

# CHAPTER 6: ALTERNATIVES

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# CHAPTER 6: ALTERNATIVES

## 6.1 INTRODUCTION

This chapter describes a range of project alternatives and compares the associated potential environmental impacts to those of the proposed project. Section 6.2, “CEQA Requirements for Alternatives Analysis,” discusses the California Environmental Quality Act (CEQA) requirements for considering alternatives to the project. Section 6.3, “Summary of Project Objectives and Impacts,” provides a summary of the project and its significant and unavoidable impacts. Section 6.4, “Alternatives Formulation Process and Description of Project Alternatives,” discusses the alternatives formulation process and describes the alternatives evaluated. Finally, Section 6.5, “Alternatives Impact Analysis and Summary,” provides an analysis of the alternatives as compared to the project, and Section 6.6, “Environmentally Superior Alternative,” identifies the *environmentally superior alternative*, as required by CEQA. Table 6-1, “Alternatives Impact Comparison Summary,” in Section 6.5, summarizes the conclusions of the alternatives analysis.

## 6.2 CEQA REQUIREMENTS FOR ALTERNATIVES ANALYSIS

The CEQA Guidelines specify that an EIR must describe a reasonable range of alternatives to the project, or to the location of the project, which could feasibly attain most of the basic project objectives (Guidelines §15126.6(a)). The alternatives analysis must focus on alternatives that are capable of eliminating or substantially reducing the significant adverse impacts caused by the project (Guidelines §15126.6(c)), and alternatives to the “*whole of the project*” rather than the project’s component parts.<sup>1</sup> An EIR must include an alternatives analysis even if the EIR concludes that the project will not cause any significant adverse impacts.

The “no project” alternative, which considers impacts that would occur if existing conditions continued, must be considered (Guidelines §15126.6(e)), and the EIR must also identify the environmentally superior alternative. If the “no project” alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (Guidelines §15126.6(e)(2)). The EIR should not consider alternatives “whose effect cannot be reasonably ascertained and whose *implementation is remote and speculative*” (Guidelines §15126.6(f)(3), emphasis added). An EIR need not evaluate an alternative that is considered speculative, theoretical, or unreasonable. Not every potentially feasible alternative need be considered; rather, the relevant test is whether a “*reasonable range*” of feasible alternatives is considered for that particular project (Guidelines §15126.6(a)).

## 6.3 SUMMARY OF PROJECT OBJECTIVES AND IMPACTS

### 6.3.1 Project Objectives

The CEQA Guidelines provide that “the range of potential alternatives...shall include those that could feasibly accomplish most of the basic objectives of the project...” (§15126.6(c)). The overall goal of the project is to develop a groundwater water and associated pipeline to support expansion of the quarry and to fulfill

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<sup>1</sup> *Big Rock Mesas Property Association v. Board of Supervisors of the County of Los Angeles* (2d Dist. 1977) 73 Cal. App. 3d 218).

mitigation requirements by restoring and preserving two off-site properties. As defined in Section 2.4, “Project Objectives,” of Chapter 2, “Project Description,” specific project objectives include the following:

- 1) Secure permits and approvals to continue and fully develop quarrying gypsum reserves;
- 2) Maximize the recovery of known gypsum reserves needed for the Plant to fulfill its estimated operational design life;
- 3) Meet market demands for gypsum products;
- 4) Develop and maintain a replacement Quarry water supply designed to meet dust suppression requirements;
- 5) Concurrently reclaim Quarry site for post-mining uses as Open Space;
- 6) Secure permits and approvals to develop a water source to support the mining of gypsum reserves at the Quarry; and
- 7) Provide compensatory mitigation for potential impacts to waters of the state as a result of project implementation in compliance with State of California Fish & Game Code Section 1600 and the Porter Cologne Act.

### **6.3.2 Significant and Unavoidable Impacts of the Proposed Project**

After applying CEQA standards of significance to the entire range of adverse impacts that would result from implementation of the project, no new or more severe significant and unavoidable impacts have been identified through the analysis presented in Sections 4.1 through 4.8. nor in Chapter 5, “Cumulative Impacts.”

As stated above, all of the projects potentially significant impacts could be reduced to less than significant levels through implementation of mitigation measures identified in Chapter 4, “Environmental Analysis.” The alternatives evaluation summary table (Table 6-1) in Section 6.5 includes a list of each of the project impacts identified in Chapter 4 of this SEIR and identifies their significance both with and without the identified mitigation measures as compared to the impacts under each alternative. Significant impacts that could be mitigated to a level of less than significant were also considered in the alternatives formulation process, particularly those that address impacts to jurisdictional waters, air pollutant emissions, impacts to wildlife species and their habitats.

## **6.4 ALTERNATIVES FORMULATION PROCESS AND DESCRIPTION OF PROJECT ALTERNATIVES**

This section discusses the County’s process for formulating alternatives to the project for analysis in this SEIR including a discussion of alternatives considered but eliminated from further consideration and the reasons for their elimination. The section then provides a description of the project alternatives that are evaluated in Section 6.5.

Project alternatives were developed by Imperial County based on the previous environmental review completed for the project and on input from the project applicant, other responsible agencies, and the public scoping process. Alternatives were evaluated for inclusion in the SEIR based on the following criteria:

- Was the alternative evaluated in the 2008 EIR/EIS?
- Does the alternative fulfill all or most of the project objectives (see Section 6.3.1, above)?

- Does the alternative avoid or reduce effects to the physical environment compared to the proposed project?
- Is the alternative feasible to implement?

Alternatives that met most, or all, of the criteria listed above were carried forward for analysis and are detailed in Section 6.4.2, “Alternatives Evaluated in Detail,” below. Those that did not meet the above criteria or were eliminated from further analysis in the 2008 EIR/EIS are listed below, along with the reasons for elimination.

#### 6.4.1 Alternatives Considered but Rejected from Further Analysis

The following alternatives have been considered by Imperial County but rejected from further analysis for the reasons discussed below.

- Alternative Quarry Locations
  - This alternative was rejected based on the historic establishment and vested rights of the Quarry as well as the Quarry’s ore representing a unique and significant source of gypsum in the region and on the West Coast. Additionally, off-site locations were considered to be impractical because of: (1) compromised gypsum quality; (2) small deposit size; (3) long distance from USG’S existing Plaster City production plant; and (4) most off-site deposits being owned by USG’S market competitors.
- Inert Material Storage Area
  - This alternative was rejected based on economic, environmental, and technological factors.
- Alternative Mining Methods including Block and Pillar<sup>2</sup>, Block Caving<sup>3</sup>, Long Wall<sup>4</sup>, and Stoping<sup>5</sup>
  - This alternative was rejected based on safety and feasibility concerns posed by highly fractured and soft rock quality.
- Quarry Watershed Modified Mining Footprint
  - Eliminating mining Phases 9, 8, 7, and 6 was considered but was determined to be infeasible for the following reasons: (1) Phases 8 and 9 are at the southernmost terminus of the upper Quarry watershed where the channels are deeply incised by natural erosion and a substantive reduction in losses of waters of the United States is not anticipated and (2) the potential elimination of either Phase 6 or 7 was considered but, similar to issues in the middle Quarry watershed, the elimination of either of these phases would result in an increase in indirect effects on waters of the United States and a loss of functions and services resulting from the isolation and fragmentation of these resources.
- Alternative Offsite Mitigation Sites
  - Numerous potential mitigation sites were identified and evaluated in the Draft Habitat Mitigation and Monitoring Plan (see Appendix D-4). All but the selected Viking Ranch site and Old Kane Springs Road site were rejected from consideration due to low mitigation value, being located

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<sup>2</sup> A mining system in which the mined material is extracted across a horizontal plane, creating horizontal arrays of rooms and pillars.

<sup>3</sup> An underground hardrock mining method that involves undermining an ore body, allowing it to progressively collapse under its own weight.

<sup>4</sup> A form of underground mining where a long wall of material is mined in a single slice.

<sup>5</sup> The opening of large underground rooms, or stopes, by the excavation of ore.

outside of the target watershed, small size and/or different type of aquatic resource, or already being permitted for future development.

## 6.4.2 Alternatives Evaluated in Detail

The alternatives to the proposed project evaluated in the 2008 EIR/EIS included: (1) No Action Alternative, (2) Partial Use of Water from IID, and (3) Full Use of Water from IID. The No Action Alternative is carried over to this SEIR for supplemental evaluation. Alternatives 2 and 3 relate to a project component evaluated in the 2008 EIR/EIS (Plaster City Plant Water Line Replacement) which is not evaluated in this SEIR. For this reason, Alternatives 2 and 3 are not carried over to this SEIR for evaluation.

The following alternatives to the proposed project are described below and evaluated in Section 6.5 of this SEIR:

- Alternative 1: No Project
- Alternative 2: Lower Quarry Watershed Reduced Mining Footprint “A” Alternative
- Alternative 3: Lower Quarry Watershed Reduced Mining Footprint “B” Alternative
- Alternative 4: Middle Quarry Watershed Reduced Mining Footprint Alternative
- Alternative 5: Upper Quarry Watershed Reduced Mining Footprint Alternative

### 6.4.2.1 Features Common to All Project Alternatives

#### Quarry Operations

Surface quarrying methods as described in Chapter 2, “Project Description,” of this SEIR and including the BMPs listed below which are currently in place at the Quarry are common to all of the project alternatives considered. Quarrying operations would be conducted under the proposed project in accordance with the County-approved Mine and Mine Reclamation Plans and a BLM-approved Plan of Operations. Currently permitted quarrying activities would continue at the maximum production of 1.92 million tons per year until the resource is exhausted.

#### Quarry Reclamation Techniques

Certain aspects of reclaiming disturbed quarry areas under all alternatives would occur using the same techniques as described in the currently approved Mine Reclamation Plan. Where feasible, reclamation would occur concurrently during mining operations. Following the removal of gypsum, the disturbed areas would be reclaimed to a state of natural open space. The steepest portion of the hillside quarries would be sloped no steeper than 1H:1V (Horizontal:Vertical) slopes and about 100 feet high. The site access on the north would remain gated. The privately held lands would not be open to public recreational use. The benched hillsides would be recontoured by blasting or dozing the benches to soften the topography.

Once quarrying operations are terminated, equipment and structures would be removed; their foundations would be reduced below grade and covered in place. It is likely that an office or trailer would remain on site for ongoing revegetation monitoring, and for security purposes. The access road would be maintained for access to the main process area site and specific haul roads would be maintained to access reclamation activity and monitoring. Those portions of the rail line at natural surface elevation would remain in place. The length of rail proceeding below original ground line under the rock storage building will be removed and the spur cut backfilled. Ultimately all equipment, power poles, and buildings

would be removed, road access would be restricted by gates, warning signs would be posted, and access to Quarry benches would be blocked by berms and/or boulders.

### **Revegetation**

Revegetation efforts are fully described in the Mine Reclamation Plan and would be varied over the life of the operation. The revegetation techniques are proposed as guidelines that would be followed until new information or techniques become available, which could improve the results of the revegetation activities. Revegetation efforts would use seeds and plants of native species collected locally (on-site and on adjacent areas). The undisturbed portions of the Quarry and areas adjacent to the Quarry provide the targets for achievement through the revegetation effort. The areas to be disturbed by future mining would also provide specimens for direct transplanting of native species, and the undisturbed areas would provide a source of seeds for the revegetation effort.

### **Best Management Practices**

USG has operated the Quarry since 1945 and has established protocols to meet regulatory requirements and to be good stewards of the land on which it operates. The following BMPs have been in place at the Quarry for decades and will continue to be implemented as part of normal operations.

- Dust control measures are based on guidance and strategies presented in the Imperial County 2009 PM<sub>10</sub> State Implementation Plan and are included in current permits issued by the Imperial County Air Pollution Control District (ICAPCD). ICAPCD rules are available at <http://www.co.imperial.ca.us/AirPollution/index.asp?fileinc=comprules>
- All vehicles hauling bulk gypsum are covered with tarps or other means.
- Mine phases are reclaimed when gypsum reserves have been depleted in accordance with the approved Reclamation Plan.
- Quarry mine phases are revegetated as part of reclamation.
- Disturbed areas related to pipeline/transmission line removal and construction are reclaimed to pre-construction conditions.
- A Spill Contingency Plan/HAZWOPER Model Program is maintained with established emergency response protocols for spills of 55 gallons or more of hazardous material or 5 gallons or more of an extremely hazardous material.
- Compliance with existing adopted Mitigation Measures:
- USG maintains an integrated weed management plan to control invasive weeds including tamarisk and fountain grass in cooperation with the BLM and County of Imperial.
- USG maintains on-call contracts with a Designated Biologist who notifies BLM and USFWS prior to any new ground-disturbing activities and conducts pre-construction clearance surveys.
- USG contracts for monitoring with qualified biologists who have authority and responsibility to halt any project activities that violate mandated conservation measures.
- The Designated Biologist ensures that no Quarry expansion activity occurs while Peninsular Bighorn Sheep (PBS) are within a 0.25-mile radius of the activity.
- The Designated Biologist or Biological Monitor visits the Quarry site periodically to administer the Worker Education Awareness Program and ensure compliance with the Integrated Weed

Management Plan, the Reclamation Plan, the Wildlife Mortality Reporting Program, and the PBS Monitoring Plan.

- To the extent feasible, any new site disturbance is conducted outside the nesting season (January 1 through August 31) to avoid potential take of nesting birds or of eggs.
- For project activities in windblown sand habitats on pipeline routes, the Designated Biologist or Biological Monitor is present in each area of active surface disturbance throughout the workday and will examine areas of active surface disturbance for the presence of flat-tailed horned lizard or Colorado fringe-toed lizard.
- Speed limits along all access roads (excluding haul roads) will not exceed 15 miles per hour.
- Shielded downward-directional lighting on all facilities and infrastructure at night will avoid illumination of adjacent natural areas and the night sky.
- Spoils are stockpiled only in previously disturbed areas, or in areas designated for future disturbance (including spoils areas) in the Plan of Operations.
- To avoid entrapment of birds during pipeline construction and removal, all pipes or other construction materials or supplies are covered or capped in storage or laydown areas, and checked for secure covering at the end of each workday.
- The ends of trenches are left as “escape ramps” to avoid wildlife entrapment.
- During pipeline construction, no pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches will be left open either temporarily or permanently.
- No anticoagulant rodenticides of any kind are used within the Plant or Quarry areas.
- All non-construction, non-mining, and food-related wastes are placed in segregated self-closing raven-proof containers (excluding bulk waste bins) and removed regularly from the site to prevent overflow.
- Workers do not feed wildlife.
- Pooled rainwater or floodwater within quarries areas is rare due to the fracturing of the gypsum and bedrock and occurs only during major storm events. Water is pumped for use in daily dust control activity which results in avoidance of attracting wildlife to the active work areas.
- Any injured or dead wildlife encountered during project-related activities shall be reported to the Designated Biologist, Biological Monitor, California Department of Fish and Wildlife (CDFW), or a CDFW-approved veterinary facility as soon as possible for determining the best course of action. For special-status species, the Designated Biologist or Biological Monitor shall notify the BLM, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.
- If an active burrowing owl burrow is observed within a work area at any time of year, the Designated Biologist or Biological Monitor, in coordination with BLM, will designate and flag an appropriate buffer area around the burrow where project activities will not be permitted. The buffer area will be based on the nature of project activity and burrowing owl activity (i.e., nesting vs. wintering). The Designated Biologist or Biological Monitor will continue to monitor the site until it is confirmed that the burrowing owl(s) is/are no longer present. Owls shall not be harassed to reduce the length of time owls are present in a construction or excavation site.
- If avoidance of quarrying or pipeline construction within the buffer area is infeasible, burrowing owls may be excluded from an active wintering season burrow in coordination with CDFW and



- in accordance with CDFW guidelines, including provision of replacement burrows prior to the exclusion.
- USG will be responsible for monitoring and reporting PBS activity in the Quarry area during the life of the project in accordance with a PBS monitoring plan approved by the CDFW and USFWS.

#### **6.4.2.2 Alternative 1: No Project**

Under the No Project Alternative, a new Conditional Use Permit (CUP) would not be granted, and the proposed Well No. 3 and associated pipeline would not be constructed. As a result, the Quarry operation would continue to utilize Well No. 2 to produce water for dust suppression. As described in Section 2.2, “Background,” of Chapter 2, Well No. 2 is not a reliable water source and fails to produce sufficient supply to meet demand. In addition, restoration and preservation of the Viking Ranch and Old Kane Springs Road sites would not occur. As a result, impacts to Waters of the US resulting from Quarry expansion could not be fully mitigated as required and mining activities would be curtailed. Thus, Alternative 1 would involve an overall reduction in mining footprint, volume, and duration as well as elimination of construction activities associated with the well, pipeline, and restoration site.

#### **6.4.2.3 Alternative 2: Lower Quarry Watershed Reduced Mining Footprint “A” Alternatives**

Alternative 2 is the same as the proposed project except that Phase 10 would not be mined to its full capacity and Phase 10P would be eliminated entirely from the proposed mining plan in order to reduce losses of waters of the United States. USG would reduce the mining depth in Phase 10, grading north to the base grade of Fish Creek (Figure 6-1, “Alternative 2: Modified Lower Watershed Mining Footprint A”). Phase 10P is considered for elimination given its position in the northernmost end of the Quarry watershed, its close proximity to Fish Creek, and the relatively low quantity of gypsum ore that would be extracted from this phase compared to other phases in the mining plan.

Under this alternative, the stormwater berm would be eliminated south of Phase 2. Instead, the natural topography of the upper Quarry watershed would direct surface water away from Phases 6 through 9. Using natural landforms would reduce the length of the berm by one mile compared with the proposed project and would eliminate the need for a complex system of transverse levees with anchored berms in the upper Quarry watershed. The stormwater berm would begin west of Phase 2, where only one transverse levee would be required, and would extend northward through Phase 10.

Phase 10 mining would occur as proposed to a reduced depth connecting with Phase 10P and progressing at an angle suitable to maintain gravity flow. A conveyance channel roughly 200 feet wide would result at the northernmost boundary of Phase 5, extending north through Phase 10 and 10P until its confluence with Fish Creek. Approximately 5.4 million tons less gypsum ore would be mined under this alternative than under the proposed project. Compared with the maximum permitted production of 1.92 million tons per year, this alternative would reduce the projected mine life by 2.81 years.

This alternative would include construction and operation of Well No. 3 and the associated pipeline similar to the proposed project. The Viking Ranch site and Old Kane Springs site would still be restored and preserved as wildlife habitat to offset impacts to Waters of the US within the project site.

#### **6.4.2.4 Alternative 3: Lower Quarry Watershed Reduced Mining Footprint “B” Alternative**

Alternative 3 is the same as the proposed project except that the mining footprint along the western boundaries of Phases 4 and 5, where Annex Mill Site #4 encroaches into an unnamed ephemeral wash, would be reconfigured to reduce losses of waters of the United States (Figure 6-2, “Alternative 3: Reduced Lower Watershed Mining Footprint B”). Phases 4 and 5 were selected for reconfiguration because of their close proximity to existing administrative/office facilities where blasting is not ideal due to noise and the depth of overburden needing to be stripped in order to mine the gypsum ore. The stormwater berm would be configured as described for Alternative 2 except that it would be modified to exclude the eliminated portions of Phases 4 and 5, include Phases 10 and 10P, and extend northward from Phase 2 through the northern limit of Phase 10P. This alternative would reduce the amount of gypsum ore mined by approximately 11.87 million tons. Compared with the maximum permitted production of 1.92 million tons per year, this alternative would reduce the projected mine life by 6.18 years.

This alternative would include construction and operation of Well No. 3 and the associated pipeline similar to the proposed project. The Viking Ranch site and Old Kane Springs site would still be restored and preserved as wildlife habitat to offset impacts to Waters of the US within the project site.

#### **6.4.2.5 Alternative 4: Middle Quarry Watershed Reduced Mining Footprint Alternative**

Alternative 4 is the same as the proposed project except that Phases 2P, 3P (North) and 3P (South) would be eliminated from the proposed mining plan to reduce losses of waters of the United States. As shown in Figure 6-3, “Alternative 4: Middle Quarry Watershed Phased Elimination,” the proposed stormwater berm would be modified to exclude the eliminated phases, including Phases 10 and 10P, and extend through the northern limit of Phase 10P.

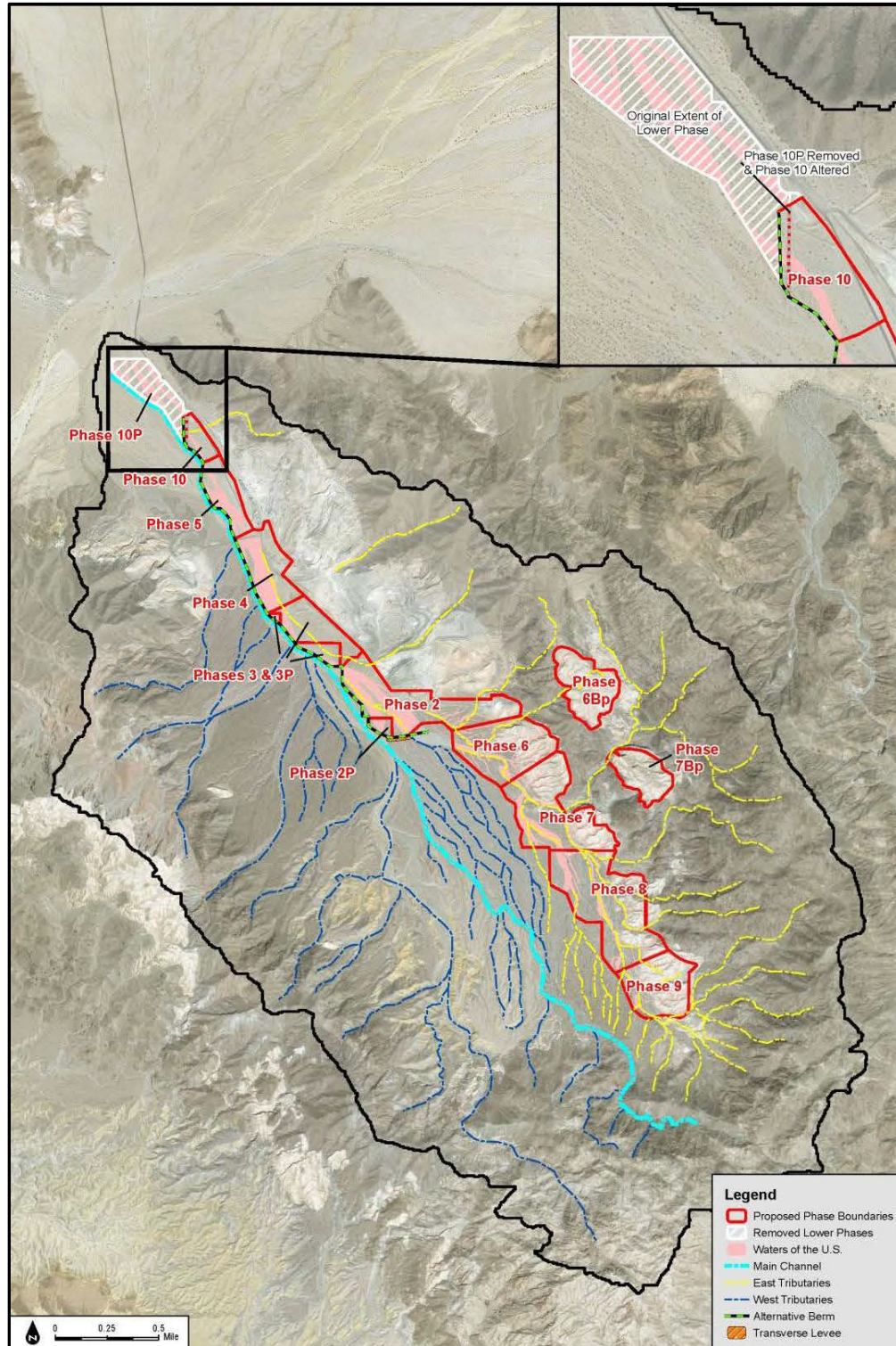
As a result of this reduced mining footprint, approximately 2.33 million tons less gypsum would be mined. At a maximum permitted production of 1.92 million tons per year, this alternative would reduce projected mine life by 1.21 years compared with the proposed project.

This alternative would include construction and operation of Well No. 3 and the associated pipeline similar to the proposed project. The Viking Ranch site and Old Kane Springs site would still be restored and preserved as wildlife habitat to offset impacts to Waters of the US within the project site.

#### **6.4.2.6 Alternative 5: Upper Quarry Watershed Reduced Mining Footprint Alternative**

Alternative 5 is the same as the proposed project except that the mining footprint in Phases 7 and 8 would be reconfigured to reduce losses of waters of the United States (Figure 6-4, “Alternative 5: Upper Quarry Watershed Reduced Mining Footprint”). Under this alternative, the mining boundaries of Phases 7 and 8 would be moved east parallel with the main drainage channel. The stormwater berm would be as described for Alternative 2 but would include all of Phases 10 and 10P.

The overall mining footprint would be reduced by 34 acres, thereby decreasing potential mining beneath the valley alluvium where gypsum ore has been determined to be most abundant. The amount of gypsum ore mined under this alternative would be approximately 13.04 million tons less than under the proposed project. Compared with the maximum permitted production of 1.92 million tons per year, this alternative would reduce the projected mine life by 6.79 years.

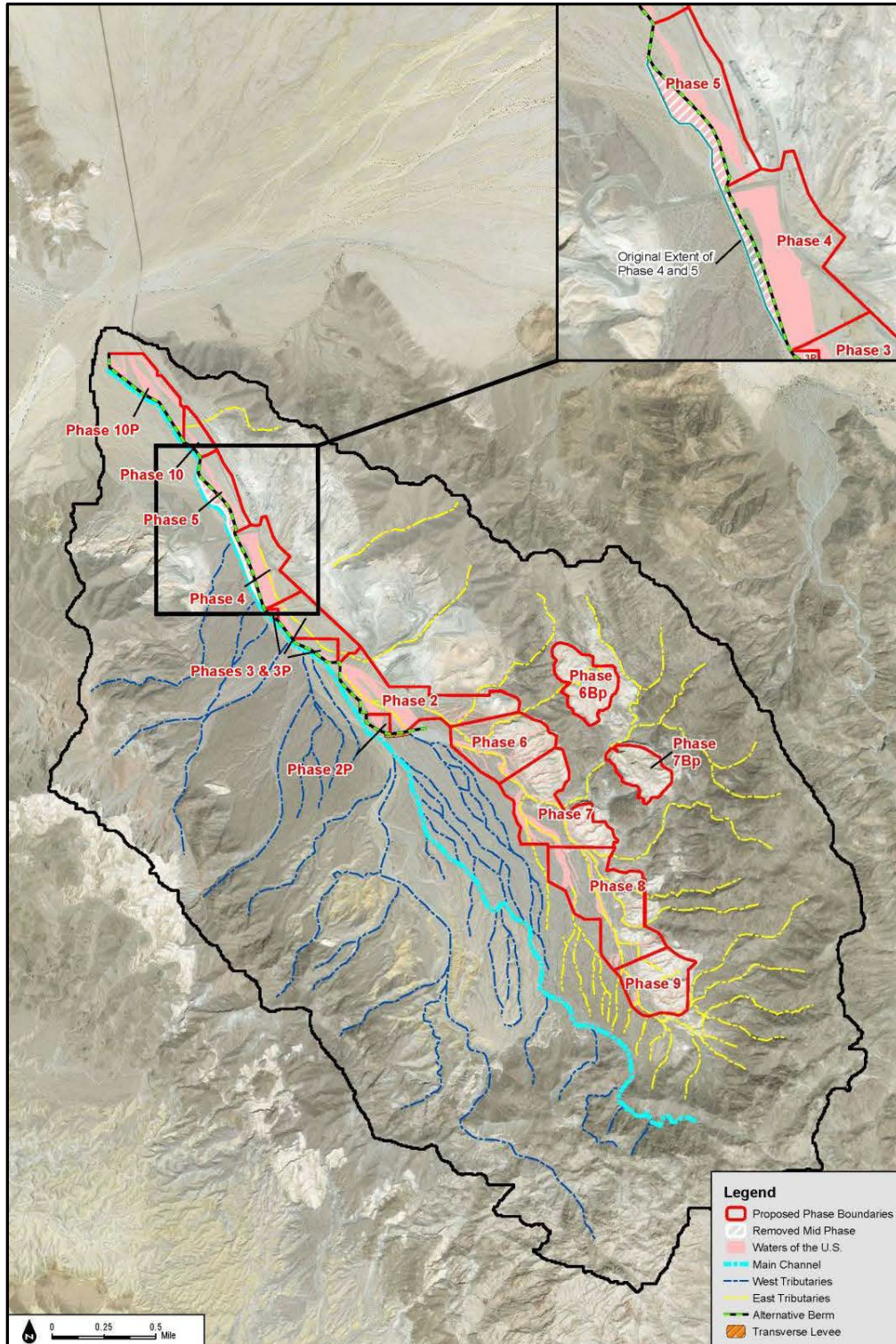


SOURCE: 2019 SEIS; Figure 2-6

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**Figure 6-1**  
**Alternative 2: Modified Lower Watershed Mining Footprint A**

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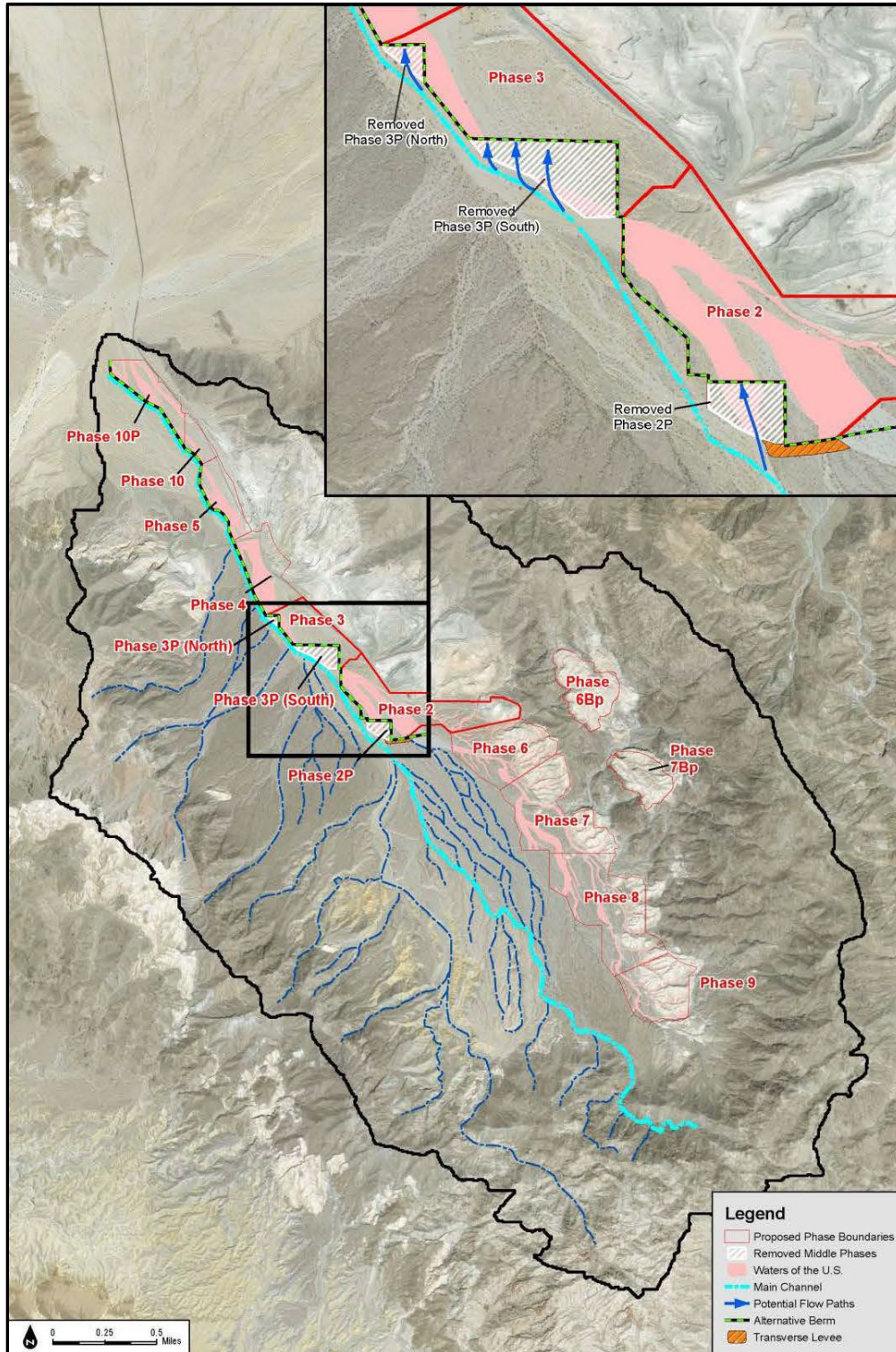


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**Figure 6-2**  
**Alternative 3: Reduced Lower Watershed Mining Footprint B**

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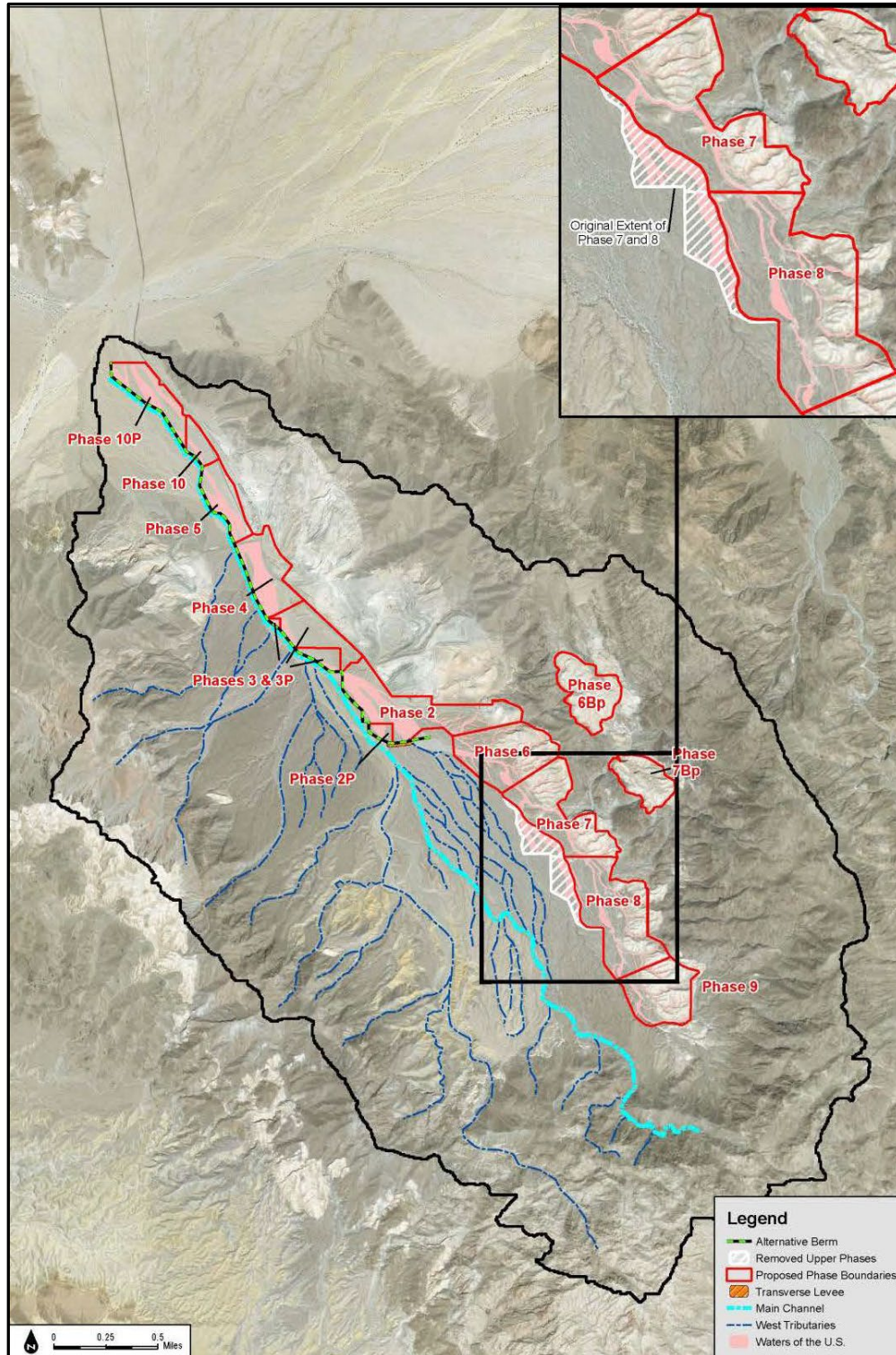
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**Figure 6-3**  
**Alternative 4: Middle Quarry Watershed Phased Elimination**

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SOURCE: 2019 SEIS; Figure 2-9

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**Figure 6-4**  
**Alternative 5: Upper Quarry Watershed Reduced Mining Footprint**

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This alternative would include construction and operation of Well No. 3 and the associated pipeline similar to the proposed project. The Viking Ranch site and Old Kane Springs site would still be restored and preserved as wildlife habitat to offset impacts to Waters of the US within the project site.

## 6.5 ALTERNATIVES IMPACT ANALYSIS AND SUMMARY

The focus of the alternatives analysis in this SEIR is to explore options to mitigate or avoid the project's significant impacts. The analysis of each alternative considers whether the alternative would reduce impacts as compared to the project as proposed. In most cases, the alternatives would create the potential for reducing the magnitude, duration, or frequency of certain project impacts, but would not eliminate the impacts entirely.

As presented in Chapter 4, project impacts prior to the application of mitigation measures are identified as significant, potentially significant, or less than significant. Mitigation measures are identified, when available, for significant and potentially significant impacts, and the resulting impacts are found to be either less than significant (when mitigation would reduce a significant or potentially significant impact to below the threshold of significance) or significant and unavoidable (when either no feasible mitigation is available or when available mitigation would not reduce the impact to below the threshold of significance).

Table 6-1 provides a summary comparison of the impacts of each alternative with impacts of the project. The table lists each project impact and the significance of the project impact both without mitigation and with mitigation identified in this SEIR (if the impact without mitigation is deemed less than significant, no mitigation is needed, and the table simply lists less than significant (LS).

Table 6-1 also identifies the anticipated comparative impact of each alternative as either having no impact (NI) or an impact greater than (+), similar to (=), or less than (-) the corresponding impact of the project. In most cases, the alternatives would result in similar or lessened impacts as compared to the project, but the reduction in impact would not be of sufficient magnitude such that a significant project impact would be reduced to less than significant. For example, Quarry operations could still impact Peninsular bighorn sheep individuals and habitat. Mitigation measures applicable to project impacts would also be available to reduce commensurate impacts of the alternatives. Thus, in instances where a significant project impact would be reduced to less than significant with mitigation, the same mitigation would also reduce the impact of the alternative to less than significant unless otherwise noted.

Each of the project alternatives considered in this analysis is described in Section 6.4, above. The following sections discuss the impacts of each alternative as compared to project impacts identified in Sections 4.1, "Air Quality," through 4.8 and Chapter 5 of this SEIR. Table 6-1 below provides a summary of the comparison and the discussion in the following sections emphasizes those impact areas for which the project would result in one or more significant impacts and the alternative(s) would have the potential to lessen one or more significant impacts of the project.

**Table 6-1  
 Alternatives Impact Comparison Summary**

Impact	Project Impact Significance without/with Mitigation <sup>1</sup>	Alternatives				
		1 (No Project)	2 (Lower Quarry Watershed Reduced Mining Footprint "A")	3 (Lower Quarry Watershed Reduced Mining Footprint "B")	4 (Middle Quarry Watershed Reduced Mining Footprint)	5 (Upper Quarry Watershed Reduced Mining Footprint)
Impact 4.1-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan	LTS/LTS	=	=	=	=	=
Impact 4.1-2: 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	LTS/LTS	-	-	-	-	-
Impact 4.1-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations	LTS/LTS	=	=	=	=	=
Impact 4.1-4: Result in Other Emissions (Such as Those Leading to Odors) Adversely Affecting a Substantial Number of People	LTS/LTS	=	=	=	=	=
Impact 4.2-1: The Project Could Have Substantial Adverse Effects on Special-Status Plant Species or Plant Communities.	PS/LTS	-	-	-	-	-
Impact 4.2-2: The Project Could Have Substantial Adverse Effects on Special-Status Wildlife Species	PS/LTS	-	-	-	-	-
Impact 4.2-3: The Project Could Have Substantial Adverse Effects on State or Federally Protected Wetlands	PS/LTS	-	-	-	-	-
Impact 4.2-4: The Project Would Not Interfere Substantially with Native Wildlife Movement or Impede Nursery Site Use	PS/LTS	-	-	-	-	-
Impact 4.2-5: The Project Would Not Conflict with Any Local Policies or Ordinances Protecting Biological Resources or	PS/LTS	=	=	=	=	=

Impact	Project Impact Significance without/with Mitigation <sup>1</sup>	Alternatives				
		1 (No Project)	2 (Lower Quarry Watershed Reduced Mining Footprint "A")	3 (Lower Quarry Watershed Reduced Mining Footprint "B")	4 (Middle Quarry Watershed Reduced Mining Footprint)	5 (Upper Quarry Watershed Reduced Mining Footprint)
with Any Adopted Habitat Conservation Plan or Natural Community Conservation Plan.						
Impact 4.3-1: The Project Could Cause a Substantial Adverse Change in the Significance of a Historical Resource Pursuant to §15064.5.	PS/LTS	-	-	-	-	-
Impact 4.3-2: The Project Could Cause a Substantial Adverse Change in the Significance of An Archaeological Resource Pursuant to §15064.5.	PS/LTS	-	-	-	-	-
Impact 4.3-3: The Project Could Disturb Any Human Remains, Including Those Interred Outside of Dedicated Cemeteries	PS/LTS	-	-	-	-	-
Impact 4.4-1: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geological Feature	PS/LTS	-	-	-	-	-
Impact 4.5-1: Greenhouse Gas Emissions Generated by Project Activities Could Have a Significant Impact on Global Climate Change.	LTS/LTS	-	-	-	-	-
Impact 4.5-2: Consistency with Applicable GHG Plans, Policies, or Regulations.	LTS/LTS	=	=	=	=	=
Impact 4.6-1: The Project Could Violate Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface or Ground Water Quality	LTS/LTS	-	-	-	-	-
Impact 4.6-2: The Project Could Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management of the Basin	LTS/LTS	-	=	=	=	=

Impact	Project Impact Significance without/with Mitigation <sup>1</sup>	Alternatives				
		1 (No Project)	2 (Lower Quarry Watershed Reduced Mining Footprint "A")	3 (Lower Quarry Watershed Reduced Mining Footprint "B")	4 (Middle Quarry Watershed Reduced Mining Footprint)	5 (Upper Quarry Watershed Reduced Mining Footprint)
Impact 4.6-3: The Project Could Substantially Alter the Existing Drainage Pattern of the Site Resulting in Substantial Erosion or Siltation, Flooding on or Offsite, the Provision of Substantial Additional Sources of Polluted Runoff, or the Impediment or Redirection of Flood Flows.	PS/LTS	=	-	-	-	-
Impact 4.6-4: The Project Could Release Pollutants in the Event of Inundation from Flood, Tsunami, or Seiche	LTS/LTS	=	=	=	=	=
Impact 4.6-5: The Project Could Conflict with or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan	LTS/LTS	=	=	=	=	=
Impact 4.7-1: Physically Divide an Established Community	LTS/LTS	=	=	=	=	=
Impact 4.7-2: Conflict with Land Use Plans, Policies, and Regulations	LTS/LTS	=	=	=	=	=
Impact 4.8-1: Would the Project Adversely Affect the Significance of a Tribal Cultural Resources, As Defined in PRC § 21074	LTS/LTS	-	-	-	-	-

### **6.5.1 Alternative 1: No Project**

Under Alternative 1, proposed Well No. 3 and the associated pipeline would not be constructed and the Quarry would continue to operate without a sufficient or reliable water source for dust suppression. In addition, restoration and preservation of the Viking Ranch and Old Kane Springs Road sites would not occur, nor would the associated beneficial impacts to hydrology and biological resources at those sites. As a result, impacts to Waters of the US resulting from Quarry expansion could not be fully mitigated as required and mining activities would be curtailed. Thus, Alternative 1 would involve an overall reduced mining footprint, volume, and duration as well as elimination of construction activities associated with the well, pipeline, and restoration site.

#### **Air Quality**

Under Alternative 1, the overall footprint, volume and duration of mining would be reduced thus reducing operational air emissions. In addition, the elimination of construction activities at the well site, pipeline alignment, and the Viking Ranch site would substantially reduce temporary construction emissions. Although emissions would be reduced under this alternative, the mitigation measures provided in the 2008 EIR/EIS would still be implemented to further reduce exhaust emissions.

#### **Biological Resources**

Under Alternative 1, the overall mining footprint would be reduced and new impacts to Waters of the US would be eliminated. Impacts to vegetation and wildlife would be similar to those identified in the 2008 EIR/EIS and no new mitigation would be required. Thus, the beneficial effects of the mitigation measures for Peninsular bighorn sheep (PBS) and other special-status species and restoration and preservation of the offsite mitigation sites would not occur.

#### **Cultural Resources**

Because the overall mining footprint would be reduced, the potential for project activities to inadvertently disturb buried cultural resources would also be reduced. However, the mitigation measures provided in Section 4.3, would still be required to fully mitigate the project's impacts to cultural resources.

#### **Geology, Soils, and Paleontological Resources**

Because the overall mining footprint would be reduced, the potential for project activities to inadvertently disturb previously undiscovered paleontological resources would also be reduced. No new mitigation measures beyond those provided in the 2008 EIR/EIS would be required.

#### **Greenhouse Gas Emissions**

Under Alternative 1, there would be a reduction in the total area to be mined as well as a corresponding reduction in total mining volume and duration. The proposed berm would still be constructed as described in the 2008 EIR/EIS resulting in similar construction emissions. However, no construction activities would occur at the well site/pipeline corridor or at the Viking Ranch Restoration Site. Thus, temporary GHG emissions would be reduced compared to the proposed project. However, as water would need to be transported to the quarry, the GHG emissions from those trucks, which would be reduced or eliminated under the project, would be greater than the proposed project. Although emissions would be reduced under this alternative, the existing mitigation measures described in Section 4.5 would still be required to further reduce emissions and fully mitigate the project's GHG impacts.

### **Hydrology and Water Quality**

Under Alternative 1, the Quarry expansion would be limited to areas of the project site not containing Waters of the US; thus, impacts to jurisdictional waters on the project site would be reduced. However, this alternative would also eliminate the proposed restoration and preservation of the offsite mitigation sites. As such, the beneficial impacts of the enhancement and preservation of these offsite jurisdictional waters would not occur under this alternative. The proposed berm would still be constructed but would need to be modified to reflect the new footprint. Overall drainage patterns and related effects would be similar to the proposed project. Water quality impacts would also be similar to the proposed project. As Well No. 3 would not be constructed, groundwater pumping at Well No. 2 would continue at current levels which are below that proposed for Well No. 3. Thus, impacts to groundwater levels and local wells would be reduced compared to the proposed project.

### **Land Use and Planning**

Both the proposed project and Alternative 1 would be consistent with all applicable land use plans, policies and regulations, would not divide a community either directly or indirectly, and would not conflict with any habitat conservation plans. Alternative 1 would result in similar impacts to land use and planning as compared to the proposed project.

### **Tribal Cultural Resources**

Because the overall mining footprint would be reduced, the potential for project activities to inadvertently disturb buried tribal cultural resources would also be correspondingly reduced. However, the mitigation measures provided in Section 4.3 and 4.8 would still be required to fully mitigate the project's potential impacts to tribal cultural resources.

## **6.5.2 Alternative 2: Lower Quarry Watershed Reduced Mining Footprint "A" Alternative**

The discussion below considers the impacts of Alternative 2 as compared to the proposed project. Under the Lower Quarry Watershed Reduced Mining Footprint "A" Alternative, Phase 10 would not be fully mined, and Phase 10 would be eliminated in order to avoid jurisdictional waters. Also under this alternative, the proposed stormwater berm would be reduced in length and overall mining activity would be reduced/shortened. All other project components would be identical to the proposed project including construction of Well No. 3 and associated pipeline and restoration/preservation of the offsite mitigation sites.

### **Air Quality**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative the mitigation measures described in Section 4.1 would still be required to further reduce emissions and mitigate the project's air quality impacts.

### **Biological Resources**

Under Alternative 2, the total area impacted by mining of Phase 10 would be reduced from 21.4 acres to 6.6 acres thus eliminating direct impacts on the arroyo wash and avoiding the downstream impacts on Fish Creek. Because the overall footprint of the area to be mined would be reduced, this alternative would



proportionally reduce impacts on alluvial wash vegetation and habitat. Effects to annual rock-nettle and other species could be slightly less, depending on local extent of occupied habitat during a given year. Mitigation measures would be the same as identified for the proposed project.

The impacts of Alternative 2 on wildlife would be the same as described for the proposed project but would be quantitatively slightly less due to the reduced Quarry footprint. This alternative would reduce the northernmost extent of the Quarry and thus could have slightly less impact to localized wildlife movement across the canyon, between mountainous habitat to the east and west. Impacts on PBS and barefoot banded gecko would be the same as described for the proposed project but may be quantitatively slightly less due to the reduced Quarry footprint. This alternative, like the proposed project, would not affect Swainson's hawk or desert pupfish. Mitigation measures for wildlife species would be the same as identified for the proposed project.

### **Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried cultural resources would also be reduced. However, the mitigation measures provided in Section 4.3 would still be required to fully mitigate the project's impacts to cultural resources.

### **Geology, Soils, and Paleontological Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried paleontological resources would also be reduced. However, the mitigation measures provided in Section 4.4 would still be required to fully mitigate the project's impacts to paleontological resources.

### **Greenhouse Gas Emissions**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational GHG emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.5 would still be required to mitigate the project's GHG impacts.

### **Hydrology and Water Quality**

Alternative 2 would reduce mining of Phase 10 and eliminate mining of Phase 10P and would modify the proposed berm including elimination of the berm between Phases 6 and 9 where a natural topographic break would serve as the storm water barrier instead. This modified berm alignment would allow for an additional 120 acres to discharge into the Quarry, but at least two percent of the total watershed area it is considered minimal and would not represent a change in the modeled hydrologic analysis of the easterly and westerly peak flow rates identified for the proposed project.

The impacts on hydrologic resources associated with this alternative are similar in nature to the proposed project, although they differ in their extent. The total losses of Waters of the US would be reduced from 133.63 acres to 117.62 acres for the mining area and berm alone. Eliminating Phase 10P would eliminate direct impacts on the wash along the boundary of that phase and would avoid indirect downstream impacts from Phase 10P on Fish Creek.

### **Land Use and Planning**

Both the proposed project and Alternative 1 would be consistent with all applicable land use plans, policies and regulations, would not divide a community either directly or indirectly, and would not conflict with any habitat conservation plans. Alternative 1 would result in similar impacts to land use and planning as compared to the proposed project.

### **Tribal Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried tribal cultural resources would also be reduced. However, the mitigation measures referenced in Section 4.8 would still be required to fully mitigate the project's impacts to tribal cultural resources.

### **6.5.3 Alternative 3: Lower Quarry Watershed Reduced Mining Footprint "B" Alternative**

The discussion below considers the impacts of Alternative 3 as compared to the proposed project. Under the Lower Quarry Watershed Reduced Mining Footprint "B" Alternative, the western boundaries of Phases 4 and 5 would be reconfigured to reduce losses of waters of the United States. Also under this alternative, the proposed stormwater berm would be reduced in length and overall mining activity would be reduced/shortened. All other project components would be identical to the proposed project including construction of Well No. 3 and associated pipeline and restoration/preservation of the offsite mitigation sites.

### **Air Quality**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.1 would still be required to mitigate the project's air quality impacts.

### **Biological Resources**

Under Alternative 3, Phases 4 and 5 would be reconfigured to reduce losses of Waters of the US and the berm would be correspondingly modified. The total area impacted in these phases would be 45.09 acres, compared with 53.71 acres under the proposed project, thus reducing direct impacts on the arroyo wash and avoiding the downstream impacts of Fish Creek.

Because the overall footprint of the area to be mined would be reduced, this alternative would proportionally reduce impacts on alluvial wash vegetation and habitat. Effects to annual rock-nettle and other species could be slightly less, depending on local extent of occupied habitat during a given year. Mitigation measures would be the same as identified for the proposed project.

The impacts of Alternative 3 on wildlife would be the same as described for the proposed project but would be quantitatively slightly less due to the reduced Quarry footprint. Impacts on PBS and barefoot banded gecko would be the same as described for the proposed project but may be quantitatively slightly less due to the reduced Quarry footprint. This alternative, like the proposed project, would not affect Swainson's hawk or desert pupfish. Mitigation measures for wildlife species would be the same as identified for the proposed project.

### **Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried cultural resources would also be reduced. However, the mitigation measures provided in Section 4.3 would still be required to fully mitigate the project's impacts to cultural resources.

### **Geology, Soils, and Paleontological Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried paleontological resources would also be reduced. However, the mitigation measures provided in Section 4.4 would still be required to fully mitigate the project's impacts to paleontological resources.

### **Greenhouse Gas Emissions**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational GHG emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.5 would still be required to mitigate the project's GHG impacts.

### **Hydrology and Water Quality**

Under Alternative 3, the nature of the impacts on hydrologic resources would be the same as the proposed project. The total loss of Waters of the US would be reduced from 133.63 acres under the proposed project to 125.43 acres.

### **Land Use and Planning**

Both the proposed project and Alternative 1 would be consistent with all applicable land use plans, policies and regulations, would not divide a community either directly or indirectly, and would not conflict with any habitat conservation plans. Alternative 1 would result in similar impacts to land use and planning as compared to the proposed project.

### **Tribal Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried tribal cultural resources would also be reduced. However, the mitigation measures referenced in Section 4.8 would still be required to fully mitigate the project's impacts to tribal cultural resources.

## **6.5.4 Alternative 4: Middle Quarry Watershed Reduced Mining Footprint Alternative**

The discussion below considers the impacts of Alternative 4 as compared to the proposed project. Under the Middle Quarry Watershed Reduced Mining Footprint Alternative, mining Phases 2P, 3P (North) and 3P (South) would be eliminated to reduce losses of waters of the United States. Also under this alternative, the proposed stormwater berm would be reduced in length and overall mining activity would be reduced/shortened. All other project components would be identical to the proposed project including construction of Well No. 3 and associated pipeline and restoration/preservation of the offsite mitigation sites.

### **Air Quality**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.1 would still be required to mitigate the project's air quality impacts.

### **Biological Resources**

Under Alternative 4, Phases 2P, 3P (North) and 3P (South) would be eliminated to reduce losses of Waters of the US and the berm would be correspondingly modified. The removal of these three phases would realign the proposed storm water berm such that it would be nearly perpendicular to flow in the main channel along three significant sections where the phases are proposed for removal (from approximately 300 to 1,300 feet long).

By eliminating these phases, Alternative 4 would slightly reduce mining impacts on upland and alluvial wash vegetation (primarily creosote bush scrub and sparsely vegetated sandy wash). Other impacts on vegetation and habitat would be similar to the proposed project. Effects to annual rock-nettle and other species could be slightly less, depending on local extent of occupied habitat during a given year. Mitigation measures would be the same as identified for the proposed project.

The impacts of Alternative 4 on wildlife, including PBS and barefoot banded gecko, would be the same as described for the proposed project but would be quantitatively slightly less due to the reduced Quarry footprint. This alternative, like the proposed project, would not affect Swainson's hawk or desert pupfish. Mitigation measures for wildlife species would be the same as identified for the proposed project.

### **Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried cultural resources would also be reduced. However, the mitigation measures provided in Section 4.3 would still be required to fully mitigate the project's impacts to cultural resources.

### **Geology, Soils, and Paleontological Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried paleontological resources would also be reduced. However, the mitigation measures provided in Section 4.4 would still be required to fully mitigate the project's impacts to paleontological resources.

### **Greenhouse Gas Emissions**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational GHG emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.5 would still be required to mitigate the project's GHG impacts.

### **Hydrology and Water Quality**

Under Alternative 4, the impacts on hydrologic resources would be similar in nature to the proposed project. The direct loss of waters of the US would be reduced from 133.63 acres under the proposed project to 126.78 acres and the same mitigation would be required to address this loss. However, indirect impacts would increase under this alternative as mining would continue in the channel immediately upstream and downstream of Phases 2P, 3P (North), and 3P (South).

### **Land Use and Planning**

Both the proposed project and Alternative 4 would be consistent with all applicable land use plans, policies and regulations, would not divide a community either directly or indirectly, and would not conflict with any habitat conservation plans. Alternative 1 would result in similar impacts to land use and planning as compared to the proposed project.

### **Tribal Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried tribal cultural resources would also be reduced. However, the mitigation measures referenced in Section 4.8 would still be required to fully mitigate the project's impacts to tribal cultural resources.

## **6.5.5 Alternative 5: Upper Quarry Watershed Reduced Mining Footprint Alternative**

The discussion below considers the impacts of Alternative 5 as compared to the proposed project. Under the Upper Quarry Watershed Reduced Mining Footprint Alternative, mining Phases 2P, 3P (North) and 3P (South) would be eliminated to reduce losses of waters of the United States. Also under this alternative, the proposed stormwater berm would be reduced in length and overall mining activity would be reduced/shortened. All other project components would be identical to the proposed project including construction of Well No. 3 and associated pipeline and restoration/preservation of the offsite mitigation sites.

### **Air Quality**

Because proposed mining phases would be eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.1 would still be required to fully mitigate the project's air quality impacts.

### **Biological Resources**

Under Alternative 5, the proposed mining footprint would be reduced in Phases 7 and 8 and the proposed berm would be modified accordingly. Impacts to Waters of the US would be reduced from 32.12 acres under the proposed project to 20.05 under this alternative. The overall mining footprint would be reduced, thereby decreasing the area of disturbance and slightly reducing impacts to alluvial wash vegetation (primarily creosote bush scrub and catclaw acacia thorn scrub). Other impacts on vegetation and habitat would be similar to the proposed project. Effects to annual rock-nettle and other species could be slightly less, depending on local extent of occupied habitat during a given year. Mitigation measures would be the same as identified for the proposed project.

The impacts of Alternative 5 on wildlife, including PBS and barefoot banded gecko, would be the same as described for the proposed project but would be quantitatively slightly less due to the reduced Quarry footprint. This alternative, like the proposed project, would not affect Swainson's hawk or desert pupfish. Mitigation measures for wildlife species would be the same as identified for the proposed project.

### **Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried cultural resources would also be reduced. However, the mitigation measures provided in Section 4.3 would still be required to fully mitigate the project's impacts to cultural resources.

### **Geology, Soils, and Paleontological Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried paleontological resources would also be reduced. However, the mitigation measures provided in Section 4.4 would still be required to fully mitigate the project's impacts to paleontological resources.

### **Greenhouse Gas Emissions**

Because proposed mining phases would be reduced or eliminated under this alternative, overall mining volume and duration would be reduced thus reducing operational GHG emissions. Furthermore, the proposed berm would be significantly reduced in length reducing construction time and associated temporary emissions. Although emissions would be reduced under this alternative, the mitigation measures described in Section 4.5 would still be required to mitigate the project's GHG impacts.

### **Hydrology and Water Quality**

Under Alternative 5, the boundaries of mining phases 7 and 8 would be modified and the proposed berm would be modified accordingly. Under this alternative, the impacts on hydrologic resources would be similar in nature to the proposed project. The direct loss of Waters of the US in the upper Quarry watershed would be reduced from 133.63 acres under the proposed project to 122.35 acres and the same mitigation would be required to address this loss.

### **Land Use and Planning**

Both the proposed project and Alternative 5 would be consistent with all applicable land use plans, policies and regulations, would not divide a community either directly or indirectly, and would not conflict with any habitat conservation plans. Alternative 5 would result in similar impacts to land use and planning as compared to the proposed project.

### **Tribal Cultural Resources**

Because the overall footprint of the area to be mined would be reduced, the potential for project activities to inadvertently disturb buried tribal cultural resources would also be reduced. However, the mitigation measures referenced in Section 4.8 would still be required to fully mitigate the project's impacts to tribal cultural resources.

## **6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

CEQA §15126.6(e)(2) requires that an EIR identify the environmentally superior alternative. CEQA also requires that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative from the remaining alternatives. In consideration of the alternatives evaluation presented above, Alternative 1: No Project Alternative would result in fewer impacts as compared to the project and the other alternatives considered. This is due to the fact that Well No. 3 would not be constructed, and additional groundwater would not be pumped from the aquifer that underlies the project site. As such, the County must identify the environmentally superior alternative from the remaining alternatives.

Based on the analysis above and excluding the No Project Alternative, the County concludes that Alternative 5, Upper Quarry Watershed Reduced Mining Footprint Alternative, is the environmentally superior alternative as it would result in the greatest reduction of mining volume and duration and would reduce impacts to Waters of the US by 11.28 acres.

The alternatives analysis and conclusions reached regarding the environmentally superior alternative do not determine the ability of Alternative 5 to be an economically viable option for the Applicant.

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