

## 4.7 TRANSPORTATION SYSTEMS AND TRAFFIC

This analysis is intended analyze the impacts of the alternatives and to satisfy requirements for project-specific transportation and traffic impact analysis by examining the short-term (Year 2008) and long-term (Year 2030) potential impacts of the Proposed Action/Projects within the Plan Area and surrounding roadway network and SR-210, and by evaluating the effectiveness of mitigation measures.

The potential for transportation and traffic impacts could occur if an alternative generates a substantial amount of new operational trips or increases their contribution to peak-hour traffic.

### 4.7.1 TRAFFIC STUDY

A *Traffic Study* was conducted for the proposed Project in 2007 to assess potential impacts associated with issuance of new mining permits for Cemex and Robertson's subsequent issuance of an incidental take permit by USFWS. The *Traffic Study* was prepared for and included in the Conservation District's November 2008 Final EIR (SCH No. 2004051023), Appendix J, for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan. See Appendix C in this DEIS/SEIR for a summary of the *Traffic Study*.

### THRESHOLDS AND CRITERIA

The following thresholds of significance are based on Appendix G of the State *CEQA Guidelines* and are consistent with NEPA implementing regulation Section 1508.27. Alternatives would result in significant impacts to transportation systems and traffic if it would cause any of the following to occur:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

## 4.7.2 DIRECT AND INDIRECT EFFECTS

### 4.7.2.1 Alternative A: No Action Alternative

The No Action Alternative represents the continuation of current management practices. This alternative assumes that the Proposed Action would not occur and the Plan Area would remain in its present condition. The No Action Alternative would not alter the activities that are currently taking place within the Plan Area. Mining operators would be presumed to mine to completion the existing permitted mining, but no additional mining permitting is presumed.

**Determination:** The No Action Alternative would not result in significant adverse impacts associated with transportations systems and traffic.

### 4.7.2.2 Alternative B: Proposed Action/Projects

#### *Significance Determinations*

- TRA-1** Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? **Determination: Less Than Significant Impact.**
- TRA-2** Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? **Determination: Significant and Unavoidable Impact.**
- TRA-3** Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? **Determination: Less Than Significant Impact.**
- TRA-4** Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? **Determination: Less Than Significant Impact.**
- TRA-5** Would the Project result in inadequate emergency access? **Determination: Less Than Significant Impact.**

**TRA-6** Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? **Determination: Less Than Significant Impact.**

### ***Traffic Level of Service Standards for All Proposed Projects***

The analysis in this section is based on the *Traffic Study*. The *Traffic Study* analyzed expanded mining as proposed in the 2008 Land Management Plan (Alternative C) which included 32 more acres of expanded mining than Alternative B. Therefore, the potential adverse impacts on transportations systems and traffic in the Plan Area from Alternative B are anticipated to be less than or equal to those identified in the *Traffic Study* for Alternative C.

The establishment of habitat preservation areas is not expected to result in any new transportation or traffic impacts above existing traffic levels. However, indirect impacts as a result of the exchange would have potential traffic impacts, with regards to the consolidation and increase of mining activities. Therefore, the analysis below will discuss indirect impacts associated with expansion of mining operations.

Construction-related traffic for ongoing operation and maintenance of existing and new facilities for aggregate mining would not result in a significant source of new trips in the Plan Area, and construction-related traffic would be short-term in nature. Operational traffic would increase in the Plan Area, but alone would not produce increases in traffic levels that would result in a significant traffic impact.

Robertson's aggregate and concrete trucks and Cemex's aggregate trucks that are inbound from SR-210 (SR-30) or 5th Street east of SR-210 (SR-30) would access the plants via a new direct connection to 5th Street west of SR-210 (SR-30). This alternative roadway was developed to minimize operational haul trips on the local roadway network.

### ***Trip Generation for Expanded Aggregate Mining for All Proposed Projects***

The *Traffic Study* prepared for the proposed expanded aggregate mining provides the following trip generation data: the Cemex Orange Street Plant is expected to generate 444 new daily passenger car equivalent (PCE) trips, with 39 PCE trips occurring during the a.m. peak hour and 9 PCE trips occurring during the p.m. peak hour, and the number of employee trips and miscellaneous delivery trips would not increase from the baseline number of trips for the Cemex operation, refer to Table 4.7-1 below. The Robertson's Alabama Street plant is expected to generate 768 new daily PCE trips with no increase of trips occurring during the peak hours. Robertson's trucks are centrally dispatched so that the facility has control over when trucks enter and exit the plant. The number of employee trips and miscellaneous delivery trips have been accounted for in the baseline driveway counts, and would not increase from the baseline number of trips for the Cemex or Robertson's operation.

**Table 4.7-1 – Project New Trip Generation, Aggregate Trucks**

| Land Use   | A.M. Peak Hour |           |           | P.M. Peak Hour |          |          | Daily <sup>5</sup> |
|--|----------------|-----------|-----------|----------------|----------|----------|--------------------|
|  | In             | Out       | Total     | In             | Out      | Total    |                    |
| <i>Robertson's Plunge Creek Plant<sup>1</sup></i>  |                |           |           |                |          |          |                    |
| Existing Trucks at 2.0 MTPY Baseline               | 11             | 10        | 21        | 6              | 6        | 12       | 384                |
| Proposed Trucks at 3.0 MTPY <sup>2</sup>           | 11             | 10        | 21        | 6              | 6        | 12       | 640                |
| Net New Trucks                                     | 0              | 0         | 0         | 0              | 0        | 0        | 256                |
| Net New PCE Trips <sup>3</sup>                     | 0              | 0         | 0         | 0              | 0        | 0        | 768                |
| <i>Cemex Orange Street Plant<sup>4</sup></i>       |                |           |           |                |          |          |                    |
| Existing Trucks at 2.5 MTPY Baseline               | 38             | 39        | 77        | 10             | 7        | 17       | 762                |
| Proposed Trucks at 3.00 MTPY                       | 44             | 46        | 90        | 12             | 8        | 20       | 910                |
| Net New Trucks                                     | 6              | 7         | 13        | 2              | 1        | 3        | 148                |
| Net New PCE Trips <sup>3</sup>                     | 18             | 21        | 39        | 6              | 3        | 9        | 444                |
| <b>Total New PCE Trips (Robertson's and Cemex)</b> | <b>18</b>      | <b>21</b> | <b>39</b> | <b>6</b>       | <b>3</b> | <b>9</b> | <b>1,212</b>       |

Note: These are ship numbers that reflect waste and stockpiling.

MTPY-Million Tons Per Year

<sup>1</sup> Based on Robertson's memo updated February 24, 2006 (3 years of truck data from 2003 to 2005)

<sup>2</sup> Robertson's has the ability to limit shipments during local peak traffic hours, so that no net change from baseline conditions would occur during these hours.

<sup>3</sup> All values given are in Passenger Car Equivalency (PCE). PCE of 3 has been used for all aggregate trucks.

<sup>4</sup> Based on Libburn Corporation and Cemex memo updated June 16, 2006 (3 years of truck data from 2003 to 2005)

<sup>5</sup> Based on Robertson's memo updated February 24, 2006 and Cemex memo updated June 16, 2006.

### ***Year 2030 With Proposed Action/Projects Conditions (Intersection) Traffic and Level of Service (LOS) Impacts***

Development of traffic volumes for the year 2030 with Proposed Action/Projects scenario are described in detail in the *Traffic Study*. An intersection level of service (LOS) analysis was conducted for the 2030 with Proposed Action/Projects scenario volumes. With the addition of Proposed Action/Projects traffic to the year 2030 background scenario, intersection levels of service at the following eight intersections would result in less than the minimum standard in the a.m. peak hour, p.m. peak hour, or both:

- Palm Avenue/5th Street. The intersection would continue to operate at LOS F during the a.m. peak hour.
- Palm Avenue/3rd Street. The intersection would continue to operate at LOS E in the a.m. peak hour and change from LOS F to LOS E in the p.m. peak hour.
- Alabama Street/Robertson's Access. The intersection would continue to operate at LOS E in the a.m. peak hour and would continue to operate at LOS F in the p.m. peak hour.
- Alabama Street/Cemex Access. The intersection would continue to operate at LOS F during the p.m. peak hour.
- SR-210 (SR-30) Northbound Ramps/5th Street. The intersection would continue to operate at LOS F in the a.m. peak hour.
- SR-210 (SR-30) Southbound Ramps/5th Street. The intersection would continue to operate at LOS F in the a.m. and p.m. peak hour.

- Boulder Avenue/Greenspot Road. The intersection would continue to operate at LOS F in both the a.m. and p.m. peak hours.
- Orange Street-Boulder Avenue/Cemex Access. The intersection would change from LOS F to LOS E in the a.m. peak hour and continue to operate at LOS F in the p.m. peak hour.

The Proposed Action/Projects includes a new means of access for trucks, and the LOS at the following four intersections would improve, resulting in beneficial impacts.

- Palm Avenue/5<sup>th</sup> Street;
- Palm Avenue/3<sup>rd</sup> Street;
- Boulder Avenue/Greenspot Road; and
- Orange Street-Boulder Avenue/Cemex Access.

The intersection geometric and control improvements portrayed in Figure 4.7-1 below would result in satisfactory LOS at these intersections, for both the year 2030 background and year 2030 background with Proposed Action/Projects scenarios. Although the four intersections are forecast to operate at a deficient LOS in 2030, the Proposed Action/Projects contribute to the reduction of delay times at these intersections. Delay times are not reduced substantially to maintain a satisfactory LOS, but are reduced or maintained to improve or maintain LOS over the background condition. While an improvement at these intersections occurs, they continue to operate at a failing LOS; therefore, mitigation is required as outlined below.

**MM TRAFFIC-1** Robertson's aggregate processing plant shall control the distribution of commercial haul trucks on local streets to ensure that no new peak hour vehicle trips are generated. Peak hours are 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.

**MM TRAFFIC-2** Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as otherwise specified in the CUP, the following improvements shall be constructed by the permit proponent:

**Third Street:** Widen and extend 3<sup>rd</sup> Street from Palm Avenue to connect to 5<sup>th</sup> Street at the intersection of Church Avenue/5<sup>th</sup> Street. Convert 3<sup>rd</sup> Street to a one-way street traveling east consistent with the City of Highland's planned roadway network and conceptual drawings of 5<sup>th</sup> Street provided by the City.

**Church Avenue/5<sup>th</sup> Street:** Add a northbound free right-turn lane corresponding to the 3<sup>rd</sup> Street connection. Restripe the east leg of the intersection to a six-lane roadway. The restriping to six lanes can be accommodated within the existing right-of-way and is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5<sup>th</sup> Street provided by the

City. Add a southbound leg to the intersection corresponding to the 3<sup>rd</sup> Street connection.

**Truck Traffic and 5<sup>th</sup> Street Access Road:** Truck traffic shall conform to Access Alternative D. This truck traffic pattern shall be maintained in order to ensure the safe operation of traffic on 5<sup>th</sup> Street and enforced by the City of Highland.

### MM TRAFFIC-3

Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as specified in the CUP, the permit applicant shall pay all applicable City development impact fees for regional and local circulation and CMP fair-share fees based on current construction costs estimated at time of payment. Based on the year 2030 analysis prepared for this DEIS/SEIR, year 2030 intersection impacts can be mitigated with implementation of the following specific improvement measures, which shall be in place by year 2030:

**Palm Avenue/5<sup>th</sup> Street:** Add a westbound left-turn lane.

**Palm Avenue/3<sup>rd</sup> Street:** Add a northbound right-turn lane. Restripe the rightmost northbound through lane as a shared through/right-turn lane. Widen the east leg of the intersection to accommodate two departure lanes.

**Boulder Avenue/Greenspot Road:** Restripe the southbound right-turn lane as a shared through/right-turn lane. Add a northbound left-turn lane.

**Orange Street-Boulder Avenue/Cemex Access:** Add a northbound through lane and a southbound through lane.

**Alabama Street-Robertson's Access-Cemex Access:** Install a traffic signal and add a northbound through lane and a southbound through lane.

With the implementation of Mitigation Measures MM TRAFFIC-1 through MM TRAFFIC-3, the above-listed intersections would operate at a satisfactory LOS of C and impacts are reduced to a less than significant level.

### ***Year 2030 With Proposed Action/Projects Conditions (Freeway Ramp Intersections) Traffic and LOS Impacts***

The following two freeway ramp intersections are forecast to operate below acceptable LOS standards with increases in the delay times as a result of the Proposed Projects:

- SR-210 (SR-30) Southbound Ramps/5<sup>th</sup> Street; and
- SR-210 (SR-30) Northbound Ramps/5<sup>th</sup> Street.

Because aggregate mining and operations would result in potentially significant impacts to freeway ramp intersections in year 2030 With Proposed Action/Projects Conditions, mitigation is required and outlined below.

**MM TRAFFIC-4**

Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as specified in the CUP, the permit applicant shall pay all applicable City development impact fees for regional and local circulation and CMP fair-share fees based on current construction costs estimated at time of payment. Based on the year 2030 analysis prepared for this DEIS/SEIR, year 2030 impacts can be mitigated with implementation of the following specific improvement measures, which shall be in place by year 2030:

**SR-210 (SR-30) Southbound Ramps/5<sup>th</sup> Street.** Widen 5<sup>th</sup> Street to two eastbound through lanes, an eastbound shared through/right-turn lane, a dedicated eastbound right-turn lane, three westbound through lanes, and two westbound left-turn lanes. Provide storage length for turn lanes per the traffic study. This improvement is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5<sup>th</sup> Street provided by the City. This improvement would require widening of Greenspot Road under the SR-210 (SR-30) bridge from 80 feet to 110 feet or more.

**SR-210 (SR-30) Northbound Ramps/5<sup>th</sup> Street.** Widen 5<sup>th</sup> Street to three eastbound through lanes, an eastbound left-turn lane, two westbound through lanes, and a westbound shared through-right-turn lane (wide enough for *de facto* right-turn lane). Add a northbound left-turn lane to the off-ramp. Widening of 5<sup>th</sup> Street to six lanes is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5<sup>th</sup> Street provided by the City. Provide storage length for turn lanes per the traffic study. These improvements would require widening of Greenspot Road under the SR-210 (SR-30) bridge from 80 feet to 110 feet or more. Approximately 12 feet of additional right-of-way would also be required on the south leg of the intersection unless Caltrans approval to re-stripe the off-ramp is obtained.

Table 4.7-2 below presents the intersection levels of service with the recommended intersection improvements for the 2030 with Project conditions. The intersection improvements for these two locations are shown Figure 4.7-2, *2030 Mitigated Intersection Geometrics and Stop Control*.

**Table 4.7-2 – Year 2030 with Improvements Intersection Levels of Service**

| Intersection   | Control | A.M. Peak Hour |             |     | P.M. Peak Hour |             |     |
|--|---------|----------------|-------------|-----|----------------|-------------|-----|
|  |         | V/C            | Delay (sec) | LOS | V/C            | Delay (sec) | LOS |
| SR-210 (SR-30) Southbound Ramps/5 <sup>th</sup> Street | Signal  | 0.76           | 24.1        | C   | 0.67           | 19.7        | B   |
| SR-210 (SR-30) Northbound Ramps/5 <sup>th</sup> Street | Signal  | 0.66           | 23.1        | C   | 0.76           | 27.8        | C   |

Source: Traffic Study Upper Santa Ana River Wash, San Bernardino County, California; prepared by LSA Associates, Inc.; [August 31, 2007](#), Table Y.

With implementation of the recommended improvements in Mitigation Measure MM TRAFFIC-4, the minimum LOS standards would be maintained at the freeway ramp intersections where significant Project impacts are identified. Furthermore, the Project would be responsible for contributing to the City's traffic and signal impact fees. Therefore, a less than significant impact would occur with implementation of recommended improvements and impact fees.

### ***Year 2030 with Proposed Action/Projects Conditions (Freeway Segments) Traffic and LOS Impacts***

With the addition of Proposed Action/Projects traffic to the year 2030 background scenario, freeway LOS at all segments would operate at less than the minimum service standard:

- **SR-210 (SR-30) Northbound 5<sup>th</sup> Street Off-Ramp Influence Area.** This segment would continue to operate at LOS F conditions.
- **SR-210 (SR-30) Northbound 5<sup>th</sup> Street On-Ramp Influence Area.** This segment would continue to operate at LOS F conditions.
- **SR-210 (SR-30) Southbound 5<sup>th</sup> Street Off-Ramp Influence Area.** This segment would continue to operate at LOS F conditions.
- **SR-210 (SR-30) Southbound 5<sup>th</sup> Street On-Ramp Influence Area.** This segment would continue to operate at LOS F conditions.

Because aggregate mining and operations would result in potentially significant impacts to freeway segments in year 2030 With Proposed Action/Projects conditions, mitigation is required.

However, because improvements to the freeway segments are under the authority of Caltrans, there is no mechanism for development Project proponents to pay fees or make fair-share contributions toward improving mainline freeway lanes. Fees collected by Highland would be used for the improvement of intersections and freeway ramps. Even if there were such a mechanism to collect fees for mainline freeway lanes, there would be no way to ensure that such payments would be directed to a specific freeway improvement project. Consequently, there are no feasible mitigation measures for these impacts. Impacts would remain significant and unavoidable until such time as the Caltrans or co-sponsor can install the improvements. Because freeway segment modifications are controlled by Caltrans, the schedule of completing improvements is not in the hands of local agencies or private sponsors. No feasible mitigation exists. Potential impacts to these freeway segments are significant and unavoidable.

***Compliance with Plans, Ordinances, and Policies for All Proposed Projects***

All Proposed Projects are not anticipated to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including mass transit and non-motorized travel.

***Safety Risks and Hazards***

While Proposed Projects are located within the airport influence areas for both the San Bernardino International Airport and the Redlands Municipal Airport, they do not include any prohibited uses in any of the safety areas for either airport. The proposed aggregate mining and other construction and maintenance projects are compatible with the nearby airports and implementation of the activity would not create substantial safety hazards associated with air traffic patterns or increased traffic levels in the Plan Area. Impacts are less than significant, and no mitigation is required.

***Emergency Access for All Proposed Projects***

The proposed transportation projects would be designed by a licensed professional civil engineer and constructed by a licensed construction contractor in accordance with City, County, and/or Caltrans standards (as applicable). All other projects do not include construction that would increase hazards due to a design feature. The Proposed Projects would not result in the creation of circulation design hazards.

***Public Transit for All Proposed Projects***

The proposed transportation projects would be designed by a licensed professional civil engineer and constructed by a licensed construction contractor in accordance with City, County, and/or Caltrans standards (as applicable). Some of the Proposed Projects include construction of bike lands and sidewalks and would not conflict with public policies, plans or programs but would help implement and improve them. All other Proposed Projects would not conflict with public transit, bicycle or pedestrian facilities.

**Determination:** With implementation of Mitigation Measures MM TRAFFIC-1 through MM TRAFFIC-4 impacts to local City and freeway ramp intersections from expanded aggregate mining operations are reduced to less than significant levels. Impacts to freeway segments, SR-210 (SR-30) northbound and southbound 5<sup>th</sup> Street on- and off-ramp influence areas, are significant and unavoidable as no feasible mitigation exists. The Proposed Projects would not conflict with plans, ordinances or policies related to the performance of the circulation system or programs regarding public transit, bicycle or pedestrian facilities. The Proposed Projects would not result in a change in air traffic patterns or safety risks, an increase in hazards, or result in inadequate emergency access. Potential impacts associated with these topics are less than significant.

## RESIDUAL IMPACTS AFTER MITIGATION

Aggregate mining and processing activities would result in potentially significant impacts to the following freeway segments: SR-210 (SR-30) northbound 5<sup>th</sup> Street on- and off-ramp influence areas; and SR-210 (SR-30) southbound 5<sup>th</sup> Street on- and off-ramp influence areas.

Because improvements to the freeway segments are under the authority of Caltrans, there is no mechanism for development Project proponents to pay fees or make fair-share contributions toward improving mainline freeway lanes. Fees collected by the City of Highland would be used for the improvement of intersections and freeway ramps. Even if there were such a mechanism to collect fees for mainline freeway lanes, there would be no way to ensure that such payments would be directed to a specific freeway improvement project. Consequently, there are no feasible mitigation measures for these impacts. Impacts would remain significant and unavoidable until such time as the Caltrans or co-sponsor can install the improvements. Because freeway segment modifications are controlled by Caltrans, the schedule of completing improvements is not in the hands of local agencies or private sponsors. Thus, no feasible mitigation exists for this impact, and potential adverse impacts remain significant and unavoidable.

### 4.7.2.3 Alternative C: 2008 Land Management Plan

#### *Traffic Level of Service Standards*

As outlined above for Alternative B, the *Traffic Study* analyzed expanded mining as proposed in the 2008 Land Management Plan (Alternative C) which included 32 more acres of expanded mining than Alternative B (Proposed Action/Projects). Although the traffic impacts may be slightly overestimated for Alternative B, they represent anticipated impacts from expanded mining of Alternative C. Therefore, potential impacts from implementation of Alternative C would be consistent with the analysis and conclusions outlined above for Alternative B.

Alternative C would not conflict with plans, ordinances or policies related to the performance of the circulation system or programs regarding public transit, bicycle or pedestrian facilities. Alternative C would not result in a change in air traffic patterns or safety risks, an increase in hazards, or result in inadequate emergency access.

**Determination:** With implementation of Mitigation Measures MM TRAFFIC-1 through MM TRAFFIC-4 impacts to local City and freeway ramp intersections from expanded aggregate mining operations are reduced to less than significant levels. Impacts to freeway segments, SR-210 (SR-30) northbound and southbound 5<sup>th</sup> Street on- and off-ramp influence areas, are significant and unavoidable as no feasible mitigation exists. Potential impacts associated with safety risks, hazards, emergency access, and conflict with plans, policies, or ordinances related to the circulation system are less than significant.

## 4.8 VISUAL RESOURCES

This section analyzes the visual impacts that may result from implementation of the alternatives. The purpose of this analysis is to document and describe the existing visual setting, characterize the aesthetic and visual character of the alternatives and determine their impacts on the surroundings. It also describes the mitigation measures which would address the visual impacts. The potential impacts of Proposed Projects on visual resources are assessed in the context of the goals and policies from the *City of Redlands General Plan*, *City of Highland General Plan*, and *County of San Bernardino General Plan*, the SCRMP, as well as Mine and Reclamation Plans, and site observations, using BLM's VRM methodology (further described in Chapter 3.8).

### THRESHOLDS AND CRITERIA

The following thresholds of significance are based on Appendix G of the State *CEQA Guidelines* and are consistent with NEPA implementing regulation Section 1508.27. The Alternatives would result in significant visual impacts if it would cause any of the following to occur:

- Have a substantial adverse effect on a scenic vista;
- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### 4.8.1 DIRECT AND INDIRECT EFFECTS

##### 4.8.1.1 Alternative A: No Action Alternative

In the No Action Alternative, the USFWS would not issue an incidental take permit. Current mining and water conservation would continue.

Aggregate mining operations would continue producing an average of 4.0 to 4.5 million tons per year (MTPY) of aggregate materials. The total average MTPY is the average production numbers of both Cemex and Robertson's operations within the Plan Area. The existing permitted mining would be mined to completion, but no additional mining permitting is presumed. Existing water conservation facilities would continue to be operated and maintained; there would be no additional basins constructed. Construction of other Proposed Projects (wells and water infrastructure, roadway widening, flood control facilities, habitat restoration activities) would not occur under this alternative.

No development would occur within the Plan Area that would have the potential to create visual contrast. Therefore, no new changes to visual resources would occur under Alternative A.

Determination: There would be no new short-term or long-term impacts to visual resources within the Plan Area from the No Action Alternative.

#### 4.8.1.2 Alternative B: Proposed Action/Projects

The cities of Highland and Redlands envision the Plan Area as a joint-use opportunity for recreation, habitat preservation, and water conservation. San Bernardino County has indicated support for recreational uses, particularly trails.

**VIS-1:** *Would the Project have a substantial adverse effect on a scenic vista? **Determination: Less Than Significant Impact.***

**VIS-2:** *Would the Project substantially degrade the existing visual character or quality of the site and its surroundings? **Determination: Significant and Unavoidable.***

**VIS-3:** *Would the Project substantially degrade scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? **Determination: Significant and Unavoidable.***

**VIS-4:** *Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? **Determination: Less Than Significant Impact.***

#### VRM Objectives of SCRMP

The assessment of visual impacts is based on identifying changes to existing landscape features which would occur as a result of the Proposed Action/Projects and determining whether such changes would be consistent with VRM objectives of the SCRMP. The assessment method utilized is the contrast rating system, which rates the degree of contrast between the proposed activity and existing landscape.

Contrast ratings measure the degree to which the Proposed Action/Projects would conflict with the characteristic landscape, including the landforms, vegetation and soil patterns, water resources, and cultural features. Contrast ratings also consider the degree (weak, moderate, or strong) of change in line, form, color, and texture that the Proposed Action/Projects would cause. Because construction and maintenance of recharge basins would result in removal of the native vegetation they could create impairment of near views from commonly viewed observation points, such as adjacent roads, including Greenspot Road. However, because they sit below the surrounding topography and there are patches of native habitat between them they integrate well with the portions of the Plan Area that will remain in a natural vegetated state. The development and operation of the trail system is planned primarily on existing roads and access easements to minimize impacts on vegetation. Flood control maintenance activities are planned in active stream channels that are largely devoid of vegetation.

Large storm events have the potential to result in stormwater runoff that can cause flooding and scouring that removes large amounts of vegetation in and adjacent to active stream channels. Fires burn vegetation and leave a barren areas and ash. Unavoidable adverse impacts to visual resources within the Plan Area could occur from flooding events and wildfires. Completion of the Seven Oaks Dam, approximately one mile northeast and upstream of the Plan Area, provides significant storm water runoff attenuation, and substantially reduces the risk of flooding and erosion in the Plan Area. Potential adverse effects to visual resources in the Plan Area from flooding are less than significant. Fire risks in the plan area could occur naturally (lightning strike) or more likely from humans (intentional or accidental). Risk of wildfires in the Plan Area are increased by human presence as well as growth of non-native grasses in the Plan Area. Implementation of the Proposed Action/Projects are anticipated to result in a decrease of non-authorized human presence in the Plan Area due to increase patrolling of the Plan Area by Preserve Manager and Participating Entities/Task Force Members. Implementation of Habitat Management which includes the control of non-native annual grasses and other invasive non-native plants will reduce fuel for wildfires. Potential risks of wildfires and resulting adverse effects to visual resources in the Plan Area are less than significant.

### ***Visual Impact Assessment***

Panoramic photographs of the Plan Area were taken at eight different viewpoints. The viewpoints and direction for each panoramic photograph are shown in *Figure 4.8-1, Viewpoint and Simulation Location*. The panoramic photographs for viewpoints 1 and 2 are shown in *Figure 4.8-2*, for viewpoints 3 and 4 in *Figure 4.8-3*, for viewpoints 5 and 6 in *Figure 4.8-4*, and for viewpoints 7 and 8 in *Figure 4.8-5*. There would be no changes to the views of the Plan Area from implementation of the Proposed Projects for viewpoints 1, 3, 4, 6, and 7. There would be a change to views of the Plan Area from implementation of the Proposed Projects for viewpoints 2, 5, and 8.

It should be noted that although the photographs used in this analysis were taken in 2008, no significant changes have occurred in the Plan Area since then, and thus, these photographs and visual simulations are still valid representations today. The only exception to this is the new Greenspot Road Bridge across the Santa Ana River adjacent to the existing bridge (refer to *Figure 4.8-5, Viewpoint and Simulation Location 7 and 8*).

### ***Simulation for Viewpoint 2***

There is an existing round quarry that is visible from this location, looking east from SR-210. The existing mining areas would be expanded to the north and west to increase the depth and size of the existing quarry. Implementation of expanded mining would result in the removal of native vegetation, disrupting the color and texture of the area and creating a perceptible change in the landscape. The degree of contrast from the contrast rating would be weak in the short-term during mining operations. Over the long-term the contrast would be weak, because this area would be reclaimed following the completion of mining activities. *Figure 4.8-8, Viewpoint 2 Simulation* shows the simulated change after the mining phase and upon completion of the reclamation phase. The aesthetic appearance that would result upon the completion of the reclamation phase is illustrated in this simulation as the reclamation activities

would clear up irregular formations through grading and revegetation and would produce an improved appearance of the pit(s).

### ***Simulation for Viewpoint 5***

Viewpoint 5 is from Pole Line Road. This view would only be altered by a physical barrier along the existing trail at this location. This barrier would serve to define the edges of the trail and would prevent incursions by trail users into the adjacent sensitive habitat. This barrier could be constructed using boulders or other natural features to ensure that visual impacts are less than significant.

### ***Simulation for Viewpoint 8***

Viewpoint 8 looks southwest just west of the original Greenspot Road Bridge. There would be no changes to this viewshed with the exception of the realignment of Greenspot Road and the associated new bridge. The original Greenspot Road Bridge is part of Highland's planned trail system and no longer supports vehicular traffic.

As outlined above, implementation of expanded mining would result in the removal of native vegetation, disrupting the color pattern of the area and creating a perceptible change in the view from this location. Expanded mining areas would be reclaimed following the completion of mining activities. The reclamation activities would clear up irregular formations through grading and revegetation and would produce an improved appearance of the pit(s). However, the completion reclamation activities including the establishment of vegetation would not be completed until an extended period of time from the initial disturbances of expanded mining.

### **Expanded Mining**

Disturbances to the views of the Plan Area from continuing and expanded mining operations, would mainly affect near views from areas of public access (i.e., I-210, Alabama Street, Orange Street). Views of the Plan Area from public roads are considered a visual resource. Near views are considered to be points of view that are observed within a close range. Prime views are defined as the views of the mountains, which form the backdrop of the Plan Area and implementation of the Proposed Action/Projects would not change these views.

During the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views and the existing visual character and quality of the Plan Area will be substantially and adversely affected. Expanded mining would result in temporary significant and unavoidable impacts to visual resources in the Plan Area. Mitigation measures are outlined below to minimize impacts from expanded aggregate mining as much as possible.

To shield the proposed expansion of the quarry pits from public view and maintain the existing landscape as much as possible, the following mitigation measures shall be implemented:

- MM VIS-1** Prior to initiating grading for expanding mining pits/quarries east and west of Boulder Avenue and Orange Street a berm shall be constructed and maintained by the mining operator closest to these roadways. The berm shall be planted with vegetation consistent with the natural community throughout the Plan Area (Riversidean Alluvial Fan Sage Scrub "RAFSS") and approved by the Conservation District. Berm and landscaping plans shall be submitted to the Conservation District and the City of Highland for review and approval.
- MM VIS-2** Trees at least 15 gallons in size and of a species native to the Plan Area shall be planted by the mining operator along the western edge of the SR-210 freeway Right-of-Way on Conservation District owned property within six months following the issuance of mining permits. These trees shall be placed 15 feet apart to allow for unrestricted growth but ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the mining operator.
- MM VIS-3** Trees of a species native to the Plan Area shall be planted along the eastern edge of the Alabama Street Quarry, where space is available that parallels SR-210. These trees shall be 15 feet apart to ensure unrestricted growth while ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall draw plans for such trees and plantings and submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the mining operator.
- MM VIS-4** The slopes of the quarries shall be reclaimed upon the completion of mining activities and re-vegetated per the approved Reclamation Plans by the mining operators. This shall be done with species common to the RAFSS and approved by the Conservation District and the Cities of Highland and Redlands.

During the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views and the visual quality of the Plan Area will be substantially and adversely affected. Implementation of Mitigation Measures MM VIS-1, MM VIS-2, MM VIS-3, and MM VIS-4 would reduce visual impacts to the greatest extent possible. However, even after implementation of these mitigation measures, active mining operations would substantially degrade the visual quality of the site until reclamation is complete, and these impacts are significant and unavoidable.

### ***Other Covered Activities***

#### **Aggregate Mining**

As the Proposed Projects include the expansion of areas being mined for aggregate, there would be effects on visual resources within these immediate areas. This would include new open pits and

associated haul roads. The majority of these roads would be located outside of the public view, with the exception of places where they are concurrent with existing public roads and where they cross under the freeway.

The expansion of mining activities in the Plan Area would be visible in the foreground/midground. The expanded mining pits and associated haul roads are located at a lower elevation than viewers traveling along the main roadways and freeway that crosses the Plan Area. These disturbances would have an adverse visual effect on the landscape by creating larger areas that are disturbed, and the natural vegetation removed. However, reclamation of these sites after the cessation of mining activities would help restore the visual character and quality to a more natural state and to blend in and resemble more closely the surrounding undisturbed areas. Expansion of aggregate mining activities would not result in a significantly different aesthetic imprint as the expanded areas will be located adjacent to and in between existing pits and not in new areas that are relatively undisturbed in the more central and eastern portions of the Plan Area.

There would be construction of additional haul roads associated with the increase in mining activities in the Plan Area. The majority of these roads would be located outside of the public view behind patches of native habitat, with the exception of places where they are concurrent with or cross under existing public roads and the SR-210 freeway.

The greatest impact to the existing visual character of the Plan Area is during construction and operation of aggregate mining pits which can be seen by the general public driving on Alabama Street, SR-210 freeway, and Boulder Avenue/Orange Street. During the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views of the Plan Area will be substantially and adversely affected. Implementation of Mitigation Measures MM VIS-1, MM VIS-2, MM VIS-3, and MM VIS-4 would reduce visual impacts to the greatest extent possible. However, even after implementation of these mitigation measures, active mining operations would substantially degrade the visual quality of the site until reclamation is complete, and these impacts are significant and unavoidable.

Aggregate mining operations would expand in the Plan Area which has the potential to increase light and glare in the area due to the increase presence of mining machinery and associated operating processes.

### **Water Conservation**

Existing water conservation facilities in the Plan Area including access roads, canals, culverts, basins, dikes, and other diversion structures would continue to be operated and maintained. Construction and operation of additional basins would result in minor grading and removal of native vegetation. These basins would affect near views, which are considered to be points of view that are observed at close range, largely from Greenspot Road. However, the basins are at or below grade and would not include any above ground obstructions to the scenic view of the surrounding mountains. Water conservation projects would not have a substantial adverse effect on a scenic vista.

Operation and maintenance of basins would include periodic ponding of water in the basins and re-growth and removal of native and non-native vegetation. The basins are developed utilizing the existing topographic relief of the area they are to be located. The proposed new basins are proposed between existing basins in the eastern portion of the Plan Area. The proposed basins would be most visible from the proposed trails across the Plan Area and to a lesser extent from Greenspot Road to the northeast. Although the existing and proposed new basins are visible from various proposed trails and portions of Greenspot Road, they are set within the existing topography and native habitat patches are located between each of the basins and between the roads and trails and the basins. Therefore, the basins are integrated along with portions of the Plan Area that will remain in its natural vegetated state. The water conservation basins will not substantially degrade the existing visual character or quality of the Plan Area.

### **Wells and Water Infrastructure**

Currently both the East Valley Water District (EVWD) and Redlands Municipal Utilities Department (RMUD) operate water production facilities in the Plan Area. Construction of new wells and pipelines would result in temporary ground disturbances and vegetation removal; however, individual project footprints are generally small (2-4 acres) and located near roadways. Construction of new wells and pipelines therefore would not substantially degrade the existing visual character or quality of the Plan Area. Impacts would be less than significant.

### **Transportation**

The Proposed Projects includes roadway widening and maintenance of Alabama Street, and Orange Street-Boulder Avenue. The proposed widening would occur along existing improved road rights-of-way and therefore would not substantially change the existing visual quality of the Plan Area. Because the existing character of these areas would be largely preserved, impacts would be less than significant.

### **Flood Control**

The proposed flood control projects include, Elder/Plunge Creek in-stream restoration, in-stream, levee, and access road maintenance, stockpiling and storm drains and outlet pipes. The maintenance would be conducted along/within existing facilities. The planned stockpile location is an existing mining pit and would not be a large above ground mound. Construction of storm drains and outlets are located below ground and at ground level. Flood control projects would not substantially change the existing visual character or quality of the Plan Area.

### **Trails**

The development and operation of the trail system is planned to only use existing roads and access easements to minimize disturbance impacts and removal of vegetation. The trail system would not substantially change the existing visual character or quality of the Plan Area.

The Proposed Projects would also include the designation of trail rights-of-way in the Wash Plan Area. These would be located adjacent to Alabama Street, Greenspot Road, and Orange Street-Boulder Avenue. As the proposed rights-of-way are located on existing streets, service roads, or old railroad beds, no effects on visual resources such as trees, rock outcroppings, or historic buildings would occur. Although there would be construction of barriers within these rights-of-way to prevent the public from accessing sensitive biological areas, these barriers would be created with local materials such as large boulders, and therefore, would not affect visual resources in these areas. The development and operation of the trail system is planned to only use existing roads and access easements to minimize disturbance impacts and removal of vegetation. The trail system would not substantially change the existing visual character or quality of the Plan Area.

### **Habitat Enhancement and Monitoring**

Habitat enhancement, restoration, creation, and management could include temporary soil disturbance and removal of invasive species that could have a temporary adverse impact to visual resources in the immediate vicinity. However, overall these activities would help maintain natural vegetation and habitat in the Plan Area and retain the visual character over the long term. The habitat enhancement activities would not substantially change the existing visual character or quality of the Plan Area.

### **Agriculture**

There is a 6.7-acre citrus grove operated within the Plan Area. Continued operation and maintenance of this grove would not substantially change the existing visual character or quality of the Plan Area. These activities would not require the long-term presence of equipment or facilities that could create a new source of substantial light or cause glare. Therefore, no impacts would occur. Therefore, no impacts would occur.

### ***Light, Glare, and Nighttime Views***

Because some of the mining activity occurs during pre-dawn and post-dusk hours, lighting from mining vehicles would be present in the Plan Area. Existing lighting used for operations would be moved to new locations as a result of new areas being mined. The use of haul roads would be limited to mining company vehicles and additional light sources would consist only of these vehicles' headlights, which would create only limited light intrusion and have no effect on evening or early morning views. Nighttime views would remain unchanged. Aggregate mining operations would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Construction and maintenance of other Proposed Projects would result in additional light sources from construction and maintenance vehicles' headlights, which would create only limited light intrusion. Nighttime views would remain unchanged. Construction and maintenance activities would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the Plan Area.

**Determination:** Impacts to visual resources in the Plan Area from the Proposed Action/Projects are less than significant, with the exception of aggregate mining expansion. However, during the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views and the visual character and quality of the Plan Area will be substantially and adversely affected, even after implementation of these mitigation measures.

## MITIGATION MEASURES

To shield the proposed expansion of the quarry pits from public view and maintain the existing landscape as much as possible, the following mitigation measures shall be implemented:

- MM VIS-1** Prior to initiating grading for expanding mining pits/quarries east and west of Boulder Avenue and Orange Street a berm shall be constructed and maintained by the mining operator closest to these roadways. The berm shall be planted with vegetation consistent with the natural community throughout the Plan Area (RAFSS) and approved by the Conservation District. Berm and landscaping plans shall be submitted to the Conservation District and the City of Highland for review and approval.
- MM VIS-2** Trees at least 15 gallons in size and of a species native to the Plan Area shall be planted by the mining operator along the western edge of the SR-210 freeway Right-of-Way on Conservation District owned property within six months following the issuance of mining permits. These trees shall be placed 15 feet apart to allow for unrestricted growth, but ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the mining operator.
- MM VIS-3** Trees of a species native to the Plan Area shall be planted along the eastern edge of the Alabama Street Quarry, where space is available that parallels SR-210. These trees shall be 15 feet apart to ensure unrestricted growth while ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall draw plans for such trees and plantings and submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the mining operator.
- MM VIS-4** The slopes of the quarries shall be reclaimed upon the completion of mining activities and re-vegetated per the approved Reclamation Plans by the mining operators. This shall be done with species common to the RAFSS and approved by the Conservation District and the Cities of Highland and Redlands.

## RESIDUAL IMPACTS AFTER MITIGATION

If the Mitigation Measures, described above, are implemented with the Proposed Projects, impacts on visual resources and the visual character and quality of the Plan Area from active aggregate mining would be significant and unavoidable until reclamation activities are complete.

### 4.8.1.3 Alternative C: 2008 Land Management Plan

#### *Scenic Vistas, Visual Character, and Scenic Resources*

As with Alternative B, planned activities include water recharge basins, trails, and flood control maintenance. These activities would result in indirect effects on visual resources within and the visual character of the Plan Area. However, because they sit below the surrounding topography and there are patches of native habitat between them they integrate well with the portions of the Plan Area that will remain in a natural vegetated state. Because they are low profile they are low profile and screened by native vegetation they are not expected to significantly degrade the existing visual character or quality of the Plan Area.

As with Alternative B, unavoidable adverse impacts to visual resources within the Plan Area could occur from flooding events and wildfires. The Seven Oaks Dam provides significant storm water runoff attenuation and substantially reduces the risk of flooding and erosion in the Plan Area. Potential adverse effects to visual resources in the Plan Area from flooding are less than significant. Implementation of the 2008 Land Management Plan is anticipated to result in a decrease of non-authorized human presence in the Plan Area due to increase patrolling of the Plan Area by Preserve Manager and Participating Entities/Task Force Members. Implementation of Habitat Management which includes the control of non-native annual grasses and other invasive non-native plants will reduce fuel for wildfires. Potential risks of wildfires and resulting adverse effects to visual resources in the Plan Area are less than significant.

The development and operation of the trail system is planned to primarily use existing roads and access easements to minimize impacts on vegetation. Flood control maintenance activities are planned in active stream channels that are largely devoid of vegetation.

#### **Expanded Mining**

During the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views of near views of the Plan Area will be substantially and adversely affected. Expanded mining would result in temporary significant and unavoidable impacts to visual resources in the Plan Area. Mitigation measures are outlined below to minimize impacts from expanded aggregate mining as much as possible.

Alternative C would allow 32 more acres of expanded mining than Alternative B, and therefore, would have a larger impact on visual resources and the visual character and quality of the Plan Area. During the

period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views and the visual quality of the Plan Area will be substantially and adversely affected. Implementation of Mitigation Measures MM VIS-1, MM VIS-2, MM VIS-3, and MM VIS-4 would reduce visual impacts to the greatest extent possible. However, even after implementation of these mitigation measures, active mining operations would substantially degrade the visual quality of the site until reclamation is complete, and these impacts are significant and unavoidable.

### **Other Proposed Projects**

The non-mining projects in Alternative C would be similar to those in Alternative B. Therefore, they would not be expected to result in substantial impacts to scenic vistas or degrade the existing visual character or quality of the Plan Area or its scenic resources.

### ***Light, Glare, and Nighttime Views***

As with Alternative B, because some of the mining activity occurs during pre-dawn and post-dusk hours, lighting from mining vehicles would be present in the Plan Area. Existing lighting used for operations would be moved to new locations as a result of new areas being mined. The use of haul roads would be limited to mining company vehicles and additional light sources would consist only of these vehicles' headlights, which would create only limited light intrusion and have no effect on evening or early morning views. Nighttime views would remain unchanged. Aggregate mining operations would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Other construction projects and maintenance activities would result in additional light sources from vehicles' headlights, which would create only limited light intrusion. Nighttime views would remain unchanged. Construction projects and maintenance activities would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the Plan Area.

**Determination:** Impacts to visual resources in the Plan Area from 2008 Land Management Plan projects are less than significant, with the exception of aggregate mining expansion. However, during the period between initial disturbances for expanded aggregate mining and when reclamation activities are completed, near views and the visual character and quality of the Plan Area will be substantially and adversely affected, even after implementation of these mitigation measures. Adverse effects from mining on visual resources would be significant and unavoidable.

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