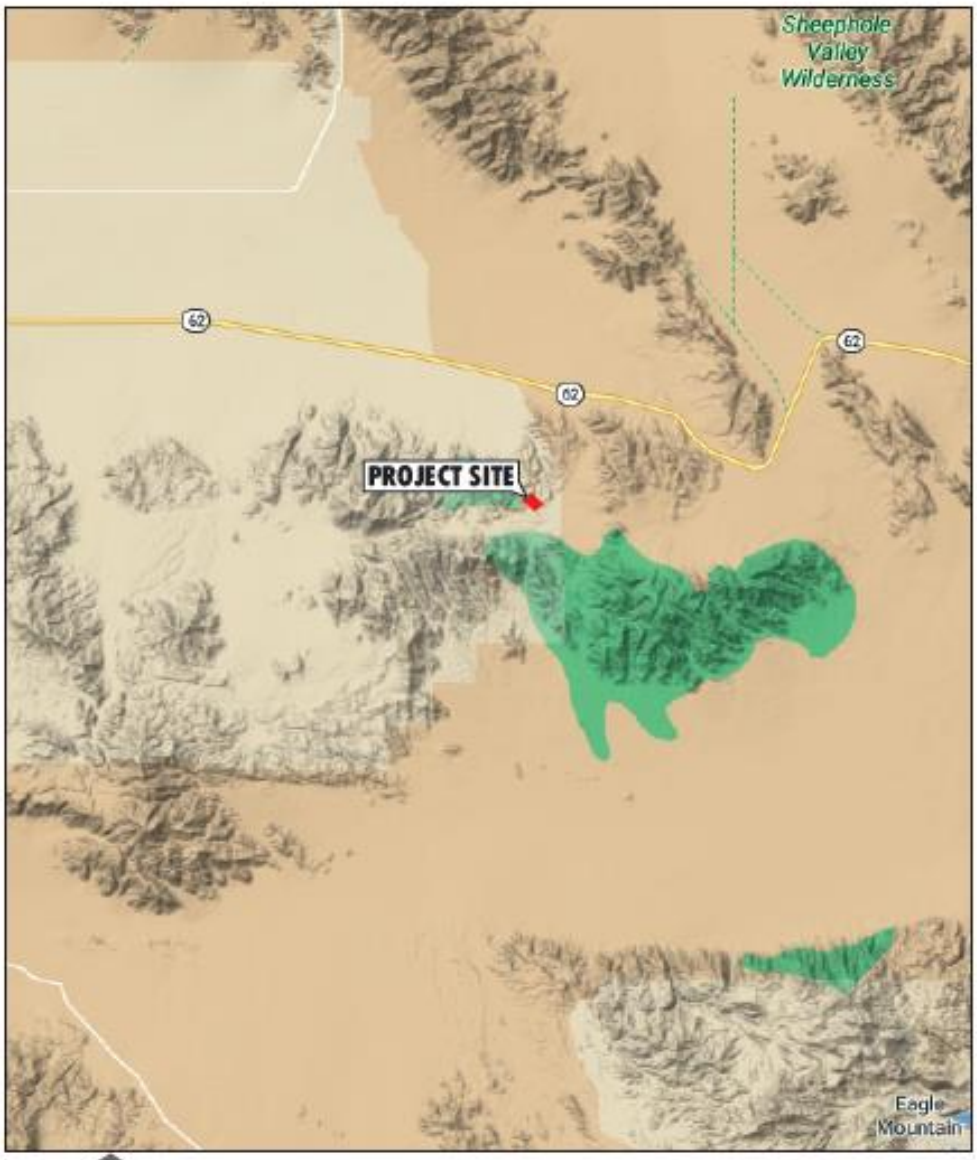


**Figure 2**
Vicinity Map

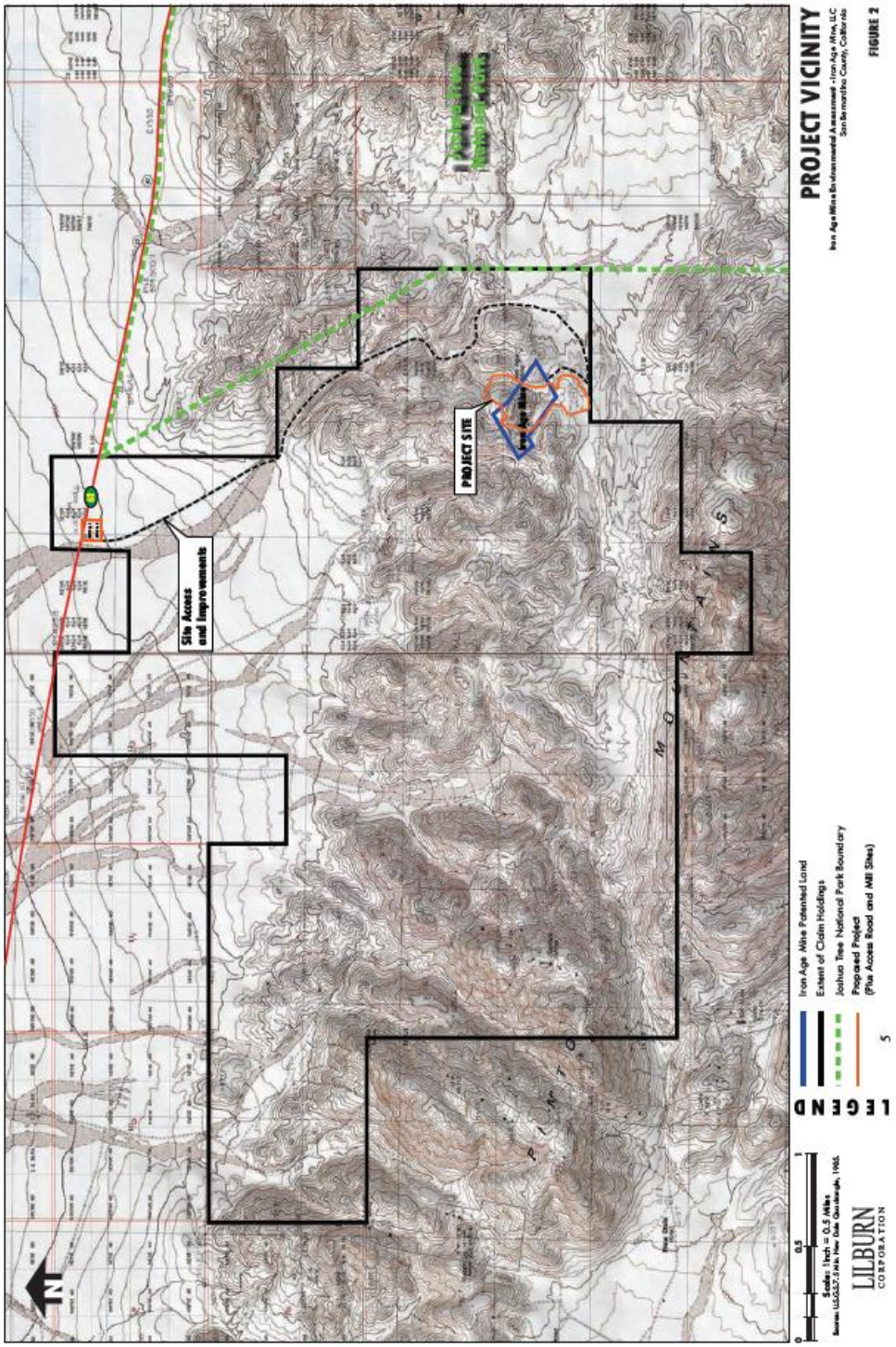


**Figure 3**

Plan of Operations

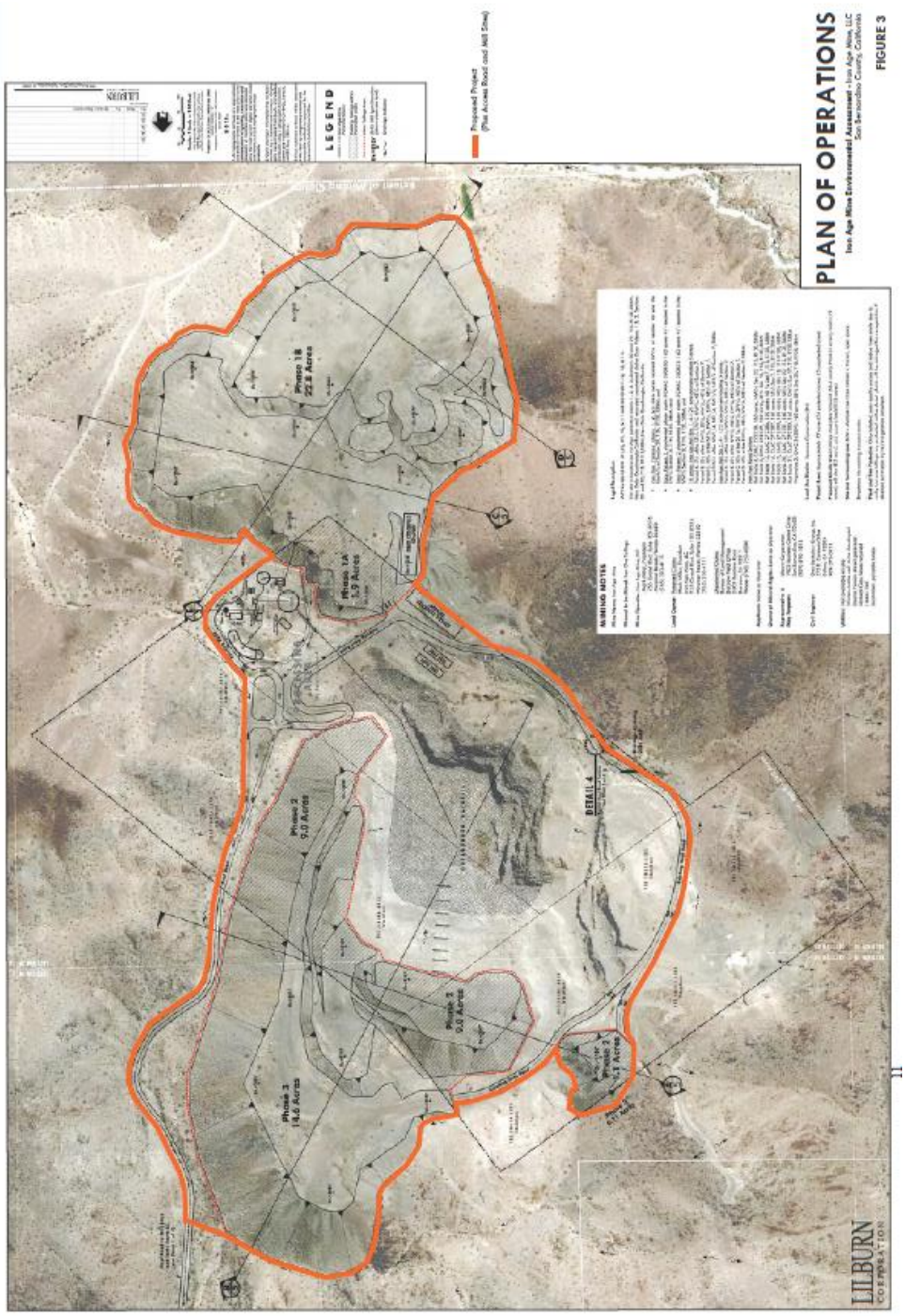


**Figure 4**

IRON Age Reclamation Plan

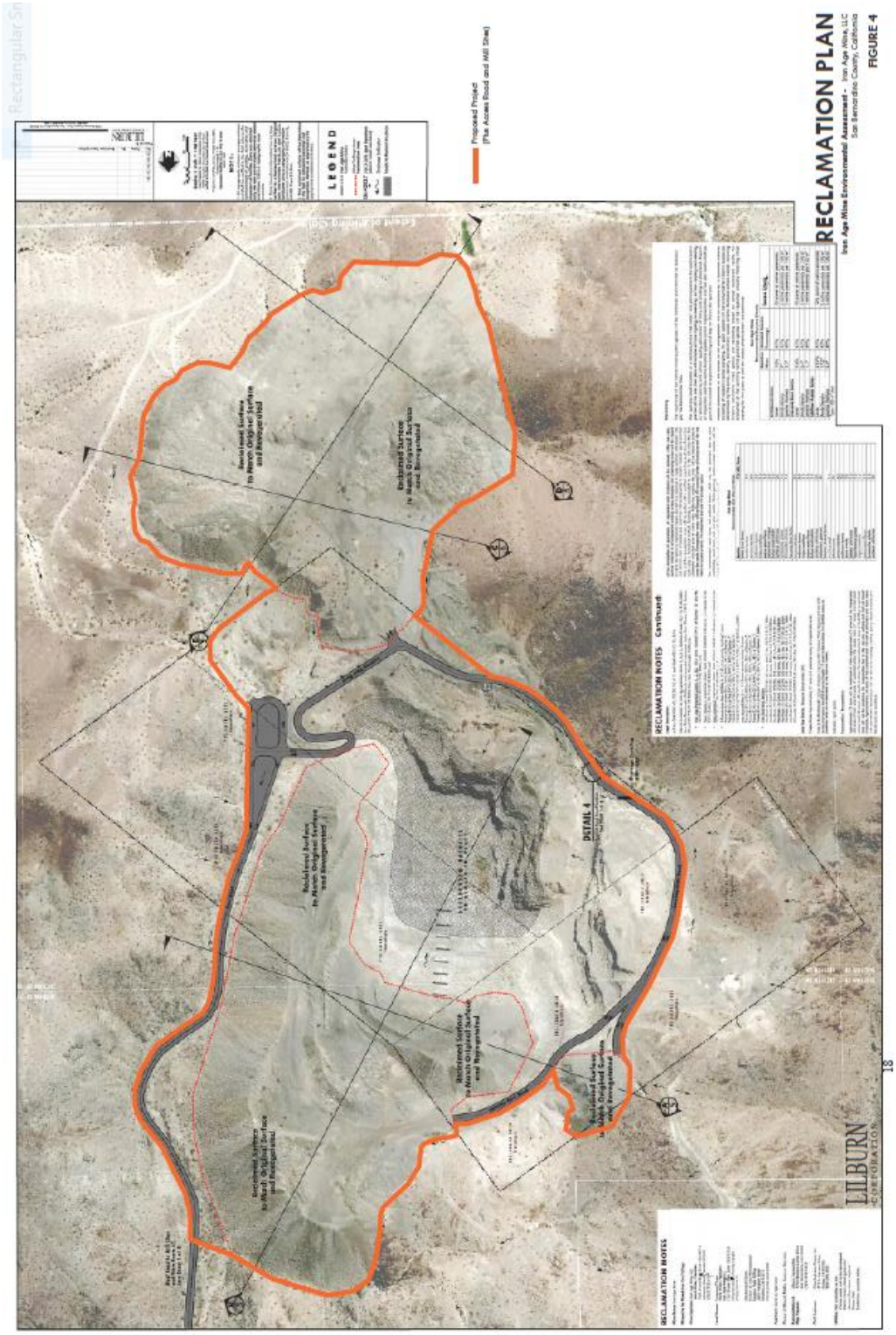
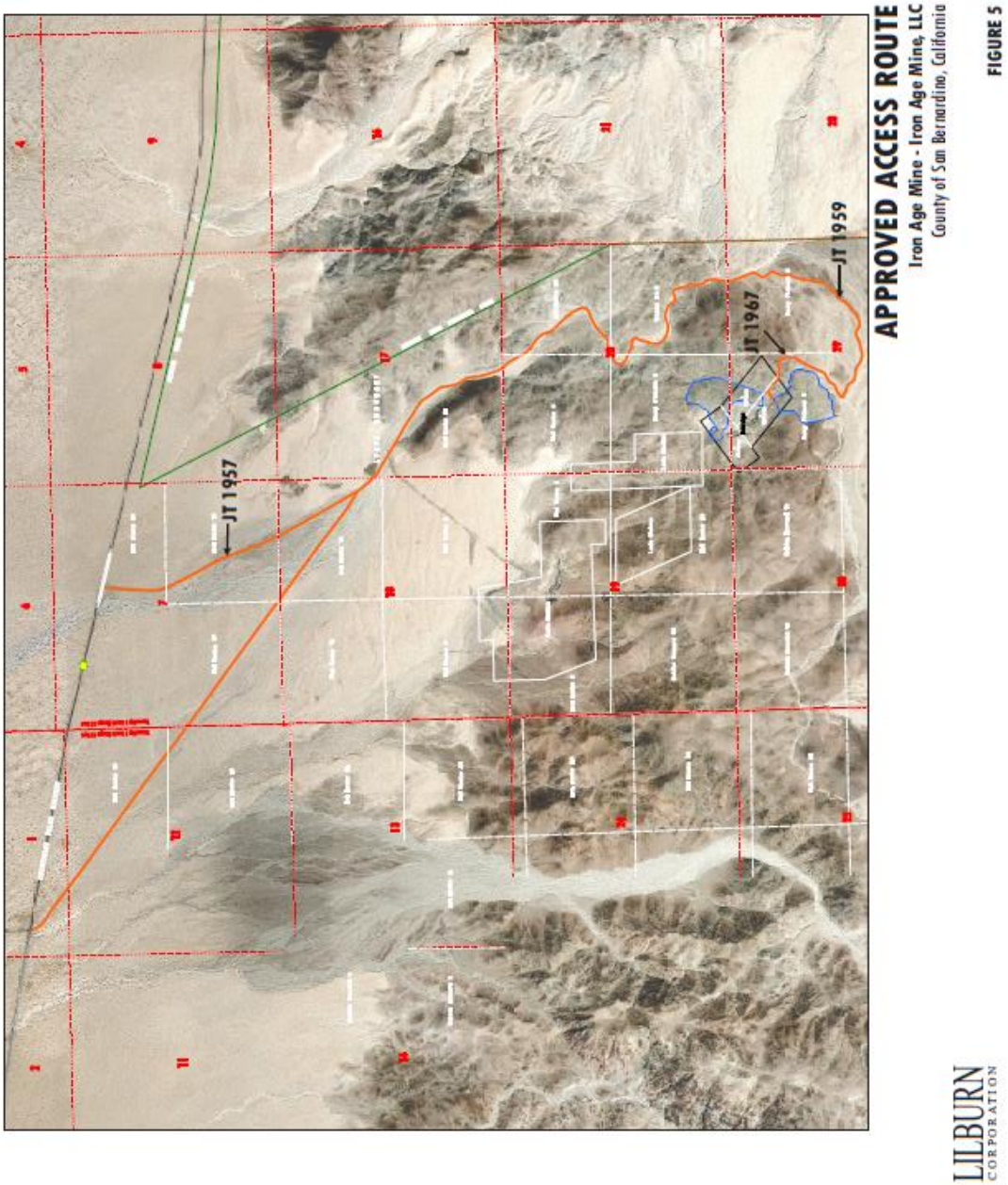


**Figure 5**
Approved Access Route



## Project Understanding

The Iron Age holdings consist of patented (private land) and unpatented claims on public land managed by the BLM, Barstow office. The land patents were established between 1904 and 1908 to include the principal exposures of locatable iron ore. The entire iron deposit was extensively mapped by geologists in 1909. A subsequent Finding of No Significant Impact (FONSI) and Decision Record have been obtained from the BLM for the proposed use on unpatented lands.

*BLM Approval-Decision Record*

As required by BLM, Iron Age had submitted a Plan of Operations (POO) for the proposed use on Federal lands. On January 7, 2021, the POO was approved by the BLM Barstow field office, and a Decision Record, EA, and FONSI were issued.

Based on the National Environmental Policy Act (NEPA) analysis of potential environmental impacts contained in the BLM's EA, BLM-CA-D080-2020- 0031-EA, for the POO for Removal of Existing Iron Ore Stockpiles at the Iron Age Mine, it was concluded that the proposed use would not have a significant effect on the human environment (40 CFR 1501.61) and therefore does not require preparation of an environmental impact statement. Relevant information supporting this determination and a summary of the effects on the human environment disclosed in the BLM's Decision Record is as follows (refer to the EA for additional information):

- Air Quality: The mining operation would not have adverse air quality impacts as activities would not generate impacts in excess of de minimis levels (EA, Chapter 4.1).
- Threatened, Endangered or Candidate Species: The project area was evaluated for the potential presence of threatened, endangered, or candidate species. The desert tortoise (Gopherus agasizzii) is the only Endangered Species Act listed species that is known to occur in the action area. Surveys conducted in 2012 and 2019 did not detect any live tortoises. The Selected Alternative will implement the avoidance and minimization measures, as well as the terms and conditions of the U.S. Fish and Wildlife (FWS) Biological Opinion ((BO) 3809 (P) CACA-53897 CAD0800.31) (EA, Appendix C). The Selected Alternative will not have significant adverse effects on desert tortoise or its habitat (EA, Chapter 4.2).
- Cultural Resources: Cultural resource surveys were conducted, and it was determined that the undertaking would not have adverse effects on cultural resources (EA, Chapter 4.3).
- Visual Resources: The Selected Alternative would have visual effects, but with the implementation of design measures, the visual resource impacts will be consistent with the Visual Resource Management (VRM) classification for the area, VRM Class III (EA, Chapter 4.4).
- Hydrology: The Selected Alternative would not alter the existing drainage pattern of the project area or create additional sources of runoff. A Stormwater Pollution Prevention Plan (SWPPP) would be implemented to control runoff and sedimentation from the project disturbance. Operations will comply with a National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges and employ storm water Best Management Practices (BMP) during construction, operations, and temporary cessation of operations. In addition, a Spill Prevention Control Plan (SPCC) will be implemented to prevent effects to ephemeral surface waters. Given the project design

features, the Selected Alternative will not have significant adverse effects to surface water quality (EA, Chapter 4.5).

- Public Health and Safety: In order to protect public safety on the road, Iron Age will implement the following safety features as part of the project design: 1/ The mill site and its equipment and stockpiles will be fenced with a 6-foot high chain link fence with locking gates and warning signs; 2/ Signs will be posted at SH 62 that mine haul truck traffic utilizes the road; 3/ Mine haul trucks will be restricted to a speed limit of 15 MPH; 4/ All drivers and employees will be trained to be aware that the access road is open to public vehicles; 5/ Perimeter signs around the approved surface mine boundary shall be installed as shown on the plan sheets and shall read in English and Spanish "Danger, Keep Out" "Surface Mining Operation"; 6/ The existing quarry is currently fenced, and the fencing will be extended to include the access and processing area to prevent access by the public. Fencing will be posted "No Trespassing"; and 7/ To limit the exposure of visitors to mining activities in the recreation areas adjacent to the project area, truck traffic would not occur on Sundays and holidays. Additionally, a SPCC with BMPs will be implemented to ensure that on-site materials are stored appropriately and contained in the event of uncontrolled release. Fuel storage specifications apply to all above ground fuel containers. The diesel fuel and gasoline tanks will be placed within concrete or lined containment pads to contain the contents of the tank and a 100-year rainfall event as required. With the implementation of the design measures above, effects to public health and safety would be minimized and are not considered significant.
- Federal, State, Tribal, or Local Law: The Selected Alternative does not violate any known federal, state, tribal or local law or requirement imposed for the protection of the environment. State, local, and Tribal interests were given the opportunity to participate in the environmental analysis process. The BLM has consulted and continues to consult with Tribes regarding this undertaking. In addition, the project is consistent with the California Desert Conservation Area (CDCA) Plan (1980), as amended by the 2016 Desert Renewable Energy Conservation Plan (DRECP) and 2019 West Mojave Route Network Project. The Selected Alternative complies with the CDCA Plan's Conservation and Management Actions to the extent allowable under the mining laws and the BLM's 43 CFR 3809 mining regulations.

*Access*

The Selected Alternative, “Alternative C” (BLM Modification) as described in the EA was approved. The Selected Alternative would approve the Iron Age Mine POO with a modification to use existing BLM designated routes to access the Iron Age Mine. Alternative C BLM Modification will use three designated travel and transportation management system routes including JT1957, JT1959 and JT1967 to access the mine. Although this route network is approximately 1.5 miles longer than the Alternative A access, it will require less improvements due to the condition of the routes. This selected alternative route adds approximately 8 acres to the project area though these roads are all BLM designated routes which will be left in-place following completion of the project activities. Refer to **Figure 5** for the approved access route.

*Section 7 Consultation*

On July 16, 2015, the BLM completed its Formal Section 7 Consultation on the Iron Age Project with U.S. Fish and Wildlife Services (FWS). The FWS Biological Opinion ((BO) 3809 (P) CACA-53897 CAD0800.31) (EA, Appendix C) addresses the effects of the proposed use on the threatened desert tortoise and its designated critical habitat. The document was prepared in

accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The Selected Project Alternative will implement the avoidance and minimization measures, as well as the terms and conditions of the BO. With implementation of these measures, the BLM determined that the Selected Project Alternative will not have significant adverse effects on desert tortoise or its habitat (EA, Chapter 4.2).

The Biological Opinion was based on the biological assessment, additional information that BLM provided during consultation, and information on file. A complete record of this consultation is available at the Carlsbad Fish and Wildlife Office and at the BLM Barstow field office. The findings and avoidance and minimization measures are detailed in the BO and included in Section IVa below as Mitigation Measure BIO-1.

## CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentially, etc.?

On January 29, 2021, the County of San Bernardino mailed notification pursuant to AB52 to the following tribes: San Manuel Band of Mission Indians, Colorado River Indian Tribes, Twenty-Nine Palms Band of Mission Indians, AhaMakav Cultural Society, Morongo Band of Mission Indians, San Gabriel Band of Mission Indians, and Soboba Band of Luiseno Indians. Table 2 – *AB 52 Consultation Results*, shows a summary of comments and responses.

**Table 2**
**AB 52 Consultation**

| Tribe | Comment Letter Received | Summary of Response | Conclusion |
|---|---|---|---|
| San Manuel Band of Mission Indians | February 1, 2021 | None | Concluded |
| Colorado River Indian Tribe | None | None | Concluded |
| AhaMakav Cultural Society | None | None | Concluded |
| Twenty-Nine Palms Band of Mission Indians | None | None | Concluded |
| Morongo Band of Mission Indians | None | None | Concluded |
| San Gabriel Band of Mission Indians | None | None | Concluded |
| Soboba Band of Luiseno Indians | None | None | Concluded |

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 Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

## EVALUATION FORMAT

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based on its effect on 20 major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

| Potentially Significant Impact | Less than Significant With Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact**: No impacts are identified or anticipated, and no mitigation measures are required.
2. **Less than Significant Impact**: No significant adverse impacts are identified or anticipated, and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated**: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
4. **Potentially Significant Impact**: Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below will 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.

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agriculture and 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 Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

**DETERMINATION:** Based on this initial evaluation, the following finding is made:

| | |
|---|---|
| ☐ | The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared. |
| ☒ | Although the proposed project could have a significant effect on the environment, there shall 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 shall be prepared. |
| ☐ | The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. |
| ☐ | 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. |
| ☐ | 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. |

Signature: (Reuben J. Arceo, Planner) Date:July1,2021_

David Prusch

Signature: (Dave Prusch), Supervising Planner Date July 1, 2021

| | Issues | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| **I.** | ***AESTHETICS*** – Except as provided in Public Resources Code Section 21099, would the project: | | | | |
| 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 visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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 will adversely affect day or nighttime views in the area? | ☐ | ☒ | ☐ | ☐ |

***SUBSTANTIATION:*** *(Check ☐ if project is located within the view-shed of any Scenic Route listed in the General Plan):*

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

The Project Site is located in the eastern desert region, as described in the San Bernardino Countywide Policy Plan, and is not located within a scenic vista.[1] The proposed mineral extraction use is acceptable within the Resource Conservation land use zoning designation. Therefore, no impact is anticipated, and no mitigation measures are required.

**No Impact**

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

Figure 5.1-1-*County Designated Scenic Routes* of the San Bernardino Countywide Policy Plan depicts scenic routes to be protected for their scenic vistas and other scenic

[1] San Bernardino Countywide Plan. Chapter 5.1-Aesthetics, Page 4.

and aesthetic qualities that have been found to add beauty to the County. The Proposed Project occurs more than 30 miles east of the nearest scenic route (Park Blvd./Quail Springs Road from SR 62 southeast to Joshua Tree National Park) as identified in the Countywide Policy Plan. No impact is anticipated, and no mitigation measures are required.

**No Impact**

c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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 Site is located approximately 18 miles east/southeast of the City of Twentynine Palms, California, and approximately 3.4 miles south of SR 62 (see Figures 1 and 2). There are no permanent residences or views of the mine site from SR 62, except for the loading area directly along the highway. Joshua Tree National Park is located about one mile to the east with designated Joshua Tree wilderness located 1.5 miles east. There are no designated recreational areas, roads, or hiking trails located in this portion of the Park from which recreational users could view the Proposed Project area.

Impacts to visual resources are based on changes to the existing character of the landscape, viewer sensitivity, and the number of viewers that may view the project activities. The site is an existing mine with large tailings piles and an access in disrepair. Removal of tailings and reconstruction/realignment of the existing access road associated with the Proposed Project may potentially affect the form, lines, and color of the landscape but the change would be minimal. The Proposed Project would result in short-term (15-year) visual impacts principally affecting the visual elements of color through the removal of existing tailings. In addition, impacts would occur with the placement and operation of mining equipment onsite and the potential for visible dust. Operations would be required to comply with Mojave Desert Air Quality Management District (MDAQMD) Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requirements for controlling fugitive dust within the Mojave Desert Panning Area). These are listed under Section III, Air Quality below.

Removal of material at the site would return the area to typical desert surfaces and topography that surrounds the site. Reclamation would include removal of all equipment and structures, grading areas to natural contours, and reseeding with a BLM-approved seed mix followed by vegetation monitoring and remediation to ensure achievement of success criteria. Impacts are considered temporary and less than significant with implementation of the Reclamation Plan.

**Less Than Significant Impact**

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

The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No new light sources are proposed at the operations site as material removal would occur during daylight hours only. The loading and trucking of material from the mill site along SR 62 would be allowed 24 hours/day except Sundays and holidays.

The BLM EA determined that lighting could potentially affect night sky values at the adjacent national park and required the mitigation measures listed below to be implemented. In addition, all lighting at this site shall comply with County Development Code Chapter 83.07.040; Glare and Outdoor Lighting – Mountain and Desert Regions requirements. This includes fully shielding all lights as required to preclude light pollution or light trespass on adjacent property, other property directly or reflected, and members of the public on adjacent roads. With compliance with the BLM measures and existing County regulations, less than significant impacts are anticipated.

**Less than Significant with Mitigation**

**Mitigation Measure:**

**AES-1** 1. Full cut-off (glare resistant/shielded) luminaires that prevent the upward escape of light.
2. Light fixtures that are pointed less than 45 degrees in direction.
3. Area and security lighting should be yellow or amber with a color temperature less than 2500 degrees K.
4. Motion activated security lighting when the site is in operation at night.
5. Water storage tanks shall be painted as to blend into the environment.

**Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.**

| | *Issues* | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **II.** | **AGRICULTURE AND FORESTRY RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation 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 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. Would the project: | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 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, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:*** *(Check ☐ if project is located in the Important Farmlands Overlay):*

***County of San Bernardino Countywide Policy Plan; Submitted Project Materials***

*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?*

No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is identified in the California Important Farmland Finder.[2] The Proposed Project would have no impact to agricultural resources, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. There are no agricultural land uses within the subject property or in the vicinity. No impacts are identified or anticipated.

**No Impact**

[2]California Department of Conservation Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ Accessed 4/21/2021.

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

The Project Site is not designated or zoned as agricultural land use or Williamson Act land. Therefore, the Proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impacts are identified or anticipated.

**No Impact**

*c, d) 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))?*

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

The Project Site and surrounding area does not occur within forest land, timberland, or timberland zoned production. No impacts to these resource lands would result with implementation of the Proposed Project. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

*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 use?*

The Proposed Project would not have any direct or indirect impacts to agricultural resources in the County including the conversion of Farmland to non-agricultural uses. No impacts are identified or anticipated.

**No Impact**

**No impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **III.** | **AIR QUALITY -** Where available, the significance criteria established by the applicable air quality management district or air pollution control district might be relied upon to make the following determinations. Would the project: | | | | |
| 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 substantial emissions (such as odors or dust) adversely affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:*** *(Discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable):*

***County of San Bernardino Countywide Policy Plan; Submitted Project Materials***

**Background -** The Project Site is located in the Mojave Desert Air Basin (MDAB). The MDAQMD has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project's emissions could pose a significant threat to air quality, the MDAQMD has prepared *the California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, February 2020*. The air and dust emissions from the operational use of the Proposed Project were evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

Air quality is determined primarily by the types and amounts of contaminants emitted into the atmosphere, the size and topography of the local air basin and the pollutant-dispersing properties of local weather patterns. When airborne pollutants are produced in such volume that they are not dispersed by local meteorological conditions, air quality problems result. Dispersion of pollutants in the MDAB is influenced by periodic temperature inversions, persistent meteorological conditions and the local topography. As pollutants become more concentrated in the atmosphere, photochemical reactions occur, producing ozone and other oxidants.

Air emissions from the Proposed Project are subject to federal, State and local rules and regulations implemented through provisions of the federal Clean Air Act, California Clean Air Act and the rules and regulations of the California Air Resources Board (CARB) and MDAQMD. Under the provisions of the federal and California Clean Air Acts, air quality management districts with air basins not in attainment of the air quality standards are required to prepare an Air Quality Management Plan (AQMP). An AQMP establishes an area-specific program to control existing and proposed sources of air emissions so that the air quality standards may be attained by an applicable target date.

The federal Clean Air Act and California Clean Air Act were established in an effort to assure that acceptable levels of air quality are maintained. These levels are based upon health-related exposure limits and are referred to as National Ambient Air Quality Standards (NAAQS) California Ambient Air Quality Standards (CAAQS). The ambient air quality standards establish maximum allowable concentrations of specific pollutants in the atmosphere and characterize the amount of exposure deemed safe for the public. The primary and secondary ambient air quality standards are shown in Table 2. Primary federal standards reflect levels of air quality deemed necessary by the federal EPA to provide an adequate margin of safety to protect public health. Areas that meet the standards are designated attainment and if found to be in violation of primary standards are designated as nonattainment areas. Secondary standards reflect levels of air quality necessary to protect public welfare from known or anticipated adverse effects of a pollutant.

## Table 2
## State and Federal
## Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards[1] | | Federal Standards[2] | | |
|---|---|---|---|---|---|---|
| | | Concentration[3] | Method[4] | Primary[3,5] | Secondary[3,6] | Method[7] |
| **Ozone ($O_3$)** | 1-Hour | 0.09 ppm (180 µg/m$^3$) | Ultraviolet Photometry | --- | Same as Primary Standard | Ultraviolet Photometry |
| | 8-Hour | 0.07 ppm (137 µg/m$^3$) | | 0.075 ppm (147 µg/m$^3$) | | |
| **Respirable Particulate Matter ($PM_{10}$)[8]** | 24-Hour | 50 µg/m$^3$ | Gravimetric or Beta Attenuation | 150 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetic Analysis |
| | Annual Arithmetic Mean | 20 µg/m$^3$ | | --- | | |
| **Fine Particulate Matter ($PM_{2.5}$)[8]** | 24-Hour | --- | | 35 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetic Analysis |
| | Annual Arithmetic Mean | 12 µg/m$^3$ | Gravimetric or Beta Attenuation | 12 µg/m$^3$ | 15 µg/m$^3$ | |
| **Carbon Monoxide (CO)** | 1-Hour | 20 ppm (23 mg/m$^3$) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m$^3$) | | Non-Dispersive Infrared Photometry (NDIR) |
| | 8-Hour | 9.0 ppm (10 mg/m$^3$) | | 9 ppm (10 mg/m$^3$) | | |
| | 8-Hour (Lake Tahoe) | 6 ppm (7 mg/m$^3$) | | – | | |
| **Nitrogen Dioxide ($NO_2$)[9]** | 1-Hour | 0.18 ppm (339 µg/m$^3$) | Gas Phase Chemiluminescence | 100 ppb (188 µg/m$^3$) | --- | Gas Phase Chemiluminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m$^3$) | | 0.053 ppb (100 µg/m$^3$) | Same as Primary Standard | |
| **Sulfur Dioxide ($SO_2$)[10]** | 1-Hour | 0.25 ppm (655 µg/m$^3$) | Ultraviolet Fluorescence | 75 ppd (196 µg/m$^3$) | – | Ultraviolet Flourescence, Spectrophotometry (Pararosaniline Method) |
| | 3-Hour | --- | | -- | 0.5 ppm (1300 µg/m$^3$) | |
| | 24-Hour | 0.04 ppm (105 µg/m$^3$) | | 0.14 ppm (for certain areas)[10] | --- | |
| | Annual Arithmetic Mean | – | | 0.030 ppm (for certain areas)[10] | – | |
| **Lead[11,12]** | 30-day average | 1.5 µg/m$^3$ | Atomic Absorption | – | – | High Volume Sampler and Atomic Absorption |
| | Rolling 3-Month Average[11] | -- | | 1.5 µg/m$^3$ (for certain areas)[12] | Same as Primary Standard | |
| | Calendar Quarter | – | | 0.15 µg/m$^3$ | | |
| **Visibility-Reducing Particles[13]** | 8-Hour | See footnote 13 | Beta Attenuation and Transmittance through Filter Tape | **No Federal Standards** | | |
| **Sulfates** | 24-Hour | 25 µg/m$^3$ | Ion Chromatography | | | |
| **Hydrogen Sulfide** | 1-Hour | 0.03 ppm (42 µg/m$^3$) | Ultraviolet Fluorescence | | | |
| **Vinyl Chloride[11]** | 24-Hour | 0.01 ppm (26 µg/m$^3$) | Gas Chromatography | | | |

Source: ARB, 2021.

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter ($PM_{10}$, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For $PM_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.
8. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^{3.}$ The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) was retained at 25 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards in the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the 98th percentile of the 1-hour daily maximum concentration at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
10. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99$^{th}$ percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
12. The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

The USEPA and the CARB have designated portions of the District as nonattainment for a variety of pollutants, and some of those designations have an associated classification. Table 3. lists these designations and classifications. The MDAQMD has adopted attainment plans for a variety of nonattainment pollutants.

The MDAQMD has rules that apply to this project along with permitting requirements. MDAQMD regulates emissions from stationary sources through the permitting process and requires permits to Construct/Operate for all stationary equipment with the potential to release air contaminants. The site’s processing equipment would be operated under a permit to construct and operate from the MDAQMD. Operations and permits are inspected and renewed annually. Haul trucks and diesel equipment must meet requirements of the CARB’s Off-road Diesel Vehicles Regulations to reduce diesel pollutants. Operations would be required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requirements for controlling fugitive dust).

**Table 3**
**State and Federal Air Quality**
**Designations and Classifications**

| Ambient Air Quality Standard | Status |
|---|---|
| Eight-hour Ozone (Federal) | Non-attainment, classified Moderate (portion of MDAQMD in Riverside County is attainment) |
| Ozone (State) | Non-attainment; classified Moderate |
| $PM_{10}$ (Federal) | Non-attainment; classified Moderate (portion of MDAQMD in Riverside County is attainment) |
| $PM_{2.5}$ (Federal) | Unclassified/attainment |
| $PM_{2.5}$ (State) | Non-attainment (portion of MDAQMD outside of Western Mojave Desert Ozone) |
| $PM_{10}$ (State) | Non-attainment |
| Carbon Monoxide (State and Federal) | Attainment |
| Nitrogen Dioxide (State and Federal) | Attainment/unclassified |
| Sulfur Dioxide (State and Federal) | Attainment/unclassified |
| Lead (State and Federal) | Attainment |
| Particulate Sulfate (State) | Attainment |
| Hydrogen Sulfide (State) | Unclassified (Searles Valley Planning Area is non-attainment) |
| Visibility Reducing Particles (State) | Unclassified |

Source: MDAQMD CEQA and Federal Conformity Guidelines, February 2020

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

Operations are considered the removal of the iron ore tailings on approximately 54 acres deposited historically prior to the enactment of SMARA for a period of 15 years. Reclamation of the site after the removal of the tailings would involve the final grading/revegetation of 78 acres within a 105-acre site including 8.5 acres of mill site. The Project Site is within the MDAB and under the jurisdiction of the MDAQMD. The MDAQMD is responsible for updating the Air Quality Management Plan (AQMP). The AQMP was developed for the primary purpose of controlling emissions to maintain all federal and state ambient air standards for the district. A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The Proposed Project is consistent with the zoning and land use classifications that were used to prepare the Mojave Desert AQMP (Resource Conservation/RC). In addition, based on Table 4 below, Project-generated emissions would not exceed emission thresholds.

Therefore, the Project 's emissions are in compliance with the thresholds established by the MDAQMD. The Proposed Project would not significantly increase local air emissions and therefore would not conflict with or obstruct implementation of the AQMP. Therefore, a less than significant impact is anticipated.

**Table 4**
**Operational Emissions Summary**
**(Pounds Per Day)**

| Source/Phase | ROG | $NO_X$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|
| Crushing/Screening Plant including conveyors & stackers | --- | --- | --- | 18.5 | 5.5 |
| Haul Road Dust | --- | --- | --- | 34.7 | 7.4 |
| Generators | 1.7 | 15.0 | 9.5 | 0.5 | 0.4 |
| Mobile Equipment (ore removal & transport) | 7.8 | 47.4 | 35.7 | 1.8 | 1.7 |
| Totals | **9.5** | **62.4** | **45.2** | **55.5** | **15.0** |
| MDAQMD Threshold | 137 | 137 | 548 | 82 | 65 |
| **Significant** | **No** | **No** | **No** | **No** | **No** |

Emission Sources: SCAQMD OFF-ROAD Emissions Model, 2021 and AP-42.

**Less Than Significant Impact**

*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?*

The Proposed Project would include removal of existing tailings, transfer of tailings to the plant by conveyor, crushing and screening, loading and transfer of sized ore to the mill site along SR 62, and loading onto highway trucks for transport. Exhaust or criteria pollutants would be produced from the onsite generators and the mobile equipment. Dust would be produced from tailings removal, loading and unloading, crushing and screening, and truck travel on graveled access roads. Operations would be required to comply with the $PM_{10}$ State Implementation Plan and the MDAQMD regulations for stationary and mobile equipment and to reduce fugitive dust.

To determine if a potential project may significantly impact the ambient air quality, the MDAQMD utilizes the following net daily emissions increase as CEQA thresholds of significance. If the potential emissions exceed these thresholds, then the project may have a significant air quality impact and requires additional analysis.

| | |
|---|---|
| Carbon Monoxide (CO) | 548 lbs/day |
| Nitrogen Dioxide ($NO_2$) | 137 lbs/day |
| Reactive Organic Gases (ROG) | 137 lbs/day |
| Sulfur Dioxide ($SO_2$) | 137 lbs/day |
| Particulate Matter ($PM_{10}$) | 82 lbs/day |
| Particulate Matter ($PM_{2.5}$) | 65 lbs/day |

Operational emissions for the stationary plant and generators, mobile equipment, and dust emissions were estimated utilizing the South Coast Air Quality Management District Offroad Model – Mobile Source Emission Factors model and emissions factors from AP-42

Compilation of Air Pollutant Emission Factors (as updated) for Crushed Stone Processing and for unpaved roads. Table 4 above provides the estimated emissions for the tailing's removal, processing, and shipping operations. Operational emissions would not exceed MDAQMD significance thresholds.

Reclamation activities would require earthmoving, and other activities typically associated with final grading and revegetation for an approximate two-to-three-week period. The Proposed Project was screened for emissions generation as discussed above. Typically, daily reclamation activities were screened for the following: a water truck, a scraper/grader, and a miscellaneous material handling equipment. This would occur for approximately 14 days. Reclamation emissions would not exceed MDAQMD significance thresholds.

As shown in Tables 4 and 5, operational and reclamation emissions would not exceed MDAQMD thresholds and less than significant air quality impacts are expected with implementation of existing regulations.

**Table 5**
**Reclamation Activities Emissions**
**(Pounds per Day)**

| Source | ROG | $NO_x$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|
| Water Truck | 0.4 | 2.5 | 2.8 | 0.1 | 0.1 |
| Scraper/Grader | 1.5 | 9.8 | 6.2 | 0.4 | 0.4 |
| Other Material Handling Equipment | 0.7 | 4.6 | 3.5 | 0.2 | 0.2 |
| **Totals (lbs/day)** | **2.6** | **16.9** | **12.5** | **0.7** | **0.7** |
| MDAQMD Threshold (lbs/day) | 137 | 137 | 548 | 82 | 65 |
| **Significant** | **No** | **No** | **No** | **No** | **No** |

Emission Sources: SCAQMD OFF-ROAD Emissions Model, 2021

*Compliance with MDAQMD Regulation II and Rules 402 and 403*

Although the Proposed Project does not exceed MDAQMD thresholds, the Applicant is required to comply with all applicable MDAQMD rules and regulations as the MDAB is in non-attainment status for ozone and suspended particulates ($PM_{10}$ and $PM_{2.5}$ (state)). Stationary equipment including the crushing and screening plant and the generators must comply with Regulation II and obtain Permits to Construct and Operate which limit emissions to current regulatory thresholds and are renewed annually.

To limit dust production, the Applicant must comply with Rules 402 nuisance and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source. This would include, but not be limited to the following BACMs:

1. The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.

    I. The Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being worked shall be watered to ensure that a crust is formed on the ground surface and shall be watered at the end of each workday.

II. The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.

III. The Project proponent shall ensure that all operational and processing activities are suspended when winds exceed 25 miles per hour.

Exhaust emissions from vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces, would increase $NO_X$ and $PM_{10}$ levels in the area. Although the Proposed Project would not exceed MDAQMD thresholds during operations, the Applicant would be required to implement the following conditions as required by MDAQMD:

2. All equipment used for mining and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.

3. The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from truck idling.

4. The operator shall comply with all existing and future CARB off-road and on-road diesel vehicle and MDAQMD regulations, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

5. The aggregate crusher must obtain permits to construct and annually renew permits to operate from the MDAQMD and be in compliance with such permits.

MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for all diesel fueled engines, trucks, and equipment with the statewide CARB Off-Road Diesel Vehicle Regulations. These measures would be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines and truck and equipment fleets.

With compliance with existing rules and regulations and mitigation measures above, operational emissions are expected to be less than significant.

The project area is within the Mojave Desert $PM_{10}$ Planning Area and the Western Desert Ozone non-attainment area. The State Implementation Plan (SIP) identifies sources of $PM_{10}$ emissions and control measures to reduce emissions. The EPA requires the application of reasonable available control technology (RACT) to stationary emission sources and reasonable available control measures (RACM) to mobile sources, and new source review and permitting. These would be incorporated through compliance with regulations described above. No new mining or excavation of the existing quarry is proposed at this time; the Proposed Project only includes the removal, screening and transporting of iron material from the site. As shown in Table 4, the thresholds for the above referenced criteria pollutants would not be exceeded by the Project. The mine is located in a very sparsely populated desert region and no development is proposed in the vicinity. Therefore, no air quality cumulative impacts are anticipated.

**Less Than Significant Impact**

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

The Proposed Project is located in a remote area of northeastern San Bernardino County, east of the San Bernardino Mountains. No sensitive receptors are located within the project vicinity. Therefore, no impacts are anticipated.

**No Impact**

*d) Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people?*

The Proposed Project is the removal, processing, and reclamation of iron ore tailings stockpiled on 54 acres. The generation of objectionable odors is not associated with this type of mining and reclamation activities and there are no sensitive receptors within the project vicinity. Therefore, no impact is anticipated.

**No Impact**

**Therefore, less than significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | *Issues* | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **IV.** | **BIOLOGICAL RESOURCES –** Would the project: | | | | |
| a) | Have substantial adverse effects, 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? | ☐ | ☒ | ☐ | ☐ |
| 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 Wildlife or US Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |

| | | | | | |
|---|---|---|---|---|---|
| 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? | ☐ | ☒ | ☐ | ☐ |

***SUBSTANTIATION:*** *(Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ☐):*

***San Bernardino Countywide Policy Plan; BLM EA, FWS BO, Submitted Project Materials***

*a) Have substantial adverse effects, 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?*

The following reports were reviewed: A *Biological Resources Assessment (BRA) for the Iron Age Mine* (Lilburn Corporation, July 2014; see Appendix B of the Mine Reclamation Plan), a *Desert Tortoise Pre-Project Survey Report for the Alternative Mine Road* (ADT, May 2019, BLM's *EA* January 2021, and the FWS *Biological Opinion* (July 2015).

Listed or Sensitive Plants - Focused botanical surveys of the haul road right-of-way, mill site, and tailings area were conducted in April and May 2012, and May 2019. No sensitive plant species were observed within the survey area at that time.

Per notice dated September 24, 2020, the California Fish and Game Commission determined that the listing of the western Joshua tree (*Yucca brevifolia)* as threatened or endangered under the California Endangered Species Act (CESA) may be warranted. This commences a one-year status review of the species; the Commission will make a final decision at a future meeting. During the status review, the western Joshua tree is protected under CESA as a candidate species. Joshua trees were recorded to the north along the access road and along the BLM selected alternative route. No Joshua trees are on the tailings piles to be removed or within the Iron Age Quarry to be partially backfilled.

Listed Wildlife Species - The BRA identified one candidate, sensitive, or special status species, desert tortoise (*Gopherus agassizii*), to have the potential to occur within the Project Site and vicinity. The desert tortoise was determined to have a moderate potential to occur south of the tailings area. Additionally, a Pre-Project Desert Tortoise

Survey was conducted along the alternative access route to the south and recorded no live desert tortoise or sign within the study area or along the road alignment. Two burrows that could have been used by desert tortoise at one time were observed south of the proposed tailings recovery area.

The Proposed Project would impact a total of approximately 21 acres of suitable desert tortoise habitat; 15.7 of those acres occur within the Pinto Mountains critical habitat unit / Desert Wildlife Management Area (DWMA) and 5.3 acres occur outside of the critical habitat unit/DWMA. The remainder of the Project Site (approximately 76 acres) is heavily impacted by the tailing's piles, quarry, and roadway and is unsuitable for desert tortoise habitat. Note that with implementation of the required reclamation and revegetation plan on tailings piles now devoid of vegetation and not suitable desert tortoise habitat, approximately 50 acres would be returned to desert vegetation and suitable desert tortoise habitat as compared to existing conditions.

On July 16, 2015, the BLM completed its Formal Section 7 Consultation on the Iron Age Project with FWS. The FWS Biological Opinion ((BO) 3809 (P) CACA-53897 CAD0800.31) (EA, Appendix C) addresses the effects of the proposed use on the threatened desert tortoise and its designated critical habitat. The document was prepared in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The Selected Project Alternative will implement the avoidance and minimization measures, as well as the terms and conditions of the BO. With implementation of these measures, the BLM determined that the Selected Project Alternative will not have significant adverse effects on desert tortoise or its habitat (EA, Chapter 4.2).

The opinion was based on the biological assessment, additional information that BLM provided during consultation, and information on file. A complete record of this consultation is available at the Carlsbad Fish and Wildlife Office and at the BLM Barstow field office. The findings and avoidance and minimization measures are detailed in the BO and included in Section IV a below as Mitigation Measure BIO-1. In addition, Iron Age must notify the CDFW for determination of consistency of the BO with CESA (Fish and Game Code section 2080.1).

Sensitive Wildlife – The following species have been designated by the CDFW as "Special Animals." The CDFW defines "Special Animals" as a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa in its latest list (January 2012) to be those of greatest conservation need. The following species from the Special Animal list either have a probability to occur at the subject site or were observed to be present in the course of biological surveys: Pallid Bat (*Antrozous pallidus*); California Leaf-nosed Bat (*Macrotus californicus*); Coast Horned Lizard *(Phrynosoma blainvilii*); American Badger (*Taxidea taxus*); and Mojave Fringe-toed Lizard (*Uma scoparia*). Note that the northern portion of the project area overlies a Mojave Fringe-toed Lizard Area of Critical Environmental Concern (ACEC) established by the BLM. This is discussed under IV f and Mitigation Measure BIO-2 is listed below to reduce impacts to less than significant.

Migratory Birds - "Migratory bird" means any bird listed in 50 CFR 10.13. All native birds found commonly in the United States, with the exception of native resident game birds, are protected under the Migratory Bird treaty Act (MBTA). The MBTA prohibits taking of

migratory birds, their parts, nests, eggs, and nestlings. EO 13186, signed January 10, 2001, directs federal agencies to protect migratory birds by integrating bird conservation principles, measures, and practices.

Six special status migratory birds were observed in the Project Area, including the following: Golden eagle (*Aquila chrysaetos*); Prairie falcon (*Falco mexicanus*); Burrowing owl (*Athene cunicularia*); Le Conte's thrasher (*Toxostoma lecontei*); California thrasher (*Toxostoma redivivum*); and Loggerhead shrike (*Lanius ludovicianus*). The Le Conte's thrasher (*Toxostoma lecontei*), designated a "Special Animal" by the CDFW was the only non-special status migratory bird species that was found to have a moderate probability to occur within the Project Site. Possible significant adverse impacts to bird species would be reduced to a level less than significant per implementation of Mitigation Measure BIO-3 listed below.

**Less than Significant with Mitigation**

*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 Wildlife or US Fish and Wildlife Service?*

The BRA did not find any riparian vegetation or wetlands on the project areas or along the road alignment. Catclaw acacia and streambed was observed along portions of the access roads. Catclaw acacia is described as occurring in uplands and rarely flooded margins of arroyos and washes. Streambeds are described as unvegetated and characterized by sandy beds with no vegetation or dominated by upland species vegetation.

The BLM's Selected Alternative, as described in the EA and under the Project Understanding above, approved the Iron Age Mine POO with a modification to utilize existing BLM designated routes to access the mine. The existing three designated travel and transportation management system (and motorized) routes include JT1957, JT1959 and JT1967. This route network will require less improvements due to the condition of the routes and be consistent with the existing BLM designated routes, which will be left in-place following completion of the project activities.

Biological and cultural surveys were conducted on these routes in 2019. The improvements and utilization of these routes will comply with BM guidelines and implement the avoidance and minimization measures in the EA, as well as the terms and conditions of the FWS BO. The Selected Alternative will not have significant adverse effects on desert tortoise or its habitat (EA, Chapter 4.2).

With adherence to the regulatory permitting requirements and guidelines including mitigation as applicable, the Proposed Project is not anticipated to have a significant 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 Wildlife or US Fish and Wildlife Service.

**Less than Significant with Mitigation**

*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?*

The BRA did not identify riparian vegetation or wetland resources as defined by Section 404 of the Clean Water Act within the study area. No impact would occur.

**No Impact**

*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?*

Iron Age Mine is located adjacent to Joshua Tree National Park to the east and south, to Humbug Mountains to the West, and to the Pinto Mountains to the southwest. The general location of the mine site has a wildlife corridor function for species moving to and from these locations. The large wash adjacent to the prosed mine access road serves as a wildlife corridor for species moving from the rocky areas of brittlebush series habitat, to the big galleta habitat and creosote bush habitat. The washes may be used by various mammals, reptiles, and bird species to forage, seek shelter, and migrate. In order to reduce potential impacts to less than significant, the approved Reclamation Plan and Mitigation Measure BIO-4 shall be implemented.

**Less than Significant with Mitigation**

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

The San Bernardino County Native Plant Protection policy (1989) provides protection for all trees greater than 6 inches diameter at breast height (dbh), smoke trees, mesquite, creosote rings, and all plants in the agave family, including Joshua trees. The Proposed Project is not anticipated to conflict with any local policies or ordinances protecting native plants or other biological resources because the site is predominately devoid of any vegetation and will implement a revegetation plan. As discussed above, the Joshua tree is a protected CESA candidate species. If surveys locate any Joshua trees, they must be avoided or if any Joshua trees will be impacted, an Individual Take Permit (ITP) with CDFW will need to be prepared and processed. See Mitigation Measure BIO-4. With mitigation, potential impact of Joshua trees will be reduced to a less than significant impact.

**Less than Significant with Mitigation**

*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?*

In their Decision Record and FONSI, the BLM determined that the proposed project is consistent with the CDCA Plan (1980), as amended by the 2016 Desert Renewable Energy Conservation Plan (DRECP) and 2019 West Mojave Route Network Project. The Selected Alternative complies with the CDCA Plan's Conservation and Management Actions to the extent allowable under the mining laws and the BLM's 43 CFR 3809 mining regulations.

Iron Age Mine is located within the planning area for the West Mojave Plan (WMA). The West Mojave Plan consists of two components: A Federal component that would amend the existing 1980 California Desert Conservation Area Plan, and a Habitat Conservation Plan (HCP) component that would cover development in private lands. A Biological Opinion was finalized for the federal portion of the Plan.

The Project Site overlies two BLM designated habitat management areas established by the West Mojave Plan; these include the Mojave fringe-toed lizard Area of Critical Environmental Concern (ACEC) and the Pinto Mountain DWMA for desert tortoise. Approximately 8 acres of the Mojave fringe-toed lizard ACEC would be impacted. Approximately 84.2 acres of the Project Site are within the DWMA, of these approximately 68.5 have been determined to be currently impacted and unsuitable for desert tortoise habitat; 15.7 acres have been determined to be viable desert tortoise habitat. Potential impacts to these areas and species would be mitigated as discussed in Section IVa above and by measures listed below.

Note that with implementation of the required reclamation and revegetation plan on tailings piles now devoid of vegetation and not suitable desert tortoise habitat, approximately 50 acres would be returned to desert vegetation and suitable desert tortoise habitat within the DWMA as compared to existing conditions.

**Less than Significant with Mitigation**

**Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a conditions of project approval to reduce these impacts to a level less than significant.**

**BIO-1**

- The Bureau and Iron Age will designate a person to act as the field contact representative with specific experience in the implementation of environmental compliance programs. The field contact representative will serve as the environmental compliance monitor and will be present throughout the construction of the mill site and access road, mining operations, and reclamation. This individual will serve as liaison among the Service, Bureau, construction workers, truck drivers, authorized biologist(s), and biological monitor(s). The field contact representative, working with an authorized biologist, will ensure compliance with the conditions and requirements of project permits and approvals set forth in this biological opinion and supporting plans appended to the biological assessment.
- The field contact representative will have the authority to stop project activities if a desert tortoise is in danger or protective measures are not adequately implemented. This would include enforcing the 15-mile-per-hour speed limit through desert tortoise habitat along the access road and ensuring that project personnel do not travel cross country with motorized vehicles.
- During the construction of the mill site and access road, Iron Age will use authorized biologists approved by the Service and biological monitors approved by an authorized biologist to ensure compliance with the protective measures for the desert tortoise. Use of authorized biologists and biological monitors will be in accordance with the most up-to-date Service guidance and

will be required for monitoring of any construction activities that may injure or kill desert tortoises.

The authorized biologist must have thorough and current knowledge of desert tortoise I behavior, natural history, ecology, and physiology, and demonstrate substantial field experience and training to conduct their required duties safely and successfully. Authorized biologists arc approved to monitor project activities and are responsible for locating desert tortoises and their sign (i.e., conducting clearance surveys). Authorized biologists must ensure proper implementation of protective measures and make certain that the effects or the project on the desert tortoise and its habitat are minimized in accordance with a biological opinion or incidental take permit. All incidents of noncompliance in accordance with the biological opinion or permit must be recorded and reported.

Biological monitors will be approved by the authorized biologist to monitor project activities, ensure proper implementation of protective measures, and record and report desert tortoise and sign observations in accordance with approved protocol. They will report incidents of noncompliance in accordance with a biological opinion or permit, move desert tortoises from harm's way when desert tortoises enter project sites and place these animals in "safe areas" pre-selected by authorized biologists or maintain the desert tortoises in their immediate possession until an authorized biologist assumes care of the animal. Monitors assist authorized biologists during surveys and serve as "apprentices" to acquire experience. Monitors should not conduct clearance surveys or other specialized duties of the authorized biologist unless directly supervised by an authorized biologist; "directly supervised" means the authorized biologist has direct voice and sight contact with the monitor. Refer to the following of additional information: http://www.fws.gov/carlsbad/PalmSprings/DesertTortoise.html.

- The use of authorized biologists during mining operations and reclamation activities will be on an as-needed basis. In this case, the field contact representative will consult authorized biologists approved by the Bureau and the Service to determine the most appropriate course of action when a desert tortoise enters the project site, is found along the access road, or has established burrows within the project area that may be affected by the mining operations and may need to be moved out of harm's way.
- The Bureau will review the credentials of all individuals seeking approval as authorized biologists. The Bureau will provide the credentials of appropriate individuals to the Service for approval at least 30 days prior to the time they are needed in the field.
- The authorized biologists will be responsible for all aspects of clearance surveys, monitoring, developing, and implementing the worker environmental awareness program, communication with agency personnel, reporting, and be present, along with biological monitors, during construction of the mill site and access road. An authorized biologist will be available during the mining operations and reclamation, as needed, when activities are likely to affect desert tortoises such that a more highly skilled biologist is needed (e.g., conducting surveys to ensure desert tortoises are not present in vegetated areas, excavating burrows, etc.). The authorized biologists will

supervise and train the biological monitors. Training by authorized biologists will include ensuring biological monitor and the field contact representative are qualified to capture, handle, and move desert tortoises in situations where an authorized biologist is unavailable or for less complicated tasks (e.g., moving a desert tortoise from under a vehicle or off the access road, etc.).

- The field contact representative will act on the advice of the authorized biologist(s) and biological monitor(s) to ensure conformance with the protective measures set forth in this biological opinion. Additionally, the authorized biologist(s) will have the authority to immediately stop any activity that is not in compliance with these conditions.
- The Bureau will ensure that all workers associated with the proposed Iron Age Project receive worker environmental awareness training to ensure protection of the desert tortoise and its habitat The field contact representative and authorized biologist will administer the training at the onset of the project, annually, and when new employees are hired to all onsite personnel and anyone else (e.g., contractors, truck drivers, etc.) who needs to travel to the mine site. The worker environmental awareness training will:
    - Be developed by or in consultation with the authorized biologist and consist of a presentation in which supporting written material and electronic media, including photographs of protected species, are made available to all participants;
    - Provide an explanation of the purpose and function of the desert tortoise avoidance and minimization measures and the possible penalties for not adhering to them;
    - Inform workers that the field contact representative and the authorized biologists have the authority to halt work in any area where an unauthorized adverse impact to biological resources may occur if the activities continued;
    - Discuss general safety protocols such as hazardous substance spill prevention and containment measures and fire prevention and protection measures;
    - Provide an explanation of the sensitivity and locations of the vegetation, biological resources, and habitat within and adjacent to work areas, and proper identification of these resources;
    - Place special emphasis on the desert tortoise, including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection. reporting requirements. and protective measures required for the project;
    - Provide contact information for the authorized biologist(s) and biological monitor(s) to handle late comments and questions about the material discussed in the program. as well as notification of any dead or injured wildlife species encountered during project-related activities.
    - Direct all workers to report all observations of listed species and their sign to an authorized biologist for inclusion in the yearly compliance report;

  - Include a training acknowledgment form to be signed by each worker indicating that they received training and will abide by the guidelines; and
  - Provide information regarding the effects of predation on the desert tortoise by common ravens (Corvus corax) and other predators and the measures that have been developed to reduce the likelihood that predators will be attracted to the project area.

- Prior to construction of the mill sites at State Route 62, Iron Age will install fencing to exclude desert tortoises from entering the site. The fence will be constructed according to the protocols provided in Chapter 8 of the Desert Tortoise Field Manual (Service 2009). If desert tortoises are encountered during installation of the fence, the authorized biologist will move the individual the shortest distance possible to an area outside the fence on public land where it will be safe. The authorized biologist will use his or her judgment regarding the best measures to use to ensure the desert tortoise does not immediately return to the area inside of the fence or be placed in a location where it could enter State Route 62. The authorized biologist may contact the Service to discuss specific situations if the need arises.
- After the exclusionary fencing has been installed and before the onset of ground-disturbing activities, the authorized biologist will follow established survey protocols and remove all desert tortoises from within the fenced area. All desert tortoises will be considered to have been removed once a complete survey of the work area is conducted without finding any additional animals. Desert tortoises that are found inside the fenced area will be placed on the other side of the exclusion fence. The authorized biologist will use his or her best judgment to determine the optimal location for placement of desert tortoises, which would include ensuring the animals are not relocated into areas that may isolate them from the desert tortoise population in the area or enable them to access the highway.
- Iron Age will maintain the integrity of the fence for the duration of the proposed project to ensure that desert tortoises are excluded from the mill site during construction and until all mining operations and activities, including reclamation efforts, related to this proposed action are concluded. The fence will be inspected regularly and repaired when necessary; initially, it will be inspected monthly, but Iron Age may adopt a different schedule, based on acquired experience.
- An appropriate number of authorized biologists and biological monitors will be available during construction of the mill sites and access road for the protection of the desert tortoise. Authorized biologists will monitor each activity where conditions exist that may result in injury or mortality of desert tortoise (e.g., clearing, grading, re-contouring, and restoration activities).
- For the construction of the access road, the authorized biologist or a qualified biological monitor will survey ahead of the project activities and halt construction if he or she finds a desert tortoise in the path of construction equipment. Project activities will not resume until the desert tortoise moves out of harm's way or the authorized biologist has relocated it.
- During mining operations, the field contact representative will inspect all excavations, trenches, and areas that are not within desert tortoise exclusion

fencing on a regular basis (several times per day). If a desert tortoise is discovered in an area planned for excavation or an area where the animal may be injured or killed, the field contact representative will coordinate with an authorized biologist to determine the best course of action to protect or move the animal to a safe location in accordance with the field manual (Service 2009). The field contact representative will also monitor vehicle speeds along the access road and ensure that drivers maintain a speed limit of 15 miles per hour when temperatures are between 50 and 100° F.

- Iron Age will survey for invasive weeds at the earliest spring season following the letter of authorization to proceed issued by the Bureau. It will provide to the Bureau a list of surveyors and their qualifications, and a work plan that describes a proposed survey methodology. No surveys may be conducted without the approval of the authorized officer. Invasive weed surveys will be repeated every 5 years until reclamation is complete. The goals of this effort are to detect and remove any non-native invasive weed that was not present prior to the onset of the proposed action and to prevent Sahara mustard (*Brassica tourneforlii*) from becoming the dominant annual plant in the action area. Non-native invasive species will be removed through manual, mechanical or chemical methods depending on the specific circumstances and as approved by the Bureau's authorized officer. If a new species of non-native weed is observed prior to the 5-year survey, Iron Age will contact the Bureau for authorization to remove the infestation.
- During reclamation or erosion control, the mine operator will use only certified weed free straw, mulch, and seed native soils unless approved by the authorized officer.
- Desert tortoises found in the project area will be handled and moved by an authorized biologist in accordance with the most current Service protocol. If a desert tortoise is found in harm's way, all potentially harmful activity will cease until the desert tortoise moves or is moved out of harm's way by an authorized biologist, biological monitor, or field contact representative; as described in measure 6, biolo81cal monitors and the field contact representative may move desert tortoises from harm's way in less complicated situations. Desert tortoises that need to be moved from harm's way will be placed on adjacent Bureau land, using techniques described in the field manual (Service 2009).
- Desert tortoises that are moved offsite and released into undisturbed habitat on public lands will be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibemaculum in which it was found, or in an artificially constructed burrow in accordance with techniques described in the field manual (Service 2009).
- Desert tortoises excavated from burrows will be moved to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows will be 150 to 300 feet from the original burrow. Relocated desert tortoises will not be placed in existing occupied burrows. If an existing burrow that is similar in size, shape, and orientation to the original burrow is unavailable, the authorized biologist will construct one. Desert tortoises moved during inactive periods will be monitored for at least 2 days after placement in the new burrows to ensure their safety.

- Iron Age will clearly mark, sign, or flag all project activity areas at the outer boundaries before the onset of construction and during mining operations. All activities will be confined to designated areas.
- Iron Age will not create any new unpaved or additional paved roads. If unforeseen circumstances require disturbance beyond the project area limits, Iron Age will contact the Bureau.
- The field contact representative (with input from an authorized biologist) will inform workers at regular briefings if desert tortoises are likely to be active that day or in the foreseeable future. When desert tortoises are expected to be active, workers will inspect the ground around and underneath any vehicle or construction equipment that has been parked longer than 2 minutes within habitat of desert tortoises prior to moving the vehicle. If the desert tortoise does not move out of harm's way of its own volition or is in any other situation where it is at risk of being killed, the worker will contact the field contact representative, authorized biologist or biological monitor to move it.
- The Bureau will ensure that workers do not bring firearms and pets into the project area This measure does not apply to law enforcement personnel and working dogs.
- To reduce the attractiveness of the project area to common ravens and coyotes, Iron Age will place trash in sealed containers and empty the containers at a commercial facility on a weekly basis. The project area will be kept as clean of debris as possible.

*Compensation*

Iron Age committed to offsetting the loss of desert tortoise habitat by paying compensation at a rate of 5 to 1 for impacts on undisturbed areas within the desert wildlife management area (15.7 x 5 = 78.5 acres) and 1 to 1 for impacts on undisturbed areas outside desert wildlife management area (5.3 acres). The boundaries of the desert wildlife management area and critical habitat coincide in the project area. Alternatively, Iron Age may transfer 83.8 acres of land to the Bureau.

**Sensitive Wildlife**

**BIO-2** In order to mitigate potential impacts to specific species that may occur within the project impact area, the following measures are recommended:

American Badger:

- All project work areas shall be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction and restoration workers shall restrict their activities and vehicles to areas which have been flagged to avoid adverse impacts to the badger. All workers shall be instructed that their activities are restricted to flagged and cleared areas; and
- An on-call biological monitor will be available to help identify any potential impacts to the badger.

Le Conte's Thrasher

- If mining activities will occur during nesting season (March 15-September 15), a pre-construction survey will be conducted in the project impact area to

identify any nests. If nests are found, the nest will be flagged and avoided. In accordance with the Migratory Bird Treaty Act, if an active bird nest is located, the nest site shall be fenced a minimum of 200 feet in all directions, and the area shall not be disturbed until after the nest becomes inactive. If no active nests are observed during the survey, vegetation may be removed;

- All project activities will remain within the established project area and unnecessary vehicle or personnel activity will be avoided outside the project area. Potential direct impacts to the species include being hit by vehicles on access roads, grading of new access roads, preparation of staging locations, and general disturbance due to increased human activity.

Coast horned lizard and Mojave fringe-toed lizard:

- Conducting clearance surveys prior to the commencement of any ground disturbing activities;
- Worker environmental training; and
- Maintaining a speed limit of 20 mph on all access roads.

Burrowing Owl:

- The project impact area should be surveyed for the presence of burrowing owl no more than thirty days prior to ground disturbing activities;
- If the burrowing owl is found or the presence or burrowing owl is confirmed, and the proposed reconstruction and realignment of the existing roadway will occur during the breeding season (February 15 to August 15), then the active owl burrows on-site and within 500 feet of the project activities shall be identified, and physically marked before the start of any construction activities. A survey to mark the burrows shall be undertaken no earlier than February 15. During the construction period, active burrows that are not going to be removed by construction activities will be afforded a minimum 250-foot buffer to protect foraging habitat and owls. A biological monitor will be present to ensure that adequate avoidance of impacts to owls and their burrows is maintained. The monitor will have the authority to modify the buffer zone in order to protect the owls from harm; and
- If necessary, passive relocation techniques should adhere to those described in the *Burrowing Owl Consortium Survey Protocol & Mitigation Guidelines*.

**BIO-3** **Migratory Birds**

If construction or land clearing activities will occur during nesting season (March 15-September 15), a pre-construction survey will be conducted in the project impact area to identify any nests. If nests are found, the nest will be flagged and avoided. In accordance with the MBTA, if an active bird nest is located, the nest site shall be fenced a minimum of 200 feet in all directions, and the area shall not be disturbed until after the nest becomes inactive. If no active nests are observed during the survey, vegetation may be removed.

**BIO-4** **Sensitive Plants (Joshua Tree)**

Joshua tree surveys will be conducted to mark any Joshua trees found within the road alignment and in mining areas. If any Joshua trees will be impacted, compliance with CESA will be required and an Individual Take Permit (ITP) with CDFW will need to be prepared and processed.

**Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.**

| | *Issues* | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **V.** | **CULTURAL RESOURCES** – Would the project: | | | | |
| a) | Cause a substantial adverse change in the significance of a historical resource pursuant to §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 outside of formal cemeteries? | ☐ | ☒ | ☐ | ☐ |

***SUBSTANTIATION:*** (Check if the project is located in the Cultural ☐ or Paleontologic ☐ Resources overlays or cite results of cultural resource review):

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

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

*Disturb any human remains, including those outside of formal cemeteries?*

A cultural resources report for the Iron Age Mine was prepared and is available at the County of San Bernardino Planning Department. McKenna et al. completed a Class III cultural resources investigation for the BLM Barstow Field Office, San Bernardino County, California. The study was completed under Field Authorization No. CA-680-13-22 (BLM State Permit No. CA-10-26), by Jeanette A. McKenna, M.A. and R.P.A., Principal Investigator for McKenna et al. The studies were initiated in February 2013 and completed in June 2013. The field survey was conducted between March 20 and March 24, 2013, also by Jeanette A. McKenna. **Note that data presented in the cultural resource's investigation is confidential and not for public review.** Only a summary of the findings, conditions and mitigation measures in order to mitigate any potential significant cultural impacts are included herein.

The cultural resources investigation included: 1) an archeological records search through the San Bernardino County Museum, Archaeological Information Center, Redlands and supplementary research through the BLM Barstow Field Office, 2) Native American Consultation, 3) historic background research of the general area and the potential for identifying prehistoric and/or historic cultural resources, 4) a paleontological overview from the Natural History Museum of Los Angeles County, and 5) field studies.

The Area of Potential Impact (APE) was approved through consultation with James Shearer, BLM Archaeologist, Barstow Field Office. As approved, the Iron Age Mine APE consists of a corridor involving 50 feet on either side of the center line of the existing roadways (early and recent Iron Age Road alignments), the 97-acre Iron Age Mine Project Site itself, and ten acres of land identified as the "mill site" on SR 62. The 100-foot-wide roadway corridor would provide the necessary width to re-establish a direct road between SR 62 and the Iron Age Project Site.

The project area is within the historic Dale Mining District having been explored and occasionally mined since the 19th century. Previous research identified six cultural resources within one mile of the APE. Of these, two were roadways (Route 62 and Iron Age Road); two historic/modern refuse scatters; one USGS benchmark; and one mining camp. Only the roadways were within the APE. The remaining resources are not in areas of primary or secondary impacts.

As a result of the recent studies, McKenna et al. recorded updates for SR 62 and Iron Age Road. McKenna et al. has also recorded the Iron Age Mine as a resource. Despite these recordings, McKenna et al. concluded that none of these resources is considered significant or important and the proposed undertaking will not result in any adverse environmental impacts with respect to cultural resources. Mitigation measures are required to protect and avoid unknown and possible buried prehistoric and historic archaeological sites that could be uncovered during operations.

The Proposed Project will be removing iron tailings stockpiles and the surficial nature of the disturbance would minimize potential impacts to paleontological resources. The area is also not considered sensitive for paleontological resources and no impacts to paleontological resources are anticipated.

**Less than Significant with Mitigation**

| MM# | Mitigation Measures |
|---|---|
| **CR-1** | A qualified archaeologist approved by the BLM and County will conduct a pre-construction survey for cultural resources to mark sensitive resources for avoidance. Operations shall not knowingly disturb, alter, or destroy any historical or archaeological resource. The employees and contractors involved in the project will receive cultural resources awareness training, which will be directed towards recognizing and avoiding these features. Access roads and operation areas will set back from any historical or archaeological features which will be prominently flagged in the field to avoid disturbance. |
| **CR-2** | |

The following procedures shall be implemented in the event that potentially sensitive cultural resources are uncovered during construction and grading activities:

- In the event archaeological, paleontological and/or historical resources, including pottery, rock art, middens or human remains, are uncovered during earthmoving activities, all work in that area shall cease immediately and a qualified archeologist shall be retained to access the findings, and if necessary, provide appropriate disposition of the resources. Earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed on the site when the archaeologist, in consultation with the appropriate Native American Tribe(s) and the County of San Bernardino Museum, determines the resources are recovered to their satisfaction.

- If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the San Bernardino County Coroner must be notified. The appropriate land manager (BLM or County) and the owner of the site shall also be called and informed of the discovery. If the remains are located on federal public lands, the BLM land managers/federal law enforcement/federal archaeologist is to be informed as well because of complementary jurisdiction issues. Disturbing human remains is against federal and state laws and there are criminal/civil penalties including fines and/or time in jail up to several years. The Coroner will determine if the bones are historic/archaeological or a modern legal case.

- State law dictates that the Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American decent, in accordance with California Public Resources Code Section 5097.98.

- All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA)16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the state of California regardless of the remains are modern or archaeological.

- Modern Remains - If the Coroner's Office determines the remains are of modern origin, the appropriate law enforcement officials will be called by the Coroner and conduct the required procedures. Work will not resume until law enforcement has released the area.

- Archaeological Remains - If the remains are determined to be archaeological in origin and there is no legal question, the protocol changes depending on whether the discovery site is located on federally or non-federally owned/managed lands.

- Remains discovered on federally owned/managed lands - After the Coroner has determined the remains are archaeological or historic and there is no legal question, the BLM Barstow Field Office Archaeologist must be called. The

archaeologist will initiate the proper procedures under ARPA and/or NAGPRA. If the remains can be determined to be Native American, the steps as outlined in NAGPRA, 43 CFR 10.6 Inadvertent discoveries, must be followed.

- Remains discovered on non-Federally owned/managed lands - After the Coroner has determined the remains on non-federally owned/managed lands are archaeological and there is no legal question, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact by telephone within 24 hours, the California NAHC. The NAHC will immediately notify the person it believes to be the most likely descendent of the remains. The most likely descendent has 48 hours to make recommendations to the landowner for treatment or disposition of the human remains. If the descendent does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.

**Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.**

| | *Issues* | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **VI.** | **ENERGY** – Would the project: | | | | |
| 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 or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☒ | ☐ |

***SUBSTANTIATION: San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

Fuel

During operations, transportation energy consumption is dependent on the type of vehicles used, number of vehicle trips, fuel efficiency of vehicles, and travel mode. Transportation fuel use such as gasoline and diesel during operations would result from the use of trucks, heavy equipment, and employee vehicles. The Proposed Project

would not generate additional fuel consumption as operation fleet and equipment would remain the same.

The Proposed Project does not include uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT or associated wasteful vehicle energy consumption. It is not expected to result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Therefore, the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

**Less Than Significant Impact**

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

Project design and operation would comply with the County of San Bernardino Greenhouse Gas Emissions Reduction Plan, and the State Building Energy Efficiency Standards related to appliance efficiency regulations, and green building standards. Project development would not cause inefficient, wasteful and unnecessary energy consumption, and no adverse impact would occur.

The Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32; therefore, the Project is consistent with AB 32, which aims to decrease emissions statewide to 1990 levels by to 2020. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are recommended.

**Less Than Significant Impact**

**Therefore, less than significant impacts are identified or anticipated and no mitigation measures are required.**

| | *Issues* | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **VII.** | **GEOLOGY AND SOILS** – Would the project: | | | | |
| 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 direct or indirect risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| f) | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |

***SUBSTANTIATION:*** *(Check ☐ if project is located in the Geologic Hazards Overlay District):*

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

*a) 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?*

The site is not located within an Alquist-Priolo Earthquake Fault Zone according to Figure 5.6-1-*Alquist-Priolo Fault Zones and County Fault Hazard Zones* of the San Bernardino Countywide Policy Plan.[3] No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

[3] San Bernardino Countywide Plan. Chapter 5.6, Page 5.6-9/Figure 5.61-1.

**No Impact**

*ii) Strong seismic ground shaking?*

Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. The site Is not located in the vicinity of an earthquake fault and the Proposed Project site is to be used for a mining operation and does not contain habitable structures. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

*iii) Seismic-related ground failure, including liquefaction?*

The Project Site is not mapped within a region known for liquefaction susceptibility as shown on Figure 5.6-3-*Liquefaction and Landslide Susceptibility* of the San Bernardino County Countywide Policy Plan.[4] The Countywide Policy Plan does not identify the site to occur in an area susceptible to liquefaction. As noted, the Proposed Project would not build permanent structures or construct facilities with foundations that could fail as a result of liquefaction during an earthquake. Therefore, no impacts are expected, and no mitigation measures are required.

**No Impact**

*iv) Landslides?*

The Project Site is not mapped within a region known for landslide susceptibility as shown on Figure 5.6-3-*Liquefaction and Landslide Susceptibility* of the San Bernardino County Countywide Policy Plan. The Countywide Policy Plan does not identify the site to occur in an area susceptible to landslides. Therefore, the Project Site would not be exposed to landslide hazard. No impacts are expected, and no mitigation measures are required.

**No Impact**

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

During the removal of the tailings, drainage patterns would not be altered from existing conditions. The tailings are porous and heavy and are not susceptible to erosion. After removal of the tailings, the site would be re-graded to near the original contours as shown on the Reclamation Plan sheet. Sheet flow would drain towards the east and eventually enter the drainage that is located along the southeast portion of the site and continue downgradient. It is expected that the onsite runoff would eventually create its own natural drainage channels to the east. The site would also be stabilized through revegetation. Therefore, less than significant impact is anticipated.

**Less Than Significant Impact**

[4] San Bernardino Countywide Plan. Chapter 5.6, Page 5.6-17/Figure 5.61-3.

*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 Proposed Project is the removal and transport of iron ore tailings and reclamation of the tailing's removal site. The removal of the stockpiled tailing is not located in an area that is geologically unstable or would become unstable as a result of the removal of the stockpile. Therefore, no significant adverse impacts are identified or anticipated, and mitigation measures are required.

**Less Than Significant Impact**

*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 are typically characterized by clayey material that shrinks as it dries and swells as it becomes wet. Collapsible soils consist of loose, dry, low-density materials that are weakly cemented and that thus can collapse or be compressed with the addition of water or weight. Collapsible soils include young fine-grained alluvial materials, wind-deposited soils, and soils with salts. Much of the Desert Regions has low to moderately expansive soils.

According to the Swelling Clays Map of the Conterminous United States, the Project Site is identified as containing little or no welling clay.[5] Furthermore, the Proposed Project would not build permanent structures or construct facilities with foundations that could fail as a result of expansive soils. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

*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?*

Septic tanks and/or alternative wastewater systems are not proposed as part of the Proposed Project. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

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

As discussed in Section V of this Initial Study, the Proposed Project would be removing iron tailings stockpiles and the surficial nature of the disturbance would minimize potential impacts to paleontological resources. The area is also not considered sensitive for paleontological resources and no impacts to paleontological resources are anticipated. In the event paleontological resources are uncovered during earthmoving activities, implementation of Mitigation Measures CR-1 and CR-2 would reduce impacts to paleontological resources to a less than significant impact. No additional mitigation measures are required.

[5] U.S. Geological Survey. *Swelling Clays Map of the Conterminous United States*. 1989.

**Less Than Significant Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

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

***SUBSTANTIATION:***
***San Bernardino Countywide Policy Plan; County GHG Reduction Plan, Submitted Project Materials***

**Greenhouse Gas Emissions Interim Measures**
According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

<u>San Bernardino County GHG Reduction Plan</u>

In September 2011, the County of San Bernardino adopted a Greenhouse Gas Emissions (GHG) Reduction Plan (September 2011, updated March 2015) ("GHG Plan"). The GHG Plan presents a comprehensive set of actions to reduce the County's GHG emissions to 15% below current levels (2007 levels) by 2020, consistent with the AB 32 Scoping Plan. GHG emissions impacts are assessed through the GHG Development Review Process (DRP) by applying appropriate reduction requirements as part of the discretionary approval of new development projects. Through its development review process, the County would implement CEQA requiring new development projects to quantify project GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons of $CO_2$ equivalent ($MTCO_2e$) per year is used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions. However, specific requirements for mining projects to reduce emissions of GHGs have not been adopted and so the Amended Plan would not conflict with the County's Greenhouse Gas Reduction Plan. Note that the MDAQMD has a threshold of 100,000 tons of $CO_2e$ per year (MDAQMD 2020).

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

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

Per CEQA guidelines, new project emissions are treated as standard emissions, and air quality impacts are evaluated for significance on an air basin or even at a neighborhood level. Greenhouse gas emissions are treated differently, in that the perspective is global, not local. Therefore, emissions for certain types of projects might not necessarily be considered as new emissions if the project is primarily population driven. Many gases make up the group of pollutants that are believed to contribute to global climate change. However, three gases are currently evaluated Carbon dioxide ($CO_2$) Methane ($CH_4$) and Nitrous oxide ($N_2O$). South Coast Air Quality Management District (SCAQMD) provides guidance methods and/or Emission Factors. MDAQMD allows the use of this methodology.

GHG is inherently a cumulative issue, because no single project would be expected to result in a measurable change in global climate. The cumulative nature of GHG is considered by agencies in adopting significance thresholds and adopted significance thresholds represents levels at which a project is considered cumulatively significant.

The GHG emissions were calculated and compared to the MDAQMD's 100,000 $MTCO_2e$ screening threshold to determine if potentially significant to anticipated global warming. Utilizing the South Coast Air Quality Management District's (SCAQMD) Off-road Model - Mobile Source Emission Factors model (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html), annual operation GHG emissions amount to approximately 9.3 tons per day or 2,894.2 $MTCO_2e$ per year based on a worst case of 312 days of operations per year (see Table 6). Operations would not exceed the MDAQMD's thresholds.

Due to the estimated minimal GHG emissions from the Proposed Project to be less than the County threshold, effects on climate change are expected to be less than significant.

**Table 6**
**Greenhouse Gas Emissions**

| Source/Phase | $CO_2$ | $CH_4$ | $N_20$ |
|---|---|---|---|
| Mobile Equipment | 13,140 | 0.71 | Neg. |
| Generator | 5,392 | 0.05 | Neg. |
| Total Lbs. per Day | 18,532 | 0.76 | Neg. |
| Total Per Year (tons) | 2,890.9 | 3.3 | Neg. |
| **MTCO2e per Year** | 2,894.2 | | |
| MDAQMD Threshold (MTCO2e) | 100,000 | | |
| **Significant (Yes/No)** | No | | |

Note: Assumes 312 working days/year, up to 6 days a week.
Neg: less than 0.01
1 Off-Road Mobile Source Emissions Factors, 2021
2 San Bernardino County threshold, 3,000 MTCO2e/year

**Required Conditions**

The project emissions are less than significant. However, the applicant would be required to implement GHG reduction performance standards. The GHG reducing performance standards were developed by the County to improve the energy efficiency, water conservation, vehicle trip reduction potential, and other GHG reducing impacts from all new development approved within the unincorporated portions of San Bernardino County. As such, the following Performance Standards establish the minimum level of compliance that development must meet to assist in meeting the 2020 GHG reduction target identified in the in the County GHG Emissions Reduction Plan. These Performance Standards apply to all Projects, including those that are emit less than 3,000 MTCO2e per year, and would be included as Conditions of Approval for development projects.

The following are the Performance Standards (Conditions of Approval) that are applicable to the Project:

*1. The "developer" shall submit for review and obtain approval from County Planning of a signed letter agreeing to include as a condition of all construction contracts/subcontracts requirements to reduce GHG emissions and submitting documentation of compliance. The developer/construction contractors shall do the following:*

*a) Select construction equipment based on low GHG emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.*

*b) All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.*

*c) All construction equipment (including electric generators) shall be shut off by work crews when not in use and shall not idle for more than 5 minutes.*

**Less Than Significant Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **IX.** | **HAZARDS AND HAZARDOUS MATERIALS –** Would the project: | | | | |
| a) | Create a significant hazard to the public or the environment through the routine transport, use, or 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 or excessive noise 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, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***
***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

*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 Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, and lubricants. The operator would continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials.

Regular maintenance would be performed on-site using a lube truck. All oil and grease would be stored and dispensed using a lube truck. The lube truck, service truck, and the mine foreman's pickup truck are all outfitted with appropriate diesel fuel tanks to transport fuel from bulk storage and fuel equipment at the mine site. Per the County of San Bernardino, the mine is required to submit a business plan, spill prevention control and counter measure plan (SPCC) with Best Management Practices (BMPs) to ensure that on-site materials are stored appropriately and contained in the event of uncontrolled release. Fuel storage specifications apply to all above ground fuel containers. The diesel fuel and gasoline tanks would be placed within concrete or lined containment pads to contain the contents of the tank and a 100-year rainfall event as required. Fuel would be transferred to the site by tanker trucks.

All refuse generated by Project activities would be transported offsite and would be disposed of at an authorized offsite landfill facility. With the implementation of the SPCC and BMPs, less than significant impacts from hazardous and solid wastes are anticipated.

**Less Than Significant Impact**

*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 involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, and lubricants. The operator would continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials. During operation, diesel exhaust would be generated by heavy construction equipment; however, no school facilities or proposed school facilities are located within one-quarter mile radius of the Project Site. Therefore, no impact is anticipated.

**No Impact**

*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?*

The Project Site is not identified on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[6] The operator would comply with all applicable federal and state safety rules and regulations regarding hazardous materials. Therefore, no impact is anticipated.

**No Impact**

[6] https://www.envirostor.dtsc.ca.gov/public/map/?assembly=42 Accessed 4/21/21.

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 Project Site is not identified as being within a public or private airport influence area as shown on Figure 5.8-2-*Airport Safety Zones* of the San Bernardino Countywide Policy Plan.[7] The nearest airport to the Project Site is the Twentynine Palms Airport located approximately 20 miles north/northwest of the site. No impacts are identified or anticipated and no mitigation measures are required.

**No Impact**

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

Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, implementation of the Proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact is anticipated.

**No Impact**

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

The Project Site is not mapped within a High or Very High Fire Severity Zone as shown on Figure 5.8-6-*Fire Severity Zones and Potential Growth Areas in the East Desert Region* of the San Bernardino Countywide Policy Plan[8]. The Countywide Policy Plan does not identify the site to occur in a Fire Safety Overlay District. The Proposed Project is not anticipated to result in any safety hazards impacts from wildfires to people or structures due to its isolated location. No Impact is anticipated.

**No Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **X.** | **HYDROLOGY AND WATER QUALITY -** Would the project: | | | | |
| a) | Violate any water quality standards or waste discharge requirements or otherwise | ☐ | ☐ | ☒ | ☐ |

[7] San Bernardino Countywide Plan. Chapter 5.8, Page 5.8-25/Figure 5.8-2.
[8] San Bernardino Countywide Plan. Chapter 5.8, Page 5.8-41/Figure 5.8-6.

| | | | | | |
|---|---|---|---|---|---|
| | 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 are a, 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 off-site; | ☐ | ☐ | ☒ | ☐ |
| | 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 runoff; or | ☐ | ☐ | ☒ | ☐ |
| | iv. impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| d) | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☒ | ☐ |
| e) | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

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

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

A Jurisdictional Delineation for the Iron Age Mine was prepared by Lilburn Corporation in June 2012. The report found that the Proposed Project has the potential to impact 6.3 acres of ephemeral drainages subject to Waste Discharge Requirements (WDRs) from the Colorado River Basin Regional Water Quality Control Board (RWQCB) and Fish and Game Code Section 1602 for a Streambed Alteration Agreement from the CDFW. Compliance with WDRs and 1602 conditions would reduce project impacts to less than significant.

In addition, the site operations would be required to obtain a Stormwater Pollution Prevention Plan (SWPPP) to control runoff and sedimentation from the Project disturbance. In addition, a SPCC plan would be implemented to prevent impacts to ephemeral surface waters.

The Iron Age Mine is located within the Pinto Mountains, a nonwater-bearing rock formation. The nearest groundwater basin is the Dale Valley Groundwater Basin within the Colorado River Hydrologic Region. The California Department of Water Resources (DWR), Bulletin 118 identifies the surface area of the Dale Valley Ground Water Basin ("basin") as 213,000 acres (333 square miles). The basin underlies Dale Valley and is bounded by nonwater-bearing rocks of the Bullion Mountains on the north, of the Pinto Mountains on the south, of the Sheephole Mountains on the East, and by the Mesquite fault on the West (Bishop 1963). Surface runoff drains toward Dale (dry) Lake in the southeastern part of the valley. Groundwater movement is also to the lake. Recharge to the basin is by percolation of runoff from the slopes of the surrounding mountain and precipitation to the valley floor and by underflow past the Mesquite fault from the west (DWR 1961, 1979). The basin's total storage capacity has previously been estimated by DWR to be 2,000,000 acre-feet (1975) and 3,500,000 acre-feet (1979).

Analyses of water from 11 wells in the basin show high total dissolved solid (TDS) content. Water below Dale Lake is saline and has been mined for salts. TDS is generally less away from the lakebed. Fluoride concentration is commonly high. The water quality in this basin is generally unsuitable for domestic and agricultural uses (DWR 1979).

Operation water would be provided by an on-site well to be drilled at the plant site or at the mill site depending on drilling results. Process water would be recycled through a lined holding pond. Approximately 60% of the water used for wet cycle processing would be recycled through a lined settling pond. A 10,000-gallon water tank would be placed at the plant site. A water truck would be available for mobile use. Water would be used for product screening, dust control, and road dust suppression; water used for dust control would evaporate. Water demand is estimated at 9 million gallons annually with approximately 3.6 million gallons (11 acre-feet) of makeup water due to product loss and evaporation.

The Proposed Project is not within the service area of a water supplier, a State Water Project contractor, or a regional groundwater management agency. No water purveyor exists within approximately 17 miles of the Project Site and therefore an Urban Water Management Plan is not available.

The Proposed Project's estimated demand of 11 acre-feet per year would not adversely affect the water balance of the Dale Valley Groundwater Basin vicinity. The Proposed Project's consumptive use for operations or dust control is not expected to be affected by water quality. Less than significant impact is anticipated.

**Less Than Significant Impact**

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 off-site;*

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

There is an ephemeral wash located to the east of the Project Site that flows north along the existing haul road and broadens into an alluvial fan as it nears SR 62. A second drainage drains the Project Site north through a canyon and along the existing haul road for approximately 0.75 miles where it intersects the main drainage described above. The onsite drainage was cut off by the large tailings pile on the south. After removal of this tailings stockpile, the drainage would be reclaimed back to its natural flow through the south end of the site.

During the removal of the tailings, drainage patterns would not be altered from existing conditions. The tailings are porous and heavy and are not susceptible to erosion. After removal of the tailings, the site would be re-graded to near the original contours as shown on the Reclamation Plan sheet. Sheet flow would drain towards the east and eventually enter the drainage that is located along the southeast portion of the site and continue downgradient. It is expected that the onsite runoff would eventually create its own natural drainage channels to the east. The site would also be stabilized through revegetation.

**Less Than Significant Impact**

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

*iv) Impede or redirect flood flows?*

The Project Site is located within the Dale Lake Watershed (HUC 1810010024) in the Southern Mojave sub-basin. The Dale Lake watershed is approximately 135 square miles. The watershed captures hydrologic flow from the Pinto Mountains. Surface water in the vicinity is limited to storm flows as sheet flow and ephemeral drainages. There are no surface waters that provide a source of supply. There are no springs, seeps, perennial drainages, wetlands, or riparian areas within or adjacent to the Project Site.

Surface water in the vicinity of the Project is dependent on seasonal precipitation. The Project Site does not receive much precipitation, with average rainfall of 4.24 inches per year (WRCC 2012) as measured at Twentynine Palms. Cool-season precipitation is the most extensive source of rain in the Mojave Desert region and is widespread with a relatively long duration. Warm-season precipitation results from convective thunderstorms.

The Proposed Project is not within the service area of a water supplier, a State Water Project contractor, or a regional groundwater management agency. Neither is it within an adjudicated groundwater basin. The Proposed Project is located east of the City of Twentynine Palms. The Twentynine Palms Water District provides water to the city and surrounding area; the service area is approximately 87 square miles. The District is the nearest

public water supplier (PWS) to the Project Site and their easternmost service lateral is located in Wilshire Road, approximately 25 miles west of the Project Site. A PWS does not serve the area of the Proposed Project.

Water for operations would be obtained from a well to be drilled onsite as described in Section X above and the Proposed Project would not generate runoff water. Additionally, the Proposed Project would implement an SPCC and BMPs as discussed in Section 8 to avoid and prevent contamination by hazardous materials used onsite. All refuse generated by Project activities would be transported offsite and would be disposed of at an authorized offsite landfill facility. No impacts are anticipated.

**Less Than Significant Impact**

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

A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. As the Project Site is not located adjacent to any body of water that has the potential of seiche or tsunami, no impacts are anticipated.

**Less Than Significant Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XI.** | **LAND USE AND PLANNING** - Would the project: | | | | |
| 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? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

a) *Physically divide an established community?*

The Project Site is surrounded by open space lands. The Proposed Project is consistent with the Countywide Policy Plan and would not physically divide an established community. No impact is anticipated.
**No Impact**

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?*

The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project as the Proposed Project is consistent with all applicable land use policies and regulations of the San Bernardino Countywide Policy Plan. No impact is anticipated.

**No Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XII.** | **MINERAL RESOURCES** - Would the project: | | | | |
| a) | Result in the loss of availability of a known mineral resource that will 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? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:*** *(Check ☐ if project is located within the Mineral Resource Zone Overlay):*

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

a), b) *Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?*

*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?*

The State's Guidelines for Classification and Designation of Mineral Lands help implement SMARA by providing the State Geologist with direction in carrying out mineral resource classification of lands in California that are threatened by uses that would be incompatible with or would preclude access to significant mineral resources. These guidelines describe how the State Mining and Geology Board (SMGB) may elect to designate mineral-bearing areas of statewide or regional significance.

The Mineral Lands Classification System (MLCS) is the process of identifying lands containing significant mineral deposits. Designation is the formal recognition by the SMGB, after consultation with lead agencies and other interested parties, of areas containing mineral deposits of regional or statewide significance. The objective of classification and designation processes is to ensure, through appropriate lead agency mineral resource management policies and procedures, that mineral deposits of statewide or of regional significance are available when needed. Classification is completed by the State Geologist in accordance with the SMGB's priority list, into Mineral Resource Zones (MRZ). Classification is based on geologic and economic factors without regard to existing land use and land ownership. Within the classifications, "MRZ-2" is defined as areas that contain identified mineral resources.

The Department of Conservation, California Geological Survey (formerly the Division of Mines and Geology) has not included the Iron Age ore deposit within the MLCS. However, mining claims have been maintained to access the iron ore deposit. The Proposed Project would supply iron ore to the region. Therefore, the Proposed Project would not result in the loss of availability but would provide a mineral resource that would be of value to the region and the residents of the State. Therefore, no impacts are anticipated.

**No Impact**

**No impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XIII.** | **NOISE** - Would the project result in: | | | | |
| 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 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?

***SUBSTANTIATION:*** *(Check if the project is located in the Noise Hazard Overlay District ☐ or is subject to severe noise levels according to the General Plan Noise Element ☐):*

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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?*

The San Bernardino Countywide Policy Plan Noise Element does not identify specific goals or policies for the desert region. Noise regulations are identified in Section 83.01 of the County Development Code. Iron Age Mine is relatively isolated. The nearest sensitive receptors occur at the Cottonwood, Belle and White Tank designated camping areas of Joshua Tree National Park; the camping areas are located approximately 20 miles away from the Project Site. No impacts are anticipated.

**No Impact**

*b)* *Generation of excessive groundborne vibration or groundborne noise levels?*

Approval of the Proposed Project would require operations to conform to all applicable noise control regulations as outlined in Section 83.01 of the County Development Code. No sensitive noise receptors occur in the vicinity of the Project Site. Removal of the tailings would not expose persons to generation of excessive groundborne vibration or groundborne noise levels. Therefore, less than significant impact is anticipated.

**Less Than Significant Impact**

*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 Site is not located within an airport land use plan nor within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, that would expose people at the Project Site to excessive noise levels. Therefore, impacts from airport-related noise are not anticipated.

**No Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XIV.** | **POPULATION AND HOUSING** - Would the project: | | | | |
| 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 people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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 population growth in the area either directly or indirectly because the Proposed Project would not generate major job opportunities. The site would operate with approximately 6 to 8 employees. The site would operate year-round approximately 6 days/week, 312 days annually. In addition, the duration of the operation is approximately 15 years after which time the site would be reclaimed and returned to open space use. No impacts are anticipated.

**No Impact**

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

The proposed use would not displace substantial numbers of existing housing units or people, or require the construction of replacement housing, as no housing units are proposed to be demolished as a result of this project. No impacts are anticipated.

**No Impact**

**No impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XV.** | **PUBLIC SERVICES** | | | | |
| a) | 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: | | | | |
| | Fire Protection? | ☐ | ☐ | ☐ | ☒ |
| | Police Protection? | ☐ | ☐ | ☐ | ☒ |
| | Schools? | ☐ | ☐ | ☐ | ☒ |
| | Parks? | ☐ | ☐ | ☐ | ☒ |
| | Other Public Facilities? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

a) *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:*

*Fire Protection?*
*Police Protection?*
*Schools?*
*Parks?*
*Oher Public Facilities?*

The Proposed Project would not result substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, or hinder acceptable service ratios, response times or other performance objectives for any of the public services, including fire and police protection, schools, parks or other public facilities. The Proposed Project consists of a mining operation to remove exiting iron tailings, no permanent improvements are proposed. After mining operations, the site would be reclaimed to open space. No impacts are anticipated.

**No Impact**

**No impacts are identified or anticipated and no mitigation measures are required.**

| | Issues | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| **XVI.** | **RECREATION** | | | | |
| 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 will occur or be accelerated? | ☐ | ☐ | ☐ | ☒ |
| b) | Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

a), b) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?*

*Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Approval of the Proposed Project would not generate new jobs or housing which would induce population growth in adjacent areas, and ultimately increase the use of park facilities or other recreational facilities in the region.

BLM property in the vicinity of the Project Site is identified within the CDCAP as amended as being Multiple Use Class L (Limited Use) Area. Class L areas allow vehicle travel on designated routes as posted and recreational opportunities including biking, camping, climbing, and hiking. There are no designated recreational facilities in the immediate vicinity of the Project. The Project Site is located within the historic Dale Mining District and numerous old mining sites are found in the area. This area of the Mojave Desert is very isolated, and any recreational use is minimal and limited to four-wheel drive vehicles using designated roads, primitive camping, hiking, and rock hounding.

The 3.4 miles of the historic mine access road is designated as BLM Rout JT1957, JT1959, and JT 1967 open to all vehicles. The Proposed Project would re-align and reconstruct portions of this access road and utilize it to transport sized iron ore approximately 3.4 miles to the planned mill sites adjacent to SR 62. In order to protect public safety on the road, the BLM would designate the road as a “limited route” for mine operations during the operational period after which it would be re-opened for public access. Iron Age would implement the safety features as part of the project design. No impacts to recreational facilities are anticipated.

**No Impact**

**No impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XVII.** | **TRANSPORTATION** – Would the project: | | | | |
| a) | Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | ☐ | ☐ | ☐ | ☒ |
| b) | Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

*Result in inadequate emergency access?*

Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. In addition, no road closures would be required. The Proposed Project would not involve any long-term increase in traffic that would conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would result.

**No Impact**

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?*

Total available iron tailings are estimated at approximately 12 million tons. Iron Age is requesting a 15-year operation period through 2027 due to variable production rates based on demand. The site would operate year-round approximately 6 days/week, 312 days/year. Loading and trucking may occur 24 hours/day, six days/week (not including holidays), and removal operations would be daytime hours only. Iron Age has located two 5-acre mill site claims at the junction of Iron Age Mine Road and SR 62; off-road mine haul trucks would deposit ore at the mill sites for transfer to licensed highway haul trucks or shipping containers for shipment to market or transfer to rail. Each truck would hold approximately 25 tons. A maximum of 920,000 tons of product suitable for market would be mined per year and this equates to approximately 120 truck round trips per day or about 24 one-way truck trips ingressing/egressing the site per hour based on a 10-hour operational timeframe. Note that loading of material may occur 24 hours/day.

SR 62 is identified in the San Bernardino Countywide Policy Plan as a State Highway. It is not identified in the Congestion Management Plan as a segment of concern. Caltrans traffic data on SR 62 for 2011 in the vicinity of the site access is 780 annual average daily traffic (AADT). The Proposed Project is not anticipated to cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of SR 62 (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ration on roads, or congestion at intersections), or exceed, either individually or cumulatively, a level of service standard. The access intersection would be designed per Caltrans Highway Manual and reviewed and approved by Caltrans prior to construction to meet safety requirements. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

**Less Than Significant Impact**

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 Material would be transferred to street licensed trucks at the mill sites where the trucks would enter onto SR 62. The intersection with SR 62 would be improved with acceleration and deceleration lanes to the west; the direction where nearly 100 percent of trucks would be traveling, appropriate line-of-sight distances and warning signage as required by Caltrans. The design would be reviewed and approved with Caltrans prior to any construction. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

**Less Than Significant Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|
| **XVIII. TRIBAL CULTURAL RESOURCES** | | | | |
| a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| i) 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 | ☐ | ☐ | ☒ | ☐ |
| ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | ☐ | ☐ | ☒ | ☐ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

a) *i) 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**;***

*ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

California Assembly Bill 52 (AB52) was approved by Governor Brown on September 25, 2014. AB52 specifies that CEQA projects with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment. As such, the bill requires lead agency consultation with California Native American tribes traditionally and culturally affiliated with the geographic area of a proposed project, if the tribe requested to the lead agency, in writing, to be informed of proposed projects in that geographic area. The legislation further requires that the tribe-requested consultation be completed prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

Senate Bill 18 (SB 18) was approved by Governor Schwarzenegger on September 29, 2004. SB 18 changed the California Government Code and requires local

government agencies to contact and consult with California Native American Tribes prior to amendment or, or adoption of General Plans, Specific Plans, or designation of Open Space.

As mentioned in Section V of this document, McKenna et al. reviewed archeological records through the San Bernardino County Museum, Archaeological Information Center, Redlands, supplementary research through the BLM Barstow Field Office and historic background research of the general area and the potential for identifying prehistoric and/or historic cultural resources and a paleontological overview from the Natural History Museum of Los Angeles County. McKenna et al. concluded that none of the resources are considered significant or important and the proposed undertaking would not result in any adverse environmental impacts with respect to cultural resources.

The County also initiated Native American consultation through the Native American Heritage Commission (NAHC) to inquire into any recorded sacred or religious sites in the area and to obtain a listing for local Native American representatives wishing to be notified of projects in the area. McKenna et al. sent letters and the records search data to the named tribal representatives.

According to CEQA Guidelines, the identification of potential "tribal cultural resources" needs to be addressed through government- to-government consultations between the County of San Bernardino and the pertinent Native American groups pursuant to AB52. As such, tribes' requests for additional project information, coordination, or consultation with the Lead Agency, and/or Native American monitoring, shall be acknowledged through implementation of appropriate Conditions of Approval, at the County of San Bernardino's discretion. Given that the possibility of discovering a significant unanticipated tribal cultural resource remains, mitigation measures CR-1 and CR-2 listed in Section V of this document, shall be implemented to ensure that less than significant impacts occur. No additional mitigation measures are required.

**Less Than Significant Impact**

**No significant adverse impacts are identified or anticipated and no mitigation measures are required at this time.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XIX.** | **UTILITIES AND SERVICE SYSTEMS -** Would the project: | | | | |
| a) | Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water 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 management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

***SUBSTANTIATION:***

***San Bernardino Countywide Policy Plan; Submitted Project Materials***

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

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

Water for operations would be obtained from a well to be drilled on-site as described in Section X. No wastewater would be generated as a result of excavation or plant operations. Process water would be recycled through a lined settling pond. Water used for dust control would evaporate. Domestic water for drinking would be imported for employees. Domestic wastewater and septage would be collected via portable facilities. No impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

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 Proposed Project would not require sewer collection or treatment services and therefore no off-site discharge of treated wastewater would occur. There is no wastewater treatment provider in the remote area. Sanitation needs would be met with portable facilities. No impacts related to wastewater treatment are anticipated.

**No Impact**

d), e) *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?*

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

All refuse would be kept in closed containers and removed from the site to permitted facilities as needed. No trash would be allowed to collect on the site. No impact is anticipated.

**No Impact**

**Therefore, no impacts are identified or anticipated and no mitigation measures are required.**

| ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|
| **XX. WILDFIRE:** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| 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 wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☒ | ☐ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, 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? | ☐ | ☐ | ☐ | ☒ |
| ***SUBSTANTIATION:*** | | | | |
| ***San Bernardino Countywide Policy Plan; Submitted Project Materials*** | | | | |

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

The Project Site is approximately 30 miles north of I-15 and 25 miles east of SR-127, which both serve as evacuation routes. The Project Site has right of way access to the Excelsior Mine Road. Large equipment traffic accessing and egressing the Project Site would follow one way traffic flow procedures along Excelsior Mine Road (Access). Roads would be maintained at the current state. Light vehicles would be able to travel in either direction; only semis and large mine equipment would have to adhere to the one-way traffic flow. Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Implementation of operational activities would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

**No Impact**

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

The Project Site is not located within a High or Very High Fire Hazard Severity Zone. Therefore, risks associated with exposing project employees to pollutant concentrations from wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors, to exacerbate wildfire risks is unlikely. Furthermore, the Proposed Project does not include construction of habitable structures or permanent facilities. There are no surrounding structures or occupied structures. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

**Less Than Significant Impact**

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

Most equipment would run on diesel fuel and electricity. Power would be produced by diesel fueled generators. The Proposed Project does not require the installation or maintenance of infrastructures that would exacerbate fire risk or that may result in temporary ongoing impacts to the environment. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

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?*

The Project Site is not within a 100-Year Federal Emergency Management Agency (FEMA) flood zone, 100-year Department of Water Resources Awareness Zone, or a 500-year FEMA flood zone. The Proposed Project does not include construction of habitable structures or permanent facilities. There are no surrounding structures or

occupied structures. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

**No Impact**

**Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.**

| | ***Issues*** | *Potentially Significant Impact* | *Less than Significant with Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| **XXI.** | **MANDATORY FINDINGS OF SIGNIFICANCE:** | | | | |
| 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 would cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

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?*

Based on the analysis contained in this Initial Study, impacts to Agriculture and Forestry Resources, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Transportation and Traffic are considered as having a less than significant or no impact on the environment.

The results of the Initial Study show that there are potentially significant impacts to Aesthetics, Biological Resources, and Cultural Resources. These impacts would be reduced to less than significant after incorporation of mitigation measures and compliance with existing rules and regulations.

Therefore, the Proposed Project would not substantially degrade the quality of the environment and impacts to habitat, wildlife populations, plant and animal communities, rare and endangered species, or important examples of the major periods of California history or prehistory, would be less than significant with mitigation. No significant adverse impacts are identified or anticipated and no additional mitigation measures are required.

**Less than Significant with Mitigation**

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)?*

None of the proposed mining activities would substantially contribute to any cumulatively significant impact on the evaluated resources. Due to the remoteness of the project area and the protected habitat within the critical habitat unit, the DWMA and Joshua Tree National Park, it is unlikely that any future State or private activities would occur in the area. Therefore, cumulative effects from other activities are not expected.

The Proposed Project would not result in any unmitigated adverse project effects on air quality, biological resources, drainage, or water quality, and there would be no contribution to any cumulatively considerable impacts in these issue areas. There would be no long-term loss of agricultural or forestry resources or loss of availability of a mineral resource of value to the state, region, or locally, so there would be no cumulative effect. The implementation of the reclamation plan on tailings piles now devoid of vegetation and not suitable desert tortoise habitat, would return approximately 50 acres to desert vegetation and suitable desert tortoise habitat. Thus, the long-term biological impacts of the Proposed Project would be beneficial. There would not be an adverse change in scenic value or visual quality or noise levels that could contribute to a cumulative impact. No impacts on services or utility systems would occur as a result of project implementation that could combine with cumulative effects in the area surrounding the project.

In addition, the analysis in this Initial Study Checklist demonstrated that the Proposed Project is in compliance with all applicable regional plans including but not limited to, land use plans, air quality maintenance plan, biological resource plans, and plans or regulations for the reduction of greenhouse gas emissions. Compliance with these regional plans serves to reduce impacts on a regional basis so that the Proposed Project would not produce impacts, that considered with the effects of other past, present, and probable future projects, would be cumulatively considerable.

**Less Than Significant Impact**

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

All potential impacts have been thoroughly evaluated and have been deemed to be neither individually significant nor cumulatively considerable in terms of any adverse effects upon the region, the local community or its inhabitants with implementation of mitigation measures and compliance with existing rules and regulations. The remoteness of the site and activities further limits any potential impacts to human beings.

As discussed in this Initial Study Checklist, the Proposed Project would not expose persons to adverse impacts related to Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Population and Housing, or Transportation/Traffic hazards. These impacts were identified to have no impact or a less than significant impact.

The implementation of the existing rules and regulations, conditions from permit approvals and the mitigation measures identified in this Initial Study Checklist and listed below would result in a less than significant impact. There would be no substantial adverse effects on human beings, either directly or indirectly.

**Less Than Significant Impact**

**Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.**

## XXII. MITIGATION MEASURES

**(Any mitigation measures, which are not 'self-monitoring', shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval)**

### 1. AESTHETICS

**AES-1 1. Full cut-off (glare resistant/shielded) luminaires that prevent the upward escape of light.**
**2. Light fixtures that are pointed less than 45 degrees in direction.**
**3. Area and security lighting should be yellow or amber with a color temperature less than 2500 degrees K.**
**4. Motion activated security lighting when the site is in operation at night.**
**5. Water storage tanks shall be painted as to blend into the environment.**

### IV BIOLOGICAL RESOURCES

**BIO-1 •**
**The Bureau and Iron Age will designate a person to act as the field contact representative with specific experience in the implementation of environmental compliance programs. The field contact representative will serve as the environmental compliance monitor and will be present throughout the construction of the mill site and access road, mining operations, and reclamation. This individual will serve as liaison among the Service, Bureau, construction workers, truck drivers, authorized biologist(s), and biological monitor(s). The field contact representative, working with an authorized biologist, will ensure compliance with the conditions and requirements of project permits and approvals set forth in this biological opinion and supporting plans appended to the biological assessment.**

- **The field contact representative will have the authority to stop project activities if a desert tortoise is in danger or protective measures are not adequately implemented. This would include enforcing the 15-mile-per-hour speed limit through desert tortoise habitat along the access road and ensuring that project personnel do not travel cross country with motorized vehicles.**
- **During the construction of the mill site and access road, Iron Age will use authorized biologists approved by the Service and biological monitors approved by an authorized biologist to ensure compliance with the protective measures for the desert tortoise. Use of authorized biologists and biological monitors will be in accordance with the most up-to-date Service guidance and will be required for monitoring of any construction activities that may injure or kill desert tortoises.**

**The authorized biologist must have thorough and current knowledge of desert tortoise I behavior, natural history, ecology, and physiology, and demonstrate substantial field experience and training to conduct their required duties safely and successfully. Authorized biologists arc approved to monitor project activities and are responsible for locating desert tortoises and their sign (i.e., conducting clearance surveys). Authorized biologists must ensure proper implementation of protective measures and make certain that the effects or the project on the desert tortoise and its habitat are minimized in accordance with a biological opinion or incidental take permit. All incidents of noncompliance in accordance with the biological opinion or permit must be recorded and reported.**

**Biological monitors will be approved by the authorized biologist to monitor project activities, ensure proper implementation of protective measures, and record and report desert tortoise and sign observations in accordance with approved protocol. They will report incidents of noncompliance in accordance with a biological opinion or permit, move desert tortoises from harm's way when desert tortoises enter project sites and place these animals in "safe areas" pre-selected by authorized biologists or maintain the desert tortoises in their immediate possession until an authorized biologist assumes care of the animal. Monitors assist authorized biologists during surveys and serve as "apprentices" to acquire experience. Monitors should not conduct clearance surveys or other specialized duties of the authorized biologist unless directly supervised by an authorized biologist; "directly supervised" means the authorized biologist has direct voice and sight contact with the monitor. Refer to the following of additional information: http://www.fws.gov/carlsbad/PalmSprings/DesertTortoise.html.**

- **The use of authorized biologists during mining operations and reclamation activities will be on an as-needed basis. In this case, the field contact representative will consult authorized biologists approved by the Bureau and the Service to determine the most appropriate course of action when a desert tortoise enters the project site, is found along the access road, or has established burrows within the project area that may be affected by the mining operations and may need to be moved out of harm's way.**
- **The Bureau will review the credentials of all individuals seeking approval as authorized biologists. The Bureau will provide the credentials of appropriate individuals to the Service for approval at least 30 days prior to the time they are needed in the field.**
- **The authorized biologists will be responsible for all aspects of clearance surveys, monitoring, developing, and implementing the worker environmental awareness program, communication with agency personnel, reporting, and be present, along with biological monitors, during construction of the mill site and access road. An authorized**

**biologist will be available during the mining operations and reclamation, as needed, when activities are likely to affect desert tortoises such that a more highly skilled biologist is needed (e.g., conducting surveys to ensure desert tortoises are not present in vegetated areas, excavating burrows, etc.). The authorized biologists will supervise and train the biological monitors. Training by authorized biologists will include ensuring biological monitor and the field contact representative are qualified to capture, handle, and move desert tortoises in situations where an authorized biologist is unavailable or for less complicated tasks (e.g., moving a desert tortoise from under a vehicle or off the access road, etc.).**

- **The field contact representative will act on the advice of the authorized biologist(s) and biological monitor(s) to ensure conformance with the protective measures set forth in this biological opinion. Additionally, the authorized biologist(s) will have the authority to immediately stop any activity that is not in compliance with these conditions.**
- **The Bureau will ensure that all workers associated with the proposed Iron Age Project receive worker environmental awareness training to ensure protection of the desert tortoise and its habitat The field contact representative and authorized biologist will administer the training at the onset of the project, annually, and when new employees are hired to all onsite personnel and anyone else (e.g., contractors, truck drivers, etc.) who needs to travel to the mine site. The worker environmental awareness training will:**
  - **Be developed by or in consultation with the authorized biologist and consist of a presentation in which supporting written material and electronic media, including photographs of protected species, are made available to all participants;**
  - **Provide an explanation of the purpose and function of the desert tortoise avoidance and minimization measures and the possible penalties for not adhering to them;**
  - **Inform workers that the field contact representative and the authorized biologists have the authority to halt work in any area where an unauthorized adverse impact to biological resources may occur if the activities continued;**
  - **Discuss general safety protocols such as hazardous substance spill prevention and containment measures and fire prevention and protection measures;**
  - **Provide an explanation of the sensitivity and locations of the vegetation, biological resources, and habitat within and adjacent to work areas, and proper identification of these resources;**
  - **Place special emphasis on the desert tortoise, including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection. reporting requirements. and protective measures required for the project;**
  - **Provide contact information for the authorized biologist(s) and biological monitor(s) to handle late comments and questions about the material discussed in the program. as well as notification of any dead or injured wildlife species encountered during project-related activities.**
  - **Direct all workers to report all observations of listed species and their sign to an authorized biologist for inclusion in the yearly compliance report;**
  - **Include a training acknowledgment form to be signed by each worker indicating that they received training and will abide by the guidelines; and**
  - **Provide information regarding the effects of predation on the desert tortoise by common ravens (Corvus corax) and other predators and the measures that have been developed to reduce the likelihood that predators will be attracted to the project area.**
- **Prior to construction of the mill sites at State Route 62, Iron Age will install fencing to exclude desert tortoises from entering the site. The fence will be constructed**

**according to the protocols provided in Chapter 8 of the Desert Tortoise Field Manual (Service 2009). If desert tortoises are encountered during installation of the fence, the authorized biologist will move the individual the shortest distance possible to an area outside the fence on public land where it will be safe. The authorized biologist will use his or her judgment regarding the best measures to use to ensure the desert tortoise does not immediately return to the area inside of the fence or be placed in a location where it could enter State Route 62. The authorized biologist may contact the Service to discuss specific situations if the need arises.**

- **After the exclusionary fencing has been installed and before the onset of ground-disturbing activities, the authorized biologist will follow established survey protocols and remove all desert tortoises from within the fenced area. All desert tortoises will be considered to have been removed once a complete survey of the work area is conducted without finding any additional animals. Desert tortoises that are found inside the fenced area will be placed on the other side of the exclusion fence. The authorized biologist will use his or her best judgment to determine the optimal location for placement of desert tortoises, which would include ensuring the animals are not relocated into areas that may isolate them from the desert tortoise population in the area or enable them to access the highway.**
- **Iron Age will maintain the integrity of the fence for the duration of the proposed project to ensure that desert tortoises are excluded from the mill site during construction and until all mining operations and activities, including reclamation efforts, related to this proposed action are concluded. The fence will be inspected regularly and repaired when necessary; initially, it will be inspected monthly, but Iron Age may adopt a different schedule, based on acquired experience.**
- **An appropriate number of authorized biologists and biological monitors will be available during construction of the mill sites and access road for the protection of the desert tortoise. Authorized biologists will monitor each activity where conditions exist that may result in injury or mortality of desert tortoise (e.g., clearing, grading, re-contouring, and restoration activities).**
- **For the construction of the access road, the authorized biologist or a qualified biological monitor will survey ahead of the project activities and halt construction if he or she finds a desert tortoise in the path of construction equipment. Project activities will not resume until the desert tortoise moves out of harm's way or the authorized biologist has relocated it.**
- **During mining operations, the field contact representative will inspect all excavations, trenches, and areas that are not within desert tortoise exclusion fencing on a regular basis (several times per day). If a desert tortoise is discovered in an area planned for excavation or an area where the animal may be injured or killed, the field contact representative will coordinate with an authorized biologist to determine the best course of action to protect or move the animal to a safe location in accordance with the field manual (Service 2009). The field contact representative will also monitor vehicle speeds along the access road and ensure that drivers maintain a speed limit of 15 miles per hour when temperatures are between 50 and 100° F.**
- **Iron Age will survey for invasive weeds at the earliest spring season following the letter of authorization to proceed issued by the Bureau. It will provide to the Bureau a list of surveyors and their qualifications, and a work plan that describes a proposed survey methodology. No surveys may be conducted without the approval of the authorized officer. Invasive weed surveys will be repeated every 5 years until reclamation is complete. The goals of this effort are to detect and remove any non-native invasive weed**

**that was not present prior to the onset of the proposed action and to prevent Sahara mustard (Brassica tourneforlii) from becoming the dominant annual plant in the action area. Non-native invasive species will be removed through manual, mechanical or chemical methods depending on the specific circumstances and as approved by the Bureau's authorized officer. If a new species of non-native weed is observed prior to the 5-year survey, Iron Age will contact the Bureau for authorization to remove the infestation.**

- **During reclamation or erosion control, the mine operator will use only certified weed free straw, mulch, and seed native soils unless approved by the authorized officer.**
- **Desert tortoises found in the project area will be handled and moved by an authorized biologist in accordance with the most current Service protocol. If a desert tortoise is found in harm's way, all potentially harmful activity will cease until the desert tortoise moves or is moved out of harm's way by an authorized biologist, biological monitor, or field contact representative; as described in measure 6, biolo81cal monitors and the field contact representative may move desert tortoises from harm's way in less complicated situations. Desert tortoises that need to be moved from harm's way will be placed on adjacent Bureau land, using techniques described in the field manual (Service 2009).**
- **Desert tortoises that are moved offsite and released into undisturbed habitat on public lands will be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibemaculum in which it was found, or in an artificially constructed burrow in accordance with techniques described in the field manual (Service 2009).**
- **Desert tortoises excavated from burrows will be moved to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows will be 150 to 300 feet from the original burrow. Relocated desert tortoises will not be placed in existing occupied burrows. If an existing burrow that is similar in size, shape, and orientation to the original burrow is unavailable, the authorized biologist will construct one. Desert tortoises moved during inactive periods will be monitored for at least 2 days after placement in the new burrows to ensure their safety.**
- **Iron Age will clearly mark, sign, or flag all project activity areas at the outer boundaries before the onset of construction and during mining operations. All activities will be confined to designated areas.**
- **Iron Age will not create any new unpaved or additional paved roads. If unforeseen circumstances require disturbance beyond the project area limits, Iron Age will contact the Bureau.**
- **The field contact representative (with input from an authorized biologist) will inform workers at regular briefings if desert tortoises are likely to be active that day or in the foreseeable future. When desert tortoises are expected to be active, workers will inspect the ground around and underneath any vehicle or construction equipment that has been parked longer than 2 minutes within habitat of desert tortoises prior to moving the vehicle. If the desert tortoise does not move out of harm's way of its own volition or is in any other situation where it is at risk of being killed, the worker will contact the field contact representative, authorized biologist or biological monitor to move it.**
- **The Bureau will ensure that workers do not bring firearms and pets into the project area This measure does not apply to law enforcement personnel and working dogs.**
- **To reduce the attractiveness of the project area to common ravens and coyotes, Iron Age will place trash in sealed containers and empty the containers at a commercial facility on a weekly basis. The project area will be kept as clean of debris as possible.**

**Compensation**

**Iron Age committed to offsetting the loss of desert tortoise habitat by paying compensation at a rate of 5 to 1 for impacts on undisturbed areas within the desert wildlife management area (15.7 x 5 = 78.5 acres) and 1 to 1 for impacts on undisturbed areas outside desert wildlife management area (5.3 acres). The boundaries of the desert wildlife management area and critical habitat coincide in the project area. Alternatively, Iron Age may transfer 83.8 acres of land to the Bureau.**

**BIO -2 Sensitive Wildlife**

In order to mitigate potential impacts to specific species that may occur within the project impact area, the following measures are recommended:

American Badger:

- All project work areas shall be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction and restoration workers shall restrict their activities and vehicles to areas which have been flagged to avoid adverse impacts to the badger. All workers shall be instructed that their activities are restricted to flagged and cleared areas; and
- An on-call biological monitor will be available to help identify any potential impacts to the badger.

Le Conte's Thrasher

- If mining activities will occur during nesting season (March 15-September 15), a pre-construction survey will be conducted in the project impact area to identify any nests. If nests are found, the nest will be flagged and avoided. In accordance with the Migratory Bird Treaty Act, if an active bird nest is located, the nest site shall be fenced a minimum of 200 feet in all directions, and the area shall not be disturbed until after the nest becomes inactive. If no active nests are observed during the survey, vegetation may be removed.
- All project activities will remain within the established project area and unnecessary vehicle or personnel activity will be avoided outside the project area. Potential direct impacts to the species include being hit by vehicles on access roads, grading of new access roads, preparation of staging locations, and general disturbance due to increased human activity.

Coast horned lizard and Mojave fringe-toed lizard:

- Conducting clearance surveys prior to the commencement of any ground disturbing activities;
- Worker environmental training; and
- Maintaining a speed limit of 20 mph on all access roads.

Burrowing Owl:

- The project impact area should be surveyed for the presence of burrowing owl no more than thirty days prior to ground disturbing activities;

- If the burrowing owl is found or the presence or burrowing owl is confirmed, and the proposed reconstruction and realignment of the existing roadway will occur during the breeding season (February 15 to August 15), then the active owl burrows on-site and within 500 feet of the project activities shall be identified, and physically marked before the start of any construction activities. A survey to mark the burrows shall be undertaken no earlier than February 15. During the construction period, active burrows that are not going to be removed by construction activities will be afforded a minimum 250-foot buffer to protect foraging habitat and owls. A biological monitor will be present to ensure that adequate avoidance of impacts to owls and their burrows is maintained. The monitor will have the authority to modify the buffer zone in order to protect the owls from harm; and
- If necessary, passive relocation techniques should adhere to those described in the *Burrowing Owl Consortium Survey Protocol & Mitigation Guidelines*.

**BIO-3 Migratory Birds**

If construction or land clearing activities will occur during nesting season (March 15-September 15), a pre-construction survey will be conducted in the project impact area to identify any nests. If nests are found, the nest will be flagged and avoided. In accordance with the MBTA, if an active bird nest is located, the nest site shall be fenced a minimum of 200 feet in all directions, and the area shall not be disturbed until after the nest becomes inactive. If no active nests are observed during the survey, vegetation may be removed.

**BIO-4 Sensitive Plants (Joshua Tree)**

Joshua tree surveys will be conducted to mark any Joshua trees found within the road alignment and in mining areas. If any Joshua trees will be impacted, compliance with CESA will be required and an Individual Take Permit (ITP) with CDFW will need to be prepared and processed.

## V. CULTURAL RESOURCES

**CR-2 Mitigation Measures**

**A qualified archaeologist approved by the BLM and County will conduct a pre-construction survey for cultural resources to mark sensitive resources for avoidance. Operations shall not knowingly disturb, alter, or destroy any historical or archaeological resource. The employees and contractors involved in the project will receive cultural resources awareness training, which will be directed towards recognizing and avoiding these features. Access roads and operation areas will set back from any historical or archaeological features which will be prominently flagged in the field to avoid disturbance.**

**CR-2 Mitigation Measures**

**A qualified archaeologist approved by the BLM and County will conduct a pre-construction survey for cultural resources to mark sensitive resources for avoidance. Operations shall not knowingly disturb, alter, or destroy any historical or archaeological resource. The employees and contractors involved in the project will receive cultural resources awareness training, which will be directed towards recognizing and avoiding these features. Access roads and operation areas will set back from any historical or archaeological features which will be prominently flagged in the field to avoid disturbance.**

**The following procedures shall be implemented in the event that potentially sensitive cultural resources are uncovered during construction and grading activities:**

- **In the event archaeological, paleontological and/or historical resources, including pottery, rock art, middens or human remains, are uncovered during earthmoving activities, all work in that area shall cease immediately and a qualified archeologist shall be retained to access the findings, and if necessary, provide appropriate disposition of the resources. Earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed on the site when the archaeologist, in consultation with the appropriate Native American Tribe(s) and the County of San Bernardino Museum, determines the resources are recovered to their satisfaction.**

- **If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the San Bernardino County Coroner must be notified. The appropriate land manager (BLM or County) and the owner of the site shall also be called and informed of the discovery. If the remains are located on federal public lands, the BLM land managers/federal law enforcement/federal archaeologist is to be informed as well because of complementary jurisdiction issues. Disturbing human remains is against federal and state laws and there are criminal/civil penalties including fines and/or time in jail up to several years. The Coroner will determine if the bones are historic/archaeological or a modern legal case.**

- **State law dictates that the Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American decent, in accordance with California Public Resources Code Section 5097.98.**

- **All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA)16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the state of California regardless of the remains are modern or archaeological.**

- **Modern Remains - If the Coroner's Office determines the remains are of modern origin, the appropriate law enforcement officials will be called by the Coroner and conduct the required procedures. Work will not resume until law enforcement has released the area.**

- **Archaeological Remains - If the remains are determined to be archaeological in origin and there is no legal question, the protocol changes depending on whether the discovery site is located on federally or non-federally owned/managed lands.**

- **Remains discovered on federally owned/managed lands - After the Coroner has determined the remains are archaeological or historic and there is no legal question, the BLM Barstow Field Office Archaeologist must be called. The archaeologist will initiate the proper procedures under ARPA and/or NAGPRA. If the remains can be determined to be Native American, the steps as outlined in NAGPRA, 43 CFR 10.6 Inadvertent discoveries, must be followed.**

- **Remains discovered on non-Federally owned/managed lands - After the Coroner has determined the remains on non-federally owned/managed lands are archaeological and there is no legal question, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact by telephone within 24 hours, the California NAHC. The NAHC will immediately notify the person it believes to be the most likely descendent of the remains. The most likely descendent has 48 hours to make recommendations to the landowner for treatment or disposition of the human remains. If the descendent does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.**

## GENERAL REFERENCES

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