not be reduced. However, the reduced quantity alternative would result in fewer emissions relative to Phase 2 of the Project. Phase 2 air quality emissions would be equivalent to Phase 1 air emissions. This would result in a 50 percent reduction in emissions for Phase 2.

Mitigation Measures

Mitigation measures AQ1, AQ2, AQ3, AQ4, and AQ5 would be implemented with this alternative. With mitigation measures applied, emissions would still exceed SCAQMD daily emission thresholds for both phases of the Reduced Mining Concept Alternative and the residual impacts would still be significant.

## 3.2.8 Biota

### 3.2.8.1 No Action Alternative

Impacts

The No Action Alternative would retain the existing natural vegetation and wildlife habitat onsite as well as the existing disturbed area. Approximately 187 acres of coastal sage scrub/ semidesert chaparral and mixed chaparral would not be removed. No pumping of the underflow of the Santa Clara River would take place, thus, there would be no impact on the riparian and aquatic communities of the Santa Clara River.

Erosion and sedimentation from the existing, unrevegetated quarry and stockpiles have the potential to result in significant adverse impacts to the riparian corridor and habitat for the unarmored threespine stickleback. This impact could be mitigated by requiring the previous operator to implement a reclamation plan or provide other means to eliminate uncontrolled runoff from the site (such as measure B5 above); however, this alternative does not provide the capability to implement such a measure.

Mitigation Measures

No mitigation measures are required for the No Action Alternative.

### 3.2.8.2 Reduced North Fines Storage Area Alternative Analysis

Impacts

Onsite Effects

General Vegetation. The mining area footprint and NFSA footprint would be reduced in size under this alternative as compared to the Proposed Action. Overall, the area disturbed by activity on the site would be decreased by approximately 40 acres (a 15-percent reduction in area affected). The estimated habitat impacts of this alternative compared to the Proposed Action are

listed in Table 3.2.8-1. This loss of natural vegetation is considered a potentially significant adverse impact and is mitigated to less than significant through implementation of the proposed concurrent reclamation plan (see Mitigation Measure B1).

Sensitive Plants. This alternative may alleviate impacts on sensitive plant species known to occur by disturbing fewer acres in the NFSA. However, impacts to these species could still occur from the reduced usage of the area, requiring mitigation as provided in B2.

**Table 3.2.8-1**
**APPROXIMATE ACREAGES OF VEGETATION COMMUNITIES AFFECTED BY THE REDUCED NFSA ALTERNATIVE**

| Project Areas | Vegetation Communities | | | | |
|---|---|---|---|---|---|
| | Coastal Sage Scrub | Coastal Sage Scrub/Semidesert Chaparral | Coastal Sage Scrub/Mixed Chaparral | Mixed Chaparral | Total |
| Concept Plan | 4 | 128 | 20 | 35 | **187** |
| Reduced NFSA | 3 | 114 | 13 | 25 | **155*** |
| * An additional 8 acres affected by the Reduced NFSA Approach are already disturbed due to previous mining activities. | | | | | |

General Wildlife. This alternative reduces the acreage of wildlife habitat removed relative to the Proposed Action; however, the loss of natural habitat would still be potentially significant. Implementation of the concurrent and final reclamation plan reduces this impact to less than significant.

Sensitive Wildlife. This alternative has impacts on sensitive species that would be similar to the Proposed Action. Implmentation of mitigation measure B3 would be required to alleviate potential impacts on the coastal western whiptail, if found on the site.

Ephemeral Drainages

This alternative would affect the same ephemeral drainages as the Proposed Action and significant downstream impacts are avoided by provision of the drainage and debris basins.

Adjacent Offsite Effects

Impacts and mitigation of this alternative on sensitive wildlife and plants in adjacent offsite areas, including the potential effects on the endangered unarmored threespine stickleback, would be slightly less than those stated for the Proposed Action due to the reduction in site acreage affected by mining. The reduced impact would not obviate the need for implementation of mitigation measures B4, B5, and B6.

Mitigation Measures

The mitigation measures for this alternative are the same as for the Proposed Action (measures are B1, B2, B3, B4, B5, and B6 are applicable). Implementation of those measures would reduce potential significant impacts to less than significant levels.

Mitigation Measure B7 has been proposed to apply only to the RNFSA Alternative in order to reduce and minimize potential impacts to ephemeral drainages in the NFSA area. The RNFSA Alternative is the only alternative that allows for flexibility in the storage of fines, and is therefore the only alternative to which this mitigation measure would be applicable.

B7. The western-most ephemeral drainage located in the NFSA, if determined to be jurisdictional waters, will be avoided in the western end of the NFSA by limiting the lateral placement of fines (see Section 3.1.8.4, and Figures 3.2-13, 3.2-14, and 3.2-15 in Section 3.2). The total amount of excess natural fines to be placed in the NFSA with this mitigation remains the same as in the RNFSA Alternative without this mitigation. The vertical extent of the NFSA would be slightly higher than without the mitigation, but the overall contour would approximate the vertical extent of the original NFSA under the proposed Project. This mitigation measure would have no effect on the RNFSA Alternative (including impacts and mitigations) other than minimizing impacts to ephemeral drainages.

With the RNFSA Alternative, the lateral extent of the RNFSA will be limited to reduce and minimize the adverse effects of the mining activities on the ephemeral drainages. Where the conveyor to the NFSA crosses ephemeral drainages which are to be avoided, the conveyor system will be equipped with catchments to contain material that fall off of the conveyor belt in order to prevent unauthorized discharges.

This mitigation measure, if selected, will reduce the potential impacts of the RNFSA Alternative on ephemeral drainages in relation to the Proposed Project.

### 3.2.8.3 Batch Plant Location Alternative Analysis

Impacts

The impacts of this alternative with respect to mine site disturbance, including impacts on sensitive habitat and wildlife, use of the fines storage area, impacts to jurisdictional waters, and impacts on adjacent offsite areas would be the same as those discussed for the Proposed Action (all mitigation measures are applicable). The main difference with this alternative as compared to the Proposed Action is that the concrete ready-mix batch plant would be located to a site near Lang Station, necessitating the removal of additional habitat.

Impacts at the Alternative Site

The alternative batch plant at Lang Station could potentially impact more acreage of existing vegetation due to access road and site clearing than the onsite batch plant associated with the Proposed Action, though the affected acreage is not readily estimated. Given the potential for various sensitive species of plants and wildlife known to occur in the area, the presence/absence of sensitive species would need to be confirmed and other regulatory approvals obtained prior to grading at the site.

Approximately 23 to 31 acre-feet of water for the batch plant would be extracted at a downstream point along the river. Though not decreasing the overall water use of the Project, it does decrease the amount of water extracted adjacent to the Project site, thereby lessening potential impacts on critical habitat of the unarmored threespine stickleback. A groundwater pumping plan (mitigation measure B6) still would be required for this alternative.

Mitigation Measures

The mitigation measures for this alternative are the same as for the Proposed Action (measures are B1, B2, B3, B4, B5, and B6 are applicable). Implementation of those measures would reduce potential significant impacts to less than significant levels.

### 3.2.8.4 Addition of Water/Reclaimed Water Alternative Analysis

Impacts

The impacts of this alternative with respect to mining site disturbance, including impacts on sensitive habitat and wildlife, use of the fines storage area, impacts to jurisdictional waters, and impacts on adjacent offsite areas would be the same as those discussed for the Proposed Action (mitigation measures B1 through B5 are applicable). The main difference with this alternative compared to the Proposed Action is the use of an alternative source of water either a reclaimed source or other freshwater source, that would eliminate the need to pump water from the underflow of the Santa Clara River.

Effects on Santa Clara River and Unarmored Threespine Stickleback

By not extracting groundwater from the Santa Clara River, potential significant impacts on critical unarmored threespine stickleback habitat would be avoided. The need for a groundwater pumping curtailment mitigation measure (Measure B6) would be eliminated. Riparian habitat would not be potentially adversely affected as with the Proposed Action. The level of impact on local sensitive ecological habitats would depend on where the reclaimed water originated. If water is brought in by pipeline, biological resources may be adversely impacted along the pipeline route because short-term impacts could occur from pipeline construction and installation. Based on the reclaimed water pipeline alignment, these impacts on biota could be adverse, short term, and significant.

The use of imported water for habitat maintenance or for increases in habitat has been determined to be potentially harmful to the unarmored threespine stickleback and other sensitive species, depending on the biological contents of the water. Imported water may contain a variety of predators, competitors, and parasites detrimental to the unarmored threespine stickleback as identified in "Recovery Plan, Unarmored Threespine Stickleback" (USFWS 1985). Because the Proposed Action can mitigate the impacts on sensitive biological resources, including the unarmored threespine stickleback, to a level of less than significant (see Mitigation Measure B6, and substantiated in the Project Biological Opinion by U.S. Fish and Wildlife Service), this alternative does not substantially reduce impacts compared to the Proposed Action.

Mitigation Measures

The mitigation measures required for this alternative are measures B1, B2, B3, B4, and B5 as described for the Proposed Action. Implementation of those measures would reduce potential significant impacts to less than significant levels.

### 3.2.8.5 Product Transportation Alternative Analysis

Impacts

The impacts of this alternative with respect to mine site disturbance, including impacts on sensitive habitat and wildlife, use of the fines storage area would be the same as those discussed for the Proposed Action (mitigation measures B1 through B6 are applicable). Additionally, this alternative would potentially affect more acreage in areas adjacent to the active mining area both onsite and offsite. This additional acreage would be disturbed during construction and operation of a rail spur to serve the Project site.

Onsite and Offsite Impacts

No site plan for a rail spur has been developed; however, tentative land requirements assume a rail siding of at least 5,280 feet long and 50 feet wide (approximately 6 acres) that would be adjacent to the existing rail line. Much of the subject area is disturbed due to existing mining associated with the Rasmussen site. However, it is adjacent to the Santa Clara River and SEA No. 36. As noted in the DEIS, the river and SEA are associated with significant wildlife movement between Bear Creek and Agua Dulce Creek. While the actual loss of habitat is minor, the potential for disruption of wildlife movement corridors is significant.

Mitigation Measures

The mitigation measures required for this alternative are measures B1, B2, B3, B4, B5, and B6 as described for the Proposed Action. Implementation of those measures would reduce those potential significant impacts to less than significant levels. No mitigation measures are available to mitigate impacts on wildlife movement along the Santa Clara River corridor and the impact remains significant.

### 3.2.8.6 Alternative North Fines Storage Area Analysis

Impacts

The impacts of this alternative with respect to mining site disturbance, including impacts on sensitive habitat and wildlife on and offsite, and impacts to jurisdictional waters would be the same as those discussed for the Proposed Action (mitigation measures B1 through B6 are applicable). This alternative would result in some fines storage in nearby offsite locations, which would generally increase the amount of habitat affected by this alternative compared to the Proposed Action.

Effects of Using Alternative Fines Storage Sites

General and Sensitive Vegetation. The alternative storage areas have similar vegetation communities as the proposed Project site, mainly mixed chaparral and coastal sage scrub/desert chaparral. The alternative NFSA (Areas A, B, and C only as Area D was formerly determined to be infeasible) encompass approximately 82 acres (7.9 million cubic yard capacity) which is a larger surface area but smaller capacity than required for the Proposed Action's NFSA. Consequently, this alternative would be used in combination with the proposed NFSA (or would be in feasible by itself). Using these separate areas for fines storage and linking them together by haul road would result in slightly greater acreage of native plant communities removed under this alternative. Two sensitive plants found on the Project site, Peirson's morning glory and slender mariposa lily, also occur on the alternative NFSA and would be impacted by the placement of fines in these areas. Additionally, Area A supports approximately 40 oak trees (*Quercus palmeri*). These oak trees are protected by the County Oak Tree Ordinance No. 22.56.20, and if impacted, they would have to be replaced in accordance with the ordinance.

General and Sensitive Wildlife. General wildlife resources for the alternative NFSA are similar to the Project's NFSA. Because of the well-developed drainages, Area A was found to contain flowing surface water that supports tadpoles and was used as a water source for smaller wildlife as well as mule deer, fox, and coyote. Area B would impact a "blue line" drainage. Use of these sites for fines deposition would alter the attributes of these drainages and devalue them as wildlife resource areas. Additionally, due to the location of the alternative NFSA ravines, away from degraded mining areas, they are more likely to be used as wildlife migration corridors. Altered drainage patterns would also have the potential to adversely impact the endangered slenderhorned spineflower downstream in Bee Canyon requiring mitigation in the form of debris basins (such as mitigation measure B5).

Mitigation Measures

The mitigation measures required for this alternative are measures B1, B2, B3, B4, B5, and B6 as described for the Proposed Action. Additionally, compliance with the County Oak Tree Ordinance would be required to mitigate impacts to these resources in alternative fines storage Area A. Implementation of those measures would reduce those potential significant impacts to less than significant levels.

### 3.2.8.7 Reduced Quantity Mining Concept Alternative Analysis

Impacts

While less acreage would be disturbed under this alternative, the potential impacts remain the same as for the Proposed Action. A loss of natural vegetation, although reduced in acreage, would still occur onsite, and potential impacts on the riparian habitat (the essential habitat of the stickleback) would remain.

Onsite Effects

General Vegetation. The mining area footprint and NFSA footprint would be reduced in size under this alternative as compared to the Proposed Action. Overall, the area disturbed by activity on the site could be decreased by approximately 24 acres. The estimated habitat impacts of this alternative compared to the Proposed Action are listed in Table 3.2.8-2. This loss of natural vegetation is considered a potentially significant adverse impact and is mitigated to less than significant through implementation of the proposed concurrent reclamation plan (see Mitigation Measure B1).

Sensitive Plants. The size of the NFSA is not substantially reduced by this alternative. Consequently, impacts on sensitive plant species known to occur in the NFSA are significant under this alternative (requiring mitigation as provided in B2).

General Wildlife. This alternative reduces the acreage of wildlife habitat removed relative to the Proposed Action; however, the loss of natural habitat would still be potentially significant. Implementation of the concurrent and final reclamation plan reduces this impact to less than significant.

Sensitive Wildlife. This alternative has impacts on sensitive species that would be similar to the Proposed Action. Implementation of mitigation measure B3 would be required to alleviate potential impacts on the coastal western whiptail, if found on the site.

Ephemeral Drainages

This alternative could avoid two of the three ephemeral drainage on the site and therefore would have less impact than the Proposed Action. Significant downstream impacts on the drainage affected can be avoided by provision of the drainage and debris basins (as required by measure B5).

Adjacent Offsite Effects

Impacts and mitigation of this alternative on sensitive wildlife and plants in adjacent offsite areas, except for the endangered unarmored threespine stickleback, would be slightly less than those stated for the Proposed Action due to the reduction in site acreage affected by mining. The reduced impact would not obviate the need for implementation of mitigation measure B4.

**Table 3.2.8-2**
**APPROXIMATE ACREAGES OF VEGETATION COMMUNITIES AFFECTED BY THE REDUCED QUANTITY MINING CONCEPT ALTERNATIVE**

| Project Areas | Vegetation Communities | | | | |
|---|---|---|---|---|---|
| | Coastal Sage Scrub | Coastal Sage Scrub/ Semidesert Chaparral | Coastal Sage Scrub/ Mixed Chaparral | Mixed Chaparral | Total |
| Proposed Action* | 4 | 128 | 20 | 35 | 187 |
| Reduced Quantity | 3 | 116 | 12 | 32 | 163 |
| * Approximately 45 additional acres of previously disturbed land will be used for mining and facilities. | | | | | |

This alternative would substantially reduce water requirements of the Project and would result in the need to pump less water from the Santa Clara River underflow. The Project water demand under this alternative would be the same as the Proposed Action for Phase 1, but would decrease by approximately 24.5 to 26.2 acre feet per month during Phase 2. This decrease in water extraction reduces the potential impacts on critical habitat of the unarmored threespine stickleback.

Uncontrolled pumping during the dry months of drought years could still result in significant adverse impacts on the essential habitat of the unarmored threespine stickleback as well as other sensitive fish species under this alternative. Consequently, a groundwater pumping plan (mitigation measure B6) still would be required for this alternative.

Mitigation Measures

The mitigation measures for this alternative are the same as for the Proposed Action (measures are B1, B2, B3, B4, B5, and B6 are applicable). Implementation of those measures would reduce potential significant impacts to less than significant levels.

## 3.2.9 Cultural Resources

### 3.2.9.1 No Action Alternative

Impacts

Historic and archaeological resources and paleontological resources that have been identified on and near the Project site would not be disturbed by the No Action Alternative as no activities would occur.