

## 4.4 BIOLOGICAL RESOURCES

This section focuses on potential effects of the alternatives on vegetation, general wildlife, and local, state, and federally protected plant and animal species and their habitats. Where the potential for impacts is identified, measures are presented to avoid, minimize, and mitigate impacts to the maximum extent practicable.

### 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. An alternative would result in significant impacts on biological resources if implementation would do any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on Federally protected “wetlands” or “Waters of the U.S.” as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

### 4.4.1 DIRECT AND INDIRECT EFFECTS

#### 4.4.1.1 Alternative A: No Action Alternative

Under this Alternative USFWS would not authorize incidental take under the Federal Endangered Species Act (FESA) for Covered Activities/Proposed Projects and the HCP would not be implemented.

There would be no significant direct adverse impacts to biological resources in the Plan Area from the No Action Alternative, as the status quo for land management would continue.

### ***Proposed Projects***

Proposed Projects would not move forward if they have the potential to “take” State or Federally listed species. Each project proposed by the Conservation District, Task Force Members or other entities that have the potential for take of state or federally listed species would need to comply with Federal and State laws. The No Action Alternative would continue a lack of a coordinated and comprehensive effort to minimize and mitigate biological impacts through the HCP. No regional conservation program or conservation measures would be implemented; therefore, benefits to biological resources associated with the proposed conservation program and conservation measures would not occur. In addition, no comprehensive monitoring program for the Plan Area would track and measure the status and trends of Covered Species populations and the success of management and restoration measures. With the No Action Alternative, much of the higher-quality habitat for listed and sensitive species would continue to be privately owned.

With the No Action Alternative, the HCP and its conservation program, providing beneficial effects for listed plants and animals and other special status species that depend on the same habitat, would not occur. The consolidation and preservation of large interconnected habitat areas would not occur under the No Action Alternative. Instead, piecemeal conservation based on project-by-project decision-making may result in suboptimal actions to protect the covered species. Each project would be subject to compliance with federal and state laws and public review but without a landscape vision for conservation. The level of conservation would be reduced under the No Action Alternative as it would not be under a unified conservation strategy.

**Determination:** Under this alternative the USFWS would not issue an incidental take permit and the HCP would not be implemented. There would be no new permanent or temporary significant impacts to Biological Resources, including Covered Species or other special status species.

#### **4.4.1.2 Alternative B: Proposed Action/Projects**

**BIO-1: Sensitive and Special Status Species**

*Would the project result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? **Level of Significance: Less Than Significant Impact with implementation of mitigation measures.***

**BIO-2: Riparian Habitat or Other Sensitive Natural Community**

*Would the project have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the*

*California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? **Level of Significance: Less Than Significant Impact.***

**BIO-3: Federally Protected Wetlands**

*Would the project have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? **Level of Significance: Less Than Significant Impact.***

**BIO-4: Movement of Wildlife**

*Would the project interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? **Level of Significance: Less Than Significant Impact.***

**BIO-5: Local Policies**

*Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? **Level of Significance: No Impact.***

**BIO-6: Habitat Conservation Plan**

*Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan? **Level of Significance: No Impact.***

***Issuance of Section 10 and 2081(b) Permits***

Issuance of ITPs from the USFWS and a Section 2081(b) permit from CDFW is required prior to initiation of Covered Activities/Proposed Projects that would have an adverse impact on state and federally listed species and the habitats that support them. Implementation of Covered Activities/Proposed Projects would result in some incidental take or loss of Covered Species or the habitats that support them. This chapter examines the potential for the Covered Activities/Proposed Projects to result in such take or loss of Covered Species and loss or degradation of their habitat. To meet regulatory requirements and properly mitigate effects, the amount of take must be discussed and, if possible, quantified. Figures 4.4-1 through 4.4-6 show where the Covered Activities/Proposed Projects are expected to occur relative to vegetation communities and the potential distribution of each of the Covered Species in the Plan Area. The anticipated amount of take associated with the Covered Activities/Proposed Projects was quantified by overlaying the Covered Activity/Proposed Project footprints on vegetation communities, species habitat, species occurrences data, and designated critical habitat.

The HCP includes a conservation program that the Conservation District, the Participating Entities, and SBCFCD would implement for SBKR, gnatcatcher, woolly-star, spineflower, and cactus wren in the Plan Area to avoid, minimize, monitor, manage, and mitigate the effects of incidental take (for wildlife) or

adverse impacts (for plants) and contribute to their survival and recovery. Biological goals and objectives are listed in Section 5.1 of the HCP.

The major components of the conservation strategy are listed in Section 5.2 of the HCP:

- The Conservation District, SBCFCD, and the Participating Entities would provide for the permanent conservation of approximately 963.3 acres within the HCP Preserve (refer to Figure 2.0-2, *Wash Plan Phasing*). This area will be managed and monitored along with the 696.2 acres of District Managed Lands<sup>1</sup>.
- The SBCFCD, District Conserved Lands, and the District Managed Lands result in a total area of approximately 1,659.5 acres of habitat in the Plan Area that will be conserved and managed and make up the HCP Preserve.
- The HCP Preserve is generally contiguous with the existing conservation areas within the Plan Area (i.e., BLM's ACEC and USACE's Woolly-star Preserve Area [WSPA]).
- The HCP Preserve also maintains a north-south habitat linkage (areas flooded by the Santa Ana River in 1938 and 1969) across the Plan Area and to natural open space outside the Plan Area to the east and west.
- The primary habitat management approach is focused on the maintenance and enhancement of overall habitat quality for Covered Species through (1) the control of non-native annual grasses and other invasive non-native plants, and (2) the restoration and enhancement of spineflower and woolly-star populations.
- All prescribed management actions will be implemented within an adaptive management context, and therefore will be modified as new information is gained to improve the effectiveness of the management actions in meeting the biological goals and objectives.

Direct impacts are those effects of a project that occur at the same time or place as an action or project implementation, such as removal of habitat from ground disturbance. Indirect impacts are those effects of an action or project that occur either later in time or at a distance from the project location but are reasonably foreseeable, such as dust, light, noise, and pollutants that travel or are dispersed to other areas. Direct and indirect impacts can be permanent or temporary. Cumulative impacts are those incremental effects of an action or project that, in combination with the effects of other actions or projects, could significantly impact biological resources.

Biological resources could be affected directly or indirectly by Covered Activities/Proposed Projects including construction and maintenance as well as habitat enhancement and monitoring. Direct adverse impacts include modification or removal of habitat, and crushing of individuals, burrows, or nests from heavy construction equipment. Covered Activities/Proposed Projects have the potential to indirectly impact these sensitive species by adversely affecting live-in and/or foraging habitat for them. Indirect

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<sup>1</sup> The San Bernardino Valley Water Conservation District will provide for the monitoring and management of 43.5 acres of WSPA lands and 652.6 acres of BLM lands in the Plan Area.

adverse impacts include disturbance from human presence in the area including noise, light, and dust from use of equipment and temporary or permanent modification of habitat used as live in habitat or for foraging or wildlife movement. The following activities may result in disturbances to sensitive biological resources:

- Conversion of one habitat type to another from construction or maintenance activities;
- Removal of vegetation during construction of temporary staging areas and access roads;
- Increased human presence as part of surveys, monitoring, or recreational use;
- Conversion of one habitat type to another through restoration, enhancement, or creation;
- Removal of vegetation as part of management by grazing activities or herbicide application; and
- Active or passive relocations of individuals of Covered Species.

Permanent impacts are impacts that occur when existing habitat is permanently replaced by the construction or implementation of a Covered Activity/Proposed Project. All permanent impacts were calculated based on the overlay process described above. Temporary impacts occur when habitat is removed but then allowed to regrow and recover some habitat value for Covered Species. Temporary impacts may be one time impacts, such as impacts associated with a construction staging area, or may be recurring impacts as are associated with vegetation management for facility maintenance (e.g., access road or basin maintenance). Temporary impacts were estimated based on a proportional amount of habitat expected to be impacted on an annual basis and then extrapolated across the 30-year permit term.

### ***Vegetation Communities from All Proposed Projects***

Permanent and temporary impacts of Covered Activities/Proposed Projects on each vegetation community are summarized in Table 4.4-1, *Effects on and Conservation of Vegetation Communities*. The amount of each vegetation community expected to be conserved under the HCP (or that will be in other forms of conservation) is also included for comparison. Refer to Figure 4.4-1, *Potential Impacts on Vegetation Communities* for the configuration of temporary and permanent impacts to the various vegetation types in the Plan Area. As outlined in Section 3.4.3, the Plan Area supports a diversity of common wildlife species associated with chaparral, grassland, and alluvial fan sage scrub habitats. Covered Activities/Proposed Projects would be expected to result in adverse effects to common wildlife species, however implementation of the HCP conservation program, including the conservation and management of 1,529.8 acres of habitat in the Plan Area, would provide benefits to these common species and mitigate for adverse impacts.

The two native plant communities which would be most affected by Covered Activities/Proposed Projects are RAFSS and chamise chaparral. Of the affected plant communities, the community of most importance to Covered and special status species are the various seral stages of RAFSS. Within these categories pioneer and intermediate RAFSS with low shrub density are the most frequently utilized by SBKR. Intermediate RAFSS provides wintering and nesting habitat for gnatcatcher. RAFSS with cactus

patches and/or yucca (potential nest sites) is the most beneficial to cactus wren. Woolly-star and slender-horned spineflower can be expected to be found in open areas between shrubs within the associated RAFSS habitats. Woolly-star is more likely to be associated with earlier seral stages of RAFSS because it establishes in areas opened up by fluvial process. Spineflower is more likely to be found in older flood terrace areas where active flood scouring rarely occurs but where there is sheet flow of water in major storm events. In the Plan Area, it is most often found in association with California junipers. Covered Activities/Proposed Projects would result in permanent impacts to 495.1 acres of RAFSS and temporary impacts to 80 acres of RAFSS.

#### **Riversidean Alluvial Fan Sage Scrub**

The Plan Area contains a total of approximately 3,196.2 acres of the various stages of RAFSS, with intermediate being the most common at an estimated 1,129 acres and a stage classified as intermediate/mature being the next most common at 1,057.8 acres. Pioneer RAFSS is estimated to be 470.9 acres. The construction of the Seven Oaks Dam has dramatically reduced the downstream potential for flooding; including scouring that is often associated with the rejuvenation of early successional habitats. Therefore, it is expected that the proportion of later seral stages of RAFSS will be greater through time. The majority of the area which is still subject to the levels of intermittent flooding necessary to rejuvenate RAFSS would be conserved under this alternative. It is estimated that there will be 495.1 acres of permanent impacts and 80.0 acres of temporary impacts to RAFSS from Covered Activities/Proposed Projects under Alternative B, and that 1,529.8 acres will be managed and conserved in the HCP Preserve.

The majority of permanently impacted areas are associated with new or resumed aggregate mining activities and will occur in areas contiguous with existing mining operations, which leaves the vegetation communities and Covered Species habitat largely intact with a high level of connectivity within and among habitat types.

**Determination:** With implementation of the HCP conservation program, including the conservation and management of 1,529.8 acres of habitat in the Plan Area, impacts to RAFSS will be reduced to less than significant levels. Additional mitigation is not required.

#### **Riparian and Riversidean Sage Scrub**

Two other plant communities would experience minor impacts, RSS and Riparian (mule fat scrub and willow thickets). For RSS, only 9.4 acres of RSS were mapped in the Plan Area, 7.8 of which would experience permanent impacts. These impacts are not considered significant due to the small number of acres affected, the availability of conserved RSS habitat on adjacent lands, i.e., Woolly-star Preserve Area (WSPA) and Redlands Conservancy lands, and the conservation of significant acreage of intermediate RAFSS which provides equivalent conservation value for Covered and special status species. For riparian, there would be 0.2 acres of temporary impacts to willow thickets and 2.7 acres of permanent impacts to mule fat scrub out of a total of 12.7 acres. In addition, general and specific, i.e.,

Streams, Drainages and Runoff, conservation measures are incorporated in Alternative B to avoid and minimize impacts to riparian communities.

**Determination:** Impacts to riparian vegetation and RSS are less than significant. Additional mitigation is not required.

**Table 4.4-1. Effects on and Conservation of Vegetation Communities (acres)**

Vegetation	Impacts		HCP Preserve				Future SBCFCD Mitigation Area	Neutral Lands
	Permanent Impact	Temporary Impact	District Conserved Lands	SBCFCD Conserved Lands	District Managed Lands	HCP Preserve Total		
<i>Sage Scrub</i>								
RAFSS – Pioneer	1.4	36.5	119.9	87.0	35.9	242.7	56.5	90.9
RAFSS – Intermediate	158.8	17.9	230.6	74.9	236.8	542.3	79.3	163.8
RAFSS – Intermediate/Mature	258.9	10.5	160.0	7.9	316.5	484.4	11.7	118.4
RAFSS – Mature	66.1	7.5	127.0	9.0	57.3	232.6	0.0	74.6
RAFSS – Mature/Non-Native Grassland	9.8	7.5	27.8	0.0	0.0	27.8	0.0	69.3
<i>RAFSS Subtotal</i>	<i>495.0</i>	<i>79.9</i>	<i>665.3</i>	<i>178.8</i>	<i>646.5</i>	<i>1529.8</i>	<i>147.5</i>	<i>517.0</i>
RSS	7.8	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Chamise Chaparral	50.4	0.3	39.3	0.0	0.0	39.3	0.0	18.5
<i>Native Shrub Communities Subtotal</i>	<i>553.2</i>	<i>80.2</i>	<i>704.6</i>	<i>178.8</i>	<i>646.5</i>	<i>1,569.1</i>	<i>147.5</i>	<i>537.1</i>
<i>Riparian/Aquatic Vegetation</i>								
Willow Thickets	0.2							11.1
Mule Fat Scrub		2.7	-	-	-	-	-	1.4
Aquatic Vegetation								0.2
<i>Riparian/Aquatic Subtotal</i>	<i>0.2</i>	<i>2.7</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>12.7</i>
<i>Non-Native Vegetation</i>								
Non-Native Grassland	24.1	16.7	7.0	2.1	19.3	28.4	1.4	101.5
Perennial Pepper Weed	0.1	0.0						21.0
Tamarisk Thickets	7.6							22.4
<i>Non-Native Subtotal</i>	<i>31.8</i>	<i>16.7</i>	<i>7.0</i>	<i>2.1</i>	<i>19.3</i>	<i>28.4</i>	<i>1.4</i>	<i>144.9</i>
<i>Existing Features</i>								
Recharge Basin	1.2	15.0	10.8		8.8	19.6		48.1
Active Sedimentation Basin	0.0							2.9
Developed/Disturbed	29.2	102.0	55.2	4.9	21.6	81.7	2.0	523.2
<i>Existing Feature Subtotal</i>	<i>30.4</i>	<i>117.0</i>	<i>66.0</i>	<i>4.9</i>	<i>30.4</i>	<i>101.3</i>	<i>2.0</i>	<i>574.2</i>
<b>Total Acreage</b>	<b>615.7</b>	<b>216.6</b>	<b>777.6</b>	<b>185.7</b>	<b>696.1</b>	<b>1,659.5</b>	<b>150.9</b>	<b>1,269.0</b>



Table 4.4-2. Effects on and Conservation of Covered Species

Species	Impacts		HCP Preserve				Future SBCFCD Mitigation Area	Neutral Lands
	Permanent Impact	Temporary Impact	District Conserved Lands	SBCFCD Conserved Lands	District Managed Lands	HCP Preserve Total		
<i>Slender-horned Spineflower</i>								
Extant Patches	1	0	3	-	17	20	1	-
Historic Occurrences	12	0	8	-	28	36	-	-
<i>Slender-horned Spineflower Subtotal</i>	<i>13</i>	<i>0</i>	<i>11</i>	<i>-</i>	<i>45</i>	<i>56</i>	<i>1</i>	<i>-</i>
<i>Santa Ana River Woolly-Star</i>								
Known Occupied Grid Areas	34.3	3.7	94.5	5.4	104.5	204.3	4.4	7.6
<i>Cactus Wren (acres)</i>								
Cactus Patches (Primary Nesting Habitat)	13.4	0.2	14.1	0.0	18.4	32.5	-	4.6
<i>California Gnatcatcher (acres)</i>								
High Quality (potential nesting and wintering habitat)	0.4	1.4	35.3	12.3	22.8	70.5	-	12.6
Medium Quality (potential wintering habitat)	9.2	5.4	30.7	34.7	124.8	190.2	36.9	66.0
Low Quality (potential foraging and dispersal habitat)	414.6	25.7	531.0	72.3	428.2	1,031.5	89.0	366.2
<i>California Gnatcatcher Subtotal</i>	<i>424.2</i>	<i>32.5</i>	<i>597.0</i>	<i>119.3</i>	<i>575.9</i>	<i>1,292.2</i>	<i>125.9</i>	<i>444.8</i>
<i>San Bernardino Kangaroo Rat (acres)</i>								
High Suitability	22.4	1.9	117.8	3.6	170.4	291.8	0.7	5.1
Medium Suitability	67.7	1.4	85.5	36.6	105.6	227.6	11.5	7.8
Low Suitability	120.1	4.8	132.4	59.4	126.1	317.9	76.0	23.9
Very Low Suitability	359.1	55.6	299.0	22.4	237.7	559.2	40.8	467.5
Ecological Process Area	1.6	45.4	121.3	61.8	42.9	226.0	21.1	46.6
<i>San Bernardino Kangaroo Rat Subtotal</i>	<i>570.9</i>	<i>109.1</i>	<i>756.0</i>	<i>183.8</i>	<i>682.7</i>	<i>1,622.5</i>	<i>150.0</i>	<i>551.0</i>

### ***Effects on Slender-horned Spineflower from all Proposed Projects***

Covered Activities/Proposed Projects are expected to result in permanent impacts to 1 extant occurrence of spineflower and 12 historic occurrences. No temporary impacts are expected from Covered Activities/Proposed Projects. One location, the contingency parcel, will become isolated from the other locations where it will be left as an “island” of habitat surrounded by existing and future aggregate mining operations.<sup>2</sup> Refer to Figure 4.4-2, *Potential Impacts to Slender-horned Spineflower* for the distribution of spineflower and potential impacts.

To provide for spineflower conservation, the majority of spineflower occurrences, both historic and extant, would be avoided and would be a part of the HCP Preserve. Implementation of the HCP conservation program would result in the permanent conservation of 33 extant occurrences of spineflower (HCP SHSF Action 1A) and 26 historic spineflower locations (HCP SHSF Action 1B) within the HCP Preserve. Implementation of the HCP conservation program would result in the permanent conservation and management of 100 acres of spineflower habitat adjacent to extant and historic spineflower occurrences and/or other habitat determined through modeling and subsequent onsite evaluation to be suitable (HCP SHSF Action 2). Protecting the habitat surrounding the spineflower sites provides opportunities for potential future restoration sites, and will ensure the preservation of ecological processes (i.e., sheet flow of water during storm events), which may be important to maintaining spineflower habitat. For additional information on the conservation of spineflower see Section 5.1.2 in the HCP.

Implementation of Alternative B would result in the loss of 1 extant patch of spineflower and 12 historic occurrence patches. However, this loss would be compensated for with implementation of the HCP conservation program (SHSF Objectives 1-10) which includes permanent conservation of 33 extant patches of spineflower and 26 historic spineflower locations within the HCP Preserve, permanent conservation and management of 100 acres of spineflower habitat adjacent to extant and historic spineflower occurrences, and establishment of a minimum of six new patches of spineflower in the HCP Preserve covering at least 35 square meters each. Under HCP SHSF Objectives 3, 5, 6, 9, and 10, the conserved occurrences and habitat would be management specifically for the benefit of spineflower. Under HCP SHSF Objective 7, spineflower populations in areas planned for permanent impacts, seeds will be salvaged and stored for use in habitat enhancement and restoration elsewhere in the HCP Preserve. Under HCP Objective 8, spineflower populations within the vicinity of Covered Activities/Proposed Projects will be protected.

**Determination:** With implementation of the HCP conservation program impacts to spineflower are sufficiently compensated and impacts are reduced to less than significant levels. Additional mitigation is not required.

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<sup>2</sup> The contingency parcel, while initially conserved, could be mined in the future contingent upon the successful establishment of spineflower elsewhere in the HCP Preserve.

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***Effects on Santa Ana River Woolly-Star from all Proposed Projects***

As shown in Figure 4.4-3, *Potential Impacts on Santa Ana River Woolly-Star*, the largest concentrations of occupied Santa Ana River Woolly-star habitat (including those areas with the highest density of plants) are generally unaffected by direct impacts of Covered Activities/Proposed Projects, or are impacted at the edges of plant clusters. Therefore, the Covered Activities/Proposed Projects leave the populations largely intact with sufficient habitat connectivity between occupied areas. However, Covered Activities/Proposed Projects would result in permanent impacts to 34.3 grid areas and temporary impacts to 3.7 grid areas of woolly-star occupied habitat.

Implementation of the HCP conservation program would result in the conservation and maintenance of 204.3 acres of habitat containing woolly-star in the HCP Preserve (HCP SARWS Action 1A) and conservation and management of at least 50 additional acres of suitable habitat adjacent to occupied habitat to preserve ecological processes that maintain woolly-star habitat (HCP SARWS Action 1B). The HCP conservation program would increase the average density of woolly-star in occupied patches in the HCP Preserve (HCP SARWS Objective 3) and enhance the distribution of woolly-star by planting collected seeds in selected areas of suitable habitat (HCP SARWS Objective 5). For additional information on the conservation of woolly-star see Section 5.1.2 in the HCP.

Implementation of Alternative B would result in permanent impacts to 34.3 grid areas and temporary impacts to 3.7 grid areas of woolly-star occupied habitat. An estimated 204.3 acres of occupied woolly-star habitat would be conserved and managed within the HCP Preserve as would at least 50 additional acres of adjacent suitable habitat. Hydrological processes necessary to the maintenance of woolly-star habitat would be maintained through the conservation of habitat in the Plunge Creek and Santa Ana River portions of the Plan Area. Under HCP SARWS Objectives 2, 3, 5, and 10, the conserved occurrences and habitat would be managed specifically for the benefit of woolly-star. Under HCP SARWS Objective 4, spineflower populations in areas planned for permanent impacts, seeds will be salvaged and stored for use in habitat enhancement and restoration elsewhere in the HCP Preserve. Under HCP Objective 6, woolly-star populations within the vicinity of Covered Activities/Proposed Projects will be protected.

**Determination:** With implementation of the HCP conservation program impacts to woolly-star are compensated and impacts are reduced to less than significant levels. Additional mitigation is not required.

***Effects on Cactus Wren from all Proposed Projects***

The distribution of cactus wren habitat in the Plan Area is quantified in terms of nesting habitat based on the field mapping of cactus patches suitable for nesting (buffered by 50 feet). Expansion of the aggregate mining areas would impact three areas that have supported nesting cactus wrens and would remove some foraging habitat (refer to Figure 4.4-4, *Potential Impacts on Cactus Wren*). However, the majority of suitable nesting habitat and known nest sites are north of the mining areas and south of Plunge Creek, with several other concentrations of suitable nesting habitat south and east of the mining areas. Another concentration of suitable nesting habitat would be removed with the construction of

new spreading basins. Covered Activities/Proposed Projects would result in permanent impacts to 13.4 acres and temporary impacts to 0.2 acre of primary nesting habitat.

Implementation of the HCP conservation program would result in the permanent conservation and management of 14.1 acres of cactus patches and surrounding habitat in the HCP Preserve (HCP CAWR Action 1A) and permanently provide for the additional management of 18.4 acre of cactus patches and surrounding habitat in the HCP Preserve (HCP CAWR Action 1B). The HCP conservation program would also establish and manage eight new cactus patches suitable for nesting cactus wren in the HCP Preserve (HCP CAWR Objective 2). The HCP conservation program would recover cactus patches damaged or destroyed by wildfire (HCP CAWR Objective 3), maintain the quality of habitat to sustain the current breeding population of cactus wren within the HCP Preserve (HCP CAWR Objective 4), and determine the current extent and location of cactus wren occurrences in the HCP Preserve and monitor breeding population trends over time (HCP CAWR Objective 6). For additional information on the conservation of cactus wren see Section 5.1.2 in the HCP.

**Determination:** With implementation of the HCP conservation program impacts to cactus wren are compensated and impacts are reduced to less than significant levels. Additional mitigation is not required.

### ***Effects on California Gnatcatcher from all Proposed Projects***

There are no nesting records for gnatcatcher in the Plan Area; however, gnatcatchers are known to nest in suitable habitat south of the Santa Ana River below the eastern portion of the Plan Area. Two of the six recent known occurrences are within the Covered Activity/Proposed Project footprints (refer to Figure 4.4-5, *Potential Impacts on California Gnatcatcher*); however, the core area of habitat use is generally south of most of the Covered Activities/Proposed Projects (on the WSPA, BLM land, and Conservation District land).

The Plan Area and adjacent lands to the south contain some of the only known extant occurrences of gnatcatcher in San Bernardino County; therefore, conservation of gnatcatcher in the Plan Area is important to the maintenance of inland populations of the species. Gnatcatcher habitat within the Plan Area was assessed to determine which areas provided the best habitat for nesting and wintering birds. The majority of the highest quality habitat is either in existing conserved areas, (i.e., the WSPA) or will be part of the HCP Preserve.

Covered Activities/Proposed Projects would result in permanent impacts to 0.4 acre of high quality habitat (potential nesting and wintering habitat), 9.2 acres of medium quality habitat (potential wintering habitat), and 414.6 acres of low quality habitat (potential for foraging and dispersal habitat), for a combined permanent impact total of 424.4 acres. Covered Activities/Proposed Projects would result in temporary impacts to 1.4 acres of high quality habitat, 5.4 acres of medium quality habitat, and 25.7 acres of low quality habitat, for a combined temporary impact total of 32.5 acres. For additional information on the conservation strategy for the gnatcatcher see Section 5.1.2 in the HCP.

Implementation of Alternative B would result in permanent impacts to 0.4 acre of high quality habitat, 9.2 acres of medium quality habitat, and 414.6 acres of low quality habitat. Covered Activities/Proposed Projects would result in temporary impacts to 1.4 acres of high quality habitat, 5.4 acres of medium quality habitat, and 25.7 acres of low quality habitat. However, this loss would be compensated for with implementation of the HCP conservation program (HCP CAGN Objectives 1-6) which includes conservation and management of 1,292.2 acres of habitat in the HCP Preserve. Under HCP CAGN Objectives 2, 3, 4, and 6, the conserved occurrences and habitat would be management specifically for the benefit of gnatcatcher. Under HCP CAGN Objective 5, impacts on nesting gnatcatcher would be avoided.

**Determination:** With implementation of the HCP conservation measures impacts to gnatcatcher are compensated and impacts are reduced to less than significant levels. Additional mitigation is not required.

### ***Effects on San Bernardino Kangaroo Rat from all Proposed Projects***

Habitat suitability was mapped into high, medium, low, and trace suitability categories. The areas supporting ecological processes that maintain SBKR suitability (hydrogeomorphic scour and deposition) were also mapped, and impacts on these areas are quantified. As is evident in the balance of impact in each habitat suitability type, the Covered Activities/Proposed Projects (primarily aggregate mining) have been located outside of the habitat with the highest suitability. This pattern also correlates with the overlap of Covered Activity/Proposed Project footprints with the occurrence data (refer to Figure 4.4-6, *Potential Impacts on San Bernardino Kangaroo Rat*).

Because of the widespread distribution of SBKR in the Plan Area and the location of Covered Activities/Proposed Projects, it is not expected that any occupied SBKR habitat would be isolated following the implementation of Covered Activities./Proposed Projects Activities that could place temporary or permanent impediments to SBKR movement could disrupt habitat connectivity and SBKR dispersal patterns; therefore, any Covered Activities/Proposed Projects with the potential to interrupt a known habitat connection would be implemented according to the Impact Avoidance and Minimization Measures outlined in the HCP.

The extent and spread of non-native grasses is one of the greatest threats to SBKR habitat suitability. Such habitat degradation could result from the effects of Covered Activity/Proposed Project land disturbance and related activities that induces additional spread of non-native plant species. Therefore, monitoring and avoidance and minimization measures would be implemented along with an adaptive management strategy addressing non-native grass management.

Covered Activities/Proposed Projects would result in permanent impacts to 22.4 acres of high suitability, 67.7 acres of medium suitability, 120.1 acres of low suitability, 359.1 acres of very low suitability of SBKR habitat, and 1.6 acres of ecological process area for SBKR. The combined permanent impacts total, for all suitability habitat types, is 570.9 acres. Covered Activities/Proposed Projects would result in temporary impacts to 1.9 acres of high suitability, 1.4 acres of medium suitability, 4.8 acres of low suitability, 55.6

acres of very low suitability of SBKR habitat, and 45.4 acres of ecological process area for SBKR. The combined temporary impacts total, for all suitability habitat types, is 109.1 acres.

Implementation of the HCP conservation program would result in the permanent conservation and management of 121.4 acres of high suitability habitat, 122.1 acres of medium suitability habitat, 191.8 acres of low suitability habitat, 321.4 acres of very low suitability habitat, and 193.1 acres of ecological process area habitat in the HCP Preserve (HCP SBKR Action 1A). Implementation of the HCP conservation program would provide for the additional management of 170.4 acres of high suitability habitat, 105.6 acres of medium suitability habitat, 126.1 acres of low suitability habitat, 237.7 acres of very low suitability habitat, and 42.9 acres of ecological process area habitat to support SBKR in the HCP Preserve (HCP SBKR Action 1B). The HCP conservation program would maintain and increase the quality of habitat for SBKR in the HCP Preserve, by managing non-native grasses (HCP SBKR Objective 2); maintaining a stable or increasing population of SBKR in the HCP Preserve (HCP SBKR Objective 3); maintaining and increasing connectivity between SBKR populations in the HCP Preserve (HCP SBKR Objective 4); and determining the status and distribution of SBKR in the HCP Preserve, monitoring long term trends, and assessing the effectiveness of management actions (HCP SBKR Objective 7). For additional information on the conservation for the San Bernardino Kangaroo Rat see Section 5.1.2 in the HCP.

The entire Plan Area is included within USFWS-designated Critical Habitat (CH) for SBKR. The USFWS will formally analyze effects on CH from the Covered Activities/Proposed Projects under ESA in their internal Section 7 consultation as part of the process for issuing the ITPs. Implementation of Alternative B would result in permanent impacts to 570.9 acres and temporary impacts to 109.1 acres of SBKR of varying habitat suitability. However, this loss would be compensated for with implementation of the HCP conservation program (HCP SBKR Objectives 1-7) which includes conservation and management of 1,622.5 acres of habitat in the HCP Preserve. Under HCP SBKR Objectives 2, 3, 4, and 7, the conserved habitat would be managed specifically for the benefit of SBKR. Under HCP SBKR Objectives 5 and 6, impacts on SBKR from Covered Activities/Proposed Projects would be minimized to the greatest extent feasible.

**Determination:** With implementation of the HCP conservation measures impacts to SBKR and its critical habitat are compensated and impacts are reduced to less than significant levels. Additional mitigation is not required.

### ***Other Special Status Species***

This DEIS/SEIR also evaluates non-covered special-status species. These include migratory birds, reptiles and amphibians, small mammals and rare plants. Special status species known to occur, or with the potential to occur, in the study area are summarized in Tables 3.4-2, *Special Status Plant Species Potentially Occurring within the Plan Area* and Table 3.4-3, *Special Status Wildlife Species Potentially Occurring within the Plan Area* in Section 3.4. These species are not proposed for coverage under the Wash Plan HCP. The evaluation of impacts on non-covered species relied on a combination of the available natural community and land cover mapping as presented in the Wash Plan HCP as well as

species occurrence information. The species occurrence information was compiled from California Natural Diversity Database, Calflora, the Jepson Interchange, and information presented in the EIR for the 2008 Land Management Plan. More details about each species are provided in the Biological Technical Report, Appendix M of the 2008 EIR.

#### **Effects on Special Status Plant Species from all Proposed Projects**

Special status plant species include state or federally listed threatened or endangered species, those proposed for listing, candidate species for listing, or considered a Species of Special Concern. In addition, plants included on the California Native Plant Society (CNPS) Inventory with rankings of 1A, 1B, 2A, 2B, 3, and 4 are also considered special-status species. Plant species were evaluated for their potential to occur within the Plan Area boundaries based on habitat requirements, availability and quality of suitable habitat, and known distribution. Sensitive plant species determined to occur or have the potential to occur within the Plan Area are provided in Table C.4.3-1, in Appendix C. In addition to woolly-star and spineflower, four other rare plants have been documented within the Plan Area, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), Plummer's mariposa lily (*Calochortus plummerae*), Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), and California spineflower (*Mucronea californica*). California satintail (*Imperata brevifolia*) and Parish's bush mallow (*Malacothanmus parishii*) also have the potential to occur. All six plants are associated with the plant communities and soils that would be conserved and managed under the HCP for the benefit of the Covered Species: chaparral, RAFSS, and RSS. California satintail may also occur in wetlands. Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to these plant communities. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat, collectively the HCP Preserve, consists of large interconnected blocks of some of the highest quality habitat in the Plan Area.

Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the BLM's Survey Protocols. In the event a special status plant species is found, seed (or if Plummer's mariposa lily, corms or cormlets) will be collected and planted in appropriate receptor sites located on the HCP Preserve at the direction of the Preserve Manager. If seed is not immediately planted after collection, it will be cleaned and stored in cool dry conditions. Seeds, corms, or cormlets will be planted with preferred habitat. Seeds will be lightly raked into the substrates. Corms or cormlets will be planted at the appropriate depth. Weeds will be removed prior to planting.

**Determination:** With the implementation of the proposed conservation measures and avoidance and minimization measures impacts to special status plants would be less than significant. Additional mitigation is not required.

#### **Effects on Special Status Fish from all Proposed Projects**

The federally endangered Santa Ana sucker (*Catostomus santaanae*) was found historically in portions of the Plan Area including City Creek and the Santa Ana River but it is no longer present there. However,

Santa Ana sucker critical habitat is in the Plan Area. The Plan Area encompasses part of Critical Habitat Unit 1A. Critical habitat was designated in this area because the USFWS determined that Mill Creek, City Creek and the Santa Ana River provide stream and storm waters (Primary Constituent Element 1) required to transport coarse sediments that are necessary to maintain preferred substrate (Primary Constituent Element 2) conditions in portions of the Santa Ana River occupied by Santa Ana sucker. Therefore, these areas were determined to be essential for the conservation of the species.

The majority of the critical habitat for Santa Ana sucker in the Plan Area is in existing conservation areas or HCP Preserve lands (See Table 4.4-3). Permanent impacts to Santa Ana sucker critical habitat from Covered Activities/Proposed Projects would be approximately 23.9 acres. These impacts would be offset by the conservation of approximately 279.4 acres of critical habitat. The loss of a very small amount of habitat coupled with the conservation of a significant portion of each of the stream reaches in the Plan Area is expected to have only minor impacts to Santa Ana sucker critical habitat.

**Table 4.4-3: Santa Ana Sucker Critical Habitat in the Plan Area**

Santa Ana Sucker Critical Habitat in the Plan Area	
Land Use	Acres
District Managed	28.0
District Conserved	165.1
Conserved (Flood Control)	86.3
Conservation Subtotal:	279.4
Permanent Impacts from Covered Activities/Proposed Projects	23.9
Existing Conservation	112.5
Neutral Lands	46.4

The upland areas of the Plan Area, although not designated as critical habitat, provide a source of coarse sediments for transport by the stream and storm waters. Covered Activities/Proposed Projects would result in approximately 553.2 acres of permanent impacts to these upland areas. However, these impacts would be offset by the conservation and management of 1,569.1 acres of habitat which is a potential source of coarse sediments.

Determination: With the implementation of the proposed conservation measures, impacts to Santa Ana sucker and its critical habitat would be less than significant. Additional mitigation is not required.

#### **Effects on Special Status Reptiles and Amphibians from all Proposed Projects**

Sensitive reptile and amphibian species determined to occur or to have the potential to occur within the Plan Area are provided in Table C.4.3-2, Appendix C.

Silvery legless lizard (*Anniella stebbinsi*), western spadefoot toad (*Spea hammondi*), and coast horned lizard (*Phrynosoma coronatum*) have been documented within the Plan Area. Northern red-diamond rattlesnake (*Crotalus ruber ruber*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), and two-striped garter snake (*Thamnophis hammondi*) have the potential to occur in the Plan Area. All six



species are associated with the plant communities that would be conserved and managed under the HCP for the benefit of the Covered Species: grassland, chaparral, RAFSS, and Riversidean sage scrub. Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to these plant communities. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat, collectively the HCP Preserve, consists of large interconnected blocks of some of the highest quality habitat in the Plan Area.

Prior to any ground-disturbing activities, the area will be surveyed by a qualified biologist who has demonstrated expertise with special status reptiles and amphibians. The survey will take place at the appropriate time of year and time of day when the species' are active. If special status reptiles or amphibians are detected, they will be captured and relocated to the nearest adjacent Preserve lands. Results of the surveys and relocation efforts shall be provided to the Conservation District and/or USFWS (as part of the annual report of activities prepared as part of HCP implementation) and relocation of animals shall only occur with the proper scientific collection and handling permits.

**Determination:** With the implementation of the proposed conservation measures and avoidance and minimization measures the impacts to special status reptiles and amphibians would be less than significant. Additional mitigation is not required.

#### **Effects on Special Status Small Mammals from all Proposed Projects**

Sensitive small mammal species determined to occur or have the potential to occur within the Plan Area are provided in Table C.4.3-3 in Appendix C. San Diego black-trailed jackrabbit (*Lepus californicus bennettii*), Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and San Diego woodrat (*Neotoma lepida intermedia*) have been documented in the Plan Area. There is potential for southern grasshopper mouse (*Onychomys torridus ramona*) to occur in the Plan Area. All five species are associated with the plant communities that would be conserved and managed under the HCP for the benefit of the Covered Species: grassland, chaparral, RAFSS, and Riversidean sage scrub. They also coexist with SBKR which was a priority for conservation and influenced the selection of conservation areas. Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to these plant communities. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat, collectively the HCP Preserve, consists of large interconnected blocks of some of the highest quality habitat in the Plan Area.

Prior to any ground disturbing activities, a qualified biologist will survey for San Diego black-tailed jack rabbits. If they are detected, the biologist shall passively relocate them out of the work area prior to ground disturbance if feasible. If an active warren is detected in an area where ground disturbance will occur, the warren will be avoided, if feasible, until the qualified biologist determines it is no longer active. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation of the burrow between the time of the survey and construction activities.

Prior to any ground disturbing activities, a qualified biologist will trap for Los Angeles pocket mouse, northwestern San Diego pocket mouse, southern grasshopper mouse, and Sand Diego desert woodrat as part of preconstruction SBKR surveys. For woodrats, the qualified biologist will also look for active nests and trap in their vicinity if one or more is found. For longer term projects where ground disturbance will be ongoing for more than two weeks or will occur in phases, SBKR exclusionary fencing of the type required by the HCP will be installed. For short-term projects, individual animals may be held in appropriate conditions for up to two weeks after capture and then relocated when the project is complete. All animals captured during the trapping surveys will be relocated to the nearest adjacent habitat within the Preserve under the direction of the Preserve Manager.

**Determination:** With the implementation of the proposed conservation measures impacts to special status small mammals would be less than significant. Additional mitigation is not required.

#### **Effects on Badger from all Proposed Projects**

The American badger (*Taxidea taxus*) is associated with the plant communities and soils that would be conserved and managed under the HCP for the benefit of the Covered Species: grassland, chaparral, RAFSS, and Riversidean sage scrub.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to these plant communities. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat, collectively the HCP Preserve, consists of large interconnected blocks of some of the highest quality habitat in the Plan Area.

Prior to ground disturbing activities, a qualified biologist will survey for American badger. If badgers are detected, the biologist shall passively relocate badgers out of the work area prior to ground disturbance, if feasible. If an active den is detected in an area where ground disturbance will occur, the den will be avoided, if feasible, until the qualified biologist determines it is no longer active. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation of the burrow between the time of the survey and construction activities.

**Determination:** With the implementation of the proposed conservation measures, impacts to American badger would be less than significant. Additional mitigation is not required.

#### **Effects on Bats from all Proposed Projects**

There are two special status species of bats which may occur in the Plan Area, the western mastiff bat (*Eumops pertis californicus*) and pallid bat (*Antrozous pallidus*).

The western mastiff bat is in the family Molossidae. There are currently three recognized subspecies, with *Eumops perotis californicus* (western mastiff bat) the only subspecies occurring in North America (Wilson and Reeder 2005). The western mastiff bat occurs in a wide variety of habitats, including chaparral and scrub communities, in the vicinity of their roost sites. Day roosts are established in

crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical (Best et al. 1996), as well as in trees and tunnels (Zeiner et al. 1990).

The pallid bat (*Antrozous pallidus*) is the only species in the genus *Antrozous* of the family Vespertilionidae (Hermanson and O'Shea 1983; Hooper et al. 2003). The pallid bat is widespread throughout the western United States. Pallid bats occur in a variety of habitats including grasslands and shrublands. Pallid bat day roosting habitat typically includes rocky outcrops, cliffs, and spacious crevices. They have been known to use a variety of other substrates for roosts including stone piles (Beck and Rudd 1960; Rambaldini 2006) and live trees and snags in mature forest stands (Baker et al. 2008).

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities which may be used by one or more of the special status bat species. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities.

There are a limited number of potential roost sites within the Plan Area. It is likely that most bats which forage in the Plan Area are roosting in cliffs and crevices or manmade structures (e.g., buildings and bridges) outside its boundaries. However, some roosting could be occurring in trees, rock piles and other suitable substrates within the Plan Area. Prior to the removal of any rock piles, trees, or other suitable bat roosting sites, a qualified bat biologist will conduct a survey for roosting bats. If roosting bats are found, construction, operation and maintenance activities will avoid the bat nesting season.

**Determination:** In consideration of the conservation measures which would be implemented to conserve foraging habitat and to minimize impacts, and the limited number of suitable roosting sites that occur and which might be removed, impacts to special status bats would be less than significant. Additional mitigation is not required.

#### **Effects on Migratory Birds from all Proposed Projects**

Sensitive bird species determined to occur or have the potential to occur within the Plan Area are provided in Table C.4.3-4 in Appendix C.

Construction and O&M projects which are Covered Activities/Proposed Projects in the HCP could affect breeding birds. In order to minimize these effects, the following conservation measure will be implemented:

If construction-related activities are to occur during the nesting season (February 1 through September 15), a qualified biologist will conduct a preconstruction survey of the proposed construction area and an appropriate buffer. If nesting habitat for owls is present, the nest season will be considered as starting January 1. This preconstruction survey will commence no more than 72 hours prior to the onset of construction. If an active nest is observed, an appropriate buffer will be established until nesting is completed.

A number of Best Management Practices will also be implemented which will provide protection to migratory birds and other resources (see HCP Section 5.5, Impact Avoidance and Minimization Measures).

Planned restoration activities, such as cactus planting, control of invasive species, and restoration of fluvial processes to portions of the Plan Area, while developed to benefit Covered Species, will also benefit migratory birds by improving their habitat.

**Determination:** With implementation of the proposed conservation measures, impacts to migratory birds would be less than significant. Additional mitigation is not required.

#### **Effects on Burrowing Owl from all Proposed Projects**

Suitable habitat for burrowing owl in the Plan Area includes grasslands, RSS and RAFSS. They may also be found on the earthen levees and berms of canals and ground water spreading basins. Burrowing owls have been detected in the Plan Area but they are not common. There are two recorded occurrences, both from the San Bernardino County Museum. They were in disturbed habitat and intermediate RAFSS, one in the vicinity of the Seven Oaks Dam borrow pit and the other in area of the spreading basins to the west of the borrow pit (Appendix M of the 2008 EIR). There is a NDDB record for burrowing owl just east of the San Bernardino International Airport which to the west of the Plan Area.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities, significant portion of which could potentially be used by burrowing owls. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing the same communities.

To minimize impacts to burrowing owl, the breeding season for this species will be avoided if feasible when conducting ground disturbing activities. If it cannot be avoided pre-construction surveys and active nest avoidance measures will be taken, as needed, following the avoidance and minimization measure for migratory birds. Mitigation measures will be implemented as necessary per the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012), published March 7, 2012, be used in developing the final burrowing owl mitigation measures for burrowing owl. If the measures are updated or superseded, the current accepted protocol will be followed. The guidelines include avoidance of nests during nesting season and measures to relocate owls during the non-nesting season. If owls must be relocated, it will be to the nearest suitable habitat within the Preserve.

**Determination:** In consideration of the suitable habitat that would be conserved, the minimization measures that would be implemented and the relatively few individuals that are thought to forage or reside in the Plan Area, impacts to burrowing owl would be less than significant. Additional mitigation is not required.

**Effects on Short-eared Owl from all Proposed Projects**

The short-eared owl would be expected to forage in grassland and areas with low shrub cover within the Plan Area. There has been only one report of a short-eared owl within the Plan Area and it is outside of their breeding range, so it is expected to be an uncommon or rare winter resident or migrant. Of the 1,569.1 acres of habitat to be conserved and managed to offset permanent impacts of 553.2 acres, much of it has low shrub cover which would provide foraging opportunities for the short-eared owl.

**Determination:** With implementation of the proposed conservation measures in the HCP, impacts to short-eared owl would be less than significant. Additional mitigation is not required.

**Effects on Cooper's Hawk from all Proposed Projects**

The Plan Area contains marginal nesting habitat at best. The nearest NDDB occurrence record is approximately 6 miles south in San Timoteo Canyon, but it is expected that Cooper's hawk's periodically visit and forage within the Plan Area.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities, portions of which could be used by foraging Cooper's hawks. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing the same communities.

The breeding season for this species will be avoided if feasible when conducting ground disturbing activities. If it cannot be avoided pre-construction surveys and active nest avoidance measures will be taken, as needed, following the avoidance and minimization measure for migratory birds. If an active nest is detected during pre-construction surveys, it will be avoided until nesting is complete. If a nest tree or grove is removed by a Covered Activity/Proposed Project, the habitat will be restored at a suitable location determined in consultation with the Preserve Manager. Performance standards for the restoration will be developed in coordination with the Preserve Manager and provided to the Preserve Management Committee for their review and approval.

**Determination:** With implementation of the proposed conservation measures, impacts to Cooper's hawk would be less than significant. Additional mitigation is not required.

**Effects on White-tailed Kite from all Proposed Projects**

According to Appendix M of the 2008 EIR, a kite was detected during surveys in the mid-1990's for the aggregate mines. There are no other records.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities which may be used by white-tailed kite for foraging. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat (HCP Preserve) consists of large blocks of contiguous, interconnected habitat which is desirable to white-tailed kite for foraging, and aggregate mining, the Covered Activity/Proposed Project with the highest level of human disturbance, will be consolidated next to existing mining areas,

minimizing its effects to conserved areas. Permanent impacts to non-native grassland, 24.1 acres, will be almost as great as those conserved, 28.4 acres. However, there are a number of places in the Plan Area which consist of a mosaic of grassland and shrubs which are open enough that they could serve as foraging habitat.

**Determination:** With the implementation of the proposed conservation measures including habitat conservation and avoidance and minimization measures, impacts to white-tailed kite would be less than significant. Additional mitigation is not required.

#### **Effects on Golden Eagle from all Proposed Projects**

The Plan Area offers a number of habitats which could be used by golden eagle and it has been seen flying over the Plan Area. It is also known to nest in the vicinity.

Nesting habitat is largely absent; suitably sized trees are rare in the Plan Area and cliffs with suitable ledges, their preferred nest sites can be found offsite.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities, portions of which could be used by golden eagles for foraging. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The conserved habitat (HCP Preserve) consists of large blocks of contiguous, interconnected habitat which is desirable to golden eagles for foraging, and aggregate mining, the Covered Activity/Proposed Project with the highest level of human disturbance, will be consolidated next to existing mining areas, minimizing its effects to conserved areas.

The breeding season for this species will be avoided if feasible when conducting ground disturbing activities. If it cannot be avoided pre-construction surveys will be conducted and active nest avoidance measures will be taken, as needed, following the avoidance and minimization measure for migratory birds.

**Determination:** In consideration of the proposed conservation measures which will be implemented including the conservation of large blocks of suitable foraging habitat, the low potential for nesting golden eagle in the Plan Area, and the avoidance and minimization measures that will be implemented, impacts to golden eagle would be less than significant. Additional mitigation is not required.

#### **Effects on Prairie Falcon from all Proposed Projects**

Nesting habitat is not present in the Plan Area but prairies falcons have been seen flying over the Plan Area and may occasionally forage there.

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities, portions of which could be used by prairie falcon for foraging. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities.

**Determination:** With implementation of the proposed conservation measures, impacts to prairie falcon would be less than significant. Additional mitigation is not required.

**Effects on Loggerhead Shrike from all Proposed Projects**

The loggerhead shrike (*Lanius ludovicianus*) is known to the Plan Area and likely is a year-round resident. Open country with scattered shrubs and trees is the typical habitat of loggerhead shrike. Of the 1,569.1 acres of habitat to be conserved and managed to offset permanent impacts of 553.2 acres, much of it provides nesting and foraging opportunities for loggerhead shrike.

The breeding season for this species will be avoided if feasible when conducting ground disturbing activities. If it cannot be avoided pre-construction surveys and active nest avoidance measures will be taken, as needed, following the avoidance and minimization measure for migratory birds. If an active nest is detected during pre-construction surveys, it will be avoided until nesting is complete.

**Determination:** With implementation of the proposed conservation measures, impacts to loggerhead shrike would be less than significant. Additional mitigation is not required.

**Effects on California Horned Lark from all Proposed Projects**

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities, portions of which could be used by California horned lark for foraging. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The breeding season for this species will be avoided if feasible when conducting ground disturbing activities. If it cannot be avoided pre-construction surveys and active nest avoidance measures will be taken, as needed, following the avoidance and minimization measure for migratory birds will be implemented.

**Determination:** With implementation of the proposed conservation measures, impacts to the California horned lark would be less than significant. Additional mitigation is not required.

**Effects on Southern California Rufous-crowned and Bell's Sparrow from all Proposed Projects**

These birds spend much of their time under the cover of vegetation, often foraging or running across the ground instead of flying. This species is sensitive to fragmentation and edge effects, and is thus dependent on larger patches of sage scrub/open chaparral habitat. In surveys conducted Appendix M of the 2008 EIR, Southern California rufous-crowned sparrows were detected in a number of locations across the Plan Area.

Bell's sparrow is a common to uncommon resident and summer visitor in California. It is not migratory in many areas. It frequents low, fairly dense stands of shrubs. In cismontane California it frequents chaparral dominated by chamise and coastal scrub (RSS and RAFSS in the Plan Area), dominated by sage (CDFW 2017). This species has been documented at more than one location in the Plan Area (Appendix M of the 2008 EIR).

Covered Activities/Proposed Projects will result in approximately 553.2 acres of permanent impacts to plant communities portions of which could be used by Southern California rufous-crowned and Bell's sparrows for foraging and nesting. These impacts will be mitigated for by the conservation and management of 1,569.1 acres of habitat containing these communities. The configuration of the conservation acreage, large blocks of interconnected habitat, would address Southern California rufous-crowned sparrows' sensitivity to edge effects and habitat fragmentation.

**Determination:** With implementation of the proposed conservation measures, impacts to Southern California rufous-crowned and Bell's sparrows would be less than significant. Additional mitigation is not required.

### **Effects on Wildlife Movement and Connectivity from all Proposed Projects**

The HCP Preserve was designed with a priority given to maintaining and enhancing connectivity to existing and proposed conservation areas within the Plan Area. It was also designed to provide connectivity to existing conservation lands to the west of the Plan Area and to the upstream areas of Mill Creek and the Santa Ana River. This led to a pattern of conservation in and adjacent to the Santa Ana River and Mill and Plunge Creeks. To maintain connectivity between the Santa Ana River and Mill Creek, a contiguous area between them was included in the Preserve. This area, known as the breakout area, was flooded in 1938 and 1969 when a portion of the Santa Ana River broke out of its normal east-west reach in this area and flowed northwest to Plunge Creek. To enhance existing connectivity between the two areas, an earthen ramp will be constructed to serve as a wildlife crossing where existing ground water recharge basins extend into the linkage area. Non-native annual grasses will be controlled in linkage areas to enhance the quality of the habitat. This will provide more habitat for SBKR and other species within the linkages. The Preserve design is also consistent with and helps preserve two regional wildlife corridors identified by South Coast Wildlands within the vicinity of the Plan Area; an east to west corridor along Mill Creek, south of the Project site; and a wildlife corridor that follows the Santa Ana River into the San Bernardino Mountains. Implementation of the conservation measures is expected to have a beneficial effect to Covered and Other special status species.

**Determination:** Habitat linkages within the Plan Area and between it and other areas would be conserved and the linkage between the Santa Ana River and Plunge Creek would be improved through the construction of a crossing over the recharge basins and the control of non-native plants to enhance the habitat. Based on these conservation measures, impacts to wildlife movement and connectivity would be less than significant. Additional mitigation is not required.

### **Effects of Construction and Operations and Maintenance Activities from all Proposed Projects**

#### **Fugitive Dust**

Excessive dust from construction activities can decrease the vigor and productivity of vegetation communities through effects on light penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. It is expected that ground disturbing activities will produce dust which could result in these effects.



To address the effects of dust, the Best Management Practices included in the HCP include a requirement to control dust. See Section 5.5 in the HCP.

### **Noise**

Construction noise and vibration may affect behavior of wildlife in several ways. Excessive noise may affect birds by causing them to abandon nests; noise may raise levels of stress, interfering with sleep and other activities; and noise can interfere with communication by masking important sounds (Dooling 2006). Similar effects may occur in other taxa. Noise may interfere with communication in toads and frogs, which use calls to advertise their location and attract mates (Barrass and Cohn 1984).

To address the effects of noise, the HCP includes the following measure: Covered Activities/Proposed Projects adjacent to or surrounded by the HCP Preserve or other natural areas that generate noise in excess of 60 dBA Leq hourly will incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent HCP Preserve or other natural areas. Noise must be reduced to 60 dBA Leq at the edge of the HCP Preserve. Berms and other noise abatement measures will only be employed at permanent facilities when noise impacts are ongoing. The berm or other noise abatement measure will be placed within the footprint of the Covered Activity/Proposed Project.

### **Lighting**

Lighting can affect both diurnal and nocturnal wildlife. Birds may be attracted to lights suffering injury or mortality due to collisions with lighted structures. Insects who are attracted to light sources may be taken by bats resulting in higher than normal mortality. Wildlife may avoid lighted portions of their home ranges. Wildlife reproduction may be affected by lighting in various ways. Movement to breeding areas, chorus behavior, and mate selection by some amphibians may be affected (Longcore and Rich 2004). Lighting may disturb the nighttime rest and sleep periods of diurnal bird species and may cause them to abandon nests.

To address the effects of light, the HCP includes the following measure: Covered Activities/Proposed Projects, including new project construction and ongoing construction (e.g., aggregate mining), will take place during the daylight hours to the extent feasible. If nighttime work is unavoidable, lighting will be shielded away from the HCP Preserve. Fixtures will be shielded to downcast below the horizontal plane of the fixture height and mounted as low as possible. Permanent nighttime lighting of facilities within the Preserve should be avoided. If permanent lighting is determined to be unavoidable for a Covered Activity/Proposed Project (e.g., required by existing law or regulation), a nighttime lighting plan will be prepared by the affected Participating Entity and presented to the Conservation District for its review and approval. To minimize their effects on the Preserve, the plan will include fixtures that shield the light away from the Preserve, are mounted as low as possible, and use the least intrusive type of lighting available (e.g., LED or low sodium lighting).

**Determination:** With implementation of the proposed conservation measures to reduce the impacts from fugitive dust, noise and light, impacts would be less than significant. Additional mitigation is not required.

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### Effects on Jurisdictional Waters from all Proposed Projects

Jurisdictional waters on-site (e.g., creeks, streams, and drainages) are protected by state and federal regulations as administered by the United States Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and CDFW. The USACE regulates the discharge of dredged material, placement of fill material, or excavation within waters of the United States through Section 404 of the Clean Water Act. The RWQCB requires issuance of a Section 401 water quality certification for impacts to jurisdictional waters of the State. The CDFW regulates impacts to beds, channels, or banks of any river, stream, or lake through Section 1602 of the California Fish and Game Code (CFGC).

Covered Activities/Proposed Projects which may affect state or federal jurisdictional waters include proposed wells, water conservation facilities, mining, flood control facilities construction and maintenance, and transportation projects. Jurisdictional delineation surveys will be prepared by the District and/or Participating Entities for those areas demonstrating riparian habitat or stream or river flows. The jurisdictional delineation surveys will comply with California Fish and Game Code Sections 1600–1616 and Section 404 requirements from the USACE for any discharge of dredged or fill material in jurisdictional waters of the U.S. A Section 401 Certification from the RWQCB could also be required.

Preliminary estimates of impacts to waters of the US was completed by the Conservation District. Permanent impacts from Covered Activities/Proposed Projects on waters of the US based on the US Geologic Survey's National Hydrography Area is 7.8 acres and based on the HCP SBKR Ecological Process Areas (wetted areas within active channels) is 2.2 acres. The Covered Activity/Proposed Project Elder/Plunge Creek Restoration – Reasonably Foreseeable Project is anticipated to result in approximately 13 additional acres of wetted areas within the active channel and potentially waters of the US.

If jurisdictional areas are identified at the site of proposed Covered Activities/Proposed Projects, CWA § 401 and § 404 and the State Fish and Game Code § 1600 et seq. may apply. Any such areas are likely to be small and isolated from larger more valuable habitat areas; consequently, impacts will be less than significant through avoidance and mitigation resulting from any ACOE and/or CDFW jurisdictional permitting actions that may be required. During jurisdictional permit actions, resources will be located and impacts and mitigation measures identified. Mitigation measures typically include avoidance, replacement, or participation in in-lieu fee programs such as regional mitigation banks.

**Determination:** Impacts to jurisdictional areas would be less than significant with mitigation. Additional mitigation is not required.

### Effects on Local Policies from all Proposed Projects

Goals, policies, and ordinances applicable to the Plan Area are detailed in Appendix B, *Biological Regulations*. The Covered Activities/Proposed Projects are consistent with the applicable goals, policies, and ordinances of the City of Redlands, the City of Highland, and the County of San Bernardino. Each of these municipalities promotes the conservation of biological resources including habitat and species

within their respective *General Plans*. Although Covered Activities/Proposed Projects are anticipated to have adverse impacts on sensitive biological species and their habitats in the Plan Area, implementation of the HCP would provide substantial beneficial impacts to these species by preserving, enhancing, managing and monitoring the habitat that supports them for the long-term. Therefore, the Covered Activities/Proposed Projects will not conflict with local policies and ordinances protecting biological resources; no impact would occur.

### **Effects on Habitat Conservation Plan from all Proposed Projects**

The Proposed Action/Projects include the approval and implementation of the HCP, There are no existing adopted HCPs or Natural Community Conservation Plans (NCCP) within the Plan Area. Therefore, the Proposed Action/Projects would not conflict with a HCP or NCCP; no impacts would occur.

## **MITIGATION MEASURES**

The following compliance implementation guidance is provided as a means of avoiding and minimizing adverse impacts to biological resources that occur, or have the potential to occur, within the Plan Area:

### **BIO MM-1 Pre-Project Nesting Bird Surveys**

In order to comply with the relevant sections of the CFGC (e.g., 3503, 3503.4, 3504, 3505, etc.), and to reduce adverse impacts to sensitive birds, any Covered Activities/Proposed Projects that require ground disturbance and/or vegetation clearing should take place outside of the typical avian nesting season (i.e., March 1 to August 30), to the maximum extent practical. However, if ground disturbance and/or vegetation clearing cannot be conducted outside of the nesting season, a pre-construction nesting bird survey shall be conducted by a qualified biologist. The survey shall occur prior to initiation of project activities, and any occupied passerines and/or raptor nests occurring within or adjacent to the project footprint shall be delineated. If an active bird nest is located, the biologist shall establish, implement, and monitor avoidance and minimization measures to ensure compliance with all applicable laws and regulations related to nesting birds. Once nesting has been determined to cease, the buffer may be removed.

### **BIO MM-2 Jurisdictional Permitting**

Prior to initiating Covered Activities/Proposed Projects with the potential to impact waters of the US/State, a formal Jurisdictional Delineation shall be conducted and if waters of the US/State, including wetlands, cannot be entirely avoided, a 404 permit from USACE, 401 Water Quality Certification from the Regional Water Quality Control Board, and 1600 Streambed Alteration Agreement from CDFW shall be obtained. Project specific mitigation shall be determined with these agencies on a project-by-project basis. Project specific mitigation shall be consistent with the agencies policies and the

guidelines at the time permits are obtained for a project. Each project shall mitigate for a minimum of equal or superior function and value of streambed and habitat affected.

## **RESIDUAL IMPACTS AFTER MITIGATION**

No residual impacts related to sensitive biological resources would occur after implementation of the proposed conservation measures of the HCP and Mitigation Measures MM BIO-1 and MM BIO-2 for the Proposed Projects. Impacts would be reduced to less than significant.

### **4.4.1.3 Alternative C: 2008 Land Management Plan**

Alternative C, the 2008 Land Management Plan<sup>3</sup> was prepared by the Conservation District to describe the comprehensive land management strategy necessary to maintain public services, to provide construction aggregate materials, and to preserve sensitive plant and wildlife habitat. Alternative C outlined a conceptual plan for how to coordinate and manage the present and future activities in the Upper Santa Ana River Wash and balance the ground-disturbing activities of aggregate mining, recreation, water conservation and other public services with preservation of quality, natural habitat for endangered, threatened, and sensitive species.

As with the 2019 HCP, part of Alternative B, Alternative C focused on the conservation of four federally listed species, the endangered SBKR, woolly-star, and spineflower, and the threatened gnatcatcher. Unlike Alternative B, Alternative C did not provide for conservation of the cactus wren.

A Habitat Enhancement Plan (HEP) was proposed for preparation as part of Alternative C but few details were provided other than goals such as maintenance of habitat for the state and federally listed species, the maintenance of native vegetation communities including RAFSS and surveys for and the eradication of exotic species (FEIR Chapter 4.4, Mitigation Measures). Specific avoidance and minimization measures were not developed for special status species.

#### ***Vegetation Communities***

The Covered Activities/Proposed Projects as described in the Alternative C would result in approximately 719 acres of permanent impacts to native plant communities including RAFSS, RSS and chaparral. These impacts would be mitigated for by the conservation and management of approximately 1,347 acres of habitat containing these communities.

#### **Riversidean Alluvial Fan Sage Scrub**

As stated above under Alternative B, RAFSS is considered a rare natural community in the State of California, with a Rarefind occurrence ranking of 1.1. It occurs in three different seral stages in the Plan Area, pioneer, intermediate and mature. Alternative C would conserve a minimum of 1,496 acres of RAFSS, in a combination of all seral stages and combinations with non-native grassland.

<sup>3</sup> The full name of the plan is the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan Document.

If adopted, Alternative C would conserve approximately 312 fewer acres of habitat (much of it RAFSS) than would be conserved by implementation of the 2019 HCP under Alternative B, and it would result in approximately 88 more acres of permanent impacts than Alternative B. A comparison of the permanent impacts from proposed activities and the proposed conservation for each of the two alternatives can be found in Table 4.4-5 below. In addition, Alternative C does provide few specifics on how RAFSS and other habitat would be maintained.

**Determination:** Implementation of the Alternative C would not provide adequate conservation to address impacts to RAFSS from implementation of the plan. Therefore, impacts would be significant and unavoidable.

### Covered Species

While lacking in specifics, the Alternative C stated that it would maintain adequate habitat for the four federally listed species and that there would be surveys for and eradication of exotic plants. Alternative C would conserve fewer known locations of woolly-star and spineflower and less gnatcatcher and SBKR habitat. Table 4.4-8 below, provides the increase in species conservation in the 2019 HCP as compared to the 2008 Land Management Plan.

**Table 4.4-4: Increase in Covered Species Conservation in 2019 HCP from 2008 Land Management Plan**

Species	Increase by Unit	Percent Increase
<i>Slender-horned spineflower</i>		
Locations	32	25%
<i>Santa Ana River woolly-star (grid cells)</i>		
Individuals	103	14%
1-25	161	18%
25-50	48	16%
>50	17	8%
<i>Woolly-star Subtotal</i>	<i>329</i>	<i>15%</i>
<i>San Bernardino kangaroo rat (acres)</i>		
High	61	15%
Medium	98	21%
Low	175	27%
<i>SBKR Subtotal</i>	<i>335</i>	<i>22%</i>
<i>Coastal California gnatcatcher (acres)</i>		
High	10	12%
Medium	72	24%
Low	267	14%
<i>Gnatcatcher Subtotal</i>	<i>350</i>	<i>15%</i>

As stated above, Alternative C provides fewer acres of conservation and allows for more permanent impacts than Alternative B. This would result in less conservation of Covered Species. It also provides few specifics about how the habitat would be maintained.

**Table 4.4-5: Comparison of Permanent Impacts between the Alternatives B and C**

Land Use Types	Alternative C 2008 Management Plan (Acres)	Alternative B 2019 HCP (Acres)
<i>Permanent Impacts</i>		
New Groundwater Recharge Basins	238	150
New Mining	434	402
Transportation	47	35
Trails	0	9
Flood Control	0	18
Wells and Water Infrastructure	0	17
<i>Total of Permanent Impacts:</i>	<i>719</i>	<i>631</i>
<i>Conservation</i>		
District Conserved	673	963
District Managed	670	696
<i>Total Conservation:</i>	<i>1,347<sup>4</sup></i>	<i>1,659</i>

Implementation of Alternative C would allow mining of an area between two existing mining pits containing spineflower (after relocation of the plants) with no contingency. Development of this area in the 2019 HCP is contingent upon the establishment of six new spineflower areas within the HCP Preserve.

### Effects on Slender-horned Spineflower

Implementation of Alternative C would be expected to have adverse effects on spineflower. Mining of an area between two existing mining pits containing spineflower would be allowed after relocation of the plants without any contingency. It would result in 88 more acres of permanent impacts and conserve 312 less acres. This would result in 25% less conservation of spineflower (based on unit locations).

**Determination:** Implementation of Alternative C would not provide adequate conservation to address the impacts to slender-horned spineflower from implementation of the plan. Therefore, impacts would be significant and unavoidable.

### Effects on Santa Ana River Woolly-star

Implementation of Alternative C is expected to have adverse effects on woolly-star. Alternative C would permanently impact 88 more acres and conserve 312 less acres of woolly-star habitat than Alternative B. This would result in 15% less conservation of woolly-star (based on individuals in grid cells).

<sup>4</sup> This represents the minimum (guaranteed) acreage which would be conserved in the 2008 Management Plan.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to woolly-star from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on Cactus Wren**

Implementation of Alternative C is expected to have direct and indirect adverse effects on cactus wren, including both potential nesting and foraging habitat. It would have 88 more acres of permanent impacts than Alternative B, and it would conserve 312 fewer acres, reducing the amount of cactus wren nesting and foraging habitat.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to cactus wren from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on California Gnatcatcher**

Implementation of Alternative C is expected to have adverse effects on gnatcatcher. It would have 88 more acres of permanent impacts than Alternative B, and it would conserve 312 fewer acres. Alternative C conserves 430 fewer acres of gnatcatcher habitat; 12 acres of high quality habitat, 74 acres of medium quality, and 344 acres of low quality habitat, respectively. In addition, there would not be a comprehensive management plan for the conserved areas as proposed in Alternative B.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to gnatcatcher from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on San Bernardino Kangaroo Rat**

Implementation of Alternative C would have 88 more acres of permanent impacts than Alternative B, and it would conserve 312 fewer acres. All of this acreage is critical habitat and the majority of it is known or thought to be occupied by SBKR, so its loss would have adverse effects. In addition, there would not be a comprehensive management plan for the conserved areas as proposed in Alternative B.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to SBKR and its critical habitat from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Other Special Status Species**

The 2008 Land Management Plan evaluated non-covered special status species. These included migratory birds, reptiles and amphibians, small mammals and rare plants. Special status species known to occur, or with the potential to occur, in the study area are summarized in Table 3.4-2, *Special Status Plant Species Potentially Occurring within the Wash Plan HCP Area* and Table 3.4-3, *Special Status*

*Wildlife Species Potentially Occurring within the Wash Plan HCP Area.* These species were not proposed for coverage under the 2008 Land Management Plan. The evaluation of impacts to species was based upon:

- Existing Biological Conditions Report for the Upper Santa Ana River Habitat Conservation Plan, prepared by Dudek, February 2007 (attached as Appendix E-1 of the 2008 EIR);
- Slender-horned Spineflower Enhancement and Relocation Plan, prepared by United States Fish and Wildlife Service, November 2007 (attached as Appendix E-2 of the 2008 EIR);
- Robertson's Ready Mix Santa Ana Wash Development Agreement and Annexation to the City of Highland Draft Environmental Impact Report, prepared by Lilburn Corporation, June 1997;
- Sunwest Materials Santa Ana Wash Development Agreement Draft Environmental Impact Report, prepared by Lilburn Corporation, May 1997; and
- A site visit by LSA Associates, Inc. on February 16, 2007.

More details about each species are provided in Appendix M of the 2008 EIR.

#### **Effects on Special Status Plant Species**

Special status plant species include state or federally listed threatened or endangered species, those proposed for listing, candidate species for listing, or considered a Species of Special Concern. In addition, plants included on Lists 1B, 2, 3, or 4 of the CNPS Inventory are also considered special-status species. Plant species were evaluated for their potential to occur within the management plan area boundaries based on habitat requirements, availability and quality of suitable habitat, and known distribution. Species determined to occur or which had the potential to occur within the area of Alternative C can be found in Table C.4-1, *Non-Covered Sensitive Plant Species Present or with Potential to Occur in the Plan Area and Avoidance and Mitigation Measures*, of Appendix C.

In addition to woolly-star and spineflower, four other rare plants were documented within the management plan area, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), Plummer's mariposa lily (*Calochortus plummerae*), Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), and California spineflower (*Mucronea californica*). California satintail (*Imperata brevifolia*) and San Bernardino aster (*Symphyotrichum defoliatum*) also have the potential to occur there. All six plants are associated with the plant communities and soils present within the management plan area: chaparral, RAFSS, and RSS. California satintail may also occur in wetlands.

Although maintenance of the associated plant species in the HEP would have been beneficial to the five special status plant species found to occur in the management plan area, no pre-project surveys or seed collection and planting measures specifically for the special status plant species are included in Alternative C.

Alternative C would have 88 more acres of permanent impacts and would conserve 312 fewer acres than Alternative B, adversely affecting special status plant species.



**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to special status plant species from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on Special Status Fish**

The federally endangered Santa Ana sucker (*Catostomus santaanae*) was not addressed in the 2008 Land Management Plan. However, significant portions of its critical habitat were included in the proposed habitat conservation areas. The primary difference between Alternative C and Alternative B is that under Alternative C, Flood Control lands in the Santa Ana River, 318.1 acres, do not have a conservation designation. No permanent impacts were contemplated and temporary impacts would be limited to a few acres to keep areas around structures such as highway bridges over the Santa Ana River free of debris, but the lands do not receive protected status. In Alternative B, 172.0 acres of the 318.1 acres of Flood Control lands in the Santa Ana River are designated as SBCFCD Conserved and would become part of the Preserve, and the balance, 146.1 acres, have been earmarked for future conservation by Flood Control.

Permanent impacts to Santa Ana sucker critical habitat, although not quantified in Alternative C, would be similar to those in Alternative B. This conclusion is based on the fact that the impacts as depicted and described in Alternative C are almost exclusively outside of the designated critical habitat areas.

As stated under Alternative B, upland habitats provide a source of coarse sediments for transport by the stream and storm waters. Covered Activities/Proposed Projects resulting in permanent impacts, primarily in upland areas, under Alternative C, could be 88 acres greater in Alternative C than in Alternative B. Permanent impacts would be offset by the conservation of a minimum of 1,347 acres in both designated critical habitat and upland areas.

**Determination:** Alternative C would largely avoid Santa Ana Sucker critical habitat and substantial areas of upland habitat would be set aside for conservation, providing a source of coarse sediments. Therefore, with implementation of the proposed conservation measures, impacts to Santa Ana sucker would be less than significant. Additional mitigation would not be required.

#### **Effects on Special Status Reptiles and Amphibians**

Southern California legless lizard (*Anniella stebbinsi*), western spadefoot toad (*Spea hammondi*), and San Diego horned lizard (*Phrynosoma coronatum blainvillei*) have been documented within the management plan area. Northern red-diamond rattlesnake (*Crotalus ruber ruber*) and coastal western whiptail (*Aspidoscelis tigris stejnegeri*) also have the potential to occur in the management plan area. All five species are associated with the plant communities and soils present within the management plan area: chaparral, RAFSS, and RSS. Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities.

Although maintenance of the associated plant species in the HEP would have been beneficial to the five special status reptile and amphibian species found to occur in the management plan area, no surveys or relocation plan specifically for the special status species were included as part of Alternative C.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to special status reptiles and amphibians from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on Special Status Small Mammals**

San Diego black-trailed jackrabbit (*Lepus californicus bennettii*), Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and San Diego desert woodrat (*Neotoma lepida intermedia*) have been documented in the management plan area. There is also potential for southern grasshopper mouse (*Onychomys torridus Ramona*). All five species are associated with the plant communities and soils present within the management plan area: chaparral, RAFSS, and RSS. Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities that support these sensitive mammal species.

Alternative C requires the preparation and implementation of an HEP. The 2008 EIR stated that the HEP would include surveys for and the eradication of non-native plants. The goal was to maintain adequate habitat for the four listed species, but also included maintenance of the associated plant communities. Maintenance of the associated plant communities in the HEP would have been beneficial to the five special status small mammal species found to occur or with the potential to occur in the management plan area.

Alternative C does not include pre-project surveys or relocation plans for small mammals potentially impacted by Covered Activities/Proposed Projects.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to special status small mammals from implementation of the plan. Therefore, impacts would be significant and unavoidable.

#### **Effects on Badger**

The American badger (*Taxidea taxus*) was associated with the plant communities and soils present within the management plan area: chaparral, RAFSS, and RSS. Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities. Alternative C would have 88 more acres of permanent impacts and conserve 312 acres less than Alternative B. The majority of this habitat is suitable for badger, so its loss would be expected to adversely affect badger.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to badger from implementation of the plan. Therefore, impacts would be significant and unavoidable.

### **Effects on Bats**

There were two special status species of bats determined to potentially occur in the management plan area, the western mastiff bat (*Eumops pertis californicus*) and the pallid bat (*Antrozous pallidus*). The western mastiff bat occurs in a wide variety of habitats, including chaparral and scrub communities, in the vicinity of their roost sites. Pallid bats occur in a variety of habitats including grasslands and shrublands. The plant communities associated with the management plan area where the bats might occur include RSS, RAFFS, and riparian areas. Implementation of Alternative C would result in permanent impacts to approximately 507.3 acres of the total 3,275 acres of these plant communities within the entirety of the management plan area. Alternative C also requires the preparation and implementation of a Habitat Enhancement Plan. The goal of the plan was to maintain adequate habitat for the four listed species, but also special status species that utilize the same habitats.

Although maintenance of the associated plant species in the Habitat Enhancement Plan would have been beneficial to these bats, no surveys or relocation plans specifically for the bats were included as part of Alternative C.

**Determination:** Implementation of Alternative C would not provide adequate conservation to address impacts to special status bats from implementation of the plan. Therefore, impacts would be significant and unavoidable.

### **Effects on Migratory Birds**

Construction and O&M projects which are Covered Activities/Proposed Projects in the 2008 Land Management Plan could affect breeding birds. In order to minimize these effects, the following conservation measure was included as part of Alternative C:

“Trees and other significant vegetation that may provide nesting habitat for migratory birds shall be removed from the construction areas by the District between September 1 and March 1, outside of the nesting season. If trees or other significant vegetation must be removed during the nesting season, a nesting bird survey shall be conducted by a qualified biologist no more than 14 days prior to any grading or vegetation clearing. If nesting birds are found within the areas to be impacted by the project, the nest and a 100-foot buffer area (200 feet for raptors) around the nest shall be protected and maintained until the biologist determines that young have fledged and/or the nests are no longer active. The buffer area shall be delineated with orange construction fencing.”

Although the above measure would result in avoidance of impacts to some nesting birds, the avian nesting season is more accurately February 1 to September 15, and in some instances raptor nesting may begin as early as January 1, i.e., owls. In addition, nest buffers of 200 feet for raptors and 100 feet for all other birds would not be sufficient in some instances. Many species of raptors require much larger nest buffers, particularly when the construction activities are within line of site of the nest and/or the construction activities will generate significant noise. Richardson and Miller (1997) recommended monitoring raptor behavior prior to developing management recommendations and buffers to determine the extent to which individuals have been sensitized to human disturbance. The same is true

for song birds. Nest buffers of 300-500 feet are more typical for listed species such as least Bell's vireo and southwestern willow flycatcher. For species without standard nest buffers, the size of the buffer needs to be determined by a qualified biologist and will vary by circumstance. In addition, pre-construction surveys should be initiated closer to the beginning of construction than 14 days.

**Determination:** The proposed incorporation of breeding bird surveys and nest buffers would result in avoidance and minimization of some impacts to migratory breeding birds. However, the nesting bird season which would trigger preconstruction surveys is too narrow, the nest buffers if nesting birds were found would be insufficient in some cases, and conducting breeding bird surveys 14 days before ground disturbance/construction activities may result in missing birds which began to nest subsequent to the survey. For these reasons impacts to nesting migratory birds would be expected to still be significant after mitigation.

### **Effects on Burrowing Owl**

Suitable habitat for burrowing owl in the management plan area includes grasslands, RSS and RAFSS. They may also be found on the earthen levees and berms of canals and ground water spreading basins. Burrowing owls were detected in the management plan area and more information can be found in Appendix M of the 2008 EIR.

Covered Activities/Proposed Projects as described in Alternative C would result in permanent impacts to approximately 507.3 acres of that could potentially be used by burrowing owl of the total 3,275 acres of these plant communities within the entirety of the management plan area.

To minimize impacts to burrowing owl, the following was included in Alternative C:

*“Prior to construction, the District shall conduct a habitat assessment for burrowing owl. If habitat is observed, a focused burrowing owl survey shall be conducted during breeding season (March 1–August 31) per approved survey protocol. If occupied burrows are found, appropriate mitigation measures shall be implemented which may include one or more of the following in consultation with CDFW:*

- Avoid disturbance within 160 feet of occupied burrows during non-breeding season and within 250 feet during breeding season; and/or
- If owls must be moved, passive relocation during the non-breeding season per CDFW recommendations shall be implemented.
- A burrowing owl pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to any grading or vegetation clearing in areas with potential burrowing owl habitat not previously mitigated. If nesting owls or occupied burrows are found within the areas to be impacted, the above mitigation measure shall be implemented.”

The avoidance and minimization measures described above include preconstruction surveys for burrowing owl during the breeding season, stated as March 1 to August 31. The current recognized breeding season for burrowing owls is February 1 to August 31. In addition, recommended mitigation measures in the California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl, non-breeding season surveys, avoidance of non-breeding burrowing owl burrows, and site-specific buffer zones, which could vary from those specified in the 2008 plan.

**Determination:** Although Alternative C incorporates avoidance, minimization and mitigation measures to protect burrowing owl, they are not sufficient to avoid potential impacts. Therefore, potential impacts to nesting burrowing owl would remain significant after mitigation.

#### **Effects on Cooper's Hawk**

The primary sensitivity for Cooper's hawks is during nesting. The management plan area contains marginal nesting habitat at best. The nearest NDDB occurrence record is approximately 6 miles south in San Timoteo Canyon, but it is expected that Cooper's hawks periodically visit and forage within the management plan area.

Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts the plant communities in the overall 3,275 acres management plan area that Cooper's hawks may utilize for foraging. In order to minimize these effects, the following conservation measure was included as part of Alternative C for migratory birds:

"Trees and other significant vegetation that may provide nesting habitat for migratory birds shall be removed from the construction areas by the District between September 1 and March 1, outside of the nesting season. If trees or other significant vegetation must be removed during the nesting season, a nesting bird survey shall be conducted by a qualified biologist no more than 14 days prior to any grading or vegetation clearing. If nesting birds are found within the areas to be impacted by the project, the nest and a 100-foot buffer area (200 feet for raptors) around the nest shall be protected and maintained until the biologist determines that young have fledged and/or the nests are no longer active. The buffer area shall be delineated with orange construction fencing."

As stated previously, the extent of nest buffer necessary to avoid impacts to nesting raptors will vary by species and circumstance and should be determined on a case by case basis, and the trigger for nest surveys should begin February 1 (or earlier for some owl species). Also, surveys should be conducted closer to the beginning of construction than 14 days.

**Determination:** Although Alternative C incorporates avoidance, minimization and mitigation measures to protect the Cooper's hawk, they are not sufficient to avoid potential impacts. Therefore, impacts to Cooper's hawk would remain significant after mitigation.

### **Effects on White-tailed Kite**

According to Appendix M of the 2008 EIR, a white-tailed kite was detected during surveys in the mid-1990's for the aggregate mines. There are no other records.

Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts the plant communities in the overall 3,275 acres management plan area that white-tailed kite may utilize for foraging or nesting. In order to minimize these effects, the following conservation measure was included as part of Alternative C for migratory birds:

“Trees and other significant vegetation that may provide nesting habitat for migratory birds shall be removed from the construction areas by the District between September 1 and March 1, outside of the nesting season. If trees or other significant vegetation must be removed during the nesting season, a nesting bird survey shall be conducted by a qualified biologist no more than 14 days prior to any grading or vegetation clearing. If nesting birds are found within the areas to be impacted by the project, the nest and a 100-foot buffer area (200 feet for raptors) around the nest shall be protected and maintained until the biologist determines that young have fledged and/or the nests are no longer active. The buffer area shall be delineated with orange construction fencing.”

As stated previously, the extent of nest buffer necessary to avoid impacts to nesting raptors will vary by species and circumstance and should be determined on a case by case basis, and the trigger for nest surveys should begin February 1 (or earlier for some owl species). Also, surveys should be conducted closer to the beginning of construction than 14 days.

The potential for white-tail kite is low, but it cannot be ruled out. Therefore, it is important that measures to prevent impacts to white-tail kite be sufficient to detect it, if present, and to sufficiently buffer nest sites to avoid disturbance and possible nest abandonment.

**Determination:** Although Alternative C incorporates avoidance, minimization and mitigation measures to protect white-tail kite, they are not sufficient to avoid potential impacts. Therefore, potential impacts to nesting white-tail kite would remain significant after mitigation.

### **Effects on Golden Eagle**

Cliffs and large trees are used for nesting. The management plan area offers a number of habitats which could be used by golden eagle and it has been seen flying over the management plan area. It is also known to nest in the vicinity. Nesting habitat is largely absent in the management plan area; suitably sized trees are rare and cliffs are absent.

Implementation of Alternative C would result in approximately 719 acres of permanent impacts to plant communities, many of which could be used by golden eagle for foraging. This impact would be offset by the conservation of 1,347 acres. The conserved area would be in addition to lands already in conservation status in the area including the 526-acre WSPA and mitigation lands owned by the City of

Highland. Flood control lands, although not in conservation would be expected to remain largely undeveloped.

**Determination:** If Alternative C were implemented, it would result in the loss of foraging habitat for golden eagle. However, this loss would be offset by the conservation of 1,347 acres. This acreage, taken together with existing conservation lands, would provide golden eagle with substantial foraging opportunities. With mitigation, impacts to golden eagle would be less than significant.

#### **Effects on Prairie Falcon**

Nesting habitat is not present in the management plan area but prairies falcons have been seen flying over the area and may occasionally forage there.

Implementation of Alternative C would result in approximately 719 acres of permanent impacts to plant communities, many of which could be used by prairie falcon for foraging. This impact would be offset by the conservation of 1,347 acres. The conserved area would be in addition to lands already in conservation status in the management plan area including the 526-acre WSPA and mitigation lands owned by the City of Highland. Flood control lands, although not in conservation would be expected to remain largely undeveloped.

**Determination:** If Alternative C were implemented, it would result in the loss of foraging habitat for prairie falcon. However, this loss would be offset by the conservation of 1,347 acres. This acreage, taken together with existing conservation lands, would provide prairie falcon with substantial foraging opportunities. With mitigation, impacts to prairie falcon would be less than significant.

#### **Effects on Loggerhead Shrike**

The 3,275-acre management plan area contains sage scrub plant communities, much of it provides nesting and foraging opportunities for loggerhead shrike. Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities.

As described above, Alternative C included measures for loggerhead shrike and other migratory birds, including the removal of vegetation outside the nesting season when feasible and pre-construction surveys when not feasible. It also established nest buffers to be monitored by a biologist. However, as also stated above, the identified nesting season is not long enough, the pre-construction surveys are too far in advance of construction, and the buffers are set distances instead of being site and species specific as determined by a qualified biologist, in order to ensure the detection of all nesting birds and to establish appropriate buffers around active nests.

**Determination:** Although Alternative C incorporates avoidance, minimization and mitigation measures to protect loggerhead shrike, they are not sufficient to avoid potential impacts. Therefore, potential impacts to nesting loggerhead shrike, would remain significant after mitigation.

### **Effects on California Horned Lark**

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. They are found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above tree line (CDFW 2017).

Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities of the overall 3,275-acre management plan area that may support the California horned lark.

As described above, Alternative C included measures for California horned lark and other migratory birds, including the removal of vegetation outside the nesting season when feasible and pre-construction surveys when not feasible. It also established nest buffers to be monitored by a biologist. However, as also stated above, the identified nesting season is not long enough, the pre-construction surveys are too far in advance of construction, and the buffers are set distances instead of being site and species specific as determined by a qualified biologist, in order to ensure the detection of all nesting birds and to establish appropriate buffers around active nests.

**Determination:** Although the proposed conservation would offset the permanent loss of habitat, potential impacts to nesting California horned lark would still be significant without additional measures to address nesting birds.

### **Effects on Southern California Rufous-crowned and Bell's Sparrow**

These species is sensitive to fragmentation and edge effects, and is thus dependent on larger patches of sage scrub/open chaparral habitat. In surveys conducted for the 2008 EIR, Southern California rufous-crowned sparrows were detected in a number of locations across the management plan area.

Bell's sparrow is a common to uncommon resident and summer visitor in California. It is not migratory in many areas. It frequents low, fairly dense stands of shrubs. In cismontane California it frequents chaparral dominated by chamise and coastal scrub (RSS and RAFSS in the management plan area), dominated by sage (CDFW 2017). This species has been documented at more than one location in the management plan area (Appendix M of the 2008 EIR).

Implementation of Alternative C would result in approximately 507.3 acres of permanent impacts to these plant communities that support Southern California rufous-crowned sparrow and Bell's sparrow in overall 3,275-acre management plan area.

As described above, Alternative C included measures for Southern California rufous-crowned sparrow and Bell's sparrow and other migratory birds, including the removal of vegetation outside the nesting season when feasible and pre-construction surveys when not feasible. It also established nest buffers to be monitored by a biologist. However, as also stated above, the identified nesting season is not long enough to ensure the detection of all nesting birds, the pre-construction surveys are too far in advance of construction, and the buffers are set distances instead of being site and species specific as



determined by a qualified biologist, in order to ensure the detection of all nesting birds and to establish appropriate buffers around active nests.

**Determination:** Although the proposed conservation would offset the permanent loss of habitat, potential impacts to nesting Southern California rufous-crowned and Bell's sparrows would still be significant without additional measures to address nesting birds.

### **Effects on Wildlife Movement and Connectivity**

Alternative C was designed with a priority given to maintaining and enhancing connectivity to existing and proposed conservation areas within the plan area. It was also designed to provide connectivity to existing conservation lands to the west of the plan area and to the upstream areas of Mill Creek and the Santa Ana River. This led to a pattern of conservation in and adjacent to the Santa Ana River and Mill and Plunge Creeks. To maintain connectivity between the Santa Ana River and Mill Creek, a contiguous area between them was included in the habitat conservation area of the plan. This area, known as the breakout area, was flooded in 1938 and 1969 when a portion of the Santa Ana River broke out of its normal east-west reach in this area and flowed northwest to Plunge Creek. The planned habitat conservation design is also consistent with and helps preserve two regional wildlife corridors identified by South Coast Wildlands within the vicinity of the plan area; an east to west corridor along Mill Creek, south of the plan area; and a wildlife corridor that follows the Santa Ana River into the San Bernardino Mountains. Implementation of the conservation measures is expected to have a beneficial effect on special status wildlife species in the plan area.

**Determination:** Habitat linkages within the management plan area and between it and other areas would be conserved. Impacts to wildlife movement and connectivity would be less than significant. Additional mitigation is not required.

### **Effects of Construction and Operations and Maintenance Activities**

#### **Fugitive Dust**

Excessive dust from construction activities can decrease the vigor and productivity of vegetation communities through effects on light penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Alternative C included the following mitigation measures to reduce the level of emissions of particulate matter:

“The emissions of diesel particulate are expected to result in carcinogenic health risks that exceed the AQMD thresholds at nearby sensitive receptors. Applicable mitigation measures may include the following:

- Heavy-duty diesel equipment shall have exhaust particulate traps as certified and/or verified by EPA or California installed, if available.

- Heavy-duty diesel equipment shall be fitted with the most modern emission control devices and be kept in proper tune to minimize construction vehicle emissions, where feasible. This measure shall be monitored by the construction manager.”

All mining, flood control, and water conservation operations for proposed projects would also be required to comply with standard regional rules that assist in reducing air pollutant emissions, such as SCAQMD Rule 402 and Rule 403.

### **Noise**

Construction noise and vibration may affect behavior of wildlife in several ways. Excessive noise may affect birds by causing them to abandon nests; noise may raise levels of stress, interfering with sleep and other activities; and noise can interfere with communication by masking important sounds (Dooling 2006). Similar effects may occur in other taxa. Noise may interfere with communication in toads and frogs, which use calls to advertise their location and attract mates (Barrass and Cohn 1984).

Alternative C did not contain any specific findings for noise as most of the covered projects were maintenance of existing facilities. Specific projects, when constructed, could result in significant short-term noise emissions during construction. These include the establishment of new aggregate mine and ground water recharge facilities. The future operation of new wells construction could result in noise emissions without the incorporation of minimization measures. Roadway construction noise impacts fell within the requirements of Highland and Redlands exterior noise standards.

Unlike Alternative B, Alternative C did not include avoidance and minimization measures for noise emissions such as setbacks, berms, or walls, to minimize the effects of noise on the adjacent conservation areas or other natural areas.

### **Lighting**

Lighting can affect both diurnal and nocturnal wildlife. Birds may be attracted to lights suffering injury or mortality due to collisions with lighted structures. Insects who are attracted to light sources may be taken by bats resulting in higher than normal mortality. Wildlife may avoid lighted portions of their home ranges. Wildlife reproduction may be affected by lighting in various ways. Movement to breeding areas, chorus behavior, and mate selection by some amphibians may be affected (Longcore and Rich 2004). Lighting may disturb the nighttime rest and sleep periods of diurnal bird species and may cause them to abandon nests.

As determined in the 2008 Land Management Plan; the widening and construction of roadways would contribute light and glare impacts in the form of vehicular lighting, however, as existing roadways, light and glare impacts currently occur and new sources of light and glare would not be introduced. The volume of vehicles traveling on these roadways is not expected to increase to the point that a significant light and glare impact would result. No new or additional light sources would be added by the mining operations, however, existing lighting used for mining operations would be moved to other locations as new portions of the project are mined.

The movement of light sources to new areas and the installation of new lights associated with facilities such as new wells could have impacts on Covered and special status species without mitigation such as shielding to direct the light to the project area and away from adjacent wildland and the use of LED or low sodium lights.

**Determination:** Impacts from fugitive dust with incorporation of mitigation measures would be less than significant.

The noise impacts from Alternative C would be significant without the incorporation of measures to reduce or eliminate construction and ongoing sound emissions from new facilities.

Although new light sources would not be substantial under Alternative C, new lighting or lighting moved to new areas adjacent to the conservation areas could impact listed and special status species. Therefore, impacts from lighting would expected to be significant without mitigation measures.

### **Effects on Jurisdictional Waters**

Jurisdictional waters on-site (e.g., creeks, streams, and drainages) are protected by state and federal regulations as administered by the USACE, California Regional Water Quality Control Board (RWQCB), and CDFW. The ACOE regulates the discharge of dredged material, placement of fill material, or excavation within waters of the United States through Section 404 of the Clean Water Act. A Section 401 water quality certification issued by the RWQCB is required for impacts to jurisdictional waters of the US. CDFW regulates impacts to beds, channels, or banks of any river, stream, or lake through Section 1602 of the California Fish and Game Code.

Alternative C included the following requirements for future water conservation facilities, the construction of the 5<sup>th</sup> Street Access Road, mining within the Plunge Creek Quarry, and all roadway improvement projects:

“Jurisdictional delineation surveys shall be prepared by the District, Robertson’s, and the City of Highland and/or Redlands for those areas demonstrating riparian habitat and historic river flows. The jurisdictional delineation surveys shall comply with California Fish and Game Code Sections 1600–1616 and Section 404 requirements from the USACE for any discharge of dredged or fill material in jurisdictional waters of the U.S. A Section 401 Certification from the RWQCB could also be required.”

**Determination:** Impacts to jurisdictional areas would be less than significant with mitigation.

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## 4.5 LAND USE

The purpose of this section is to analyze the impacts of the alternatives on land use, project consistency with relevant land use plans, and to recommend mitigation measures to avoid or lessen potential impacts, if needed.

This section was prepared using objectives and policies of the *City of Highland General Plan*, *City of Redlands General Plan*, *County of San Bernardino General Plan*, *Redlands Municipal Airport Land Use Compatibility Plan*, as well as the *California Environmental Quality Act (CEQA) Guidelines*. The information gleaned from these documents was analyzed for compliance for relevant thresholds found under the CEQA Guidelines Appendix G.

### 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. An alternative would result in significant land use impacts if it would cause any of the following to occur:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

#### 4.5.1 DIRECT AND INDIRECT EFFECTS

##### 4.5.1.1 Alternative A: No Action

In the No Action Alternative, the USFWS would not issue a permit for incidental take of Covered Species. Current mining and water conservation would continue.

The Habitat Conservation Plan (HCP) would not be implemented. Individual projects within the Plan Area would have to be addressed independently as they are proposed. Each new project would be analyzed for CEQA and NEPA compliance. Proponents for each new project would have to avoid take of listed wildlife, and adverse effects to listed plants if a Federal nexus exists, to proceed with their projects without Federal Endangered Species Act (ESA)/NEPA compliance. Projects with impacts to state or federally listed species would have to apply for an individual Section 10 permit, or engage in Section 7 consultation if a Federal nexus exists, in conformance and compliance with FESA and/or a 2081 permit in compliance with CESA, respectively. There is no guarantee any Section 10 permit would be issued. Other

regulatory permits could be required as well. The Conservation Strategy, which includes the designation of new onsite conservation of lands, additional management on already conserved lands, biological goals and objectives for five covered species, adaptive management and monitoring, and habitat restoration and maintenance, would not be implemented. The lack of a comprehensive plan would result in piecemeal approach to both development and conservation, greatly reducing the potential for a coordinated conservation strategy in the Plan Area. This could result in the fragmentation of conserved habitat and inconsistent and inefficient species and habitat management and monitoring.

Although the No Action Alternative would not result in highest and best use of lands within the Plan Area related to existing natural resources in the Plan Area, the No Action Alternative would not result in incompatible or conflicting land uses/projects with existing land use plans including General Plans of the Cities of Redlands and Highland and San Bernardino County.

**Determination:** Impacts related to land use from the No Action Alternative are less than significant.

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

##### *Issuance of Incidental Take Permit for the HCP*

**LUP-1:** *Would the Project physically divide an established community? **Determination: No Impact.***

**LUP-2:** *Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? **Determination: Less Than Significant Impact.***

**LUP-3:** *Would the Project conflict with any applicable habitat conservation plan? **Determination: No Impact.***

The Plan Area contains the following existing land uses: aggregate mining, water conservation, wells and water infrastructure, transportation, flood control facilities, trails and open space/ natural habitat. There are no existing residences or residential communities. Therefore, the Proposed Projects would not divide an established community and there would be no impact.

A number of Covered Activities would take place under an incidental take permit (ITP) which would affect land use. New mining, wells, and water conservation basins would be developed, and roads would be widened in areas which are currently undeveloped wildland. To mitigate the impacts of these and other Covered Activities, new conservation areas, "District Conserved Lands" would be permanently protected, and the Conservation District would provide for additional management on a subset of Woolly-star Preserve Area (WSPA) lands.

There are two land use plans that apply to the Plan Area that are not addressed here, due to the fact that these plans are better suited to be discussed in other sections of this EIS/EIR, as indicated below:

- South Coast Air Quality Management District (SCAQMD), Air Quality Management Plan (AQMP). A description of the AQMP and a consistency analysis is provided in Sections 3.1 and 4.1, Air Quality.
- Water Quality Control Plan for the Santa Ana River Basin. A description of the Water Quality Control Plan and a consistency analysis is provided in sections 3.3 and 4.3 Hydrology and Water Quality.

The following land use plans/ uses are discussed here:

- Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
- Redlands Municipal Airport Land Use Compatibility Plan
- San Bernardino International Airport
- City of Highland General Plan and Zoning
- City of Redlands General Plan and Zoning
- County of San Bernardino General Plan and Zoning
- Santa Ana River Woolly-star Preserve Area Multi-Species Habitat Management Plan

***Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)***

On April 4, 2012, SCAG's Regional Council adopted the landmark 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future. The 2012-2035 RTP/SCS provided goals for the long-range plan, identified key transportation investments to address the growing population in the region and strategies to reduce traffic congestion and greenhouse gas emissions. The SCS is a new element of the long-range plan that demonstrates the integration of land use, transportation strategies, and transportation investments within the Plan. The RTP/SCS is updated every four years to reflect changes in economic trends, state and federal requirements, progress made on projects and adjustments for population and jobs. Transportation projects must be included in the RTP in order to qualify for federal and state funding.

On July 6, 2017, SCAG's Regional Council adopted the 2016 RTP/SCS Amendment #2 and the 2017 FTIP Consistency Amendment #17-07, including the associated transportation conformity determination. The update to the 2016 RTP/SCS was initiated as a result of the passage of Measure M, the Los Angeles County sales tax measure approved by voters in November 2016. The majority of the changes in the amendment include updates to projects as a result of the extended funding, as well as several new transportation improvements.

What is at the heart of the 2016 RTP/SCS are over 4,000 transportation projects ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six County Transportation Commissions (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and seek to reduce traffic bottlenecks, improve efficiency of the region's network and expand mobility choices for everyone.

The Proposed Projects include roadway improvements, including bike lanes, as well as trails identified by the Cities of Redlands and Highland to help implement their General Plans. Implementation of the Proposed Action/Projects would help implement local transportation and mobility planning that will integrate with regional transportation and mobility planning. Implementation of the Proposed Action/Projects will not conflict with the 2016 RTP/SCS, but rather compliment it.

### ***Redlands Municipal Airport Land Use Compatibility Plan***

The southern portion of the Plan Area is located within portions of Safety Zones 1-5 and most of the remaining portion of the Plan Area is located within Safety Zone 6 of the Redlands Municipal ALUCP. The compatibility plan is intended to ensure that any potential development plans consider a project's compatibility with airport land uses in the area. The proposed flood control facilities and trails are compatible uses within Safety Zones 1-5. The remaining Proposed Projects, including aggregate mining, water conservation, wells and water infrastructure, transportation, flood control, trails, habitat enhancement, and agriculture are all compatible uses within Safety Zone 6. Implementation of the Proposed Action/Projects will not conflict with the Redlands Municipal ALUCP. Hazards area also discussed in Sections 3.11 and 4.11, Hazards.

### ***San Bernardino International Airport***

The Plan Area's western boundary is located near the San Bernardino International Airport (SBIA). Currently, the SBIA does not have an Airport Land Use Compatibility Plan (ALUCP) with mapped Safety Zones.

The Proposed Projects, including aggregate mining, water conservation, wells and water infrastructure, transportation, flood control, trails, habitat enhancement, and agriculture are all compatible uses adjacent to the SBIA. Implementation of the Proposed Action/Projects will not conflict with operations of the SBIA.

### ***City of Highland General Plan and Zoning***

The City of Highland General Plan includes the following land use designations within the Plan Area: Agriculture/Equestrian, Open Space, Parks, Industrial, Public, Low Density Residential, and Neighborhood Commercial and General Commercial. Zoning within the City of Highland corresponds with the land use designations and includes: Agricultural/Equestrian Residential, Open Space, Industrial,



Public/Quasi-Public, R-1 Single Family Residential, General Commercial, and Planned Commercial and Development.

Proposed Projects within areas designated as Industrial, Public/Quasi-Public, R-1 Single Family Residential, General Commercial, and Planned Commercial and Development include flood control, transportation, trails which are compatible uses in these designations. Habitat Conservation and water conservation are proposed in areas designated as Agricultural/Equestrian Residential, Open Space, and Public/Quasi-Public which are compatible uses in these designations. Implementation of the Proposed Action/Projects is compatible with and would not conflict with the City of Highland General Plan and zoning.

### ***City of Redlands General Plan and Zoning***

The City of Redlands General Plan includes the following land use designations within the Plan Area: Flood Control/Construction Aggregates and Conservation/Habitat Preservation, Agriculture, Resource Conservation, Public/Institutional, Open Space, Parks/Golf Courses, and Light Industrial. The portion of the Plan Area in the City of Redlands is zoned Open Space.

Proposed Projects within areas designated as Agriculture, Open Space, Parks/Golf Courses, and Light Industrial include transportation, trails, flood control and wells and water infrastructure and are compatible. Habitat Conservation, mining, and water conservation are proposed in areas designated as Flood Control/Construction Aggregates and Conservation/Habitat Preservation which are compatible uses in these designations. Implementation of the Proposed Action/Projects is compatible with and would not conflict with the City of Redlands General Plan and zoning.

### **County of San Bernardino General Plan and Zoning**

The following land use designations occur within the small unincorporated areas along the southeastern border of the Plan Area: Resource Conservation, Light Industrial, and Agriculture. Corresponding Zoning includes: Floodway, Region Industrial, and Agriculture.

Proposed Projects within areas designated as Resource Conservation, Light Industrial, and Agriculture include trails, flood control and wells and water infrastructure and are compatible. Habitat Conservation is proposed in areas designated as Resource Conservation which is compatible. Implementation of the Proposed Action/Projects is compatible with and would not conflict with the County of San Bernardino General Plan and zoning.

### ***Santa Ana River Woolly-star Preserve Area Multi-Species Habitat Management Plan***

The WSPA was created to mitigate for the impacts of Seven Oaks Dam. The Santa Ana River Woolly-star Preserve Area Multi-Species Habitat Management Plan (MSHMP) was developed by the USACE in coordination with technical experts, local sponsors, USFWS, CDFW and other stakeholders. It contains objectives to guide implementation of all program elements associated with WSPA management. The ultimate purpose of these objectives is “to support implementation of an effective and science-based

adaptive management plan for the covered species in a manner that is consistent with the conservation measures specified” (in the biological opinions for the dam). The species covered by the MSHMP are spineflower, woolly-star and SBKR. The management actions proposed in the HCP are consistent with and complementary to the MSHMP. The management plan and framework of the HCP is structured to foster a collaborative and cooperative approach to the management of the HCP Preserve and the WSPA.

Although the Proposed Action/Projects include implementation of an HCP, there are no existing habitat conservation plans that apply to the Plan Area. The Plan Area contains the WSPA and City of Highland Mitigation Area. These areas are included in the proposed HCP Preserve. Therefore, no impacts would occur to an existing habitat conservation plan.

**Determination:** The Proposed Action/Projects are consistent with the applicable land use plans, and they would not result in adverse impacts associated with land use. Rather, the Proposed Action/Projects would result in beneficial impacts associated with land use in the Plan Area as compared to the existing condition (see CEQA analysis, below, for more details).

## **MITIGATION MEASURES**

There are no potentially significant impacts regarding land use associated with the Proposed Action/Projects. Therefore, no mitigation is required.

## **RESIDUAL IMPACTS AFTER MITIGATION**

Because no mitigation is required with regards to land use, there are no residual impacts after mitigation.

### **4.5.1.3 Alternative C: 2008 Land Management Plan**

#### ***Incidental Take Permit Application***

Under this alternative, the applicant would prepare an HCP based upon 2008 Land Management Plan. The 2008 Land Management Plan outlined the conceptual plan for how to coordinate and manage the present and future activities in the Upper Santa Ana River Wash and balance the ground-disturbing activities of aggregate mining, recreation, water conservation and other public services with preservation of quality, natural habitat for endangered, threatened, and sensitive species. The proposed land uses are similar to those in Alternative B, with the exception that up to 312 fewer acres of habitat would be conserved.

A Habitat Enhancement Plan (HEP) was proposed as part of the 2008 Land Management Plan and EIR. While lacking in specifics, the 2008 Land Management Plan stated that it would maintain adequate habitat for the four federally listed species and that there would be surveys for and eradication of exotic plants. This plan would be compatible with the WSPA MSHMP.

The proposed land uses in Alternative C do not conflict with any applicable land use or conservation plans, nor do they divide any communities.

**Determination:** Alternative C is consistent with the applicable land use plans in the area, and they would not result in adverse impacts associated with land use. Rather, Alternative C would result in beneficial impacts associated with land use as compared to the existing condition.

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