B.0 LAWS AND REGULATIONS

This appendix provides more detailed information on the specific laws and regulations that pertain to the DEIS/SEIR.

B.1 KEY LAWS AND REGULATIONS PERTAINING TO THIS DEIS/SEIR

Multiple Use Mining Act of 1955

The Multiple Use Mining Act of 1955 directs that any mining claim located after July 23, 1955, shall not be used, prior to issuance of patent, for any purposes other than prospecting, mining or processing operations and uses reasonable incident thereto, and that such claims shall be subject to the right of the United States to manage and dispose of vegetative surface resources and to manage other surface resources, and the right of the United States, its permittees, and licensees, to use so much of the surface as may be necessary for such purposes or for access to adjacent land. The Wash Plan balances the consolidation of the lands available to be mined with areas of water conservation, and habitat conservation. Therefore, the Wash Plan is consistent with this Act.

Mining and Mineral Policy Act of 1970

The Mining and Mineral Policy Act of 1970 directs the Federal government to foster and encourage private enterprise in the development of economically sound and stable industries, and in the orderly and economic development of domestic resources to help assure satisfaction of industrial, security, and environmental needs. The private mining companies provide economic development in the region, while accommodating habitat conservation funding and other covered activities embodied in the Wash Plan.

Surface Mining and Reclamation Act (SMARA) of 1975

Under the SMARA, the State Mining and Geology Board is required to classify land into mineral resource zones (MRZs) and designate for future use those areas that contain aggregate deposits that are of prime importance in meeting the region's future needs for construction quality aggregates. To obtain the authority to mine in a specific area, the SMARA requires that three main conditions are met by a surface mining entity prior to the initiation of mining. The three conditions include: 1) obtaining a permit; 2) obtaining an approved reclamation plan; and 3) obtaining approval of the financial assurances for reclamation from the Lead Agency for the area to be mined. The primary objective of the SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, where feasible, that might otherwise be unavailable when needed. Reclamation Plans have been prepared by Robertson's and Cemex for existing and expansion of mining activities. Both plans were updated in January 2008. The expanded mining activities would be in compliance with reclamation standards recommended by the SMARA regulations (Public Resources Code § 2710 et seq.), which is designed to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment.

Federal Endangered Species Act (FESA) of 1973

Through Federal action and by encouraging the establishment of State programs, the 1973 FESA provided for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend. The FESA authorizes the determination and listing of species as endangered and threatened; prohibits unauthorized taking, possession, sale, and transport of endangered species; provides authority to acquire land for the conservation of listed species, using land and water conservation funds; authorizes establishment of cooperative agreements and grants-in-aid to states that establish and maintain active and adequate programs for endangered and threatened wildlife and plants; authorizes the assessment of civil and criminal penalties for violating the FESA or regulations; and authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the FESA or any regulation issued there under.

Section 7 of the FESA requires Federal agencies to ensure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or cause adverse modification their critical habitat. The HCP component of the Wash Plan has been developed in collaboration with USFWS in furthering compliance with the FESA. Any refinements necessary would be resolved between the lead agencies. Upon completion of the Section 7 process, the Wash Plan HCP would be in full compliance with the FESA.

California Endangered Species Act (CESA)

The CESA (Fish & Game Code §§2050, et seq.) generally parallels the main provisions of the Federal Endangered Species Act and is administered by the California Department of Fish and Wildlife (CDFW). Under CESA the term "endangered species" is defined as a species of plant, fish, or wildlife which is "in serious danger of becoming extinct throughout all, or a significant portion of its range" and is limited to species or subspecies native to California. CESA establishes a petitioning process for the listing of threatened or endangered species. The California Fish and Wildlife Commission is required to adopt regulations for this process and establish criteria for determining whether a species is endangered or threatened. The California Code of Regulations, Title 14 §670.1(a) sets forth the required contents for such a petition. CESA prohibits the "taking" of listed species except as otherwise provided in State law. Unlike its Federal counterpart, CESA applies the take prohibitions to species petitioned for listing (state candidates). The Conservation District has coordinated the Wash Plan HCP with the CDFW and would request a CESA review and issuance of a Section 2081 permit from the CDFW. Any necessary refinements would be resolved with the lead agencies to allow compliance with the ESA.

Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act of 1972 (CWA) established the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. Under the CWA, the U.S. Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industries and surface waters. The CWA gives states the primary responsibility of protecting and restoring surface water and enhancing the quality of waters released into waters of the United States. The covered activities in the Wash Plan would be analyzed to

determine whether they require CWA permits. Individual entities would be responsible for obtaining any necessary CWA permits and would therefore, be in compliance with the Act.

California Fish and Game Code

CDFW regulates all activities that alter streams and lakes and their associated habitat. The CDFW, through provisions of the California Fish and Game Code Sections §§1601-1603 is empowered to issue agreements of any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Rivers and streams are defined by the presence of a channel bed and banks. CDFW typically extends the limits of their jurisdiction laterally beyond the channel banks for streams that support riparian vegetation. Any Proposed Projects (Covered Activities) that will affect a streambed will require a Lake or Streamed Alteration Agreement from CDFW.

California Water Code

The California Water Code is the principal State law regulating water quality in California. Division 7 of the California Water Code, also known as the Porter-Cologne Act, establishes a program to protect water quality and beneficial uses of State water resources and includes both ground and surface waters. The State Water Resources Control Board and the Regional Boards establish waste discharge requirements, water quality control and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. Any Proposed Projects (Covered Activities) that will affect State groundwater or surface water resources will require Waste Discharge Requirements to be issued by the Santa Ana Regional Water Quality Control Board.

Clean Air Act (CAA) of 1970

The CAA was established by the EPA to provide standards and regulations to control air pollution that is known to be hazardous to human health. Under the CAA, the law authorized the EPA to establish National Ambient Air Quality Standards (NAAQS) for every state that further protect human health by regulating the emissions of hazardous air pollutants. Impacts to NAAQS would be less than significant as no federal thresholds or violations would occur and would therefore be in compliance with the Act. However, anticipated emissions from Proposed Actions/Projects are expected to exceed State standards (thresholds set by the South Coast Air Quality Management District) for NOx (nitrogen oxides), and course and fine Particulate Matter (PM_{10} and $PM_{2.5}$; smaller than 10 and 2.5 microns, respectively) during operations would be significant and unavoidable, requiring a Statement of Overriding Considerations.

Noise Control Act of 1972

Under the Noise Control Act, the EPA was authorized to set standards and regulations to control noise that present a potential hazard to human health and welfare. The Act also authorized the EPA to coordinate programs that would promote noise research and noise control to establish sound level that are safe for the public. Although the noise control program funding ended in 1981, it developed a "margin of safety" levels that separated noise into hearing loss levels and annoyance levels. Noise thresholds are not exceeded, resulting in a less than significant impact for the Wash Plan. Thus, the Wash Plan is in compliance and consistent with this Act.

Table B.1-1: Permits, Approvals, and Regulatory Requirements

Regulatory Agency	Permit	Reason for Permit or Approval	Notes
U.S. Army Corps of Engineers	CWA Section 404	• Impacts to Waters of the United States from project components creek crossings/wells/facility site/ intake etc.	• Potential to Avoid if no wetlands reconfiguration and not needed for Section 7
U.S. Fish and Wildlife Service	Endangered Species Act Section 10 Consultation	• Impacts to listed species and critical habitats (diversion of VWRF discharges from SCRE; construction and operation of natural treatment wetlands/pipelines/wells/facility site/outfall/intake)	• The Subject of this DEOS/SEIR
California Department of Fish and Wildlife	California Water Code 1602 – Streambed or Lake Alteration Agreement	• Impacts to jurisdictional features such as bed and bank of streams, rivers, lakes and features subject to Fish and Game Code Section 1602 from project components (Creek crossings, Plunge Creek Restoration etc.)	• For Limited waters impacts
	California Endangered Species Act 2081 or multiproject 2081	• Impacts to listed and fully protected species, as well as species of special concern from VWRF discharge diversions and construction and operation of natural treatment (wetlands/pipelines/wells/facility site, outfall, intake)	• Individual Covered Activities can permit separately or with the Wash Plan in joint 2081
California Department of Transportation	Encroachment Permit	• Installing or improving roads in Caltrans roadways	• As needed before Construction
Santa Ana Regional Water Quality Control Board	CWA 401 Water Quality Certification	• Consistency determination with US Army Corps of Engineers (USACE) 404 Permit for impacts to waters of the State	• As needed, coordinate with 404 and 1602
	Wetlands or Non Wetlands Waters	• Individual project dependent	
	State-wide Stormwater NPDES for construction and industrial facilities	• Covers runoff from mining activities • Covers runoff from construction activities	• By individual project
County of San Bernardino	Well Permits	• Construction of new wells	• Construction
South Coast Air Quality Management District	Authority to Construct	• Authority to Construct and operate mining facilities	• New Construction only
San Bernardino County Flood Control District	Encroachment Permits	• Flood rights-of-way easements and property access and use	• Construction
SBVWCD	Certificate of Inclusion	• Covered activities other than those of the District as permit holder	• Upon issuance of ITP or before construction

B.2 AIR QUALITY REGULATIONS

B.2.1 FEDERAL

Air Quality Standards

Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed criteria pollutants. The criteria pollutants are carbon monoxide (CO), oxides of nitrogen (NO_x), ozone (O_3), atmospheric particulate matter (PM), sulfur dioxide (SO_2), and lead (Pb). Criteria pollutants are defined as those pollutants for which Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations that safeguard public health. These standards identify concentrations for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 3.1-1 in Section 3.1.

B.2.2 STATE

The California Air Resources Board (CARB) administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 3.1-1 in Section 3.1, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

California Executive Order S-20-04

Executive Order S-20-04, the California Green Building Initiative (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20 percent from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

California Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which statewide emissions of greenhouse gas (GHG) would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The draft California Greenhouse Gas inventory (November 2007) equates these reductions to 11 percent by 2010 and 25 percent by 2020.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

In response to these initiatives, an informal partnership, led by the San Bernardino Associated Governments (SANBAG) prepared the San Bernardino County Regional Greenhouse Gas Reduction Plan (Reduction Plan 2014)[1]. The Reduction Plan compiled an inventory of GHG emissions and an evaluation of reduction measures that could be adopted by the 21 partnership cities of San Bernardino County, including the cities of Highland and Redlands. The Reduction Plan is a tool for inventorying municipal GHG emissions and summarizes the actions that each city has selected to reduce GHG emissions, State of California mandated actions, GHG emissions avoided in 2020 associated with each local and state action, and each city's predicted progress towards their selected GHG reduction goal. (Reduction Plan 2014)

The City of Highland selected a goal to reduce its community GHG emissions to a level that is 22% below its projected emissions in 2020. The City will meet and exceed this goal subject to reduction measures that are technologically feasible and cost-effective per AB 32 through a combination of state and local efforts. The majority of emissions reductions are due to state/county measures. Of the state/county measures, the majority of reductions are in the building energy and on-road transportation sectors. Of the local measures, the majority of reductions are in the building energy sector. (Reduction Plan 2014) The City of Highland has not prepared or adopted their own Climate Action Plan. Mostemissions reductions for the City of Highland are from state/county measures and locally from the building energy sector the Proposed Action/Projects, and more specifically expanded aggregate mining, and would not

[1] http://www.gosbcta.com/plans-projects/plans/greenhouse-gas/SBC-RegionalGreenHouseGasReduction-Final.pdf

have an impact on the City's ability to implement the State, County, and local measures and thus the ability to meet these reduction targets.

The City of Redlands selected a goal to reduce its community GHG emissions to a level that is 15% below its 2008 GHG emissions level by 2020. Redlands' Plan has the greatest impacts on GHG emissions in the building energy, on-road transportation, and water conveyance sectors. (Reduction Plan 2014)

The City of Redlands prepared a Climate Action Plan[2], the City's first CAP, designated to reinforce the City's commitment to reducing GHG emissions, and demonstrate how the City will comply with the State of California's GHG emission reduction standards. The CAP was prepared concurrently with the updated Redlands General Plan, reflecting the City's most current land use and transportation strategy, and GHG implications of various General Plan goals and policies. The CAP describes the General Plan policies that reduce GHG emissions, quantifies emission reductions, and explains how these policies and actions will be implemented. These General Plan policies fall under the following categories:

- Bikeway System Improvements;
- Pedestrian Improvements and Increased Connectivity;
- Traffic calming;
- Parking Facilities and Policies; and
- Transportation Improvements.

Because the majority of emissions reductions for the City of Redlands are in the building energy, on-road transportation, and water conveyance sectors the Proposed Action/Projects, and more specifically expanded aggregate mining, would not have an impact on the City's ability to implement the State, County, and local measures and thus their ability to meet these reduction targets. The Proposed Action/Projects, and more specifically expanded aggregate mining, would not adversely affect the City's ability to implement the General Plan policies related to bikeway, pedestrian, and transportation improvements, traffic calming, or parking facilities and policies.

The focus of the San Bernardino County Regional Greenhouse Gas Reduction Plan and the Redlands Climate Action Plan outline strategies, goals and policies that would promote energy efficiency, waste reduction, resource conservation, and recycling, and reduction in vehicle miles traveled (VMTs), which in turn result in GHG reductions.

California Executive Order S-1-07

Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also

[2] http://nebula.wsimg.com/1fefe0474c549760214c406c749087c6?AccessKeyId=F13B1E58B4DDA6D156DE&disposition=0&alloworigin=1

directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

California Executive Order S-13-08

Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the State of California.

California Executive Order S-14-08

Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

California Executive Order S-21-09

Executive Order S-21-09, 33 percent Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002) which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006) which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

California Executive Order B-16-12

Executive Order B-16-12 orders State agencies to facilitate the rapid commercialization of zero-emission vehicles (ZEVs). The Executive Order sets a target for the number of 1.5 million ZEVs in California by 2025. Also, the Executive Order sets as a target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels.

California Executive Order B-18-12

Executive Order B-18-12 calls for significant reductions in state agencies' energy purchases and GHG emissions. The Executive Order included a Green Building Action Plan, which provided additional details and specific requirements for the implementation of the Executive Order.

California Executive Order B-30-15

Executive Order B-30-15 sets a greenhouse gas emissions target for 2030 at 40 percent below 1990 levels.

California Executive Order B-32-15

Executive Order B-32-15 directs State agencies to develop an integrated freight action plan by July 2016. Among other things, the plan calls for targets for transportation efficiency and a transition to near-zero-emission technologies.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Assembly Bill 1493

AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30 percent.

Assembly Bill 3018

AB 3018 established the Green Collar Jobs Council (GCJC) under the California Workforce Investment Board (CWIB). The GCJC will develop a comprehensive approach to address California's emerging workforce needs associated with the emerging green economy. This bill will ignite the development of job training programs in the clean and green technology sectors.

Assembly Bill 617

AB 617, signed in July 2017, requires the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and toxic air contaminants for use by certain categories of stationary sources. The bill requires the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems. To meet the requirements of AB 617, the CARB established the Community Air Protection Program (CAPP) to reduce exposure in communities most impacted by air pollution. CARB will select locations to adopt community emissions reduction programs.

Senate Bill 97

SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA.

OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible. OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in CEQA Guidelines Section 15064.7 that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

The Natural Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010.

Senate Bill 375

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Senate Bills 1078 and 107

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill 1368

SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed into law in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a

performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required the CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

CARB Scoping Plan

Pursuant to AB 32, CARB prepared and adopted the initial Scoping Plan to "identify and make recommendations on direct emissions reductions measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives" in order to achieve the 2020 goal, and to achieve "the maximum technologically feasible and cost-effective GHG emissions reductions" by 2020 and maintain and continue reductions beyond 2020. AB 32 requires CARB to update the Scoping Plan at least every five years.[3]

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve GHG reductions in California. CARB's Scoping Plan contains the main strategies California will implement to reduce CO_2eq[4] emissions by 174 million MT, or approximately 30 percent, from the State's projected 2020 emissions level of 596 million MT CO_2eq under a business as usual (BAU)[5] scenario. This is a reduction of 42 million MT CO_2eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32. On February 10, 2014, CARB released the draft proposed first update. The appendices to the report, including the environmental analysis will be released at a later date. On May 22, 2014, CARB approved the First Update to the AB 32 Scoping Plan. The update identifies opportunities to leverage existing and new funds to further drive GHG emissions reductions through strategic planning and targeted low carbon investments. The update also defined CARB's

[3] CARB's Draft The 2017 Climate Change Scoping Plan, October 27, 2017. (https://www.arb.ca.gov/cc/scopingplan/revised2017spu.pdf)

[4] Carbon Dioxide Equivalent (CO2eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[5] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

climate change priorities for the next five years, and sets the groundwork to each long-term goals set forth in Executive Orders S-3-05 and B-15-2012. Lastly, the update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan, and evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities in water, waste, natural resources, clean energy, transportation, and land use.

In November 2017, CARB released the 2017 Climate Change Scoping Plan. The plan set the goal of reducing greenhouse gas an additional 40 percent below 1990 levels by 2030 under SB 32, requiring the state to double the rate at which it has been cutting GHG emissions. The plan seeks to move towards its target by addressing the major sources of GHG in the economy. It highlights more clean cars and trucks, increased renewable energy sources, slashing super-pollutants, cleaner industry and electricity through cap-and-trade program, the Low Carbon Fuel Standard, smart community planning, and improved agriculture and forests.

B.2.3 LOCAL

South Coast Air Quality Management District

The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. In March 2017, the SCAQMD adopted its 2016 AQMP, which is now the legally enforceable plan for meeting ozone and $PM_{2.5}$ standards.

The Southern California Association of Governments (SCAG) is a council of governments for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. As a regional planning agency, SCAG serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG assists by preparing the transportation portion of the AQMP. This includes the preparation of a Sustainable Communities Strategy (SCS) that responds to planning requirements of SB 375 and demonstrates the region's ability to attain greenhouse gas reduction targets set forth in state law. The SCS identifies regional and local efforts to promote new housing and employment in high-quality transit areas that will support development patterns that complement the evolving transportation network. The SCS was incorporated into the 2016 Regional Transportation Plan, adopted by SCAG on April 7, 2016. The AQMP for the Basin establishes a program of rules and regulations directed at attainment of the state and national air quality standards. Ultimately, a project's operational cumulative impact is judged against its consistency with the applicable Air Quality Management Plan. Conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans.

In April 2008, the SCAQMD convened a "GHG CEQA Significance Threshold Working Group," in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents. The goal of the working group was to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA. Initially, SCAQMD staff presented the working group with a significance threshold that

could be applied to various types of projects such as residential, non-residential, industrial, etc. but were never adopted. SCAQMD staff presented the SCAQMD Governing Board with significance threshold for development projects that are stationary source of air pollutants where SCAQMD is the lead agency. This threshold utilizes a tiered approach to determine a project's significance, with 10,000 $MTCO_2$ Eq. as numerical screening threshold for industrial project stationary sources of air pollution. However, it should be noted that when setting the 10,000 $MTCO_2$ Eq. threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Mobile source emissions are not addressed in the SCAQMD's Recommendations for Significance Thresholds. The GHG emissions that would be emitted by the Proposed Actions/Projects are primarily from aggregate mining mobile sources and therefore the SCAQMD's Recommendations of Significance Threshold would not be applicable.

SCAQMD is the authorized state agency to determine the General Conformity of the present project with *de minimis* requirements of the Clean Air Act (Rule 1901).

Rule 220

SCAQMD Rule 220 gives the Executive Officer the power to exempt a source from prohibitions outlined in SCAQMD Regulations IV and XI, Prohibitions and Source Specific Standards respectively, if they can make the finding that the installation of controls and/or process changes required to achieve compliance with the subject prohibitory rule will result in a net adverse impact on air quality. One of the conditions of the permits on exemptions issued under Rule 220 is that alternative controls and/or process changes which will result in the greatest practical net emission reduction be included for project operation.

Rule 402

SCAQMD Rule 402 (Nuisance) prohibits the discharge of air contaminants in such quantities that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, but does not apply to odors emanating from agricultural operations necessary for growing of crops or the raising of fowl or animals.

Rule 403

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. The potential requirements include the application of water or chemical stabilizers to disturbed soils at least twice a day, covering all haul vehicles before transport of materials, restricting vehicle speeds on unpaved roads to 15 mph, and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, it is required to establish a vegetative ground cover on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

Rule 481

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment and requires all spray coating equipment to be (1) operated inside an approved control enclosure, (2) applied using high velocity-low pressure (HVLP), electrostatic and/or airless spray equipment, or (3) applied using which has an equal effectiveness to either of the two approved methods.

Rule 1108

SCAQMD Rule 1108 applies to cutback and emulsified asphalt used at project sites.

Rule 1113

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic content (VOC) content in paints and paint solvents. This rule will dictate the VOC content of paints available for use during the construction of the buildings.

Rule 1143

SCAQMD Rule 1143 aims to reduce emissions of VOCs from the use, storage, and disposal of consumer paint thinners and multi-purpose solvents commonly used in thinning of coating materials, cleaning of coating application equipment and other solvent cleaning operations by limiting their VOC content. Additionally, Rule 1143 requires several best management practices to reduce VOCs during use and application of paint thinners and other solvents. For example, this Rule requires containers to be closed when not in use. This Rule also establishes requirements for appropriate labelling and disclosure of contents for containers and storage areas of these corrosive, flammable substances.

Rule 1157

SCAQMD Rule 1157 aims to reduce PM_{10} emissions from aggregate and related operations. It applies to all permanent and temporary aggregate and related operations. This rule will dictate the amount of fugitive dust emissions allowable and the use of dust control methods.

Rule 1186

SCAQMD Rule 1186 is intended to reduce the amount of particulate matter entrained in the ambient air as a result of vehicular traffic on paved and unpaved public roads, and at livestock operations. This includes requirements for local governments that contract for street sweeping services to utilize only certified street sweeping equipment.

Rule 1113

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic content (VOC) content in paints and paint solvents. This rule will dictate the VOC content of paints available for use during the construction of the buildings.

Rule 1303

SCAQMD Rule 1303 prohibits issuance of permits for any relocation or for any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone depleting

compound, or ammonia unless a best available control technology (BACT) is employed for the new or relocated source as specified by the Clean Air Act or other regulations.

City of Highland General Plan

Public Health and Safety Element

Goal 6.8 Reduce mobile and stationary source air pollutant emissions through cooperation and endorsement of the San Bernardino Regional Air Quality Plan and support of feasible techniques, incentives, and regulatory measures to achieve significant air quality improvements and any necessary air quality related lifestyle and economic changes while sustaining continued economic growth.

Policy 1 *Ensure consistency of Federal, State, and County legislation with Highland's Air Quality goal and policies.*

Policy 2 *Participate in formulating regional policies and solutions to air quality problems established by the San Bernardino County Regional Air Quality Plan.*

Policy 10 *Reduce vehicle emissions by supporting the design and implementation of the Citywide system of bikeways and pedestrian trails as a non-polluting circulation alternative by requiring as part of the development review process the installation of planned bicycle routes, paths, and lanes where designated; and the construction of necessary bicycle parking and storage areas within convenient commercial, employment and recreation activity areas.*

Policy 14 *Reduce particulate emissions from construction sites, grading activities, temporary roads and parking lots, and agricultural operations by enforcing requirements that minimize fugitive dust.*

Policy 16 *Reduce particulate and stationary emissions attributed to the removal, transportation and processing of mineral resources by enforcing required permits and physical barrier requirements that minimize the effects of dust from day-to-day operations of mineral extraction, transportation, and processing facilities.*

City of Redlands General Plan

Health and Safety Element

Guiding Policy 8.11 Air Quality and Jurisdictional Responsibility and Roles

8.11a Support the County in its efforts to coordinate air quality improvements in the portion of the South Coast Air Basin within the County and in its efforts to coordinate improvements in air quality through reductions in pollutants from Orange and Los Angeles Counties.

8.11e Involve environmental groups, the business community, special interests and the general public in the formation and implementation of programs which effectively reduce airborne pollutants.

Guiding Policy 8.15 Air Quality and Particulates

8.15a Aim for the minimum practicable particulate emissions from the construction and operation of roads and buildings.

8.15b Reduce particulate emissions from roads, parking lots, construction sites, mining operations and agricultural lands.

8.15f Adopt incentives, regulations and procedures to control particulate emissions from unpaved roads, drives, vehicle maneuvering areas, parking lots, and disturbed land that is not developed.

County of San Bernardino General Plan

Conservation Element

Goal CO.4 The County will ensure good air quality for its residents, businesses, and visitors to reduce impacts on human health and the economy.

Policy CO 4.1 *Because developments can add to the wind hazard (due to increased dust, the removal of wind breaks, and other factors), the County will require either as mitigation measures in the appropriate environmental analysis required by the County for the development proposal or as conditions of approval if no environmental document is required, that developments in areas identified as susceptible to wind hazards to address site-specific analysis of:*

a. Grading restrictions and/or controls on the basis of soil types, topography or season.

b. Landscaping methods, plant varieties, and scheduling to maximize successful re-vegetation.

c. Dust-control measures during grading, heavy truck travel, and other dust generating activities.

Policy CO 4.2 *Coordinate air quality improvement technologies with the South Coast Air Quality Management District (SCAQMD) and the Mojave Air Quality Management District (MAQMD) to improve air quality through reductions in pollutants from the region.*

B.3 GEOLOGY AND MINERAL RESOURCES REGULATIONS

B.3.1 FEDERAL

Federal Land Policy and Management Act of 1976, as Amended

The Federal Land Policy and Management Act (FLPMA) establishes policy and goals to be followed in the administration of public lands by the BLM. The intent of FLPMA is to protect and administer public lands within the framework of a program of multiple-use and sustained yield, and the maintenance of environmental quality. Particular emphasis is placed on the protection of the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources and archaeological values. FLPMA is also charged with the protection of life and safety from natural hazards.

B.3.2 STATE

Alquist-Priolo Earthquake Fault Zoning Act

The major State legislation regarding earthquake fault zones is the Alquist-Priolo Earthquake Fault Zoning Act. In 1972, the State of California began delineating "Earthquake Fault Zones" (called Special Studies Zones prior to 1994) around and along faults that are "sufficiently active" and "well defined" to reduce fault-rupture risks to structures for human occupancy (California Public Resources Code §2621–2630). The boundary of an Earthquake Fault Zone is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults is completed and continually updated by the State Geologist, and these maps are distributed to all affected cities, counties, and State agencies for their use in developing planning policies and controlling renovation or new construction.

The Seismic Hazards Mapping Act

Passed in 1990, the Seismic Hazards Mapping Act (SHMA) directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. The CGS is the principal State agency charged with implementing the 1990 SHMA. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation". Site-specific geotechnical hazard investigations are required by SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act

Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a Natural Hazard Disclosure Statement when the property being sold lies within one or more State-mapped hazard areas. If a property is located in a Seismic Hazard Zone as shown on a map issued by the State Geologist, the seller or the seller's agent must disclose this fact to potential buyers.

Surface Mining and Reclamation Act of 1975

Passed in 1975, the Surface Mining and Reclamation Act (SMARA) enacts extensive policies for surface mining and reclamation through the regulation of operations for surface mining. The act ensures mined lands are reclaimed to usable conditions and promotes minimization of adverse environmental impacts from surface mining. Additionally, the SMARA promotes for the State's mineral resources to be responsibly produced, conserved, and protected. Cemex and Robertson's are required to implement and follow their respective mine and reclamation plans for the Upper Santa Ana River Wash aggregate lands pursuant to SMARA regulations.

B.3.3 LOCAL

City of Highland General Plan

The Public Health and Safety Element (March 2006) of the *City of Highland General Plan* contains goals and policies relevant to geology and soils.

Goal 6.1 Minimize the risk to public health and safety and disruption to social, economic, and environmental welfare resulting from seismic and geologic activities.

Many of the policies associated with Goal 6.1 and geologic issues are related to the development of structures. Several of the policies require adherence to proper construction design criteria or discuss requirements that would be addressed during the development review process. For example, Policy 9 listed under Goal 6.1 states:

Continue to enforce as part of the development review process site-specific analysis of soils and other conditions related to the onsite impact of maximum credible seismic and geologic events.

City of Highland Surface Mining and Land Reclamation Regulations

Section 16.36 of the City's Municipal Code is authorized by the SMARA and follows regulations put forth within the SMARA. Proposed Actions/Projects activities shall fully comply with applicable regulations within the SMARA.

City of Redlands' Surface Mining Reclamation Act Regulation

The City's Municipal Code Chapter 18.266 is authorized by the SMARA and follows regulations put forth within the SMARA. Proposed Actions/Projects shall fully comply with applicable regulations within the SMARA.

City of Redlands 1995 General Plan

The *City of Redlands 1995 General Plan* does not contain any policies relative to geology and soils that would apply to the Plan Area.

B.4 HYDROLOGY REGULATIONS

B.4.1 FEDERAL

Clean Water Act

The Clean Water Act is the principal Federal law that addresses water quality. The primary objectives of the Clean Water Act are to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," and provide for the protection and propagation of fish and wildlife and provide for recreation in and on the water. The implementation plan for these objectives includes the regulation of pollutant discharges to surface water, financial assistance for public wastewater treatment systems, technology development, and non-point source pollution prevention programs. The Clean Water Act also establishes that states adopt water quality standards to protect public health or welfare and enhance the quality of water. The use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agriculture, industrial purposes, and navigation must also be considered by the states.

Section 402 of the Clean Water Act requires persons who discharge into waters of the United States to meet stringent standards under the National Pollutant Discharge Elimination System (NPDES). The NPDES program is administered by the EPA and by states with delegated programs, and applies to point source discharges, as well as to non-point sources such as surface runoff from a site during or following a storm. However, the NPDES program in Section 402 applies only to discharges into waters of the United States. Surface water quality is the responsibility of the State Water Resources Control Board (SWRCB) through its nine Regional Water Quality Control Boards (RWQCBs), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. Pursuant to requirements of the SWRCB, NPDES General Permit No. CAS000002 applies to statewide construction activities including clearing, grading, or excavation that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. In most cases, the NPDES permit program is administered by authorized states. In California, these programs are administered by the SWRCB and by nine RWQCBs that issue NPDES permits and enforce regulations within their respective regions. A requirement of the State General Construction Activity NPDES permit is the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify and implement Best Management Practices (BMPs) to reduce impacts to surface water from contaminated storm water discharges during the construction activities. Required elements of a SWPPP include the following:

- Site description addressing the elements and characteristics specific to the site;
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for waste handling and disposal;
- Implementation of approved local plans;

- Proposed post-construction control requirements; and
- Non-storm water management.

The NPDES Industrial Permit application outlines several requirements for the applicant to include information to be reviewed and accepted by the respective RWQCB Director. Required information for dischargers applying for NPDES Industrial Permits include:

- **Outfall location** – longitude and latitude to nearest 15 second and receiving water's name;
- **Line drawing** – showing flow rate and associated water balance from the effluent facility, to type of treatment system, to separate storm drain system (if applicable), and then flow rate to receiving waters;
- **Average flows and treatment** – description of process types, operation, or production area in which wastewater is contributed to the effluent treatment units;
- **Intermittent flows** – if discharges are intermittent, then frequency, duration and flow rate of each occurrence of discharge shall be described;
- **Maximum production** – if applicable, exhibit a reasonable measure of the actual production in units used in the applicable guideline;
- **Improvements** – identify applicable existing requirements or compliance schedules of abatement requirement along with a description of such; and
- **Effluent characteristics** – descriptions on specified pollutants to be discharged and analysis of samples for pollutants with approved analytical methods.

The Santa Ana RWQCB issued an area-wide Municipal Separate Storm Sewer Systems (MS4) permit (Order No. R8-2010-0036) to the San Bernardino County Flood Control District and 16 incorporated cities within San Bernardino County. San Bernardino and Riverside counties are within the upper Santa Ana watershed, separated from the lower Santa Ana watershed (Orange County) by Prado Dam, and have developed storm water programs and tools that account for county-specific factors such as storm water infrastructure, topography and geography.

Additionally, Section 303 of the Clean Water Act requires that the State adopt water quality standards for surface waters. Section 303(d) specifically requires the State to develop a list of impaired water bodies and subsequent numeric total maximum daily loads (TMDLs) for whichever constituents impair a particular water body. These constituents include inorganic and organic chemical compounds, metals, sediment, and biological agents. The EPA approved a revised list of impaired waters pursuant to Section 303(d) in July 2003. There are currently no water bodies within the Plan Area that are listed as impaired. Reach 5 of the Santa Ana River (as defined in the Santa Ana Region Basin Plan prepared by the RWQCB) extends from Seven Oaks Dam to San Bernardino, to the San Jacinto Fault (Bunker Hill Dike), which marks the downstream edge of the Bunker Hill groundwater basin. Reach 4 of the Santa Ana River includes the river from the Bunker Hill Dike down to Mission Boulevard Bridge in Riverside. Reach 4

which is located downstream of the Plan Area is listed as impaired for the following pollutants: pathogens and salinity/TDS/chlorides.

National Flood Insurance Program (NFIP)

The Federal Government has been actively involved in flood control since 1927, following the occurrence of major floods on the Mississippi River. Beginning with the Flood Control Act of 1936, Congress assigned the U.S. Army Corps of Engineers (USACE) the responsibility for flood control engineering works and later for floodplain information services. Flood control was provided through the construction of dams and reservoirs. Despite these programs and rapidly rising Federal expenditures for flood control, flood losses continued to rise. In 1968, Congress passed the National Flood Insurance Act, which created the NFIP. The Flood Disaster Protection Act of 1973, which amended the 1968 Act, required the purchase of flood insurance by property owners who were located in special flood hazard areas and were being assisted by Federal programs, or by Federally supervised, regulated, or insured agencies or institutions.

Executive Order 11988, Flood Plain Management

Executive Order 11988 requires the USACE to provide leadership and to take action to:

- Reduce the hazards and risk associated with floods;
- Minimize the impact of floods on human health, safety, and welfare; and
- Restore and preserve the natural and beneficial values of the current floodplain.

To comply with Executive Order 11988, the policy of the USACE is to develop projects that, to the extent possible, avoid or minimize adverse effects associated with use of the floodplain and that avoid development (or the inducement of development) in an existing floodplain unless there is no practicable alternative. Executive Order 11988 was modified by Executive Order 13690 on January 30, 2015. The Order requires Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The guidelines address an eight-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain.

B.4.2 STATE

California Water Code

The California Water Code Division 7 is the principal State law regulating water quality in California. Other California Codes contain water quality provisions requiring compliance as they relate to specific activities. The California Water Code, Division 7 (also known as the Porter-Cologne Act) establishes a program to protect water quality and beneficial uses of the State water resources and includes both ground and surface waters. The SWRCB and the RWQCB are the principal State agencies responsible for control of water quality. The SWRCB and the RWQCB establish waste discharge requirements, water

quality control and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. They also prevent waste and unreasonable use of water and adjudicate water rights.

California Code of Regulations

The California Code of Regulations contains administrative procedures for the State and RWQCBs in Title 23 and for water quality for domestic uses, wastewater reclamation, and hazardous waste management in Title 22. The California Department of Fish and Wildlife (CDFW), through provisions of the California Fish and Game Code (Sections 1601 through 1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. The presence of a channel bed and banks, and at least an intermittent flow of water, define streams (and rivers). The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

Cobey-Alquist Flood Plain Management Act

The Cobey-Alquist Flood Plain Management Act states that a large portion of land resources of the State of California is subject to recurrent flooding. The public interest necessitates sound development of land use, as land is a limited, valuable, and irreplaceable resource, and the floodplains of the State are a land resource to be developed in a manner that, in conjunction with economically justified structural measures for flood control, will result in prevention of loss of life and of economic loss caused by excessive flooding. The primary responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management rests with local government. It is policy of the State of California to encourage local government to plan land use regulations to accomplish floodplain management and to provide State assistance and guidance.

California Toxics Rule

The California Toxics Rule, issued by the EPA through the Clean Water Act, establishes acute and chronic surface water quality standards for water bodies with human health or aquatic life designated uses.

The California Toxics Rule states:

> *This final rule promulgates: numeric aquatic life criteria for 23 priority toxic pollutants; numeric human health criteria for 57 priority toxic pollutants; and a compliance schedule provision which authorizes the State to issue schedules of compliance for new or revised National Pollutant Discharge Elimination System permit limits based on the Federal criteria when certain conditions are met.*

The Clean Water Act requires numeric water quality criteria for priority toxic pollutants to be adopted by states in order to ensure designated uses for water are maintained. The State's water quality control plans were overturned in 1994 by the State court in which criteria for priority toxic pollutants were a component. Thus, the California Toxics Rule was created in 1994 and was a result of the State in void of plans for water quality criteria for priority toxic pollutants. Acute criteria represent the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without

deleterious effects; chronic criteria equal the highest concentration to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.

Surface Mining and Reclamation Act (SMARA) of 1975

The California Department of Conservation, Division of Mines and Geology, is in charge of mandating the regulations pursuant to SMARA. Provisions include specific performance standards for protection of surface water and groundwater. General provisions include, but are not limited to the following: mining activities shall be conducted with respect to protection of surface and groundwater from siltation and pollutants, which may diminish water quality and downstream beneficial uses of the water in accordance with the Porter-Cologne Water Quality Control Act; the quality of water, recharge potential, and storage capacity of groundwater aquifers which are the source of water for domestic, agricultural, or other uses dependent on the water, shall not be diminished, except as allowed in the approved reclamation plan; and/or extraction of sand and gravel from river channels shall be regulated in order to prevent lowering of groundwater levels. Cemex and Robertson's have implemented and follow their respective mine and reclamation plans for the Upper Santa Ana River Wash aggregate lands to ensure compliance with all applicable SMARA regulations.

B.4.3 REGIONAL

The Santa Ana RWQCB regulates surface and groundwater quality through adoption of water quality plans and standards, and issuance of water quality permits and waivers in the Santa Ana River watershed. Each of the nine RWQCBs adopts a Water Quality Control Plan, or Basin Plan, which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. Each RWQCB is to set water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses. The Plan Area is located in the Santa Ana River watershed and covered under the Water Quality Control Plan for the Santa Ana River Basin (8), 1995, as amended.

Upper Santa Ana River Watershed Integrated Regional Water Management Plan (IRWMP) January 2015

The Upper Santa Ana River Watershed (USARW) has a long-standing history of collaboration by water resource management agencies to manage the watershed's unique water supply, water quality, flood, and habitat challenges. In 2005, this collaboration allowed the agencies to successfully form the USARW Integrated Regional Water Management Region (IRWM Region or Region) and develop an integrated plan for managing water resources in the Region. The USARW Integrated Regional Water Management Plan (IRWMP) is the result of this effort. The 2014 IRWMP serves as an update to the IRWMP developed in 2007, and incorporates new information describing the Region, updates goals and objectives, re-evaluates strategies, and develops a process for future implementation of the IRWMP. Stemming from this effort, the agencies in the Region created the Basin Technical Advisory Committee (BTAC) to facilitate implementation of the IRWMP. Development of the BTAC has strengthened dialogue and

cooperation between agencies and has improved regional planning. The BTAC, which serves as the Regional Water Management Group, is open to all agencies and stakeholders who desire to participate in the IRWMP Region's planning and management efforts.

The agencies in the IRWMP Region and the larger SAR watershed have a long history of working together to solve water resources related issues. These agencies recognize IRWM planning as another opportunity to work together to manage water resources on a regional level. The organizational structure of the Region's governance reflects this long history of openly working together. The open nature of the Region's governance structure allows for effective inter- and intra-regional collaboration, and a range of stakeholders that help to provide a balance in interest groups.

One Water One Watershed (OWOW) Integrated Regional Water Management Plan (IRWMP)
The Santa Ana Watershed Project Authority (SAWPA) is a special district Joint Powers Authority that carries out functions of assistance to its member agencies. Like the USARW IRWMP mentioned above, the OWOW IRWMP is a collaborative water resource planning mechanism that carries out plans and functions useful to its member agencies in the region. In 2014, SAWPA updated its 2010 OWOW IRWMP and brought a new focus to provide sustainable water resource planning and more consideration on the environment and the communities downstream. This was a change from a previous focus on providing "high-quality water at the lowest cost possible."

The OWOW IRWMP is facilitated by SAWPA whereas the Steering Committee leads the OWOW IRWMP and develops goals, strategies and the decision-making process for the OWOW IRWMP. The Steering Committee is supported by stakeholders and technical experts that are organized into ten ranging disciplines, including water quality, climate change, and environmental justice.

B.4.4 LOCAL

County of San Bernardino General Plan
Circulation and Infrastructure Element

Goal Cl 11 The County will coordinate and cooperate with governmental agencies at all levels to ensure safe, reliable, and high quality water supply for all residents and ensure prevention of surface and ground water pollution.

Policy Cl 11.1 *Apply Federal and State water quality standards for surface and groundwater and wastewater discharge requirements in the review of development proposals that relate to type, location and size of the proposed project to safeguard public health.*

Policy Cl 11.12 *Prior to approval of new development, ensure that adequate and reliable water supplies and conveyance systems will be available to support the development, consistent with coordination between land use planning and water system planning.*

Programs:

1. Prohibit nonessential water uses during declared emergencies in the directly affected water supply area, with coordination between the County Division of Environmental Health Services (DEHS) of the Department of Public Health and responsible authorities.
2. Cease the acceptance of land development applications in the directly affected water supply area during declared emergencies.
3. Consider the effect of development proposals and whether or not they should include the phased construction of water production and distribution systems. Hydrological studies may be required as appropriate.
4. The County DEHS will continue to show that adequate and reliable water supply is verified in conformance with responsibilities assigned by state law and the Cooperative Operating Agreement between the County DEHS and State Department of Health.
5. Utilize the Cooperative Operating Agreement between the State Department of Health and the County DEHS to monitor and provide information to the responsible authorities on a continuous basis, compile annual reports on the capacity and condition of distribution systems, and develop contingency plans for water resource management.
6. Develop a systematic, ongoing assessment of regional and local water supply needs and capabilities to serve planned land uses as defined in the General Plan.
7. Monitor future development to ensure that sufficient local water supply or alternative imported water supplies can be provided.
8. Cooperate with Special Districts (board-governed and self-governed), independent water agencies and the cities, as applicable to a particular development, to assist in the planning and construction of new water supply and distribution facilities on the basis of the cities and County's adopted growth forecasts.
9. Encourage new development to locate in those areas already served or capable of being served by an existing approved domestic water supply system.

Goal CI 13 The County will minimize impacts to stormwater quality in a manner that contributes to improvement of water quality and enhances environmental quality.

Policy CI 13.1 *Utilize site design, source control, and treatment control best management practices (BMP's) on applicable projects, to achieve compliance with the County Municipal Stormwater NPDES Permit.*

Policy CI 13.2 *Promote the implementation of low impact design principles to help control the quantity and improve the quality of urban runoff. These principles include:*

- Minimize changes in hydrology and pollutant loading; ensure that post development runoff rates and velocities from a site do not adversely impact downstream erosion, and stream habitat; minimize the quantity of stormwater directed to impermeable surfaces; and maximize percolation of stormwater into the ground where appropriate.
- Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels;
- Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;
- Establish development guidelines for areas particularly susceptible to erosion and sediment loss;
- Require incorporation of structural and non-structural BMPs to mitigate projected increases in pollutant loads and flows.

City of Highland General Plan

Public Services and Facilities Element

Goal 4.4 Maintain an effective drainage system that protects people and property from overflows and flood disasters.

Policy 1 *Continue to improve any deficiencies in the City's drainage system and address the long-term needs associated with future development to minimize flood damage and adequately direct rainfall and subsequent runoff.*

Policy 2 *Minimize the impact of development on the City's drainage system by reducing the amount of impervious surface associated with new development and encouraging site design features or landscaping that capture runoff. Encourage on-site retention of stormwater and compliance with requirements of the National Pollutant Discharge Elimination System.*

Conservation and Open Space Element

Goal 5.3 Continue to work with the East Valley Water District to meet the current and future water needs of its residents.

Policy 1 *To the extent possible, preserve floodplain and aquifer recharge areas in their natural condition.*

Policy 2 *Continue to coordinate water resource policy with the East Valley Water District and other relevant agencies.*

Goal 5.4 Continue to preserve and enhance the water quality and natural habitat of its waterways.

Policy 1 *In coordination with the East Valley Water District and the County of San Bernardino, continue to maintain and improve the hydrology and natural quality of the watersheds of Bledsoe Creek, Plunge Creek, Elder Gulch, City Creek, Sand Creek, Warm Creek, Old City Creek Overflow Channel, Bald Ridge Creek, Santa Ana Canyon and the Santa Ana River.*

Policy 3 *Cooperate with other agencies and participate in multi-jurisdictional efforts to improve watershed management practices.*

Policy 4 *Reevaluate the effect of engineering practices and specifications relative to storm channel design to avoid their appearance as "concrete ditches."*

Goal 5.5 Continue to reduce urban runoff.

Policy 1 *Use water quality best management practices (BMPs) in land planning, project-level site planning and procedural requirements as part of the Storm Water Quality Management Plan.*

Policy 3 *Require site design practices that capture and channel specified percentages of rainfall and other runoff to permeable surfaces.*

Policy 5 *Develop an informational brochure for residents and developers summarizing best management practices for reducing urban runoff.*

Goal 5.6 Monitor and strengthen Highland's water conservation practices.

Policy 1 *Continue to inspect, maintain and enhance City facilities for water conservation purposes.*

Policy 2 *Continue interdepartmental coordination of water use and conservation policies to improve City-facility water use.*

Goal 5.9 Manage mineral resources and extraction policies for short and long term safety, economic and land use compatibility considerations.

Policy 3 *Develop criteria for location and operation of mineral processing to minimize adverse impacts to the environment, watersheds, wildlife, aesthetic resources, public health and safety, and adjacent land uses.*

Policy 5 *Require that mining plans include, but not be limited to, the following:*

- Effects on terrain, natural and man-made slopes, permeability of soil, groundwater quality;
- Protection of water quality through erosion, runoff, and sedimentation control.

Public Health and Safety Element

Goal 6.3 Reduce the risk to life and minimize physical injury, property damage, and public health hazards from the effects of a 100-year storm or 500-year storm and associated flooding.

Policy 6 *Continue to work with the San Bernardino County Flood Control District and the United States Army Corps of Engineers to receive and implement updated flood control measures and information.*

Policy 7 *Utilize flood control methods that are consistent with Regional Water Quality Control Board policies and Best Management Practices (BMPs).*

City of Redlands General Plan

Open Space and Conservation Element

7.22a Minimize dependence on imported water by increasing entitlement in local surface sources, using wise groundwater management practices, conservation measures, and the use of reclaimed wastewater and nonpotable water for irrigation of landscaping and agriculture, where feasible.

7.22b The City of Redlands overlies a portion of the Bunker Hill Groundwater Basin. This Basin contains in excess of 3 million acre feet of water. This local supply source must be cleaned up, used to its full potential, and protected from outside interests. This requires the cooperation of all agencies within the Basin.

7.22c The City of Redlands recognizes that the water sources that constitute the water supply of the City of Redlands are a limited and renewable resource subject to increasing demands; that the conservation and efficient use of urban water supplies are of statewide concern; but that planning for that use and the implementation of those plans can best be accomplished at the local level.

B.5 BIOLOGICAL REGULATIONS

B.5.1 FEDERAL

Federal Endangered Species Act

Section 7

Section 7 of the FESA requires Federal agencies to ensure that their actions, including issuing permits, are not likely to jeopardize the continued existence of listed species or destroy or adversely modify listed species' Critical Habitat (CH). "Jeopardize the continued existence of…" pursuant to 50 CFR 402.02,

means to engage in an action that reasonably would be expected, directly, or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. Issuance of an Incidental Take Permit (ITP) under Section 10(a)(1)(B) of the FESA by the Service is a Federal action subject to Section 7 of the Act. As a Federal agency issuing a discretionary permit, the Service is required to consult with itself (i.e., conduct an internal consultation). Approval of the Wash Plan HCP and a Section 10(a)(1)(B) permit application initiates an internal Section 7 consultation process within the Service. BLM is also required to engage in Section 7 consultation on its actions if they may affect listed species or designated critical habitat.

Section 7 consultation requires analyses of direct and indirect effects on designated Critical Habitat (CH), listed plant and animal species, and analyses of cumulative effects on listed species. Cumulative effects are effects of future State, Tribal, local or private actions, not involving Federal activities, that are reasonably certain to occur in the action area. The action area is defined by the influence of direct and indirect impacts of Covered Activities. The action area may or may not be solely contained within the Wash Plan HCP boundary.

For the HCP, the USFWS will conduct an internal Section 7 consultation and prepare a Biological Opinion (BO). Take of federally listed species on BLM land will be authorized though a separate but related consultation between BLM and the USFWS under Section 7 of the FESA.

Section 9

Section 9 of the FESA and Federal regulations pursuant to Section 4(d) of FESA prohibit the incidental take of endangered and threatened species, respectively, without special exemption. "*Take*" or "*taking*" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." "*Take*" under FESA does not apply to plant species, and incidental take of plant species is not prohibited under FESA; however, two plant species are included as Covered Species in recognition of the conservation measures provided for them under the HCP and will receive "No Surprises" regulatory assurances under the federal ITP. Harm is defined in the regulations at 50 CFR 17.3 as "an act which actually kills or injures wildlife [and] may include significant habitat modification."

Pursuant to Section 11(a) and (b) of FESA, any person who knowingly violates this Section 9 of the FESA or any permit, certificate, or regulation related to Section 9, may be subject to civil and criminal penalties.

Section 10

Individuals and other entities, including State and local agencies, proposing an action that is expected to result in the *incidental take* of federally listed wildlife species are encouraged to apply for an ITP under Section 10(a)(1)(B) of the FESA to be in compliance with the law. Such permits are issued by the USFWS when incidental take is not the purpose of and is incidental to otherwise legal activities. An application for an ITP must be accompanied by an HCP. The regulatory standard under Section 10(a)(2)(B) of the FESA is that the HCP must minimize and mitigate the impacts of the incidental taking to the maximum

extent practicable. Additionally, under Section 10(a)(2)(B), the incidental taking must not appreciably reduce the likelihood of the survival and recovery of the species in the wild, and adequate funding to implement the HCP must be ensured.

Section 10(a)(1)(B) Process – Habitat Conservation Plan requirements and Guidelines

The Section 10(a)(1)(B) process for obtaining and ITP has three primary stages: (1) the HCP development stage; (2) the formal permit processing stage; and (3) the post-issuance stage.

During the HCP development stage, the project applicant prepares a plan that integrates the Proposed Action(s) with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- Impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- Measures that will be implemented to monitor, minimize, and mitigate impacts; funding that will be made available to undertake such measures; and procedures to deal with unforeseen circumstances;
- Alternative actions considered to the proposed incidental taking that the applicant considered and the reasons why such alternatives were not being utilized; and
- Additional measures the Service may require as necessary or appropriate for purposes of the HCP.

The HCP development stage concludes and the permit processing stage begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of 1) an HCP, 2) an Implementing Agreement (IA), if appropriate, 3) a permit application, and 4) a $100 fee from the applicant. The Service must publish a Notice of Availability of the HCP package in the Federal Register to allow for public comment. In processing the application, the USFWS also prepares an Intra-Service Section 7 BO and Set of Findings, which evaluate the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement serves as the USFWS record of compliance with the National Environmental Policy Act, which is also made available for a 30-day, 60-day, or 90-day public comment period, as appropriate. An IA is often developed for more complicated HCPs. A Section 10(a)(1)(B) ITP is granted upon a determination by USFWS that all requirements for permit issuance have been met. Statutory criteria for issuance of the permit specify that:

- The taking will be incidental;
- The impacts of the incidental take will be minimized and mitigated to the maximum extent practicable;
- Adequate funding for the HCP and procedures to handle unforeseen circumstances will be provided;

- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- The applicant will provide additional measures that the Service requires as being necessary or appropriate; and
- The Service has received assurances, as may be required, that the HCP will be implemented.

During the post-issuance stage, the Permittees and other Participating Entities implement the HCP, and the USFWS monitors the Permittee's compliance with the HCP as well as the long-term progress and success of the HCP. The public is notified of the permit issuance by means of a Federal Register notice.

The required key elements to be included in the HCP document include the following:

1. Area, time-frame, species, and activities covered by the plan and permit;
2. An estimate of the incidental take and associated impacts;
3. A conservation plan (with all of the items below);
    a. Biological goals and objectives,
    b. Measures to avoid, minimize, mitigate, and monitor incidental take and its effects,
    c. Implementation and effectiveness of monitoring,
    d. Adaptive management provisions,
    e. Measures for changed and unforeseen circumstances,
    f. Provisions for amending the plan and permit,
    g. Funding provisions and assurances, and
    h. Alternatives to the taking of listed species and the reasons why they are not selected.

National Environmental Policy Act (NEPA)

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case deciding whether to issue an ITP); and to provide a mechanism for public participation. NEPA serves as an analytical tool on direct, indirect, and cumulative impacts of the Proposed Action alternatives to help the

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

Clean Water Act Section 404

Areas meeting the regulatory definition of "Waters of the United States" are subject to the regulatory jurisdiction of the U. S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA) (1972). The USACE, under provisions of Section 404 of the CWA, has jurisdiction over "Waters of the United States" (jurisdictional waters). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as Waters of the U.S., tributaries of waters otherwise defined as Waters of the U. S., the territorial seas, and wetlands adjacent to Waters of the U.S. (33 CFR, Part 328, Section 328.3).

Areas generally not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and, under certain circumstances, water-filled depressions created in dry land incidental to construction activity (51 Federal Register 41217, November 13, 1986).

San Bernardino Kangaroo Rat Critical Habitat

The USFWS designated critical habitat (CH) for the San Bernardino kangaroo rat (SBKR) has been delineated within the Plan Area (Figure 3.4-1, *SBKR Critical Habitat*). With the exception of the Seven Oaks Dam borrow pit area, the entire Plan Area is within CH, as well as land outside the Plan Area within the Santa Ana River, and Plunge Creek. This CH was occupied at the time of listing, is currently occupied, and was determined by USFWS to contain all of the features essential to the conservation of SBKR.

Federal Land Policy and Management Act (FLPMA)

The Federal Land Policy and Management Act was enacted in 1976 in the United States Code under Title 43. The FLPMA repealed the pre-existing Homestead Acts and declared that public lands would remain in public ownership. Under the FLPMA, the National Forest Service, National Park Service, and the BLM are commissioned to allow a variety of uses on their managed lands, while simultaneously seeking to preserve natural resources within their jurisdictions. This multiple-use approach is defined in the FLPMA as "management of the public lands and their various resources values so that they are utilized in the combination that will best meet the present and future needs of the American people." FLPMA addresses topics such as land use planning, land acquisition, fees and payments, administration of Federal land, range management, and rights-of-way on Federal land.

B.5.2 STATE

California Environmental Quality Act (CEQA)

CEQA is similar to but more extensive than NEPA in that it requires that significant environmental impacts of proposed projects be reduced to a less than significant level through adoption of feasible avoidance, minimization, or mitigation measures unless overriding considerations are identified and

documented. CDFW's action on a 2081 Permit is subject to CEQA, and will be addressed by the NEPA/CEQA environmental review process for the HCP.

California Fish and Game Code

State-listed threatened and endangered species are protected under provisions of the California Endangered Species Act (CESA). Activities that may result in take of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"), incidental to otherwise lawful activity are regulated by California Department of Fish and Wildlife (CDFW). Habitat degradation or modification is not included in the definition of incidental take under CESA. Nonetheless, CDFW has interpreted "incidental take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

CDFW and USFWS Species of Concern

The CDFW has also produced a Species of Special Concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have formal statutory protection. At the Federal level, USFWS also uses the label Species of Concern, an informal term that refers to species which might be in need of concentrated conservation actions.

As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

California Department of Fish and Game Code Sections 3503, 3503.5, 3511, and 3513

The CDFW administers the California Fish and Game Code. There are particular sections of the Code that are applicable to natural resource management. For example, section 3503 of the Code (Bird Nests) makes it "unlawful to take, possess or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Therefore, CDFW may issue permits authorizing incidental take pursuant to CESA. The HCP contains conservation measures to avoid such take to the maximum extent practicable in order to comply with Section 3503. However, some take of covered birds still may occur; the 2081 permit will serve as the state authorization for take of nests or eggs of covered birds pursuant to Section 3503. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the

Code which prohibits take, possess, or destroy any birds of prey or their nest or eggs, "except as otherwise as provided by this code or any regulation adopted pursuant thereto."

In the 1960s, before the CESA was enacted, the California Legislature identified species for specific protection under the California Fish and Game Code. These fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.[6] Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These protections state that "…no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird], [mammal], [reptile or amphibian], [fish]." No fully protected species are covered by the HCP, and CDFW cannot issue a 2081 permit for fully protected species. Fully protected species expected to occur in the Plan Area include, but are not restricted to, those listed below.

- White-tailed kite (*Elanus leucurus*)
- Golden eagle (Aquila chrysaetos)
- Bald eagle (Haliaeetus leucocephalus)

Fully Protected Species are not Covered Species under the HCP. The HCP does not seek a permit for Fully Protected Species because incidental take is not anticipated in association with Covered Activities or overall HCP implementation.

California Native Plant Society Rare, Threatened or Endangered Plant Ranking System

Vascular plants considered as rare, threatened, or endangered by CNPS (2018), but which have no designated status under State or Federal endangered species legislation, have been given conservation ranking codes (California Rare Plant Rank; CRPR) that are defined as follows:

- CRPR 1B. Plants rare, threatened, or endangered in California and elsewhere.
- CRPR 2. Plants rare, threatened, or endangered in California, but more common elsewhere.
- CRPR 3. Plants about which we need more information - a review list CRPR.
- CRPR 4. Plants of limited distribution - a watch list.

California Department of Fish and Game Code Section 1600 ET SEQ.

The California Fish and Game Code establishes CDFW jurisdiction over alterations to lakes and streams in Sections 1601-1603. Also known as Lake or Streambed Alteration Agreement, this jurisdiction

[6] CDFW can issue permits authorizing the incidental take of fully protected species under the CESA, so long as any incidental take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan (NCCP). The Conservation District is not seeking an NCCP Permit.

generally extends to the hinge points on the top-of-bank of opposing channel banks and/or the full lateral extent of riparian vegetation beyond the top-of-bank. Definitions used in the identification of the CDFW jurisdiction are contained in various documents including the Fish and Game Code, Title 14 of the California Code of Regulations (Cal. Code Regs., tit. 14 Section 699.5), and, "*A Field Guide to Lake and Streambed Alteration Agreements"*, Sections 1600-1607, California Fish and Game Code (1994). These areas generally include rivers, streams, creeks, or lakes. In addition, canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

Activities that result in the diversion or obstruction of the natural flow of a stream, or which substantially change its bed, channel or bank, or which utilize any materials (including vegetation) from the streambed, may require that a Project Applicant enter into a Streambed Alteration Agreement with CDFW.

B.5.3 LOCAL

City of Highland General Plan

The City of Highland has set forth goals and policies throughout its *General Plan* to guide future change and development within the City.

Conservation and Open Space Element

Goal 5.5 Maintain, protect and preserve biologically significant habitats, including riparian areas, woodlands and other areas of natural significance.

Policy 1 *Continue participation, in cooperation with relevant agencies and jurisdictions, in the preparation, planning and implementation of Habitat Conservation Plans and preservation areas.*

Policy 2 *Ensure that all development, including roads proposed adjacent to riparian and other biologically sensitive habitat, avoid significant impacts to such areas.*

Policy 3 *Require that new development proposed in such locations be designed to:*

Minimize or eliminate the potential for unauthorized entry into the sensitive area;

Create buffer areas adjacent to the sensitive area, incorporating the most passive uses of the adjacent property;

Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;

Provide wildlife movement linkages to water sources and other habitat areas;

Provide native vegetation that can be used by wildlife for cover along roadsides; and

Protect wildlife crossings and corridors.

Policy 4 *Design lighting systems so as to avoid intrusion of night lighting into the sensitive area.*

Policy 5 *As part of the environmental review process, require that projects determined to be located within a biologically sensitive area prepare documentation on the impacts of such development along with mitigation and mitigation monitoring programs.*

Policy 6 *Ensure that required biological assessments are conducted in cooperation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.*

Policy 7 *Within existing natural and naturalized areas, preserve existing mature trees and vegetation.*

Policy 9 *Enforce requirements that healthy, mature individual specimen trees be preserved in place, as per the City Municipal Code.*

Policy 10 *Require builders and developers to prune, treat and maintain existing trees and plant new ones within future rights-of-way, public lands, common areas and development projects.*

Policy 11 *Enforce the tree preservation ordinance as a means of managing the preservation of trees and their removal, where necessary.*

Policy 12 *Require replacement at a 2:1 ratio of all mature trees (those with 24-inch diameters or greater measured 4½ feet above the ground) that are removed.*

City of Redlands General Plan

The City of Redlands has set forth goals and policies throughout its *General Plan* to guide future change and development within the City.

Open Space Element – Guiding Policies

Policy 7.21a *Minimize disruption of wildlife and valued habitat throughout the Planning Area.*

Policy 7.21b *Preserve, protect, and enhance natural communities of special status.*

Policy 7.21c *Recognize the links between biotic resources in discrete locations throughout Redlands.*

Policy 7.21d *Preserve, protect, and enhance wildlife corridors connecting the San Bernardino National Forest, Santa Ana River Wash, Crafton Hills, San Timoteo/Live Oak Canyons, the Badlands, and other open space areas.*

Policy 7.21e *Preserve, restore, protect, and enhance riparian corridors throughout the Planning Area.*

Open Space Element – Implementing Policies

Policy 7.21h *Require a biological assessment of any proposed project site where species or the habitat of species defined as sensitive status by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service might be present.*

Policy 7.21i *Require that proposed projects adjacent to, surrounding, or containing wetlands, riparian corridors, or wildlife corridors be subject to a site-specific analysis which will determine the appropriate size and configuration of a buffer zone.*

Policy 7.21q *Support the U.S. Army Corps of Engineers' efforts to establish a preserve for the Santa Ana River woolly star as mitigation for habitat anticipated to be lost as a result of construction of the Seven Oaks Dam, and work with concerned agencies and organizations to preserve the species in the Planning Area.*

Policy 7.21r *Work with concerned agencies and organizations to preserve the Slender-horned Spineflower.*

Policy 7.21s *Coordinate aggregate resource extraction with habitat preservation and protection of plant and animal species.*

County of San Bernardino General Plan

The Conservation Element of the *County of San Bernardino General Plan* includes concepts and guidelines to manage, preserve, and utilize natural resources.

Goal CO 1 The County will maintain to the greatest extent possible natural resources that contribute to the quality of life within the County.

Policy CO 1.1 *The County will coordinate with appropriate agencies and interested groups to develop, fund and implement programs to maintain the County's natural resources base.*

Programs:

1. The County shall coordinate with local interest groups, State, and Federal agencies, prior to the approval of land use conversion to ensure adequate protections are in place to preserve habitat for resident and migratory species that may depend on aquatic, riparian, and/or unique upland habitat within the County. The Overlay will be designed to identify the known distribution of rare, threatened and endangered species and the habitats they rely upon.
2. The County will coordinate with appropriate agencies (e.g., the Service, California Natural Diversity Database[7], BLM, National Park Service, California Native Plant

[7] The California Natural Diversity Database is a database created and maintained by the California Department of Fish and Wildlife.

Society, etc.) and interested groups (e.g., Audubon Society, San Bernardino County Museum) to develop, fund and implement a geographic information and web-based database system for identifying important biological resources and natural open space areas within the Valley, Mountain, and Desert Regions of the County. The implementation of the aforementioned geographic information and database system is a commitment to update and enhance the Biological and Open Space Overlays within a specific area prior to approval of any subsequent development plans. This program includes the maintenance of the web-based database with completed biological opinions that will contribute to the evaluation of cumulative impacts from previously approved projects. Furthermore, the County shall quarterly fund the San Bernardino County Museum (Museum) to review and update the Biological Resources and Open Space Overlays to facilitate an accurate and current spatial data based on local, state, and federally protected species and their habitats.

Goal CO 2 The County will maintain and enhance biological diversity and healthy ecosystems throughout the County.

Policy CO 2.1 *The County will coordinate with State and Federal agencies and departments to ensure that their programs to preserve rare and endangered species and protect areas of special habitat value, as well as conserve populations and habitats of commonly occurring species, are reflected in reviews and approvals of development programs.*

Programs:

1. All County Land Use Map changes and discretionary land use proposals, for areas within the Biotic Resource Overlay or Open Space Mapping on the Resources Overlay, shall be accompanied by a report that identifies all biotic resources located on the site and those on adjacent parcels, which could be adversely affected by the proposal. The report shall outline mitigation measures designed to eliminate or reduce impacts to identified resources. An appropriate expert such as a qualified biologist, botanist, herpetologist or other professional “life scientist” shall prepare the report.

2. The County shall require the conditions of approval of any land use application to incorporate the County’s identified mitigation measures in addition to those that may be required by State or Federal agencies to protect and preserve the habitats of the identified species. This measure is implemented through the land use regulations of the County Development Code and compliance with the CEQA, CESA, ESA and related environmental laws and regulations.

3. The County shall coordinate with local, State, and Federal agencies to create a specific and detailed wildlife corridor map for the County of San Bernardino. The map will identify movement corridors and refuge area for large mammal, migratory

species, and desert species dependent on transitory resource based on rainfall. The wildlife corridor and refuge area map will be used for preparation of biological assessments prior to permitting land use conversion within County jurisdictional areas. The mapping will be included in the Open Space and Biological Resource Overlays.

4. The County shall coordinate with State and Federal agencies and departments to ensure that their programs to preserve rare and endangered species and protect areas of special habitat value, as well as conserve populations and habitats of commonly occurring species, are reflected in reviews and approvals of development programs. This coordination shall be accomplished by notification of development applications and through distributed CEQA documents.

5. The San Bernardino County Museum (Museum) will review and update the Biological Resources Overlay and Open Space Overlay to provide accurate and current spatial data based on rare, threatened, endangered species and the habitats that they rely on. An updated database that integrates CNDDB data with other occurrence data from the Museum and other sources such as the Service, CDFW, USFS, BLM, NPS[8], California Native Plant Society to identify areas where biological surveys are required. Overlay maps will identify movement corridors and refuge area for large mammal, migratory species, and desert species dependent on transitory resource based on rainfall. South Coast Wildlands Corridor Project and other data from the resource agencies will be consulted as an information reference base. The wildlife corridor and refuge area map will be used for preparation of biological assessments prior to permitting land use conversion within County jurisdictional areas. The mapping will be included in the Open Space and Biological Resource Overlays. As a Federal or State agency revises its database of endangered, threatened, or sensitive species of flora and fauna, the County may publish new Biotic Resources Overlay Maps to reflect new species or a revised distribution of the species already included on the maps without requiring a General Plan Amendment to be adopted by the Board of Supervisors.

Policy CO 2.2 *Provide a balanced approach to resource protection and recreational use of the natural environment.*

Policy CO 2.3 *In addition to conditions of approval that may be required for specific future development proposals, the County shall establish long-term comprehensive plans for the County's role in the protection of native species because preservation and conservation of biological resources are Statewide, Regional, and local issues that directly affect development rights. The conditions of approval of any land use application approved with the BR overlay district shall incorporate the mitigation measures*

[8] NPS refers to the National Park Service.

identified in the report required by Section 82.13.030 (Application Requirements), to protect and preserve the habitats of the identified plants and/or animals.

Programs:

1. Prepare or participate in Habitat Conservation Plans when there is sufficient support of such plans, and adequate funding for their preparation, and a strong likelihood of success.
2. Establish a land ownership transfer program.
3. Establish a land conservation easement program.
4. The County shall work with local communities to improve trash collection, recycling programs, and reduce illegal dumping in unincorporated areas. The County shall sponsor mitigation efforts that minimize landfill growth, reduce trash haul routes that spread litter and increase predator species numbers (i.e., raven or crow in the Desert Region), and reduce illegal dumping of large bulk items (e.g., furniture, appliances, tires, batteries).
5. The County shall participate with Regional plans to improve water quality and habitat that are downstream but may be beyond County limits. The County shall coordinate with Regional plans to minimize degradation of water quality within the County that affects downstream resources and habitats.

Policy CO 2.4 *All discretionary approvals requiring mitigation measures for impacts to biological resources will include the condition that the mitigation measures be monitored and modified, if necessary, unless a finding is made that such monitoring is not feasible.*

Programs:

1. The monitoring program will be designed to determine whether the mitigation measures were implemented and effective.
2. The monitoring program will be funded by the Project Applicant to ensure compliance with and effectiveness of conditions of approval.
3. The County shall not permit land conversion until adequate mitigation is provided to reduce impacts to less than significant in cases where a Mitigated Negative Declaration is used for CEQA compliance. Direct and growth inducing impacts determined to cause a significant adverse effect on rare, threatened or endangered desert species shall be mitigated by avoidance, habitat restoration or compensated by off-site mitigation and evaluated through a Project-level EIR. Mitigation will be required for adverse impacts to critical areas around residential land conversion when it can be shown that the indirect effects of pets, associate human activity and other encroachments into sensitive habitats will be significant.

4. The County shall require all new roadways, roadway expansion, and utility installation within the wildlife corridors identified in the Open Space and Biological Resource Overlays to provide suitable wildlife crossings for affected wildlife. Design will include measures to reduce or prevent habitat fragmentation and provide wildlife a means of safe egress through respective foraging and breeding habitats. A qualified biologist will assist with the design and implementation of wildlife crossing including culverts, overcrossings, undercrossings, and fencing.

County of San Bernardino Development Code

Chapter 82.11, Biotic Resources (BR) Overlay, of the County of San Bernardino Development Code, includes regulations pertaining to the protection and conservation of beneficial rare and endangered plants and animal resources and their habitats, which have been identified within unincorporated areas of the county. The Overlay may be applied to areas that have been identified by a County, State or Federal agency as habitat for species of unique, rare, threatened or endangered plants or animals or their habitats as listed in the *General Plan*. The Chapter outlines application requirements for a project proposed within a BR Overlay, including a biotic resources report.

B.6 LAND USE REGULATIONS

B.6.1 FEDERAL

The Federal Land Policy and Management Act (FLPMA) of 1976

The FLPMA governs the way in which the BLM manages public lands. In the FLPMA, Congress recognized the value of the public lands, declaring that these lands would remain in public ownership. Congress used the term "multiple use" management, defined as "management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." The BLM is granted the ability to determine the distribution and use of public lands and is responsible for maintaining the land. Section 202 of the FLPMA outlines the development and revisions to land use plans for the use of public lands.

B.6.2 STATE

California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, sections 65000 - 66499.58. Under State planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

State Aeronautics Act

The State Aeronautics Act of the California Public Utilities Code establishes statewide requirements for the conduct of airport land use compatibility planning and requires every county to create an Airport Land Use Commission (ALUC) or other alternative. Additionally, these Sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

B.6.3 LOCAL

Airport Land Use Compatibility Plans

The San Bernardino Airport Land Use Commission reviews projects proposed in and around the Redlands Municipal Airport. The Redlands Municipal Airport Land Use Compatibility Plan was adopted in 1997 and revised in 2003. The San Bernardino International Airport is located in the southeastern portion of the City of San Bernardino and is managed the by the San Bernardino International Airport Authority (SBIAA), which is comprised of representatives from the cities of San Bernardino, Highland, Loma Linda, Colton, and San Bernardino County. San Bernardino County opted for an alternative to the ALUC and delegated responsibility to prepare an Airport Land Use Compatibility Plan with each airport proprietor.

County of San Bernardino General Plan

Land Use Element

Goal LU 1 The County will have a compatible and harmonious arrangement of land uses by providing a type and mix of functionally well-integrated land uses that are fiscally viable and meet general social and economic needs of the residents.

Policy LU 1.2 *The design and siting of new development will meet locational and development standards to ensure compatibility of the new development with adjacent land uses and community character.*

Programs:

1. Discourage linear commercial development of shallow depth along streets or highways when it can be shown that such development impairs traffic flow or detracts from the aesthetic enjoyment of the surroundings, or if it can be demonstrated that equally effective services can be provided in an alternative configuration.
2. Establish special performance standards for industrial uses to control industrial odors, air pollution, noise pollution, vibrations, dust, hours of operation, exterior storage, and other nuisances.

Goal LU 8 Beneficial facilities, such as schools, parks, medical facilities, sheriff and fire stations, libraries, and other public uses, as well as potentially hazardous sites, will be equitably distributed throughout the County.

Policy LU 8.1 *Potentially polluting, hazardous, and other health risk facilities should be located no closer than one-quarter mile to a sensitive receptor and vice versa.*

Policy LU 8.2 *Review development proposals to minimize impacts, such as air emissions, on sensitive receptors.*

City of Highland General Plan

Land Use Element

Goal 2.5 Promote a mix of attractive employment-generating areas with a mix of uses that provide a sound and diversified economic base and that are compatible with the community's overall residential character.

Goal 2.6 Maintain an organized pattern of land use that minimizes conflicts between adjacent land uses.

Policy 2 *Where a question of compatibility exists, require the new use to conform to the lower intensity use.*

Policy 4 *Ensure that land uses develop in accordance with the Land Use Plan and Development Code in an effort to attain land use compatibility.*

Policy 7 *Require new or expanded uses to provide mitigation or buffers, including greenbelts or landscaping, between dissimilar uses or existing uses where potential adverse impacts could occur.*

Policy 10 *Aggressively review planning efforts of other jurisdictions to minimize potential incompatibilities with City land uses and preserve economic vitality.*

Goal 2.7 Encourage natural resource and open space preservation through appropriate land use policies that recognize their value and through the conservation of areas required for the protection of public health and safety.

Policy 3 *Permit mineral extraction activities and expansion of existing operations only where the following findings can be made:*

- Potential significant impacts related to loss of significant biological resources have been mitigated to an acceptable level, as have potential significant impacts of noise, air pollutant emissions, dust and hazardous materials;

- Significant impacts will not be created on lands used or planned for residential use;
- Public health and safety will be protected;
- Haul routes have been identified, and will be utilized, which will not create significant impacts within residential areas and will not negatively impact access into commercial/industrial areas;
- The municipal revenue-generating characteristics of the proposed operation are such that a positive fiscal benefit will accrue to the City of Highland and to its residents; and
- The analysis of fiscal benefits shall account for the incremental capital and maintenance costs for the area circulation system created by the high intensity of truck use associated with the operation.

Policy 4 *Preserve areas designated as Open Space to provide for recreation, preservation of scenic and environmental values, managed production of resources (agriculture, water reclamation and conservation, mineral extraction) and protection of public safety.*

Policy 5 *Promote joint development and use of open space resources with adjacent jurisdictions.*

Goal 2.8 Coordinate land use planning programs between local, regional, State and Federal jurisdictions.

Policy 1 *Notify neighboring jurisdictions and adjacent developments when considering changes to the City's existing land use pattern adjacent to City boundaries.*

Policy 2 *Cooperate with neighboring jurisdictions through review and comment on proposed changes to existing land use patterns that could affect the City of Highland.*

City of Redlands General Plan

Open Space and Conservation Element

7.10f Encourage preservation of natural areas within and outside the Planning Area as regional parks or nature preserves.

7.21b Preserve, protect, and enhance natural communities of special status.

7.21s Coordinate aggregate resource extraction with habitat preservation and protection of plant and animal species.

Economic Development Element

11.0a Promote a climate conducive to economic growth and rejuvenation to enhance employment and investment opportunities without sacrificing environmental standards.

11.0d Encourage coordination and balance between economic development and all other aspects of community life.

Redlands Municipal Airport Land Use Compatibility Plan

1.5.1 Purpose of Special Review - Once applicable general plans, specific plans, and zoning ordinances are brought into conformance with the compatibility criteria set forth in these policies, proposals for individual land use developments ordinarily would not require any special review for airport compatibility. However, certain types of major public or private land use developments have the potential to significantly affect Redlands Municipal Airport activities or be affected by those activities.

a. The local jurisdiction having authority over approval of the development proposal (the City of Redlands or County of San Bernardino) shall specifically review the major development actions, as listed in Paragraph 1.5.2., for conformance with these airport compatibility criteria.

b. The agency responsible for any such review shall coordinate its review with other affected agencies as indicated in Section 1.8.

1.5.2 Types of Major Development - Except as noted under special conditions (Section 2.2.3), this special compatibility review process shall apply to the following types of land use development located within the Redlands Municipal Airport influence area defined in Section 1.2.1:

a. Any project requiring a general plan, specific plan, or zoning ordinance amendment.

b. Proposed residential development, including land divisions, consisting of five or more dwelling units or parcels.

c. Building permit applications for projects having a valuation greater than $1,000,000.

d. Major capital improvements (e.g., water, sewer, or roads) which would promote urban uses in undeveloped or agricultural areas.

e. Proposed land acquisition by a government entity for the purpose of developing a school or hospital.

f. Requests for variance from the height limits established by a local zoning ordinance.

g. Regardless of location within the City of Redlands, any proposal for construction or alteration of a structure (including antennas) taller than 200 feet above the ground level at the site. (Such structures also require notification to the Federal Aviation Administration in accordance with Federal Aviation Regulations Part 77, Paragraph 77.13(a)(1). See Appendix B herein.)

h. Any other proposed land use action, as determined by the respective local planning agency, involving questionable compatibility with airport activities.

2.2.4 Areas of Special Compatibility Concern - The purpose of this designation is take note of locations which: (1) are routinely overflown by aircraft approaching and/or departing the Redlands Municipal Airport, but at some distance from the airport; and (2) have existing and planned land uses which are compatible with the airport activity.

a. Notation of areas of special compatibility concern is intended to serve as a reminder that airport impacts should be carefully considered in any decision to change the current land use designation.

b. These areas are not part of the Redlands Municipal Airport influence area and are not subject to the review policies contained in this Compatibility Plan, except with respect to the notification requirements indicated in Paragraph 1.8.4. Also, establishment of a buyer awareness program is encouraged if any of these areas are to be converted to residential uses.

c. The only portion of the Redlands Municipal Airport environs designated in this manner is the southern edge of the City of Highland.

3.4.1 Nature of Impact - All locations within the Redlands Municipal Airport influence area are regarded as potentially subject to routine aircraft overflight. Although sensitivity to aircraft overflights varies from one person to another, overflight sensitivity is particularly important within residential land uses.

a. The City of Redlands and County of San Bernardino should each establish an overlay zone for all properties located within the Redlands Municipal Airport influence area. One function of such an ordinance would be to provide constructive notice as to: 0) what real property is within the airport influence area; and (2) the obligations of a seller of real property to disclose information regarding the airport's proximity to any prospective buyer.

b. The City of Redlands and County of San Bernardino may require other appropriate measures, including, but not limited to, requiring the dedication of aviation or overflight easements and deed noticing. See "Other Development Conditions" in Table 2A for guidance on where measures should be applied.

Relationship to Local General Plans and Zoning

1.4.1 Airport land use compatibility criteria is intended to supplement the criteria established for individual land use designations under the City of Redlands and the County of San Bernardino General Plans and Zoning Ordinances.

1.4.3 *Precedence:* Until such time as an action is taken with regard to a particular parcel, the land use designations established in local general plans, specific plans, and zoning ordinances shall have precedence over the airport land use compatibility criteria.

1.4.4 *Land Use Amendments:* Any proposals to amend a general plan, specific plan, or zoning ordinance shall have precedence over the airport land use criteria.

B.6.4 SOUTH COAST RESOURCE MANAGEMENT PLAN (SCRMP)

The SCRMP provides guidance for the management of approximately 300,000 acres of BLM - administered public lands in portions of five Southern California counties: San Diego, Riverside, San Bernardino, Orange, and Los Angeles. The SCRMP provides policy guidance to manage the resource values and multiple uses of BLM-administered public lands. The SCRMP provides direction for the management of sensitive resources and open space and balances the protection of these resources with potential uses such as recreation and mineral development.

The Management Objectives of the SCRMP are:

- Provide protection and enhancement for biological values.
- Provide for effective management and protection of cultural and paleontological sites and values.
- Identify, maintain, and enhance recreational opportunities, responsive to local needs and public visitation in the area.
- Work with local community leadership and law enforcement agencies to provide for safe visits to public land and to discourage illegal uses.
- Provide for community infrastructure needs to support the residents and economy of the region, with emphasis on energy, communications and mineral materials sites.
- Coordinate management activities along the border with U.S. and Mexican agencies.
- Provide for effective fire protection, fire prevention and vegetation management in cooperation with local communities, Fire Safe Councils, and California Department of Forestry and Fire Protection.

To facilitate planning and subsequent management, the SCRMP is divided into four management areas: 1) the San Diego County Management Area, 2) the Riverside-San Bernardino County Management Area, 3) the Beauty Mountain Management Area, and 4) the Los Angeles-Orange County Management Area. The Riverside-San Bernardino County Management Area includes the western portions of these counties. There are approximately 47,000 acres of BLM-administered public land and an additional 46,000 acres of BLM-administered split estate lands. Approximately 1,044 acres of BLM-administered public land managed under the SCRMP are in San Bernardino County, with approximately 1,019 acres within the Plan Area. BLM-administered public land managed under the SCRMP and, located in the Plan Area, include the Santa Ana River Wash ACEC area and Research Natural Area (RNA). Approximately 695.4 acres (14% of the Plan Area) are designated as ACEC and RNA lands. Refer to Figure 1.0-3, *Ownership Within the Wash Plan HCP Area* for the location of the SCRMP Parcels 107-021, 107-101, 107-

121, and 108-081. The Santa Ana River Wash ACEC contains populations of federally endangered species and valuable sand and gravel resources.

The ACEC is currently unavailable for mineral material sales, closed to motorized vehicle use (except for authorized vehicles on designated authorized routes), unavailable for livestock grazing, and is a right-of-way avoidance area. The SCRMP also makes land within an ACEC unavailable for disposal through exchange or sales. Based on the Santa Ana Wash Management Plan (1996), the ACEC has the following management objectives:

Objective 1: Improve quality of Santa Ana River wooly-star and other native plant and wildlife species and conserve biodiversity

Objective 2: Improve the management of the ACEC sensitive habitats

In addition, the following valid and existing rights exist on public lands:

1. Rights-of-Way (ROW), permits, leases.
    a. CALA 0169868: Power transmission line ROW to Southern California Edison Co.; SBM, T. 1S., R. 3W., sec. 10, E½E½W½ and W½NW¼NE¼.10, T. 1 S3 W., SBM.
    b. LA 024759: 1909 ROW for a ditch SBM, T. 1S3W.,; 10, N½; sec. 12 S½. Grantee San Bernardino Valley Municipal Water District; N½ of sec. 10, S½ of sec. 12, T. 1 S., R. 3 W., SBM.
    c. CACA 19146: Road ROW to Robertson's Ready Mix SBM, T. 1S3W.,; 10, E½NE¼SE¼NW¼,¼. sec. 10, T. 1 S., R. 3 W., SBM.
    d. CACA 25557: Road ROW to the San Bernardino Valley Water Conservation District SBM, T. 1S3W.,;10, SW¼SW¼NE¼, W¼SW½NW¼, SW¼, and the N½S½SE¼,¼. sec. 10, T. 1 S., R. 3 W., SBM.
    e. CACA 36490: Water Facility ROW to Robertson’s Ready SBM, T. 1S3W.,Mix; 10, W½SW¼SW¼NW¼ and NW¼NW¼NW¼SW¼,¼. sec. 10, T. 1 S., R. 3 W., SBM .
    f. CACA 50427: Road ROW to the San Bernardino County; SBM, T 1S3W., sec. 10, S½NW¼, SW¼, sec. 10, T 1 S¼.., R. 3 W., SBM.
    g. Secretary's Order Withdrawal for power transmission in the S1/2, Section 10 and the S1/2 of Section 12, T 1 S., R. 3 W., SBM. . Grantee unknown (no case file on record).

B.6.5 CITY OF HIGHLAND GENERAL PLAN AND ZONING

Generally, the northern half of the Plan Area is located with the City of Highland’s boundaries (city limits). 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. Refer to Figure 3.5-1, *Existing General Plan Land Use* and Figure 3.5-2, *Existing Zoning.*

Land use designations in the City of Highland northwest, north, and east of the Plan Area include: Business Park, Industrial, Planned Development, General Commercial, Parks, and Agriculture/Equestrian. Corresponding zoning includes: Business Park, Industrial, Planned Development, General Commercial, Open Space, and Agricultural/Equestrian Residential.

B.6.6 CITY OF REDLANDS GENERAL PLAN AND ZONING

Generally, the southern portion of the Plan Area is located within the City of Redland's boundaries (city limits). The City of Redlands General Plan includes the following land use designations within the Plan Area: as 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. Refer to Figure 3.5-1, *Existing General Plan Land Use* and Figure 3.5-2, *Existing Zoning.*

Land use designations in the City of Redlands to the southwest, south, and southeast of the Plan Area include: Light Industrial, Agriculture, Very Low and Low Density Residential, Parks, Public/Institutional, and Parks/Golf Courses. Corresponding zoning includes: Industrial, Agriculture, Single-Family Residential, Airport, and Specific Plan.

B.6.7 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.

B.7 SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE REGULATIONS

B.7.1 FEDERAL

Council on Environmental Quality

The Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500–1508) provide guidance related to social and economic impact assessments. These regulations note that the "human environment" assessed under NEPA is to be "interpreted comprehensively" to include "the natural and physical environment and the relationship of people with that environment" (40 CFR 1508.14). Furthermore, these regulations require agencies to assess "aesthetic, historic, cultural, economic, social, or health" effects, whether direct, indirect, or cumulative

(40 CFR 1508.8). Some Federal agencies, including the BLM and USFS[9], have developed socioeconomics-related handbooks and instructional memoranda to help the preparers of environmental impact statements comply with NEPA with respect to socioeconomic resources.

Environmental Justice

All projects involving a Federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This Executive Order directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2017, this was $24,600 for a family of four[10]. All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project.

The *Final Guidance For Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (April 1998) states a minority or low-income population is considered substantial when more than 50 percent of the affected population are minority and/or low-income, or when the affected population has a minority or low income percentage that is meaningfully greater than the percentage of minority or low-income people in the general population, or other appropriate unit of geographic analysis. The two basic steps in an environmental justice analysis include the assessment of: (1) whether the potentially affected community has a substantial minority population, low-income population, or Indian tribe; and (2) whether the environmental impacts are likely to fall disproportionately on an identified minority population, low-income population, and/or Indian tribe.

B.7.2 STATE

Although the State CEQA Guidelines exclude discussion of significance criteria for economic impacts, the guidelines include questions related to population growth and displacement. Therefore, these topics are discussed in this Affected Environment section and potential impacts regarding population growth and displacement are analyzed in Section 4.6 of this DEIS/SEIR.

B.7.3 LOCAL

Southern California Association of Governments (SCAG)

SCAG functions as the Metropolitan Planning Organization (MPO) for six counties (Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial), including 191 cities. The region encompasses a population exceeding 18 million residents in an area of more than 38,000 square miles. As the

[9] US Forest Service

[10] https://aspe.hhs.gov/poverty-guidelines

designated MPO, the Federal government mandates SCAG to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. These mandates led SCAG to prepare comprehensive regional plans to address these concerns.

The San Bernardino County Transportation Authority/San Bernardino Council of Governments is a member agency of SCAG. In 2016, the agency sponsored Senate Bill 1305 (Morrell), consolidating the agency into two entities, the San Bernardino County Transportation Authority (SBCTA) and the San Bernardino Associated Governments (to be known as the San Bernardino Council of Governments (SBCOG)). As of January 1, 2017, the San Bernardino Associated Governments, is known as SBCTA. Serving more than 2.1 million residents of San Bernardino County, the SBCTA is responsible for cooperative regional planning and furthering an efficient multi-modal transportation system countywide. The Cities of Highland and Redlands and the County of San Bernardino are member jurisdictions of the SBCTA. Current regional growth forecasts are included in SCAG's *2016-2040 Regional Transportation Plan/*Sustainable Communities Strategy (RTP/SCS). SCAG's demographic data is developed to enable the proper planning of infrastructure and facilities to adequately meet the needs of the anticipated growth. Growth forecasts contained in the RTP/SCS for the County of San Bernardino, SANBAG, and the cities included in the Plan Area are used in this section in order to analyze population, housing, and employment forecasts.

City of Highland General Plan

The specific goals and policies of the *Conservation and Open Space Element* of the *City of Highland's General Plan* that are relevant to the Plan Area with respect to socioeconomics--in particular, to aggregate mining as a socioeconomic vehicle in the Plan Area--are as follows:

Goal 5.9 Manage mineral resources and extraction policies for short and long term safety, economic and land use compatibility considerations.

Policy 1 *Identify any significant mineral resources within the City and, as feasible, protect them from encroachment by residential or other incompatible development, for future use.*

Policy 2 *Adopt policies and procedures for mining and processing of mineral resources.*

Policy 3 *Develop criteria for location and operation of mineral processing to minimize adverse impacts to the environment, watersheds, wildlife, aesthetic resources, public health and safety, and adjacent land uses.*

Policy 4 *Establish and implement Mining Reclamation Plans for any proposed mining operations in compliance with existing local, state and federal policies and statutes. Review land development proposals near resource areas or mining operations for land use compatibility.*

Policy 5 *Require that mining plans include, but not be limited to the following:*

- Effects on terrain, natural and man-made slopes, permeability of soil, groundwater quality;
- Protection of water quality through erosion, runoff and sedimentation control;
- Protection of wildlife;
- Control of noise, dust, vibration, smoke, odors and lighting;
- Plans for rehabilitation and reclamation of lands; and
- Proposed timing of extraction and reclamation activities
- Offsite routes of travel.

Policy 6 *Investigate the adoption of a reclamation fee program designed to mitigate remaining scars from previous quarry operations.*

Policy 7 *Pursue and implement a joint-powers agreement with adjacent cities and involved agencies for the management of natural resources located in the Santa Ana River Wash.*

Policy 8 *Permit non-mining uses within the designated Open Space District only if a finding is made that no significant impacts on future regional mineral resources will result from project approval.*

City of Redlands General Plan

The specific goals and policies of the *Open Space and Conservation Element* of the *City of Redlands 1995 General Plan* that are relevant to the Plan Area with respect to socioeconomics--in particular, to aggregate mining as a socioeconomic vehicle in the Wash Area-- are as follows:

Guiding Policies: Construction Aggregates

7.42a Conserve sufficient aggregate resources to allow conversion of two 50-year supplies (approximately 2400 acres) of aggregate reserves to meet the Planning Area's contribution to future regional needs.

7.42b Manage aggregate resources to ensure that extraction results in the fewest environmental impacts. Require preparation and assured implementation of a reclamation plan for aggregate extraction sites as a condition of approval of mining.

7.42c Reserve designated MRZ areas outside the Santa Ana Wash for agricultural or urban use.

Implementing Policies: Construction Aggregates

7.42d Clearly identify mineral resource areas, those areas targeted for conversion to reserves for possible future extraction, and areawide aggregate transportation routes. Policy 7.42c above indicates areas not suitable for future extraction.

7.42f Deny approval of surface mining permits at locations where unmitigated adverse impacts would be significantly greater than at alternative locations with the San Bernardino Production-Consumption Region.

7.42g Make issuance of a surface mining permit conditional upon approval of a reclamation plan and financial assurances for reclamation in accord with Public Resource Code Section 2770.

County of San Bernardino General Plan

The specific goals and policies of the *Conservation Element* of the *County of San Bernardino General Plan* that are relevant to the Wash Area with respect to socioeconomics--in particular, to aggregate mining as a socioeconomic vehicle in the Plan Area-- are as follows:

Goal CO 7 The County will protect the current and future extraction of mineral resources that are important to the County's economy while minimizing impacts of this use on the public and the environment.

Policy CO 7.1 *In areas containing valuable mineral resources, establish and implement conditions, criteria, and standards that are designed to protect the access to, and economic use of, these resources, provided that the mineral extraction does not result in significant adverse environmental effects and that open space uses have been considered for the area once mining operations cease.*

Programs:

1. Solicit, coordinate, and acknowledge lands designated by the State Mining and Geology Board and classified by the state Geologist.
2. Incorporate the mineral classification or designation information, including maps, when they are completed by the State Mining and Geology Board and the Division of Mines and Geology, including new and updated information.
3. Recognize and protect areas within San Bernardino County that show or have proven to have significant mineral resources and protect their access.
4. Maintain and coordinate files and records to be kept with the Land Use ***Services Department.***

Policy CO 7.2 *Implement the state Mineral Resource Zone (MRZ) designations to establish a system that identifies mineral potential and economically viable reserves.*

a. MRZ-1: Adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. This designation will be applied where well-developed lines of reasoning, based

upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.

b. MRZ-2: Adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This designation will be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.

c. MRZ-3: Contains deposits whose significance cannot be evaluated from available data.

d. MRZ-4: Available information is inadequate for assignment to any other MRZ zone.

e. SZ: Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance will be classified in this zone.

f. IRA: San Bernardino County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

B.8 TRANSPORTATION SYSTEMS AND TRAFFIC REGULATIONS

B.8.1 FEDERAL

No Federal plans, policies, regulations, or laws related to transportation and circulation are applicable.

B.8.2 STATE

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways, including those in San Bernardino County. Federal highway standards are implemented in California by Caltrans. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. The Plan Area includes one highway that falls under Caltrans' jurisdiction; State Route 210 (SR-210), which was formerly designated as State Route 30 (SR-30). Although SR-210 spans the western portion of the Plan Area, the Caltrans right-of-way/ ownership is not a part of the HCP.

Caltrans' construction practices require temporary traffic control planning during any time the normal function of a roadway is suspended. In addition, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials and for construction-related traffic disturbance.

B.8.3 LOCAL

City of Highland General Plan

The specific goals and policies of the Circulation Element of the *City of Highland's General Plan* that are relevant to the Plan Area with respect to transportation systems and traffic are as follows:

Goal 3.1 Provide a comprehensive transportation system that facilitates current and long-term circulation in and through the City.

Policy 2 *Ensure that all intersections operate at LOS "D" or better during the peak hours of traffic.*

Policy 5 *Design and employ traffic control measures (e.g., install traffic signals, provide access restrictions, etc.) to ensure city streets and roads function as intended.*

Policy 10 *Encourage major employers to reduce vehicular trips by offering incentive concepts discussed in the General Plan Circulation Element, including but not limited to reduced transit passes and preferential parking for ridesharing.*

Goal 3.2 Provide a well-maintained roadway system.

Policy 5 *Develop and implement programs and policies that require additional improvements or mitigation from industries or entities that generate heavy truck traffic and pavement impacts.*

Goal 3.4 Provide a safe circulation system.

Policy 3 *Promote the principle that streets have multiple uses and users, and protect the safety of all users.*

Goal 3.6 Provide a circulation system that reduces conflicts between commercial trucking, private/public transportation and land use.

Policy 1 *Maintain designated truck routes for use by commercial trucking that link industrial and commercial activity areas with major roadways and regional transportation routes and minimize impacts on local traffic neighborhoods.*

Policy 8 *Require as a part of the development review process for all new or expanding mineral extraction and all other heavy industry activities within the City, that the following information be provided:*

- A detailed plan of haul roads, indicating measures that will be taken to minimize aesthetic, noise, traffic, and particulate emission impacts to the surrounding land uses;

- A traffic analysis that indicates both the number of projected trucks and their associated potential impact to city streets;
- A "fair-share" mitigation analysis indicating the impacts and associated maintenance costs caused by the potential generation of future truck traffic; and
- A comprehensive mitigation program, designed to run the life of the mineral extraction activity (including reclamation) that will:
  - Cover the fair-share portion of surrounding roadway maintenance costs due to the increase in local truck activity, or
  - Provide new or appropriate improvements to existing roadway facilities which in the opinion of the City would mitigate the impacts caused by the increase in local truck traffic.

Policy 9 *Work with private mining operators to establish specialized truck routes that:*

- Allow for the transport of raw and finished materials from quarries within the Santa Ana River Wash area to the Foothill Freeway on paved private haul roads;
- Reduce, to the extent feasible, the movement of mining transport trucks on City streets; and
- Mitigate, to the extent feasible, the noise, dust and vibration effects of such transport activities on surrounding land uses.

Goal 3.7 Protect and encourage bicycle travel.

Policy 5 *Provide linkages between bicycle routes and other trails, such as the Santa Ana River Trail, within the City as appropriate.*

City of Redlands General Plan

The specific goals and policies of the Circulation Element of the *City of Redlands 1995 General Plan* that are relevant to the Plan Area with respect to transportation systems and traffic are as follows:

Guiding Policy 5.20a Maintain LOS C or better as the standard at all intersections presently at LOS C or better.

Guiding Policy 5.20c Where the current level of service at a location within the City of Redlands is below the Level of Service (LOS) C standard, no development project shall be approved that cannot be mitigated so that it does not reduce the existing level of service at that location except as provided in Section 5.20b.

Implementing Policy 5.20d Design roadway improvements and evaluate development proposals based on the LOS standard prescribed in Policies 5.20a, b, and c.

Guiding Policy 5.30a Use the Circulation Network to identify, schedule and implement roadway improvements as development occurs in the future, and as a standard against which to evaluate future development and roadway improvement plans.

Implementing Policy 5.30e Levy appropriate fees on new residential and non-residential development to be used for roadway improvements in compliance with the law.

Guiding Policy 5.31a Provide adequate capacity on arterials to meet LOS standards and to avoid traffic diversion to local streets or freeways.

Implementing Policy 5.31d Maximize the carrying capacity of arterials by controlling the number of intersections and driveways, limiting residential access where applicable, and requiring sufficient on-site parking to meet the needs of the project.

Guiding Policy 5.40a Ensure that employers implement Travel Demand Management (TDM) programs to reduce peak period trip generation.

Implementing Policy 5.40e Favor TDM measures that limit vehicle use over those that extend the commute hour.

Guiding Policy 5.50a Establish a comprehensive network of on- and off-roadway bike routes to encourage the use of bikes for both commute and recreational trips.

Guiding Policy 5.60b Make walking interesting.

County of San Bernardino General Plan

The specific goals and policies of the Circulation and Infrastructure Element of the *County of San Bernardino General Plan* that are relevant to the Plan Area with respect to transportation systems and traffic are as follows:

Goal CI 1 The County will provide a transportation system, including public transit, which is safe, functional, and convenient; meets the public's needs; and enhances the lifestyles of County residents.

Policy CI 1.1 *The County's comprehensive transportation system will be developed according to the Circulation Policy Map (the Circulation Element Map), which outlines the ultimate multi-modal (non-motorized, highway, and transit) system to accommodate the County's mobility needs and provides the County's objectives to be achieved through coordination and cooperation between the County and the local municipalities in the County, adjacent counties and cities within those counties, Caltrans, and SANBAG.*

Goal CI 4 The County will coordinate land use and transportation planning to ensure adequate transportation facilities to support planned land uses and ease congestion.

Policy CI 4.6 *Ensure that applicants, sub-dividers and developers dedicate and improve right-of-way per County standards and contribute to their fair share of off-site mitigation.*

Goal CI 5 The County's road standards for major thoroughfares will complement the surrounding environment appropriate to each geographic region.

Policy CI 5.1 *Implement appropriate design standards for all types of highways as shown in Chapter 83.23 of the Development Code.*

Policy CI 5.4 *Utilize road standards appropriate to geographic constraints and which complement the surrounding environment (see Chapter 83.23 of the Development Code).*

Policy CI 5.5 *Public roadways should be developed consistent with the road standards as indicated in Chapter 83.23 of the Development Code.*

Goal CI 6 The County will encourage and promote greater use of non-motorized means of personal transportation. The County will maintain and expand a system of trails for bicycles, pedestrians, and equestrians that will preserve and enhance the quality of life for residents and visitors.

Policy CI 6.1 *Require safe and efficient pedestrian and bicycle facilities in residential, commercial, industrial and institutional developments to facilitate access to public and private facilities and to reduce vehicular trips. Install bicycle lanes and sidewalks on existing and future roadways, where appropriate and as funding is available (see Figure 211A through Figure 2-11C of the Circulation and Infrastructure Background Report).*

Goal V/CI 1 Ensure a safe and effective transportation system that provides adequate traffic movement.

Policy V/CI 1.1 *The County shall ensure that all new development proposals do not degrade Levels of Service (LOS) on Major Arterials below LOS C during non-peak hours or below LOS D during peak-hours in the Valley Region.*

Policy V/CI 1.2 *Full street improvements including paving, curbs, gutters and sidewalks shall be encouraged where necessary for public health, safety and welfare. Waiver of full road improvements in areas where parcel sizes are 1 acre or larger and where the public health, safety and welfare are not endangered may be considered. This may be accomplished by the following methods:*

a. Require the installation of full street improvements for higher density residential (greater than 1 du/acre), commercial, industrial, and institutional developments permitting safe pedestrian access.

b. Require road improvements consisting of paving, curbs and gutters on major, secondary highways, collector streets and for major tract developments where the density is greater than 1 dwelling unit per gross acre.

c. Require paved road shoulders and dikes to be constructed, as necessary, on local roadways designated as "water-carrying" by the County Public Works Department for proper drainage.

B.9 VISUAL RESOURCE REGULATIONS

B.9.1 FEDERAL

Federal Land Policy and Management Act (FLPMA) of 1976

- Section 103 (c) describes natural scenic values as a resource to be managed within the multiple-use framework. "....a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including...natural scenic values".
- Section 201(a) describes inventorying all public lands and their resources (including , but not limited to outdoor recreation and scenic values).
- Section 102(2) describes how inventories should be maintained on a continuing basis and used during the land use planning process.
- Section 102(8) describes management in a manner that will protect the quality of scenic values and provide for outdoor recreation and human occupancy and use.
- Section 202(c)(6) the Secretary shall consider the relative scarcity of the values involved.
- Section 302(b) concerning the management of use, occupancy and development, take any action necessary to prevent unnecessary and undue degradation of these lands.
- Section 505(a) requires that each ROW contains terms and conditions to minimize damage to the scenic and aesthetic values.

National Environmental Policy Act (NEPA)

- Section 101 (b) requires that measures be taken to ensure that aesthetically pleasing surroundings be retained for all Americans.
- Section 102 requires agencies to use a systematic, interdisciplinary approach to ensure the integrated use of environmental design arts in planning and decision making.

B.9.2 STATE

California Department of Transportation

The California Department of Transportation (Caltrans) defines a State Scenic Highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on the following three visual concepts (Scenic Highway Guideline, Caltrans, 2008):

- Vividness: The extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- Intactness: The integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions (i.e., buildings, structures, equipment, grading).
- Unity: The extent to which development is sensitive to and in visual harmony with the natural landscape.

B.9.3 LOCAL

City of Highland General Plan

Land Use Element

Goal 2.7 Encourage natural resource and open space preservation through appropriate land use policies that recognize their value and through the conservation of areas required for the protection of public health and safety.

Policy *Preserve areas designated as Open Space to provide for recreation, preservation of scenic and environmental values, managed production of resources (agriculture, water reclamation, and conservation, mineral extraction) and protection of public safety.*

Circulation Element

Goal 3.3 Preserve and enhance uniquely scenic or special visual resource areas along appropriate routes for the enjoyment of all travelers.

Policy 1 *Designate the following roadways as Scenic Highways and establish guidelines that protect visual resources in the community and allow for the development of additional recreational opportunities:*

- Boulder Avenue
- Base Line (east of City Creek)
- Palm Avenue
- Greenspot Road

- Church Street
- Highland Avenue (east of City Creek)

Policy 2 *Attractively landscape and maintain Highland's Secondary Highways, Special Secondary Highways, Major Highways, Primary Arterials, and Modified Primary Arterials and prepare/implement distinctive streetscape improvement plans.*

Conservation and Open Space Element

Goal 5.1 Preserve, maintain and create views and vistas throughout the community to enhance the visual experience of Highland.

Policy *Incorporate view corridor planning in related development efforts and capital improvement programs.*

Preserve mature trees, natural hydrology, native plant materials and areas of visual interest.

Community Design Element

Goal 10.1 Create a unified and attractive community identity within the context of diverse neighborhoods and land uses.

Policy *Identify, preserve and enhance view corridors of major landmarks, community facilities and natural open space in the planning and design of all public and private projects.*

City of Redlands General Plan

Historic and Scenic Preservation

3.20f Encourage preservation of and public access to significant scenic vistas, viewpoints and view corridors.

Historic and Scenic Conservation Areas

3.21j Establish standards and incentives for preservation of scenic vistas.

3.21k Provide incentives and standards to encourage preservation of citrus groves.

Agricultural and Scenic Areas

3.29a Encourage preservation of citrus groves and other agricultural areas that are designated as having cultural or scenic significance. Encourage retention of existing privately owned citrus groves of all sizes, especially in historic neighborhoods.

3.29b Identify existing agricultural areas, scenic views, vistas, and streetscapes, including mountain, canyon, and valley vistas, urban view corridors, focal points and focal buildings.

3.29c Define and implement measures to preserve citrus groves, scenic views, vistas, and streetscapes for the community.

County of San Bernardino General Plan

Conservation Element

Goal CO 1 The County will maintain to the greatest extent possible natural resources that contribute to the quality of life within the County.

CO 1.2 The preservation of some natural resources requires the establishment of a buffer area between the resource and developed areas. The County will continue the review of the Land Use Designations for unincorporated areas within one mile of any state or federally designated scenic area, national forest, national monument, or similar area, to ensure that sufficiently low development densities and building controls are applied to protect the visual and natural qualities of these areas.

M/CO 1.1 Encourage protection of natural features and scenic vistas by using the Special Development (SD) District or Zone to implement Planned Development and Planned Residential Development concepts.

M/CO 1.2 Protect scenic vistas by minimizing ridgeline development that would substantially detract from the scenic quality of major ridgeline viewsheds.

M/CO 1.7 Encourage conservation and sound management of the mountain forest character and natural resources, including water, streams, vegetation, soils and wildlife. Require the planting of native or drought-tolerant cultivar species, capable of surviving the mountain environment and climate.

M/CO 2.3 Require the re-vegetation of any graded surface with suitable native drought and fire resistant planting to minimize erosion.

M/CO 2.7 Through the development review process, require replanting of ground cover in denuded areas with vegetation, either indigenous to the area or compatible with the montane climate and soil characteristics.

M/CO 2.8 When feasible, require developers through the development review process to substantially maintain existing percolation and surface water runoff on site.

Goal M/CO 5 Preserve the dark night sky as a natural resource in the Mountain Region communities.

M/CO 5.1 Protect the Night Sky by providing information about and enforcing existing ordinances.

M/CO 5.2 Provide information about the Night Sky ordinance and lighting restrictions with each land use or building permit application.

M/CO 5.3 Review exterior lighting as part of the design review process.

M/CO 5.4 All outdoor lighting, including street lighting, shall be provided in accordance with the Night Sky Protection Ordinance and shall only be provided as necessary to meet safety standards.

Goal OS 4 The County will preserve and protect cultural resources throughout the County, including parks, areas of regional significance, and scenic, cultural and historic sites that contribute to a distinctive visual experience for visitors and quality of life for County residents.

B.10 CULTURAL RESOURCES REGULATIONS

B.10.1 FEDERAL

Section 106 for the National Historic Preservation Act (NHPA) of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the NHPA of 1966. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) §800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, projects by private developers and landowners that do not require a federal permit or funding are not required to comply with Section 106. However, if a private sector project requires a federal permit or if it uses federal money then compliance with Section 106 is required.

National Register of Historic Places (NRHP)

The NRHP is "an authoritative guide to be used by Federal, State, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." However, the Federal regulations explicitly provide that a listing of private property on the NRHP "does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

"Historic properties," as defined by the Advisory Council on Historic Preservation, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in,

the NRHP maintained by the Secretary of the Interior" (36 CFR §800.16(I)). Eligibility for inclusion in the NRHP is determined by applying the following criteria, developed by the National Park Service in accordance with the NHPA:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

1. that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Native American Graves Protection and Repatriation Act (NAGPRA) of 1990

The NAGPRA describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. The purpose is to determine "the ownership or control of Native American cultural items which are excavated or discovered on Federal tribal lands after November 16, 1990" [25 U.S.C. 3002(a)].

B.10.2 STATE

California Environmental Quality Act (CEQA)

State historic preservation regulations affecting the project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] §20183.2 and §21084.1 and §15064.5 of State CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript, which is historically or archaeologically significant (PRC §5020.1). Section 15064.5 of the State CEQA Guidelines specifies criteria for evaluating the significance or importance of cultural resources, including:

- The resource is associated with events that have made a contribution to the broad patterns of California history;
- The resource is associated with the lives of important persons from our past;

- The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associates and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

Senate Bill 18

California Senate Bill (SB) 18, effective September 2004, requires local government to notify and consult with California Native American tribes when the local government is considering adoption or amendment of a general or specific plan. Prior to adoption of a specific plan, a local government must refer the proposed action to those tribes that are on the Native American Heritage Commission contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period as per Government Code §65453.

Assembly Bill 52

Assembly Bill 52, effective July 2015, Section 1 of the bill states the legislature's intent as follows: In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent of the Legislature, in enacting this act, to accomplish all of the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
2. Establish a new category of resources in the California Environmental Quality Act called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because the California Environmental Quality Act calls for a

sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.

5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in the California Environmental identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.
6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in the CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.
8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
9. Establish that a substantial adverse change to tribal cultural resources has a significant effect on the environment.

California Register of Historical Resources (CRHR)

In 1992, the Governor signed Assembly Bill (AB) 2881 into law, establishing the California Register of Historical Resources (CRHR). The CRHR is an authoritative guide in California used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The criteria for eligibility for the CRHR are based upon NRHP criteria. Certain resources are determined by the statute to be included on the CRHR, including California properties formally determined eligible for, or listed in, the NRHP, State Landmarks, and State Points of Interest.

The State Office of Historic Preservation (OHP) has broad authority under Federal and State law for the implementation of historic preservation programs in the State of California. The State Historic Preservation Officer (SHPO) makes determinations of eligibility for listing on the NRHP and the CRHR.

For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. It is associated with the lives of persons important to local, California, or U.S. history;

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of a master, possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources." (CCR 4852 [d][2]). The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

The appropriate standard for evaluating "substantial adverse effect" is defined in PRC §5020.1(q) and 21084.1. Substantial adverse change means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. Such impairment of significance would be an adverse impact on the environment.

Cultural resources consist of buildings, structures, objects, or archeological sites. Each of these entities may have historic, architectural, archaeological, cultural, or scientific importance. Under State CEQA Guidelines, a significant impact would result if the significance of a cultural resource would be changed by project activities. Activities that could potentially result in a significant impact consist of demolition, replacement, substantial alteration, and relocation of the resource. The significance of a resource is required to be determined prior to analysis of the level of significance of project activities. The steps required to be implemented to determine significance in order to comply with State CEQA Guidelines are:

- Identify cultural resources;
- Evaluate the significance of the cultural resources based on established thresholds of significance;
- Evaluate the effects of a project on all cultural resources; and
- Develop and implement measures to mitigate the effects of the project on significant cultural resources.

Sections 6253, 6254, and 6254.10 of the California Code authorize State agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (CPRA; Government Code [GC] §6250 et. seq.) and California's open meeting laws (The Brown Act, GC §54950 et. seq.) protect the confidentiality of Native American cultural place information. The CPRA (as amended, 2005) contains two exemptions that aid in the protection of records relating to Native American cultural places by permitting any state or local agency to deny a CPRA request and withhold from public disclosure:

- "records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in §5097.9 and §5097.993 of the Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency" (GC §6254(r)); and
- "records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency" (GC §6254.10).

Likewise, the Information Centers of the California Historical Resources Information System (CHRIS) maintained by the OHP prohibit public dissemination of records and site location information. In compliance with these requirements, and those of the Code of Ethics of the Society for California Archaeology and the Register of Professional Archaeologists, the locations of cultural resources are considered restricted information with highly restricted distribution and are not publicly accessible.

Any project site located on non-Federal land in California is also required to comply with State laws pertaining to the inadvertent discovery of Native American human remains.

California Health and Safety Code §7050.5, §7051, AND §7054

California Health and Safety Code §7050.5, §7051, and §7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

B.10.3 LOCAL

City of Highland General Plan

Conservation and Open Space Element

Goal 5.8 Protect, document and minimize disruption of sites that have archaeological significance.

Policy 1 *Avoid significant impacts in all new developments within areas determined to be archaeologically sensitive through the following measures:*

- Conduct an archaeological records search with the Archaeological Information Center in order to identify potential on-site sensitivities;
- In cooperation with a qualified archaeologist, develop mitigation measures for projects found to be located in or near sensitive areas or sites; and

- Require that environmental review be conducted for all applications within the area designated as archaeologically sensitive, including but not limited to grading, earth moving and stockpiling, and building and demolition permits.

Policy 2 *Include the following statement as a condition of approval on all development projects:*

"If cultural resources are discovered during project construction, all work in the area of the find shall cease, and a qualified archaeologist shall be retained by the project sponsor to investigate the find, and to make recommendations on its disposition. If human remains are encountered during construction, all work shall cease and the San Bernardino County Coroner's Office shall be contacted pursuant to Health and Safety Code provisions."

Policy 3 *Coordinate with the San Manuel Band of Mission Indians when proposals for development projects are filed within the Areas of Sensitivity for Archaeological Resources (illustrated in Figure 5.2) through the following actions:*

- Notify the San Manuel Band of Mission Indians via notification mailings about proposed projects in archaeologically sensitive areas; and
- Invite comments and suggestions to be forwarded to City staff and appropriate decision makers to aid the preservation and development review processes.

Goal 10.9 Support and strengthen public and private efforts to preserve historic structures and neighborhoods.

Policy 1 *Encourage restoration and preservation of existing historic residences, buildings and neighborhoods that reflect the architectural character and streetscape patterns of early Highland.*

Policy 2 *Assist eligible property owners to use federal and state incentives for the restoration and maintenance of historic properties, such as the State of California's Mills Act, which allows for a reduction in property taxes for qualified owners.*

Policy 3 *Develop a clear pedestrian and vehicular connection between the City's emerging Town Center and the existing Historic District.*

Policy 4 *Design and incorporate entry signs, informational plaques, streetscape improvements and other edge and boundary treatments at points of entry into the district and at other points of interest.*

Policy 5 *Update the design guidelines pamphlet for rehabilitation, remodeling and new construction within the historic district.*

Policy 6 *Review and enhance the City's community outreach program for historic preservation through links on the City's webpage, incentive programs for property owners, sponsorship of community events and other efforts.*

Policy 7 *Link the City's agricultural past to its current preservation efforts.*

City of Redlands General Plan

City Design and Preservation Element

Policy 3.21a *Designate Historic and Scenic Districts and Urban Conservation Districts whenever areas are qualified and supported by a significant majority of the property owners.*

Policy 3.21b *Establish priorities for protection of potential districts based on both significance and endangerment. Seek to establish support of property owners in high priority areas.*

Policy 3.21c *Establish zoning regulations that implement Historic and Scenic Preservation polices.*

Policy 3.21d *Provide incentives to encourage preservation of large historic structures and conversion to multi family housing if preservation of original use is an economic hardship.*

Policy 3.21e *Establish guidelines and incentives for appropriate adaptive re use of historic structures.*

Policy 3.21f *Encourage the location of needed parking in interiors of blocks to minimize visual impact on streetscape and neighborhoods.*

Policy 3.21g *Limit parking area coverage and size of parking structures in order to maintain special qualities of streetscape.*

Policy 3.21h *Establish design guidelines for parking lots and structures that reduce visual impacts on neighborhood and streetscape.*

Policy 3.21i *Establish lot sizes for infill development that relate to existing lot sizes nearby.*

Policy 3.21j *Establish standards and incentives for preservation of scenic vistas.*

Policy 3.21k *Provide incentives and standards to encourage preservation of citrus groves.*

Policy 3.21l *Recognize and mitigate the ill effects of the following historic areas:*

- Inappropriate commercial development;
- Inappropriate scale, materials, setbacks and landscaping;
- Interruption of the established street pattern;
- Inadequate off street parking, where development of off street parking does not cause loss of historic buildings;

- Excessive automobile traffic.

Policy 3.21m *Encourage neighborhood groups to be actively involved in preservation.*

Policy 3.21n *Promote neighborhood organization and identity and foster neighborhood conservation programs, giving special attention to transitional areas next to commercial areas.*

Policy 3.21o *Pursue policies of street management to control traffic in such areas, because historic areas are especially vulnerable when threatened by too much traffic.*

Policy 3.21p *Where feasible, retain existing easements and rights of way for use as view points, turn outs, and scenic walkways.*

Open Space and Conservation Element

Policy 7.30a *Protect archaeological and paleontological resources for their aesthetic, scientific, educational, and cultural values.*

Policy 7.30b *Using the Archaeological Resource University Map, review proposed development projects to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources; refer all applications affecting sensitive areas to the Archaeological Information Center for further study.*

Policy 7.30c *Require that applicants for projects identified by the Archaeological Information Center as potentially affecting sensitive resource sites hire a consulting archaeologist to develop and archaeological resource mitigation plan; monitor the project to ensure that mitigation measures are implemented.*

Policy 7.30d *Require that areas found during construction to contain significant historic or prehistoric archaeologic artifacts to be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation.*

Policy 7.30e *For projects involving Federal land, or requiring Federal permission or funding, ensure that applicants meet stricter criteria for archaeological resource review, prior to commencement of work.*

Policy 7.30f *Work with the San Bernardino County Museum to identify and protect Redlands' significant nonrenewable paleontologic resources.*

County of San Bernardino General Plan

Conservation Element

Goal CO 3 The County will preserve and promote its historic and prehistoric cultural heritage.

Policy CO 3.1 *Identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.*

Programs:

1. Require a cultural resources field survey and evaluation prepared by a qualified professional for projects located within the mapped Cultural Resource Overlay area.
2. Mitigation of impacts to important cultural resources will follow the standards established in Appendix K of the California Environmental Quality Act Guidelines, as amended to date.

Policy CO 3.2 *Identify and protect important archaeological and historic cultural resources in all lands that involves disturbance of previously undisturbed ground.*

Programs:

1. Require the Archaeological Information Center at the San Bernardino County Museum to conduct a preliminary cultural resource review prior to the County's application acceptance for all land use applications in planning regions lacking Cultural Resource Overlays and in lands located outside of planning regions.
2. Should the County's preliminary review indicate the presence of known cultural resources or moderate to high sensitivity for the potential presence of cultural resources, a field survey and evaluation prepared by a qualified professional will be required with project submittal. The format of the report and standards for evaluation will follow the "Guidelines for Cultural Resource Management Reports" on file with the San Bernardino County Land Use Services Department.

Policy CO 3.3 *Establish programs to preserve the information and heritage value of cultural and historical resources.*

Policy CO 3.4 *The County will comply with Government Code Section 65352.2 (SB 18) by consulting with tribes as identified by the California Native American Heritage Commission on all General Plan and specific plan actions*

Programs:

1. Site record forms and reports of surveys, test excavations, and data recovery programs will be filed with the Archaeological Information Center at the San Bernardino County Museum, and will be reviewed and approved in consultation with that office.

a. Preliminary reports verifying that all necessary archaeological or historical fieldwork has been completed will be required prior to project grading and/or building permits.

b. Final reports will be submitted and approved prior to project occupancy permits.

2. Any artifacts collected or recovered as a result of cultural resource investigations will be catalogued per County Museum guidelines and adequately curated in an institution with appropriate staff and facilities for their scientific information potential to be preserved. This shall not preclude the local tribes from seeking the return of certain artifacts as agreed to in a consultation process with the developer/project archaeologist.

3. When avoidance or preservation of an archaeological site or historic structure is proposed as a form of mitigation, a program detailing how such long-term avoidance or preservation is assured will be developed and approved prior to conditional approval.

4. In areas of potential but unknown sensitivity, field surveys prior to grading will be required to establish the need for paleontologic monitoring.

5. Projects requiring grading plans that are located in areas of known fossil occurrences, or demonstrated in a field survey to have fossils present, will have all rough grading (cuts greater than 3 feet) monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Fossils include large and small vertebrate fossils, the latter recovered by screen washing of bulk samples.

6. A report of findings with an itemized accession inventory will be prepared as evidence that monitoring has been successfully completed. A preliminary report will be submitted and approved prior to granting of building permits, and a final report will be submitted and approved prior to granting of occupancy permits. The adequacy of paleontologic reports will be determined in consultation with the Curator of Earth Science, San Bernardino County Museum.

Policy CO 3.5 *Ensure that important cultural resources are avoided or minimized to protect Native American beliefs and traditions.*

Programs:

1. Consistent with SB 18, as well as possible mitigation measures identified through the CEQA process, the County will work and consult with local tribes to identify, protect and preserve “traditional cultural properties” (TCPs). TCPs include both manmade sites and resources as well as natural landscapes that contribute to the cultural significance of areas.

2. The County will protect confidential information concerning Native American cultural resources with internal procedures, per the requirements of SB 922, an addendum to SB 18. The purpose of SB 922 is to exempt cultural site information from public review as provided for in the Public Records Act. Information provided by tribes to the County shall be considered confidential or sacred.

3. The County will work in good faith with the local tribes, developers/applicants and other parties if the local affected tribes request the return of certain Native American artifacts from private development projects. The developer is expected to act in good faith when considering the local tribe's request for artifacts. Artifacts not desired by the local tribe will be placed in a qualified repository as established by the California State Historical Resources Commission. If no facility is available, then all artifacts will be donated to the local tribe.

4. The County will work with the developer of any "gated community" to ensure that the Native Americans are allowed future access, under reasonable conditions, to view and/or visit known sites within the "gated community." If a site is identified within a gated community project, and preferably preserved as open space, the development will be conditioned by the County allow future access to Native Americans to view and/or visit that site.

5. Because contemporary Native Americans have expressed concern over the handling of the remains of their ancestors, particularly with respect to archaeological sites containing human burials or cremations, artifacts of ceremonial or spiritual significance, and rock art, the following actions will be taken when decisions are made regarding the disposition of archaeological sites that are the result of prehistoric or historic Native American cultural activity:

    a. The Native American Heritage Commission and local reservation, museum, and other concerned Native American leaders will be notified in writing of any proposed evaluation or mitigation activities that involve excavation of Native American archaeological sites, and their comments and concerns solicited.

    b. The concerns of the Native American community will be fully considered in the planning process.

    c. If human remains are encountered during grading and other construction excavation, work in the immediate vicinity will cease and the County Coroner will be contacted pursuant to the state Health and Safety Code.

    d. In the event that Native American cultural resources are discovered during project development and/or construction, all work in the immediate vicinity of the find will cease and a qualified archaeologist meeting U.S. Secretary of Interior standards will be hired to assess the find. Work on the overall project may continue during this assessment period.

e. If Native American cultural resources are discovered, the County will contact the local tribe. If requested by the tribe, the County will, in good faith, consult on the discovery and its disposition with the tribe.

B.11 NOISE REGULATIONS

B.11.1 FEDERAL

In 1972, Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels), as shown in Table H.11-1. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of maintaining these levels.

Table B.11-1: Summary of EPA Noise Levels for Public Protection

Effect	Level	Area
Hearing loss	$L_{eq}(24) < 70$ dB	All areas
Outdoor activity interference and annoyance	$L_{dn} < 55$ dB	Outdoors in residential areas, farms, other outdoor areas where people spend widely varying amounts of time, and other places in which quiet in a basis for use.
	$L_{eq}(24) < 55$ dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{eq} < 45$ dB	Indoor residential areas.
	$L_{eq}(24) < 45$ dB	Other indoor areas with human activities such as schools, etc.

(24) = 24-hour exposure L_{eq} = equivalent continuous sound level
dB = decibels L_{dn} = day-night average noise level
Source: "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety" United States Environmental Protection Agency

For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to L_{eq} (24) of 70 dBA. The "(24)" signifies a L_{eq} duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at approximately 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

The noise effects associated with an outdoor L_{dn} of 55 dBA are summarized in Table H.11-2. At 55 dBA L_{dn}, 95 percent sentence clarity (intelligibility) may be expected at 11 feet, and no community reaction. However, 1 percent of the population may complain about noise at this level, and 17 percent may indicate annoyance.

Table B.11-2: Summary of Human Effects in Areas Exposed to 55 dBA Ldn

Type of Effects	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meters. 99 percent sentence intelligibility (average) at 1.0 meters. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Community Reaction	None evident; 7 dB below level of significant complaints and threats of legal action, and at least 16 dB below "vigorous action."
Complaints	1 percent dependent on attitude and other non-level related factors.
Annoyance	17 percent dependent on attitude and other non-level related factors.
Attitude Towards Area	Noise essentially the least important of various factors.

dB = decibels dBA = A-weighted decibels L_{dn} = day-night average noise level
Source: "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety" United States Environmental Protection Agency

B.11.2 STATE

California Government Code

California Government Code Section 65302 (f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 Community Noise Equivalent Level (CNEL) and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

B.11.3 LOCAL

City of Highland General Plan

Noise Element

Goal 7.1 Protect sensitive land uses and the citizens of Highland from annoying and excessive noise through diligent planning and regulation.

Policy 1 *Enforce the City's Noise Control Ordinance consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as a noise ordinance, building codes and subdivision and zoning regulations.*

Policy 2 *Encourage the use of site planning and architectural techniques such as alternative building orientation and walls combined with landscaping to mitigate noise to levels consistent with interior and exterior noise standards.*

Policy 3 *Require mitigation where sensitive uses are to be placed along transportation routes to ensure compliance with interior and exterior noise standards.*

Policy 4 *Consider the compatibility of proposed land uses with the noise environment when preparing, revising or reviewing development proposals.*

Policy 5 *Prevent the siting of sensitive uses in areas in excess of established 65 dBA CNEL without appropriate mitigation. Special attention should be paid to potential development within the 65 dBA CNEL noise contour of the San Bernardino International Airport and mining operations of the Santa Ana River.*

Policy 6 *Work with San Bernardino International Airport Authority to ensure that future airport planning activities encourage consistency with adopted City land use plans and minimize impacts on Highland's economic development opportunities and quality of life.*

Policy 7 *Require that site-specific noise studies be conducted by a qualified acoustic consultant utilizing acceptable methodologies while reviewing the development of sensitive land uses or development that has the potential to impact sensitive land uses. Also require a site-specific noise study if the proposed development could potentially violate the noise provisions of the General Plan or City ordinance.*

Goal 7.2 Encourage the reduction of noise from transportation-related noise sources such as automobile and truck traffic.

Policy 1 *Guide the location and design of transportation facilities to minimize the exposure of noise on noise-sensitive land uses.*

Policy 2 *Employ noise mitigation practices, as necessary, when designing future streets and highways, and when improvements occur along existing road segments. Mitigation measures should emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.*

Policy 3 *Require that development generating increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses provide appropriate mitigation measures.*

Policy 4 *Minimize truck traffic through residential neighborhoods.*

Policy 5 *Encourage the development of alternative transportation modes such as bicycle paths and pedestrian walkways to minimize the number of automobile trips and noise.*

Goal 7.3 Protect residents from the effects of "spill over" or nuisance noise.

Policy 1 *Enforce the City's Noise Control Ordinance so that new projects located in commercial or entertainment areas do not exceed stationary-source noise standards at the property line of proximate residential or commercial uses, as appropriate.*

Policy 2 *Prohibit new industrial uses from exceeding commercial or residential stationary-source noise standards at the most proximate land uses, as appropriate. (Industrial noise may spill over to proximate industrial uses so long as the combined noise does not exceed the appropriate industrial standards.)*

Policy 3 *Require that construction activities employ feasible and practical techniques to minimize noise impacts on adjacent uses. Particular emphasis shall be placed on the restriction of hours in which work other than emergency work may occur.*

Policy 4 *Require that the hours of truck deliveries to commercial properties abutting residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour.*

Policy 5 *Ensure that buildings are constructed to prevent adverse noise transmission between differing uses located in the same structure and individual residences in multi-family buildings.*

City of Redlands General Plan

Noise Element

Guiding Policies: Noise

9.0a Protect public health and welfare by eliminating existing noise problems where feasible and by preventing significant degradation of the future acoustic environment.

9.0b Incorporate noise considerations into land use planning decisions.

9.0c Support measures to reduce noise emissions by motor vehicles, aircraft, and trains.

9.0d Adopt and enforce a Community Noise Ordinance to control non-transportation noise impacts.

Implementing Policies: Noise

In addition to the provisions of the following sections 9.0e through 9.0z, it is the policy of the City of Redlands that no land use adjacent to existing residential land shall generate noise in excess of the residential CNEL levels specified in Table 9.1 and Table 9.2 (in General Plan) of this Noise Element unless appropriate mitigation measures are imposed to reduce the noise level on adjacent residential property to the standards set forth in Tables 9.1 and 9.2.

9.0e Use the criteria specified in GP Table 9.1 to assess the compatibility of proposed land uses with the projected noise environment, and apply the noise standards in GP Table 9.2, which prescribe interior and exterior noise standards in relation to specific land uses. Do not approve projects that would not comply with the standards in GP Table 9.2.

9.0f Require a noise impact evaluation based on noise measurements at the site for all projects in Noise Referral Zones (B, C, or D) as shown on GP Table 9.1 and on GP Figure 9.1 or as determined from tables in the Appendix, as part of the project review process. Should measurements indicate that unacceptable noise levels will be created or experienced, require mitigation measures based on a detailed technical study prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California with a minimum of three years experience in acoustics).

9.0g Consider establishing a periodic noise monitoring program to identify progress in achieving noise abatement objectives and to perform necessary updating of the Noise Element and community noise standards. The California Department of Health Services recommended that noise elements be updated every five years.

9.0h Minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures.

9.0i Require construction of barriers to mitigate sound emissions where necessary or where feasible, and encourage use of walls and berms to protect residential or other noise sensitive land uses that are adjacent to major roads, commercial, or industrial areas.

9.0j Require the inclusion of noise mitigation measures in the design of new roadway projects.

9.0k Ensure the effective enforcement of City, State and federal noise levels by all appropriate City departments.

9.0l Adopt and enforce a new Community Noise Ordinance to mitigate noise conflicts between adjacent land uses, to ensure that City residents are not exposed to excessive noise levels from existing and new stationary noise sources, and to educate the public regarding noise issues.

9.0m Designate one agency or department in the City to act as the noise control coordinator, to ensure the continued operation of the City's noise enforcement efforts, and to establish and maintain coordination among the City agencies involved in noise abatement.

9.0n Ensure the effective enforcement of City, State, and federal noise levels by all appropriate City departments and provide quick response to complaints and rapid abatement of noise nuisances within the scope of the City's police power.

9.0o Establish noise guidelines for City purchasing policy to take advantage of federal regulations and labeling requirements.

9.0p Coordinate with the California Occupational Safety and Health Administration (Cal-OSHA) to provide information on and enforcement of occupational noise requirements within the City.

9.0q Provide for continued evaluation of truck movements in the City to provide effective separation from residential or other noise sensitive land uses.

9.0r Encourage the enforcement of State Motor Vehicle noise standards for cars, trucks, and motorcycles through coordination with the California Highway Patrol and Redlands Police Department.

9.0s Require mitigation to ensure that indoor noise levels for residential living spaces not exceed 45 dB LDN/CNEL due to the combined effect of all exterior noise sources.

9.0t Require proposed commercial projects near existing residential land use to demonstrate compliance with the Community Noise Ordinance prior to approval of the project.

9.0u Require all new residential projects or replacement dwellings to be constructed near existing sources of non-transportation noise (including but not limited to commercial facilities or public parks with sports activities) to demonstrate via an acoustical study conducted by a Registered Engineer that the indoor noise levels will be consistent with the limits contained in the Community Noise Ordinance.

9.0v Consider the following impacts as possibly "significant":

An increase in exposure of four or more dB if the resulting noise level would exceed that described as clearly compatible for the affected land use, as established in GP Table 9.1 and GP Table 9.2;

Any increase of six dB or more, due to the potential for adverse community response.

9.0w Limit hours for all construction or demolition work where site-related noise is audible beyond the site boundary.

9.0x Work with Caltrans to establish sound walls along freeways where appropriate.

9.0y Minimize impacts of loud trucks by requiring that maximum noise levels due to single events be controlled to 50 dB in bedrooms and 55 dB in other habitable spaces.

9.0z Coordinate with the San Bernardino International Airport Authority to minimize potential noise impacts to the City of Redlands which may result from overflights as specific airport operations and flight patterns are established.

B.12 HAZARDS REGULATIONS

B.12.1 FEDERAL

Comprehensive Environmental Response, Compensation, and Liability Act

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that could endanger public health or the environment. The purpose of CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat, and the Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) pertains primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large consistent with the “right-to-know” provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 is the major transportation-related statute affecting transportation of hazardous cargoes. Its objective, according to the policy stated by Congress, is:

To improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce.

Regulations apply to “any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or

container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials."

Enforcement of the Hazardous Materials Transportation Act is shared by each of the following administrations pursuant to delegations from the Secretary of the U.S. Department of Transportation:

- Research and Special Programs Administration, which is responsible for container manufacturers, re-conditioners, and re-testers and shares authority over shippers of hazardous materials;
- Federal Highway Administration, which enforces all regulations pertaining to motor carriers;
- Federal Railroad Administration, which enforces all regulations pertaining to rail carriers;
- Federal Aviation Administration, which enforces all regulations pertaining to air carriers; and
- Coast Guard, which enforces all regulations pertaining to shipments by water.

Resource Conservation and Recovery Act

The RCRA Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

Federal Aviation Administration

The Federal Aviation Administration (FAA) establishes land use criteria around airports. Advisory Circular 150/5300-13, *Airport Design*, contains its standards and recommendations for airport design, such as airport geometry and runway and taxiway design. It describes the runway protection zone and imaginary surfaces (primary, approach, and transitional surfaces). In addition, Federal Aviation Regulation, Part 77, establishes a series of imaginary surfaces in the airspace surrounding a runway helicopter landing area.

Oil Pollution Prevention

40 Code of Federal Regulations (CFR) Part 112 is an oil pollution prevention regulation aimed to inhibit oil discharges from contacting navigable waters of the US or adjoining shorelines.

B.12.2 STATE

The California Hazardous Waste Control Law

The Hazardous Waste Control Law is the primary hazardous waste statute in the State of California and it implements the Resource Conservation and Recovery Act (RCRA), which is discussed later in this

subsection. The RCRA is a "cradle-to-grave" waste management system in the State of California and specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The Hazardous Waste Control Law also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. It exceeds Federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. The Hazardous Waste Control Law also regulates a number of types of wastes and waste management activities that are not covered by Federal law with the RCRA.

California Code of Regulations

Most State and Federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations, Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators; transporters; and treatment, storage, and disposal facilities. Because California is a fully authorized State according to the RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260 et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the U.S. Environmental Protection Agency (EPA), the integration of California and Federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. Title 22 also regulates a wider range of waste types and waste management activities than do the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26 "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22.

California Emergency Services Act

Government Code §§ 8550–8692 provide for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency. The coordination of all emergency services is recognized by the State to mitigate the effects of natural, man-made, or war-caused emergencies that could result in conditions of disaster or extreme peril to life, property, and the resources of the State, and generally to protect the health and safety and preserve the lives and property of the people of the State.

California Airport Land Use Planning Handbook

The California Department of Transportation, Division of Aviation has developed and published the *California Airport Land Use Planning Handbook*. Providing compatibility planning guidance to airport land use commissions, the *California Airport Land Use Planning Handbook* is a guidance document, according to Public Resources Code § 21096, and its recommendations are not binding but simply guidance that should be used as a reference, along with other documents.

California Health and Safety Code

Chapter 6.5 of the California Health and Safety Code (§§ 25100 through 25250) contains requirements for the handling and transportation of hazardous wastes. The requirements include manifesting procedures and registration requirements for persons transporting hazardous wastes.

California 2015 Vehicle Code

The California *2015 Vehicle Code* contains requirements for the transportation of hazardous spill containment and abatement of hazardous substances procedures. Table B.12-1 lists some examples of sections.

Table B.12-1: Examples for Hazardous Materials Sections in *2015* Vehicle *Code*

Section	Title
Division 2, Chapter 2, Article 4	Highway Spill Containment and Abatement of Hazardous Substances
Division 2, Chapter 2.5, Article 4	Transportation of Hazardous Material
Division 13, Chapter 5, Article 1	Hazardous Materials
Division 14.1	Transportation of Hazardous Material

California Fire Plan

The *California Fire Plan*, is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection, is a plan for reducing the risk of wildfire. Its basic tenets include the following:

- Defines a level of service measurement;
- Considers assets at risk;
- Incorporates the cooperative interdependent relationships of wildland fire protection providers;
- Provides for public stakeholder involvement; and
- Creates a fiscal framework for policy analysis.

B.12.3 LOCAL

City of Highland General Plan

The Public Health and Safety Element of the *City of Highland General Plan* contains the following goals and policies which are relevant to hazards and hazardous materials.

Goal 6.4 Protect life and property from the potential short- and long-term risks of transporting, storing, treating, and disposing of hazardous materials and wastes in the City.

Policy 1 *Ensure compliance with current Federal, State, and local regulations governing hazardous materials transport, storage, treatment, and disposal by working with appropriate agencies.*

Policy 2 *Require that new facilities involved in the production, use, storage, transport or disposal of hazardous materials locate a safe distance from land uses that may be adversely*

impacted by such activities. Conversely, do not allow new sensitive facilities, such as schools, child-care centers, and senior centers, to be located near existing sites that use, store or generate hazardous materials.

Policy 3 *Identify City roadways along which hazardous materials are routinely transported. If essential facilities, such as schools, hospitals, child care centers or other facilities with special evacuation needs are located along these routes, identify emergency response plans that these facilities can implement in the event of an unauthorized release of hazardous materials in their area.*

Policy 4 *Provide information to the public on regulations that address the transport, storage, treatment, and disposal of hazardous materials and wastes.*

Policy 5 *Maintain a variety of effective citywide programs for household hazardous waste collection.*

Goal 11.2 Reduce the risk to people and property by limiting the type and intensity of development in identified impact areas, ensuring adequate emergency response facilities within or adjacent to airport uses, and requiring adequate public notification of safety policies and procedures.

Policy 1 *Evaluate land use compatibility and safety issues in designated Airport Influence Areas (AIAs) by:*

- Coordinated planning with regional planning authorities
- Compliance with applicable Airport Master Plans, Federal Aviation Administration (FAA) requirements and the California Airport Land Use Planning Handbook.

Policy 2 *Limit the type and intensity of development in designated Airport Influence Areas (AIAs).*

Policy 3 *Avoid siting sensitive uses, especially residences, schools and hospitals, nearby airport runways or along approved flight paths.*

Policy 4 *Encourage the development of open space areas in Highland adjacent to designated airport safety zones.*

Policy 5 *Encourage notification requirements and establish a buyer awareness program for areas of Highland within established Areas of Special Compatibility Concern.*

City of Redlands 1995 General Plan

The Health and Safety Element of the *City of Redlands 1995 General Plan* contains the following policies for fire hazards, which is applicable to hazards and hazardous materials.

Policy 8.30a *Work to prevent wildland and urban fire, and protect lives, property, and watershed from fire dangers.*

Policy 8.30b *Adhere to the requirements for high fire hazard areas designated by the Redlands Fire Department on the official Roof Classification Zone Map, updated as of June, 1994, and as specified in the document on file at the Redlands Fire Department describing High Fire Hazard Area Fire Safety Modification Zones.*

Policy 8.30c *Monitor fire-flow capability throughout the Planning Area, and improve water availability if any locations have flows considered inadequate for fire protection.*

Policy 8.30f *Consult the San Bernardino County Fire Safety Overlay Ordinance (July 1989 Development Code) for possible appropriate implementation measures for development in the foothills area.*

Policy 8.30f refers to the San Bernardino County Fire Safety Overlay Ordinance. The Fire Safety Overlay Ordinance is the successor to the "Foothill Communities Protective Greenbelt Program" which specifies parts of the Santa Ana River Wash and the proposed Sunrise Ranch (Greenspot) development area as a wildland/urban interface, subject to increased risk of fire, flood, or erosion. The Fire Safety Overlay Ordinance contains recommendations for access and traffic circulation, fuel modification zones, site and street identification, roadside vegetation specifications, water supply and system standards, construction and development design, erosion control, and several other requirements.

San Bernardino County Hazardous Waste Management Plan

Functioning as the primary planning document for the management of hazardous waste in San Bernardino County, the *San Bernardino County Hazardous Waste Management Plan* accomplishes the following:

- Identifies the types and amounts of wastes generated in the County;
- Establishes programs for managing these wastes;
- Identifies an application review process for the siting of specified hazardous waste facilities;
- Identifies mechanisms for reducing the amount of waste generated in the County; and
- Identifies goals, policies and actions for achieving effective hazardous waste management.

San Bernardino County Fire Department

The San Bernardino County Fire Department is responsible for the regulation of businesses and institutions that handle hazardous materials or generate hazardous waste in the County of San Bernardino (with the exception of the City of Victorville). The San Bernardino County Fire Department, as a Certified Uniform Program Agency, is tasked with the job of conducting compliance inspections for regulated facilities in San Bernardino County. These regulated facilities are those that handle hazardous material, generate or treat a hazardous waste, and/or operate an underground storage tank.

As part of the State-mandated Certified Unified Programs administered by the California Environmental Protection Agency, the San Bernardino County Fire Department coordinates six hazardous material and hazardous waste programs:

- Hazardous Materials Release Response Plans and Inventory;
- California Accidental Release Program;
- Underground Storage Tanks;
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures;
- Hazardous Waste Generation and Onsite Treatment; and
- Hazardous Materials Management Plans and Inventory Statements

B.13 RECREATION REGULATIONS

Plans and policies applicable to the management of HCP lands depends on the agency responsible for managing the lands or resources involved. The governing laws applicable to the Proposed Action are detailed in Section 1.8, *Relationship to Other Policies, Programs, and Plans,* and include:

- Federal Land Policy and Management Act (FLPMA) of 1976;
- South Coast Resource Management Plan (SCRMP);
- Federal Endangered Species Act (ESA) of 1973;
- California Endangered Species Act (CESA);
- Mining and Mineral Policy Act of 1970; and
- Surface Mining and Reclamation Act (SMARA) of 1975.

The Plan Area is located in Highland and Redlands and San Bernardino County, which have adopted general plans that recognize the importance of the Santa Ana River area as a natural resource and have included policies and measures that allow for mining and processing of aggregate, managing water resources, protecting habitat, and recreation.

The City and County general plans contain goals and policies relating to recreation and open space. The following text lists those that are relevant to recreational resources for the Plan Area.

B.13.1 CITY OF HIGHLAND GENERAL PLAN

The specific goals and policies of the *Circulation* and *Conservation and Open Space Element* of the *City of Highland General Plan* that may be relevant to the Plan Area with respect to recreation are as follows:

Circulation Element

Goal 3.7 Protect and encourage bicycle travel.[11]

Policy 1 *Develop a system of continuous and convenient bicycle routes to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.*

Policy 4 *Assure that local bicycle routes will complement regional systems and be compatible with routes of neighboring municipalities.*

Policy 5 *Provide linkages between bicycle routes and other trails, such as the Santa Ana River Trail, within the City as appropriate.*

Conservation and Open Space Element

Goal 5.10 Maintain a high-quality system of parks that meet the needs of all segments of the community.

Policy 19 *Connect newly developed parks, wherever practical, to the existing and future bicycle and recreational trail system.*

Policy 22 *Develop recreational opportunities within the Greenspot area.*

Policy 25 *Conduct evaluation of park improvements to test for safety compliance, crime prevention, and effective maintenance.*

Policy 30 *Integrate park and recreation facilities with existing and future trail and bikeways, wherever practical.*

Goal 5.11 Provide excellent opportunities and facilities for hiking, equestrian and bicycle use through the Multi-Use Trail Master Plan[12].

Policy 5 *Preserve, to the extent possible, existing formal and informal trail routes in the City, in particular routes that provide major north-south and east-west access.*

Policy 8 *Where feasible, use active and abandoned roads, flood control, utility and railroad rights-of-way, and other easements for potential sites for expanded trail use.*

[11] The bicycle portion of the Circulation Element is relevant to the proposed Santa Ana River Trail and paved trails along major roadway edges within the Plan Area. A determination of compatible trail uses, including bicycling on the proposed internal trails within the Preserve, has not yet been determined. This will be done through the trails planning process in the context of the overarching goal of preventing impacts to Covered Species and their habitats within the Preserve.

[12] The trails listed in the respective General Plan Circulation Elements and discussed in this chapter are conceptual and they are presented in this document for context. Only those trails identified in the HCP and listed as conditional Covered Activities are analyzed and addressed in this document. They overlap to some extent with the conceptual trails in the Circulation Elements.

Policy 10 *Work with local, State, and Federal agencies; adjoining cities and jurisdiction; interest groups; and private landowners, in an effort to promote a Citywide trail system, and to secure trail access through purchase, easement, or by other means.*

Policy 11 *Locate trail linkages to minimize conflicts with motorized traffic.*

Goal 5.12 Develop and maintain trail and bikeway connections to recreational facilities, schools, existing transportation routes, natural features and regional trail systems.

Policy 1 *Provide trail connections between and/or along the major city and surrounding regional facilities, sites and features indicated on the Multiuse Trails Master Plan.*

Policy 3 *Seek to construct or assist in the construction of those portions of the San Bernardino County Regional Trail system that are located within Highland.*

Goal 5.13 Ensure the maximum safety and enjoyment of all trail system users.

Policy 2 *Access should be provided to the maximum extent feasible to trail users of all abilities and all ages.*

Policy 4 *Implement two general levels of trail use:*

Low Use and Natural Area: Standards shall apply to sections of the trail where terrain, remoteness, expected low usage, easement, or other restrictions make larger, multiple trails infeasible.

Policy 8 *Incorporate, where feasible and without compromising safety, all compatible multiple uses on a single trail.*

B.13.2 CITY OF HIGHLAND GENERAL PLAN CONSERVATION & OPEN SPACE ELEMENT

According to the *City of Highland General Plan*, an extensive system of informal trails was developed during the early agricultural period of Highland, mostly associated with equestrian transport routes. A formal trail system was initiated when the East Highland Ranch began construction in the early 1980s. In 1989, the City adopted the Conceptual East Highlands Equestrian Map. Realizing the importance of other non-equestrian users, a Community Trails Committee was established in 1990 to advise the City on the planning, acquisition, and maintenance of a Multi-Use Trails Master Plan. There are four conceptual multi-use trails located within the Plan Area.

B.13.3 CITY OF REDLANDS GENERAL PLAN

The specific goals and policies of the *Open Space and Conservation Element* of the *City of Redlands 1995 General Plan*[13] that are relevant to the proposed Project with respect to recreation are as follows:

Guiding Policies: Parks and Recreational Open Space

7.10b Provide adequate park acreage and recreation facilities conveniently accessible to all present and future residents.

7.10c Enhance the presence of natural and recreational opportunities in the City and increase park use by selecting new, highly accessible locations for parks.

7.10d Identify the needs of special user groups, such as the disabled and elderly, and address these in park and recreation facility development.

7.10f Encourage preservation of natural areas within and outside the Planning Area as regional parks or nature preserves.

Implementing Policies: Parks and Recreational Open Space

7.10q Continue the dedication of land along the Santa Ana bluff for a continuous linear park to be used as picnic and scenic area, and trail.

Guiding Policies: Trails

7.11a Create and maintain a system of trails serving both recreational and emergency access needs. The system is to accommodate walking, hiking, jogging, and equestrian and bicycle use.

7.11b Prepare a Trails Plan depicting regional multi-purpose trails, community trails, local feeder trails, and including design standards.

7.11c It is the intent of the Trails Component of the Open Space and Conservation Element of the *General Plan*, and the policy of the implementing agency to work with landowners to develop, acquire, and maintain the trail system.

Implementing Policies: Trails

7.11e Establish guidelines and standards for trails.

7.11f Establish agreement with public agencies and private entities for development and maintenance of trails in rights-of-way and utility corridors.

[13] The City of Redlands is currently preparing the Redlands 2035 General Plan Update. However, at the time of drafting this DEIS/SEIR the final version has not been adopted, therefore the 1995 General Plan is in effect until such time that it is replaced by the adopted 2035 General Plan update.

7.11j Coordinate location of trails to relate to neighboring properties.

7.11m Locate trail rights-of-way with concern for safety, privacy, convenience, preservation of natural vegetation and topography, and work with landowners on development proposals to incorporate and provide for continuous multiuse trail system.

B.13.4 CITY OF REDLANDS GENERAL PLAN OPEN SPACE & CONSERVATION ELEMENT

A trails map was prepared by Redlands City Council Trails Committee and adopted by the City Council on October 7, 1992. The committee recognized four major types of trails: Regional Trunk Trails; Primary Community Trails; Secondary Community Trails; and Connector Trails. The trails map within the *General Plan* includes only Regional Trunk Trails and Primary Community Trails. Two conceptual Primary Community Trails and one conceptual Regional Trunk trail traverse the Plan Area. The Regional Trunk trail would be along the Santa Ana River, at the south end of the Plan Area.

B.13.5 COUNTY OF SAN BERNARDINO GENERAL PLAN

The specific goals and policies of the *Open Space Element* of the *County of San Bernardino General Plan* that are relevant to the proposed Project with respect to recreation are as follows:

Guiding Policies: Open Space

OS 1.4 Support the establishment of "urban open space areas" within urban areas, and seek to develop or retain these areas through cooperation with local cities. Where possible, these areas will be located along or near regional trail routes.

OS 1.9 Ensure that open space and recreation areas are both preserved and provided to contribute to the overall balance of land uses and quality of life.

OS 2.1 Provide a regional trail system, plus rest areas, to furnish continuous interconnecting trails that serve major populated areas of the County and existing and proposed recreation facilities through the regional trail system. The purpose of the County regional trails system will be to provide major backbone linkages to which community trails might connect. The provision and management of community and local trails will not be the responsibility of the regional trail system.

Programs:

1. Provide equestrian, bicycling, and pedestrian staging areas consistent with the master plan of regional trails and the trail route and use descriptions shown in Figures 2-11A through 2-11C of the Circulation Background Report.

2. Work with local, state, and federal agencies, interest groups and private landowners in an effort to promote an interconnecting regional trail system and to secure trail access through purchase, easements or by other means.

OS 2.3 Locate trail routes to highlight the County's recreational and educational experiences, including natural, scenic, cultural, and historic features.

OS 2.4 Use lands already in public ownership or proposed for public acquisition, such as right-of-way for flood control channels, abandoned railroad lines, and fire control roads, for trails wherever possible, in preference to private property.

OS 2.5 Encourage the dedication or offers of dedication of trail easements where appropriate for establishing a planned trails system alignment or where an established trail is jeopardized by impending development or subdivision activity.

OS 2.6 Do not develop or open trails to public use until a public agency or private organization agrees to accept responsibility for their maintenance.

OS 2.7 Monitor all dedicated public trails and/or easements on a continuing basis and maintain an up-to-date map of all existing and proposed dedicated public trail easements on the Open Space Overlay Map. Existing trail easements or alignments will be mapped in their correct positions; proposed alignments will be mapped in general locations. The Open Space Overlay Map will be reviewed during consideration of applications for permits or development approvals to ensure that new development does not result in loss of existing or potential public use of dedicated easements

OS 2.8 Where feasible, link local equestrian trails and hiking paths with other regional trails or routes.

OS 2.11 Begin acquisition of trail easements or rights-of-way after a trail route plan has been adopted, unless a trail segment is to be acquired through dedication in conjunction with development activity or acts of philanthropy that occur prior to adoption of a route plan.

OS 2.14 To expand recreational opportunities in the County, the County will utilize small parcels adjacent to flood control facilities for equestrian, pedestrian and biking staging areas. The County Department of Real Estate Services will contact the Regional Parks Department or other County open space agency prior to disposing of any surplus lands.

B.13.6 COUNTY OF SAN BERNARDINO GENERAL PLAN CIRCULATION ELEMENT

According to the Circulation Element of the *County of San Bernardino General Plan*, trails are an important part of the non-motorized transportation system that currently exists within San Bernardino

County. Trails provide public access to open space lands and serve as recreational amenities. Within San Bernardino County, the Department of Regional Parks is responsible for maintaining all County-designated regional trails. All of the County-designated trail facilities are multi-use trails that allow pedestrian, bicycle, and equestrian use. Two planned trails (only at the conceptual level) identified in the County's circulation element are located within the vicinity of the Plan Area: 1) the Santa Ana River Trail and the Greenbelt Trail.

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C.0 FURTHER DISCUSSION OF EXISTING CONDITIONS

This appendix provides further discussions of existing conditions that pertains to this DEIS/SEIR.

C.1 AIR QUALITY

C.1.1 CRITERIA POLLUTANTS

The following is a further discussion of the criteria pollutants as well as PM2.5 and volatile organic compounds.

Carbon Monoxide (CO)
CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide. Exposure to high levels of carbon monoxide can slow reflexes and cause drowsiness, and result in death in confined spaces at very high concentrations.

Ozone (O3)
Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight to form; therefore, VOCs and NO_X are ozone precursors. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While ozone in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone (in the troposphere) can adversely affect the human respiratory system and other tissues. Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children,

and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of ozone. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2)

Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10})

PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$)

Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were

revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X and lead (Pb). Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Lead (Pb)

Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead.

Reactive Organic Gases/Volatile Organic Compounds (ROG/VOC)

It should be noted that there are no state or federal ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated; however, a reduction in VOC emissions reduces certain chemical reactions, which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM_{10} and lower visibility levels. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere, even at low concentrations, are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen.

C.1.2 STANDARD REGULATIONS AND RULES TO REDUCE FUGITIVE DUST

SCAQMD Rule 403 requires that fugitive dust be controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. Applicable dust-suppression techniques from Rule 403 and Rule 1157 are summarized below:

- Apply non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously disturbed areas inactive for 10 days or more).
- Water active sites at least twice daily. (Locations where mining is to occur would be thoroughly watered prior to earthmoving.)
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least six inches of freeboard in accordance with the requirements of California Vehicle Code

(CVC) Section 23114 (freeboard is vertical space between the top of the load and top of the trailer).

- Pave mining access roads at least 100 feet onto the site from main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

Under the direction of AQMD, the quarry operators, the Conservation District and SBCFCD shall continue to comply with SCAQMD Rule 402, which requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust-suppression measures may include the following:

- Re-vegetate disturbed areas as quickly as possible.
- All excavating and mining operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 mph.
- All paved streets shall be swept once per day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site each trip.

All on-site roads shall be paved as soon as feasible, watered periodically or chemically stabilized.

C.1.3 SCREEN3 PLUME MODELING SOFTWARE

The modeling provides conservative estimates of concentrations considering site and source geometry, source strength, distance to receptor, and building wake effects on plume distribution. The SCREEN3 model was developed to provide an easy-to-use method of obtaining pollutant concentration estimates where upper-bound estimates are required or where meteorological data is unavailable. It is a useful tool in proving that an impact is not significant (i.e., if a screening-level analysis demonstrates an impact not significant, its conservative nature provides confidence in this conclusion). Screening-level modeling is less useful in concluding that an impact is significant. When a screening-level analysis indicates a significant impact, this conclusion normally points to the need for a more sophisticated (and less conservative) method of analysis using a model such as ISCST3.

C.1.4 GENERAL CONFORMITY DETERMINATION ASSESSMENT

C.1.4.1 Introduction

This document evaluates the need for a draft General Conformity Determination for the Environmental Impact Statement/Supplemental Environmental Impact report for the Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan (Wash Plan EIR/EIS) and was requested by the USEPA in their response to comments. The proposed action is Alternative B as described in section 2.3 of the Wash Plan EIR/EIS.

The plan area for this General Conformity Assessment is the same as the plan area defined in the Wash Plan HCP (HCP Figure 1-1). This area is a part of the South Coast Air Basin. Planning documents for pollutants for which the plan area is classified as a federal nonattainment or maintenance area are developed by the South Coast Air Quality Management District (SCAQMD), the California Air Resources Board (CARB), and the State Implementation Plan (SIP) approved by the EPA.

C.1.4.2 General Conformity Regulatory Background and Requirements

The EPA promulgated the General Conformity Rule on November 30, 1993 in Volume 58 of the Federal Register (58 FR 63214) to implement the conformity provision of Title 1, section 176(c)(1) of the CAA. Section 176(c)(1) requires that the federal government not engage in, support, or provide financial assistance for licensing, permitting, or approving any activity not conforming to an approved CAA implementation plan. The approved implementation plan could be a Federal, State or Tribal Implementation Plan.

The General Conformity Rule is codified in Title 40 of the Code of Federal Regulation (CFR) Part 51, Subpart W and Part 93, Subpart B, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans." The General Conformity Rule applies to all federal actions except highway and transit programs. The latter must comply with the conformity requirements for transportation plans in 40 CFR Part 93, Subpart A. A General Conformity Determination is required where a Federal Action in a nonattainment or maintenance area causes an increase in the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutants that are equal to or exceed certain de minimis rates.

Before any approval is given for a Federal Action to move forward, the federal agency must apply the applicability requirements found at 40 CFR § 93.153 to the Federal Action and/or determine on a pollutant-by-pollutant basis, whether a determination of General Conformity is required. The applicability analysis can be, but is not required to be, completed concurrently with any analysis required under NEPA. If through the applicability analysis process the responsible agency determines that the General Conformity Regulations do not apply, no further analysis or documentation is required. If the General Conformity regulations do apply, then the responsible agency must conduct a conformity evaluation in accordance with the criteria and procedures in the implementing regulations; publish a draft determination of General Conformity for public review; and then publish the final determination of General Conformity

C.1.4.3 General Conformity Applicability

General Conformity requirements only apply to federal actions proposed in nonattainment areas and in maintenance areas. The USWS is the regulatory authority with jurisdiction in the plan area. Alternative B, as described in the Wash Plan EIR/EIS is located entirely within the South Coast Air Basin for which federal attainment status for the project area is defined in Table 3.1-1 in the Wash Plan EIR/EIS. The pollutants classified as nonattainment in the plan area include Ozone, PM_{10} and $PM_{2.5}$ while CO and NO_x are classified as maintenance.

C.1.4.4 Assessment of Project Emissions

Emissions related to onsite and offsite emissions from increased aggregate mining as part of Alternative B, as described in the Wash Plan EIR/EIS, were determined using the traffic studies from the 2008 EIR (See 2008 EIR Appendix J).Onsite Stationary sources of emissions are permitted by SCAQMD and were not reevaluated.

As a response to comments made by the USEPA, the mobile source emissions were recalculated based on the EMFAC 2017 emission factors. This assessment required some conversion and assumptions to use the data from the 2007 studies. For the assessment, emissions factors for CO, ROG, NO_x, SO_x, PM_{10}, $PM_{2.5}$, and CO_2 were downloaded from https://www.arb.ca.gov/emfac/2017/ for the South Coast region for the years 2007, 2020 and 2030. The seasonal period was annual and both the vehicle model year and speeds were aggregated. The vehicle category selected was the EMFAC 2007 vehicle HHDT, heavy-heavy duty truck, and the fuel type was diesel. These assumptions were made for all vehicles used in aggregate mining operations for both onsite and offsite mobile sources. Table C.1-1 shows the EMFAC 2017 emission factors and vehicle miles traveled (VMT) for the 6 pollutants listed above.

Table C.1-1 EMFAC 2017 Emission Factors

Year	VMT (mil/d)	CO (tons/d)	ROG (tons/d)	NO_x (tons/d)	SO_x (tons/d)	PM10 (tons/d)	PM2.5 (tons/d)	CO_2 (lbs/d)
2007	9,222,060	50.35	14.23	190.39	0.18	6.77	6.48	19,516
2020	11,283,644	12.55	2.22	63.86	0.19	0.79	0.76	19,824
2030	13,635,392	11.24	0.84	45.87	0.18	0.29	0.28	18,794

Emissions factors were converted to tons per mile based on the VMT and the tons per day emissions factor. The factors in tons per mile are utilized in both the onsite and offsite mobile source emissions calculations.

C.1.4.4.1 Onsite Mobile Emissions Calculation based on EMFAC 2017 Factors

Onsite mobile emissions were updated for both Robertson's Ready Mix and Cemex operations for mining operations and mobile processing at the plant site. Onsite emissions for the processing plant and plant stockpiles are covered by SCAQMD permits[1] and were not recalculated. Number of onsite truck trips per day was based on the assumptions from the 2008 EIR for tables 4.3F and 4.3G listed below:

Assumptions for Cemex:

Orange Street Processing Plant

- Existing Operations: 2.5 million tons/year, 8,500 tpd, up to 10 hours/day, 300 days/year
- Proposed Operations: 3 million tons/year, 10,000 tpd, up to 17 hours/day, 300 days/year

[1]Cemex: G35951, G51101, G51103, F89163.
C.L. Pharris Sand and Gravel, Inc: D13738, D13684
Robertson's Ready Mix: E05071, F76871, F76872, F76873, F82375, M29398, M54907, G2978, G2979, G39345, G39346, M31127

Mining Operations

- Existing Operations: 2.5 million tons/year, 10,000 tpd, up to 17 hours/day 260 days/year
- Proposed Operations: 3 million tons/year, 12,000 tpd, up to 17 hours/day, 260 days/year

Assumptions for Robertson's
East Basin Processing Plant

- Existing Operations: 2 million tons/year, 6,700 tpd, up to 10 hours/day, 300 days/year
- Proposed Operations: 3 million tons/year, 10,000 tpd, up to 10 hours/day, 300 days/year

Mining Operations

- Existing Operations: 2 million tons/year, 8,000 tpd, up to 10 hours/day 260 days/year
- Proposed Operations: 3 million tons/year, 12,000 tpd, up to 17 hours/day, 260 days/year

Truck capacity was assumed as 28 tons per truck for Robertson's and 26 tons per truck for Cemex based on the 2008 EIR Traffic Study Appendix A data collected by Lilburn. Onsite trip distances for mining operations were estimated based on the following:

Existing onsite trip distance:

- Cemex: distance between the orange street plant site and either the east quarry or the west quarry both are approximately 1.2 miles from the plant site one way, 2.4 miles total per trip
- Robertson's: distance between the Webster quarry and the plant site, 1.6 miles each way, 3.2 miles total per trip

Onsite miles per day for processing operations were assumed to be two-thirds of mileage per day for mining operations for both Cemex and Robertson's. Table C.1-2 shows the existing condition onsite mobile emissions in lbs/day for both Cemex and Robertson's for the years 2007 and 2020. Table C.1-3 shows the proposed condition onsite mobile emissions in lbs/day for both Cemex and Robertson's for the year 2030.

Table C.1-2 Existing Onsite Mobile Emissions (lbs/day) Based on EMFAC 2017 Emissions Factors

		CO (lbs/day)	ROG (lbs/day)	NOx (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
2007	Cemex	16.80	4.75	63.52	0.06	2.26	2.16	6,512
	Robertson's	16.64	4.70	62.92	0.06	2.24	2.14	6,450
	Total	**33.44**	**9.45**	**126.44**	**0.12**	**4.50**	**4.30**	**12,961**
2020	Cemex	3.42	0.60	17.41	0.05	0.22	0.21	5,406
	Robertson's	3.39	0.60	17.25	0.05	0.22	0.21	5,354
	Total	**6.81**	**1.20**	**34.66**	**0.10**	**0.44**	**0.42**	**10,760**

Table C.1-3 Proposed Onsite Mobile Emissions (lbs/day) Based on EMFAC 2017 Emissions Factors

		CO (lbs/day)	ROG (lbs/day)	NOx (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
2030	Cemex	3.04	0.23	12.42	0.05	0.08	0.08	5,089
	Robertson's	3.77	0.28	15.38	0.06	0.10	0.09	6,301
	Total	**6.81**	**0.51**	**27.80**	**0.11**	**0.18**	**0.17**	**11,390**

C.1.4.4.2 Offsite Mobile Emissions Calculation based on EMFAC 2017 Factors

Offsite mobile emissions were updated for both Robertson's Ready Mix and Cemex operations for mining operations and mobile processing at the plant site. Number of offsite truck trips per day was based on the assumptions from the 2008 EIR Traffic Study Appendix A data collected by Lilburn as follows:

Cemex Orange Street Plant Truck Traffic Leaving Site:

- Baseline number of trucks/week based on 3-yr average 2001-2003: 1,569 trucks/week
- Proposed number of trucks per week based on 3 milltion tons per year: 2,220 trucks/week

Cemex Alabama Street Ready Mix Plant Truck Traffic Leaving Site:

- 300 ready mix trucks per day
- 30 cement rigs per day

There is no baseline and proposed truck trips or the Alabama Street Ready Mix Plant as it is currently allowed to produce up to its maximum production and is only limited by its air quality permit.

Robertson's Plunge Creek Operations Existing:

- Bottom Dump: 146 trips/day
- Cement Rig: 10 trips/day
- Ready Mix: 120 trips/day

Robertson's Plunge Creek Operations Proposed:

- Bottom Dump: 237 trips/day
- Cement Rig: 10 trips/day
- Ready Mix: 120 trips/day

One way trip distance was assumed for the existing condition based on the intersections described in the Traffic Study between the existing plant sites and the 210 freeway onramp. Proposed trip distance assumed both miners were utilizing the new haul road and were traveling between their existing plant sites and the 210 freeway onramp. Trip distances for each miner and vehicle type are described in Table C.1-4.

Table C.1-4 Assumed Trip Distance (miles)

Miner/ Location	Truck Type	Assumed Existing Trip Distance (miles)	Assumed Proposed Trip Distance (miles)
Cemex Plant Site	Bottom Dump	1.5	2.25
Cemex Ready Mix Site	Cement Rig	1	0.8
Cemex Ready Mix Site	Ready Mix	1	0.8
Robertson's Plant Site	Bottom Dump	1.6	1.5
Robertson's Ready Mix Site	Cement Rig	1	0.6
Robertson's Ready Mix Site	Ready Mix	1	0.6

Table C.1-5 shows the existing condition offsite mobile emissions in lbs/day for both Cemex and Robertson's for the baseline years 2007 and 2020. Table C.1-6 shows the proposed project condition offsite mobile emissions in lbs/day for both Cemex and Robertson's for the year 2030.

Table C.1-5 Existing Offsite Mobile Emissions (lbs/day) Based on EMFAC 2017 Emissions Factors

		CO (lbs/day)	ROG (lbs/day)	NO_x (lbs/day)	SO_x (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
2007	Cemex	7.27	2.06	27.51	0.03	0.98	0.94	2,820
	RRM	3.97	1.12	15.00	0.01	0.53	0.51	1,537
	Total	**11.24**	**3.18**	**42.51**	**0.04**	**1.51**	**1.45**	**4,357**
2020	Cemex	1.48	0.26	7.54	0.02	0.09	0.09	2,341
	RRM	0.81	0.14	4.11	0.01	0.05	0.05	1,277
	Total	**2.29**	**0.40**	**11.65**	**0.03**	**0.14**	**0.14**	**3,618**

Table C.1-6 Proposed Offsite Mobile Emissions (lbs/day) Based on EMFAC 2017 Emissions Factors

		CO (lbs/day)	ROG (lbs/day)	NO_x (lbs/day)	SO_x (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
2030	Cemex	1.61	0.12	6.58	0.03	0.04	0.04	2,695
	RRM	0.72	0.05	2.92	0.01	0.02	0.02	1,196
	Total	**2.33**	**0.17**	**9.50**	**0.04**	**0.06**	**0.06**	**3,891**

C.1.4.4.3 Change in Mobile Emissions based on EMFAC 2017 Factors

The change between existing and proposed conditions for both onsite and offsite mobile emissions are summarized below. Table C.1-7 compares the 2007 calculations with the 2030 calculations and C.1-8 compares the 2020 calculations with the 2030 calculations.

Table C.1-7 Change in emissions between 2007 and 2030 (lbs/day)

	CO (lbs/day)	ROG (lbs/day)	NO_x (lbs/day)	SO_x (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
Onsite							
Cemex	-13.75	-4.52	-51.10	-0.01	-2.18	-2.09	-1,422
Robertson's	-12.87	0.05	2.92	0.01	0.02	0.02	-149
Sub Total	**-26.62**	**-8.95**	**-98.64**	**-0.01**	**-4.23**	**-4.13**	**-1,571**
Offsite							
Cemex	-5.66	-1.94	-20.93	0	-0.94	-0.90	-125
Robertson's	-3.25	-1.07	-12.09	0	-0.52	-0.49	-342
Sub Total	**-8.91**	**-3.01**	**-33.02**	**0**	**-1.45**	**-1.39**	**-467**
TOTAL	**-35.54**	**-11.95**	**-131.66**	**-0.02**	**-5.68**	**-5.52**	**-2,038**

Table C.1-8 Change in emissions between 2020 and 2030 (lbs/day)

	CO (lbs/day)	ROG (lbs/day)	NO_x (lbs/day)	SO_x (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	CO_2 (lbs/day)
Onsite							
Cemex	-0.38	-0.38	-4.99	0	-0.14	-0.13	-317
Robertson's	0.38	-0.32	-6.86	0.01	-0.12	-0.11	947
Sub Total	**0**	**-0.70**	**-6.86**	**0.01**	**-0.25**	**-0.24**	**630**
Offsite							
Cemex	0.13	-0.14	-0.96	0	-0.05	-0.05	354
Robertson's	-0.09	-0.09	-1.19	0.01	-0.03	-0.3	-81
Sub Total	**0.04**	**-0.23**	**-2.16**	**0.01**	**-0.08**	**-0.08**	**273**
TOTAL	**0.04**	**-0.93**	**-9.02**	**0.02**	**-0.34**	**-0.32**	**903**

C.1.4.5 General Conformity Determination Assessment

The conformity assessment demonstrates that the change in emissions associated with the offsite and onsite mobile sources between 2007 and 2030 is a decrease in emissions. Table C.1-9 shows the total change in mobile emissions, stationary emissions (as calculated in the 2008 EIR) and the fugitive dust emissions compared to the de minimus threshold in tons per year.

Table C.1-9 Increase in emissions between 2007 and 2030 (tons/year)

	CO	ROG	NO_x	SO_x	PM10	PM2.5	CO_2
Onsite-stationary[1]	-	-	-	-	2.39	0.77	-
Fugitive Dust[1]	-	-	-	-	7.3	3.65	-
Onsite -mobile	-4.86	-1.63	-18.00	0	-0.77	-0.75	-286.72
Offsite-mobile	-1.63	-0.55	-6.03	0.	-0.26	-0.25	-85.27
TOTAL	**-6.49**	**-2.18**	**-24.03**	**0**	**8.66**	**3.42**	**-371.99**
Federal De Minimis Threshold	**100**	**50**	**100**	**100**	**70**	**70**	**-**

1: values from 2008 EIR, onsite stationary emissions are under the following permits:
Cemex: G35951, G51101, G51103, F89163.
C.L. Pharris Sand and Gravel, Inc: D13738, D13684
Robertson's Ready Mix: E05071, F76871, F76872, F76873, F82375, M29398, M54907, G2978, G2979, G39345, G39346, M31127

The increased aggregate mining that under the proposed project (Alternative B) in the Wash Plan EIR/EIS as assessed is below de minimus thresholds for all air quality constituents and therefore does not require a General Conformity Determination.

C.2 GEOLOGIC RESOURCES

As outlined in the HCP, the Plan Area is located in the broad fluvial plain formed by the deposition of the Santa Ana River, Mill Creek, and City Creek as they flow southwest from the San Bernardino Mountains. Several fault-bounded structural blocks saddle the general vicinity of the Plan Area. The down-dropped San Bernardino Valley block underlies the Plan Area and represents a buried rift between the San Andreas Fault to the northeast, and the San Jacinto Fault to the southwest. As the block subsided, alluvium derived from the San Bernardino Mountains filled the resulting depression, causing a maximum alluvial thickness of 600 to 1,200 feet east of the San Bernardino International Airport. It is this alluvium that is mined throughout the Plan Area. The alluvial deposit is of the Quaternary Age and consists of igneous and metamorphic clasts whose rocks are found in the mountains and at Crafton Hills. The class sizes vary from that of fine size to boulders. All materials within the Plan Area are classified in the Soboba Series, specifically Soboba stony loamy sand.

The Plan Area is subject to ground shaking from earthquakes but is not located within an Alquist-Priolo special studies zone. The area is gently sloping (3–6% slope) and is not subject to landslide hazards. Depth to groundwater fluctuates with season and groundwater recharge activities. The area is subject to liquefaction though this is not considered hazardous for mining, reclamation, recharge, and flood control activities.

The Santa Ana River extends the length of the Plan Area; two tributaries to the Santa Ana River also occur within the Plan Area: Plunge Creek in the north and Mill Creek in the southeast. Soils within the Plan Area are mapped as Soboba stony loamy sand, 2 to 9% slopes; Psamments and Fluvents, frequently flooded; and Hanford coarse sandy loam, 2 to 9% slopes. Soils in and along the channels of the Mill Creek, the Santa Ana River, Plunge Creek, and an old channel between Plunge Creek and the Santa Ana

River (roughly 15% of the Plan Area) are mapped as Fluvents and Psamments. These are recent soils with little or no evidence of horizon development. Fluvents are formed by recent water-deposited sediments in floodplains, fans, and stream or river deltas and consist of layers of various soil textures. Psamments formed on terraces or outwash plains and contain well sorted, freely draining soils that always contain sand, fine sand, loamy sand, or coarse sand in subsoils between 10 and 40 inches in depth.

Most of the Plan Area consists of Soboba stony loamy sand. This soil forms on alluvial fans in granitic alluvium and typically contains stony loamy sand, very stony loamy sand, and very stony sand to a depth of approximately 60 inches. Included within this soil are areas of Tujunga gravelly loamy sand. A small area of Hanford coarse sandy loam occurs in the northeastern part of the Plan Area. This is a well-drained soil formed in recent granitic alluvium on valley floors and alluvial fans that contains sandy loam to a depth of about 60 inches.

Fluvial process is the physical interaction of flowing water and the natural channels of rivers and streams. Over much of the world the erosion of landscape, including the reduction of mountains and the building of plains, is brought about by the flow of water. As rain falls and collects in watercourses, the process of erosion not only degrades the land, but the products of erosion themselves become the tools with which the rivers carve the valleys in which they flow. Sediment materials eroded from one location are transported and deposited in another, only to be eroded and redeposited time and again before reaching the ocean. At successive locations, the river plain and the river channel itself are products of the interaction of a water channel's flow with the sediment brought down from the drainage basin above.[2]

The three phases of RAFSS (pioneer, intermediate, and mature) appear to correlate with factors indicative of fluvial disturbance such as time since last flood with significant overbank flows, elevation and distance from the main river channel, and substrate features such as texture and moisture. Under natural conditions, flood waters periodically overtop or "break out" of alluvial river channels in unpredictable spatial and temporal scouring vegetation and transporting and depositing sands. This fluvial process contributes to a braided mosaic of pioneer, intermediate, and mature associations of RAFSS on the floodplain.[3]

As outlined in the USFWS' 2002 Biological Opinion for the operation of Seven Oaks Dam, the dam is one major component of the greater Santa Ana River Mainstem Project undertaken by USACE to address flood control on the Santa Ana River. The dam is intended to be operated for flood control purposes by temporarily retaining water and attenuating peak flows until the downstream flood threat has passed. The hydrologic effect of Seven Oaks Dam is to reduce peak flood flows downstream to Prado Dam, which controls floods downstream Pacific Ocean. Construction of the Dam began in March 1994 and the dam became operable in December 1999.

[2] https://www.britannica.com/science/fluvial-process

[3] USDOI, Fish and Wildlife Service, Biological Opinion for the Operations of Seven Oaks Dam by US Army Corps of Engineers, December 19, 2002.

If the dam was operated in the long term for flood control in the absence of the additional conservation measures, a decline in the quality and quantity of suitable habitat for SBKR, woolly-star and spineflower would be anticipated. Such a decline would result from a reduction in the frequency, magnitude, and extent of flood events due to the operation of the dam. These flood events would normally serve to rejuvenate intermediate and late succession alluvial sage scrub; however, the presence of the dam and its operations will prevent flood flows from reaching at least approximately 15 percent of alluvial scrub habitats on the Santa Ana Wash area. The dam will trap sediment and release water that is relatively free of sand and gravel, thus reducing the amount and quality of sediment that is also necessary for fluvial processes. Therefore, in the absence of additional conservation measures over the life of the dam, that succession of habitat would have an adverse effect on SBKR, woolly-star, and spineflower by precluding flood and scour processes necessary for rejuvenation of their habitats. In addition to operation for flood control, it is anticipated that water releases will be made to maintain and enhance habitat for listed species under a finalized Multi-Species Habitat Management Plan (MSHMP) for listed species as outlined in the Biological Assessment. It is anticipated that the water used for controlled releases, for both experimental treatments and management measures, would come from flood flows stored. The objective would be to mimic historic conditions without compromising public safety or dam integrity.

As the fluvial process is a part of the life history needs for three of the Covered Species, SBKR, woolly-star, and spineflower, retaining or replicating the natural fluvial process in the Plan Area is critical to conservation.

C.3 HYDROLOGY

C.3.1 REQUIREMENTS OF A STORMWATER POLLUTION PREVENTION PLAN

Required elements of a SWPPP include the following:

- Site description addressing the elements and characteristics specific to the site;
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for waste handling and disposal;
- Implementation of approved local plans;
- Proposed post-construction control requirements; and
- Non-stormwater management.

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby water bodies or indirectly via storm sewer systems, thereby degrading water quality. The US EPA developed permitting regulations under the NPDES to control stormwater discharges associated with eleven categories or sectors of

industrial activity. One of the sectors includes glass, clay, cement, concrete, and gypsum product manufacturing facilities.

Common requirements for coverage under an industrial stormwater permit include development of a written SWPPP, implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent (NOI). The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that would be implemented at the facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific BMPs, maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The State Water Resources Control Board and the Regional Water Quality Control Boards implement and enforce the Industrial General Permit. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. BMPs must be selected and implemented to address the following:

- Good Housekeeping Practices,
- Minimizing Exposure,
- Erosion and Sediment Control, and
- Management of Runoff.

The following types of industrial stormwater monitoring requirements are typically included industrial general permits:

- **Visual Assessments of Discharges**. Permittees are required to regularly and frequently take a grab sample during a rain event and assess key visual indicators of stormwater pollution – color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other qualitative markers of pollution. The findings of these assessments are used to trigger further facility inspections and corrective actions to modify problems found at the site.
- **Indicator or Benchmark Sampling**. Stormwater samples are collected from a site's discharge points (or outfalls) for laboratory analysis and the results are compared with benchmark pollutant concentrations as an indicator of the performance of stormwater control measures.
- **Compliance Sampling.** Where a facility is subject to one of the Federal effluent limitation guidelines addressing limits on stormwater runoff, sampling is required to determine compliance with those limits. Typically, permits require corrective action and further sampling when an effluent limitation is exceeded. An exceedance of an applicable effluent limitation guideline constitutes a violation of the permit.
- **Monitoring Requirements for Discharges to Impaired Waters**. General industrial permits may have special monitoring requirements for facilities that discharge pollutants of concern into impaired waters.

C.3.2 INTEGRATED REGIONAL WATER MANAGEMENT PLAN (IRWMP)

The Upper Santa Ana River Watershed (USARW) has a long-standing history of collaboration by water resources management agencies to manage the watershed's unique water supply, water quality, flood, and habitat challenges. In 2005, this collaboration allowed the agencies to successfully form the USARW Integrated Regional Water Management Region (Region) and develop an integrated plan for managing water resources in the Region. The IRWMP is a result of that effort. The 2015 IRWMP serves as an update to the IRWMP developed in 2007, and incorporates new information describing the Region updates goals and objectives, re-evaluates strategies, and develops a process for future implementation of the IRWMP.

Water supply management in the Region dates back to the 1800s when predecessors of today's water agencies were constructing ditches to deliver water. Management now consists of dozens of water supply agencies that deliver water to this rapidly growing region. These water suppliers also face institutional complexities and must account for the hydrological variation that occurs in both local and imported water supplies. The IRWMP Region's water suppliers plan to meet demand through a combination of imported water, groundwater, local surface water, recycled water, and water use efficiency programs. By 2035, demand in the Region is projected to increase by over 100,000 acre-feet per year (AFY) and will require the continued development of diverse water supply portfolio to overcome various challenges and uncertainties. The IRWMP Region is highly dependent on its local water supplies, particularly precipitation stored as groundwater, which provides approximately 67% of supplies during average years and over 70% of supplies during drought years. The Region plans to store as much water as possible in the groundwater basins during wet years and then to pump this water from groundwater storage during drought years (i.e. conjunctive use).

The primary purpose of the IRWMP is to encourage integrated planning among the agencies in the IRWMP Region. In particular, the need to improve water supply reliability by implementing local supply projects is recognized as a priority given that imported water is increasingly viewed as a less reliable supply and considering that water purveyors within the Region rely on imported water to meet between 13% and 16% of their demands. As the IRWMP Region continues to implement the strategies in the IRWMP, it will be better positioned during drought periods. In addition, the IRWMP Region is dedicated to protecting its groundwater basins from water quality degradation and threat of liquefaction, where applicable, as well as maintaining its natural and recreational water resources.

The water budget for the IRWMP compares the supply and demand for the IRWMP Region. The IRWMP water budget relies primarily on the 2010 Urban Water Management Plans for each water supplier within the IRWMP Region. Chapter 3.3, *Water Supplies,* of the IRWMP provides a description of each water supply within the IRWMP Region, the projected demands for each supply, and an estimate of the available water supply based on data presented in Urban Water Management Plans (UWMPs) and the Western-San Bernardino Watermaster report. The SBBA was adjudicated by the Western Judgment in 1969. The judgment established the natural safe yield of the SBBA to be a total of 232,100 AFY for surface water diversions and groundwater extractions. Surface water is diverted from Mill Creek, Lytle

Creek, and the Santa Ana River. The average surface diversions in the SBBA for direct use from 1968 to 2000 were 39,000 AFY. It was determined in the Western Judgment that the Plaintiffs have a 64,862 AFY share of the safe yield, which equates to 27.95% of the safe yield. The Plaintiffs include the City of Riverside (the successor to the Riverside Water Company and the Gage Canal Company), Riverside Highland Water Company, Meeks & Daley Water Company, and Regents of the University of California.

The Non-Plaintiffs' (agencies within San Bernardino County) rights are 167,238 AFY, which equates to 72.05% of the safe yield. If the Non-Plaintiff extractions exceed the safe yield of the SBBA, the Conservation District is obligated to import and recharge a like amount of water into the SBBA. The Western-San Bernardino Watermaster produces an annual report calculating the total extractions and comparing it to the safe yield. If the total extractions are less than the safe yield, there is a groundwater "credit" in the basin. If the total extractions are more than the safe yield, there is a replenishment obligation. According to the 2012 Annual Western-San Bernardino Watermaster Report, the District has 114,369 AFY of credit accumulated in the SBBA through 2011.

To meet future demands in the IRWMP Region, groundwater modeling results indicate that the Conservation District will need to import an average of about 62,000 AFY. During wet years, over 37,000 AFY of water would be stored. In dry years, 50,000 AFY would be pumped from storage, thereby reducing the Conservation District service area's dry year need from the State Water Project to 12,000 AFY. The 2011 State Water Project Final Delivery Reliability Report predicts that the State Water Project (SWP) may deliver as little as 11% of its maximum delivery capacity during a future drought; most recently, this amount was reduced to 5% during the 2014 drought. The Conservation District's ultimate direct delivery need is about 30%, leaving 18% or 19,000 AFY deficit in dry years. A storage program is currently being developed (the proposed Water Conservation Activities evaluated as part of this DEIS/SEIR) that would store enough water upstream of the Conservation District's service area to make up for this deficit during dry years. The SBBA is forecasted to supply over 50% of the future water demand within the Region. Computer models were used to help determine whether the available surface water (local surface water and imported water) and groundwater supplies would meet ultimate demands (in 2035). Based on modeling results, and assuming that the SWP is as reliable as the Department of Water Resources estimated in 2011 (60%), the SBBA storage can be maintained to meet the 2035 demands.

C.4 BIOLOGICAL RESOURCES

The following provides additional detailed information on the Biological Resources within the plan area that pertain to this DEIS/SEIR.

C.4.1 VEGETATION COMMUNITIES

C.4.1.1 Riversidean Alluvial Fan Sage Scrub (RAFSS)

RAFSS is a shrubland type that occurs in washes and on gently sloping alluvial fans. Alluvial scrub is made up predominantly of drought-deciduous soft-leaved shrubs, but with significant cover of larger perennial species typically found in chaparral. Scalebroom generally is regarded as an indicator of Riversidean alluvial scrub.

The Holland (1986)[4] classification system describes three sub-classifications of RAFSS: pioneer; intermediate; and mature, with their distribution typically based on differences in flooding frequency and intensity. The majority of vegetation within the Plan Area is RAFSS habitat (3,196 acres) of the naturally occurring vegetation and includes all three sub-classifications.

Pioneer Riversidean Alluvial Fan Sage Scrub (RAFSS)

The most frequently flooded areas tend to be located adjacent to the active creek channel and are where early successional (or pioneer) plant species tend to establish and dominate the landscape. Vegetation tends to be sparse and of low species diversity and stature. In the Santa Ana River, the pioneer stage of RAFSS was indicated by the presence of scale broom (*Lepidospartum squamatum*) and/or golden aster (*Heterotheca sessiliflora*) and where soils are characterized by high sand and low organic and clay content. Other plant species found in the pioneer stage include brittlebush (*Encelia farinosa*), Santa Ana River woolly star, sweet bush (*Bebbia juncea*), and California croton (*Croton californicus*). The three representative plant species of the pioneer phase are scale broom, California buckwheat (*Eriogonum fasciculatum*), and mulefat (*Baccharis salicifolia*). Total vegetative cover in a pioneer phase ranges from 1-48% and lasts approximately 30-40 years after flooding. There are 470.9 acres of pioneer vegetation within the Wash Plan HCP Area.

Intermediate Riversidean Alluvial Fan Sage Scrub (RAFSS)

Areas at mid-elevated locations above the active floodplain (or terraces) tend to be much less frequently flooded and support mid-successional (or intermediate) plant species. Vegetation can be rather dense and is composed mainly of subshrubs. In the Santa Ana River the intermediate stage of RAFSS are indicated by the presence of senecio (*Senecio flaccidus var. douglasii*) and white sage (*Salvia apiana*). Other plant species found in the intermediate stage are pine-bush (Ericameria pinifolia), matchweed (Gutierrezia californica), deerweed (Lotus scoparius), California juniper (Juniperus californica), and yucca (Yucca whipplei), as well as cryptogamic soil crusts5. The three representative plant species of the intermediate phase are California buckwheat, yerba santa (Eriodictyon trichocalyx), and grassland goldenbush (Ericameria palmeri). The Service also lists valley cholla (*Cylindropuntia californica*) and coastal prickly pear (*Opuntia littoralis*) in the intermediate phase. Total vegetative cover in an intermediate phase ranges from 49-65% and lasts approximately 40-70 years after flooding. Some areas of the Plan Area where intermediate and mature intergrade have been classified as

[4] Holland, R. 1986. A Description of the Terrestrial Natural Communities of California. California Department of Fish and Game, October.

[5] Cryptogamic soil crusts, also known as biological soil crusts, are communities of living organisms on the soil surface in arid and semi-arid ecosystems. They perform important ecological roles including soil stabilization.

intermediate/mature RAFSS. There are 2,129.7 acres of intermediate RAFSS habitat and 1,057.8 acres of intermediate/mature RAFSS in the Plan Area.

Mature Riversidean Alluvial Fan Sage Scrub (RAFSS)

The highest elevated terraces are where flooding only occurs during extreme and rare events and support late-successional (or mature) plant species. Vegetation is dense and is composed of fully developed subshrubs and woody shrubs. In the Santa Ana River the mature stage of RAFSS was indicated by the presence of California sagebrush, prickly pear (Opuntia parryi), and wire lettuce (Stephanomeria pauciflora). Other plant species found in the mature stage were yerba santa (Eriodictyon angustifolium), chamise (Adenostoma fasciculatum), deerweed, and California juniper. Four representative plant species of the mature phase are chamise, California buckwheat, yerba santa, and grassland goldenbush. The Service also lists sugar bush (Rhus ovata), holly-leaved cherry (Prunus ilicifolia) are representative of the mature phase. Total vegetative cover in mature phase ranges from 66-88% and lasts approximately 70+ years after flooding. Some areas of the Plan Area where non-native grasses predominate in the understory have been classified as mature RAFSS/non-native grassland. There are 428.6 acres of mature RAFSS habitat and 109.2 acres of mature/non-native grassland RAFSS within the Plan Area.

C.4.1.2 Riversidean Upland Sage Scrub (RSS)

Riversidean sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought-deciduous shrubs and subshrub species. It is a more xeric expression of coastal sage scrub, occurring further inland in drier areas where moisture and climate are not moderated by proximity to the marine environment. RSS typically occurs on steep slopes, severely drained soils or clays that are slow to release stored soil moisture.

Species composition varies substantially depending on physical circumstances and the successional status of the habitat; however, characteristic species include California sagebrush, buckwheat, laurel sumac, California encelia, and several species of sage. Other common species include brittlebush, sugarbush, yellow bush penstemon, Mexican elderberry, sweetbush, boxthorn, coastal prickly-pear, coastal cholla, tall prickly-pear, and species of dudleya.

Onsite, Riversidean sage scrub includes brittlebush, deerweed, spiny redberry, California sagebrush, California buckwheat, white sage, and yerba santa (*Eriodictyon crassifolium*). Physical characteristics include gravely, sandy and/or silty soil with few cobbles. Within the Plan Area, RSS occurs on cut slopes that have been re-vegetated where no alluvial processes are present. There are only 9.4 acres of RSS habitat within the Plan Area.

C.4.1.3 Chamise Chaparral

Chamise chaparral occurs throughout much of the range of chaparral in California up to approximately 6,000 feet in elevation. This vegetation is found on all slope-aspects generally on shallow soils and is dominated by chamise. Vegetation structure is open to dense from approximately 3 to 13 feet in height,

with little litter and few understory species in mature stands. On site this vegetation type is dominated by chamise but also includes yerba santa, California buckwheat, sugar bush, and yucca with an understory of non-native brome grasses and gracile buckwheat. Within the Plan Area chamise chaparral occurs on the north, on either side of the Metropolitan Water District pipeline easement. There are 108.2 acres of chamise chaparral in the Plan Area.

C.4.1.4 Willow Thickets

The active aggregate mining operation has sedimentation basins that are used to receive excess water from processing the aggregate. On the boundaries of these active sedimentation basins, willow thickets have formed. Although not all willow species were systematically identified within this plant community, expected species include black willow (*Salix gooddingii*), sandbar willow (*Salix exigua*), and arroyo willow (*Salix lasiolepis*), as well as a secondary species such as mulefat (*Baccharis salicifolia*) and cottonwood (*Populus fremontii*). There are 11.3 acres of willow thickets in the Plan Area.

C.4.1.5 Mulefat Scrub

There are several areas near the Plunge Creek and City Creek confluence where mulefat is the predominant plant species, and these have been classified as mulefat scrub (or mulefat thickets). Other much less dominant species observed within these areas includes black willow, pepperweed(*Lepidium latifolium*), and California sagebrush. There are 1.4 acres of mule fat habitat within the Plan Area.

C.4.1.6 Aquatic Vegetation

The active aggregate mining operation has sedimentation basins that are used to receive excess water from processing the aggregate. Within the central portion of these active sedimentation basins, aquatic vegetation was observed to be dominated by cattail (*Typha* species). This community was not closely inspected so secondary species were not identified. There is 0.2 acre of aquatic vegetation in the Plan Area.

C.4.1.7 Non-Native Grassland

Disturbance by maintenance (e.g., mowing, scraping, spraying), grazing, repetitive fire, agriculture, or other mechanical disruption may alter soils and remove native seed sources from areas formerly supporting native habitat. Within the Plan Area, non-native grassland consists of a sparse to dense cover of annual grasses (*Bromus* spp.) as well as native and non-native annual forb species. Fountain grass (*Pennisetum setaceum*) is a perennial grass that is not native to California and the California Invasive Plant Council classifies its potential impact on native ecosystems as moderate.[6] Tocalote, also known as Maltese or Napa star thistle (*Centaurea melitensis*), is an annual herb that is not native to California.[7]

[6] https://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=6133
[7] https://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=1851

Physical characteristics include clay soils or fine-textured loamy soils. There are 156.3 acres of non-native grassland habitat within the Plan Area.

C.4.1.8 Perennial Pepper Weed

One area dominated by perennial pepperweed (*Lepidium latifolium*), an invasive species, has been identified in the northwestern portion of the Plan Area. There is an intermittent to continuous cover of perennial pepperweed, as well other non-native species such as mustards (*Brassica* spp.) and wild radish (*Raphanus* species). Also present are emergent trees and shrubs that occur at a low cover, such as occasional Goodding's black willow (*Salix gooddingii*) and mulefat (*Baccharis salicifolia*). This community has established at this location due to levees that have created a hydrology pattern that constricts Plunge Creek as it enters City Creek and allows for seasonal flooding. There are 21.1 acres of perennial pepper weed in the Plan Area.

C.4.1.9 Tamarisk Thickets

The aggregate mining areas have inactive sedimentation basins that were formerly used to receive excess water from processing the aggregate. These areas may have minimal to no current artificial water inputs. Where there are still some minimal water input remains, the areas are dominated by fairly large and lush tamarisk (*Tamarix ramosissima*), with interspersed Fremont's cottonwood. Other sediment basins where there are no current artificial water inputs consist of more open sandy areas that are sparsely vegetated by tamarisk, and have a large component of dead and dying wood from the tree species that occupied this area when the sediment basin was active. There are 30.0 acres of tamarisk thickets in the Plan Area.

C.4.2 OTHER LAND COVER TYPES

C.4.2.1 Recharge Basins

The recharge basins were constructed onsite by the Conservation District. These basins contain standing water intermittently during the year. When dry, they can be characterized as similar to developed/disturbed habitat described below. Recharge basins account for 68.9 acres of the Plan Area.

C.4.2.2 Active Sediment Basins

The active aggregate mining operation has sediment basins that are used to receive excess water from processing aggregate. The open water and bare ground (including silt/mud flat) areas of these basins have been classified as active sediment basin land cover type. It is expected that there would be a large amount of year-to-year variation in this area depending on season and the overall activity level of the mining operation and water input. Furthermore, once the artificial water source is removed, the land cover type would be expected to convert fairly rapidly to ruderal, pioneering vegetation. Active sediment basins account for 2.9 acres of the Plan Area.

C.4.2.3 Disturbed/Developed

Developed land refers primarily to existing mining pits, paved roads, facilities, and other similar areas throughout the Plan Area. However, developed land also includes previously graded areas, (e.g., existing mining, landscaped areas and areas actively maintained or utilized in association with existing developments). Disturbed /developed lands account for 1,286.4 acres of the Plan Area.

C.4.3 NON COVERED SENSITIVE SPECIES

The following tables include information on non-covered species determined to occur or have the potential to occur within the Plan Area.

Table C.4.3-1. Non-Covered Sensitive Plant Species Present or with Potential to Occur in the Plan Area and Avoidance and Mitigation Measures

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Berberis nevinii Nevin's barberry	USFWS: FE CDFW: FE CRPR: List 1B.1	Low	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, plants will be relocated to appropriate receptor sites located on the HCP Preserve at the direction of the Preserve Manager.
Calochortus plummerae Plummer's mariposa-lily	USFWS: None CDFW: None CRPR: List 4.2	Present	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, plants will be relocated to appropriate receptor sites located on the HCP Preserve at the direction of the Preserve Manager. The plant's corm and cormlets can be unearthed, bagged up, and relocated to a site with similar soils where non-native annual grass control has been completed, or where they are absent.
Chorizanthe parryi var. *parryi* Parry's spineflower	USFWS: None CDFW: None CRPR: List 1B.1 BLM: S	Present	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, seed 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 will be planted with preferred habitat where non-native annual grass control has been completed or where they are absent. Weeds should be removed prior to planting. Seeds will be raked into substrate.
Imperata brevifolia California satintail	USFWS: None CDFW: None CRPR: List 2B.1	Low	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, seed 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 will be planted with preferred habitat. Weeds should be removed prior to planting. Seeds will be raked into substrate.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	USFWS: None CDFW: None CRPR: List 4.3	Present	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, seed 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 will be planted with preferred habitat. Weeds should be removed prior to planting. Seeds will be raked into substrate.
Malacothamnus parishii Parish's bush mallow	USFWS: None CDFW: None CRPR: 1A	Low	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, plants will be relocated to appropriate receptor sites located on the HCP Preserve at the direction of the Preserve Manager.
Mucronea californica California spineflower	USFWS: None CDFW: None CRPR: List 4.2	Present	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, plants will be relocated to appropriate receptor sites located on the HCP Preserve at the direction of the Preserve Manager.

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Symphyotrichum defoliatum San Bernardino aster	USFWS: None CDFW: None CRPR: 1B.2 BLM: S	Low	Prior to Covered Activities/Proposed Projects which will result in ground disturbance, preconstruction surveys will be conducted by a qualified biologist using the Bureau of Land Management's Survey Protocols. In the event of the species being found, seed 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 will be planted with preferred habitat. Weeds should be removed prior to planting. Seeds will be raked into substrate.

USFWS = United States Fish and Wildlife Service
CDFW = California Department of Fish and Wildlife
BLM =Bureau of Land Management

California Rare Plant Ranking (CRPR) Designations:
List 1A: Plants presumed extinct in California and either rare or extinct elsewhere.
List 1B: Plants rare, threatened, or endangered in California and elsewhere. List 1B plant species are designated BLM Sensitive.
List 2A: Plants presumed extirpated in California, but common elsewhere
List 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3: Plants about which we need more information; a review list.
List 4: Plants of limited distribution; a watch list.

Threat Ranks:
0.1: Seriously endangered in California (over 80 percent of occurrences threatened / high degree and immediacy of threat).
0.2: Moderately threatened in California (20-80 percent occurrences threatened/ moderate degree and immediacy of threat).
0.3: Not very threatened in California (<20 percent of occurrences threatened/ low degree and immediacy of threat or no current threats known).
0.4: Apparently Secure within California

Sources:

1. Calflora: Information on California plants for education, research and conservation,
with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria.
[web application]. 2017. Berkeley, California: The Calflora Database [a non-profit organization].
Available: http://www.calflora.org/(Accessed: Feb 09, 2017)

2. California Natural Diversity Data Base (CNDDB). 2017. State & Federally Listed Endangered & Threatened Plants of California. February 2017.

Table C.4.3-2. Non-Covered Sensitive Reptile and Amphibian Species Present or with Potential to Occur in the Plan Area and Avoidance and Mitigation Measures

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Anniella stebbinsi Silvery legless lizard	USFWS: None CDFW: SSC BLM: None	Present	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 individuals special status reptiles or amphibians are detected, they will be captured and relocated to appropriate habitat within the HCP Preserve under the direction of the Preserve Manager the nearest adjacent Preserve lands. Results of the surveys and relocation efforts shall be provided to the 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.
Aspidoscelis tigris stejnegeri Coastal western whiptail	USFWS: None CDFW: None BLM: None	High	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 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.
Crotalus ruber rubber Northern red-diamond rattlesnake	USFWS: None CDFW: SSC BLM: None	High	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 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.
Phrynosoma coronatum (blainvillii population) Coast (San Diego) horned lizard	USFWS: None CDFW: SSC BLM: S	Present	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 District and/or USFWS and relocation of animals shall only occur with the proper scientific collection and handling permits.
Spea (Scaphiopus) hammondii Western spadefoot toad	USFWS: FC CDFW: SSC BLM: S	Present	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 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.

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Thamnophis hammondii Two-striped garter snake	USFWS: None CDFW: SSC BLM: S	Low	Prior to any ground-disturbing activities, the area shall be surveyed by a qualified biologist demonstrated expertise with special-status terrestrial herpetofauna for 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 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.

USFWS = United States Fish and Wildlife Service
CDFW = California Department of Fish and Wildlife
BLM = Bureau of Land Management

Federal Designations: (Federal Endangered Species Act, USFWS):
FE: Federally listed endangered
FT: Federally listed threatened
FC: Federal candidate

Federal Designations (BLM)
BLM S: BLM Sensitive

State Designations: (California Endangered Species Act, CDFW):
ST: State listed threatened
SE: State listed endangered
FP: Fully protected
SSC: State Species of Concern
WL: California Department of Fish and Wildlife Watch List

Table C.4.3-3. Non-Covered Sensitive Mammal Species Present or with Potential to Occur in the Plan Area and Avoidance and Mitigation Measures

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Antrozous pallidus Pallid bat	USFWS: None CDFW: SSC BLM: S	Low	A qualified biologist shall conduct a bat roosting habitat suitability assessment of structures and trees that may be removed, altered, or indirectly impacted by Proposed Projects. Any locations with the potential for roosting or suitable as a maternity roost will be surveyed by using appropriate combination of structure inspection, sampling, exit counts, and acoustical surveys. Surveys shall be conducted during the appropriate season and time of day/night to ensure detection of bats. If bats are found using structures or trees the biologist shall identify the bats to the species level, and evaluate the colony to determine its size and significance. Construction and operations and maintenance activities shall not occur at structures housing a maternity colony of bats during the recognized bat breeding season (March 1 to October 1) unless concurrence is received from CDFW.
Chaetodipus fallax fallax Northwestern San Diego pocket mouse	USFWS: None CDFW: SSC BLM: None	Present	A qualified biologist shall survey for Northwestern San Diego pocket mouse as part of preconstruction SBKR surveys. If ground disturbance does not occur within 72 hours of the survey, temporary fencing will be placed between the planned ground disturbance area and the Preserve lands to prevent animals from returning to the impact area. SBKR exclusionary fencing required by the HCP may be utilized for this purpose. Alternatively, individual animals may be held in appropriate conditions for up to two weeks after collection and any animal captured shall be relocated to adjacent areas of suitable habitat within the Preserve under the direction of the Preserve Manager.
Eumops pertis californicus Western mastiff bat	USFWS: None CDFW: SSC BLM: S	Moderate	A qualified biologist shall conduct a bat roosting habitat suitability assessment of structures and trees that may be removed, altered, or indirectly impacted by Proposed Projects. Any locations with the potential for roosting or suitable as a maternity roost will be surveyed by using appropriate combination of structure inspection, sampling, exit counts, and acoustical surveys. Surveys shall be conducted during the appropriate season and time of day/night to ensure detection of bats. If bats are found using structures or trees the biologist shall identify the bats to the species level, and evaluate the colony to determine its size and significance. Construction and operations and maintenance activities shall not occur at structures housing a maternity colony of bats during the recognized bat breeding season (March 1 to October 1) unless concurrence is received from CDFW.
Lepus californicus bennettii San Diego black-tailed jackrabbit	USFWS: None CDFW: SSC BLM: None	Present	A qualified biologist shall survey for San Diego black-tailed jackrabbit. 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 (burrow) 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.
Neotoma lepida intermedia San Diego desert woodrat	USFWS: None CDFW: SSC BLM: None	Present	A qualified biologist shall survey for San Diego woodrat as part of preconstruction SBKR surveys. If woodrats or active nests are detected, they will be biologists trapped animals will be and moved to suitable habitat in the Preserve under the direction of the Preserve Manager. Nests will be avoided until trapping is concluded.

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Onychomys torridus Ramona Southern grasshopper mouse	USFWS: None CDFW: SSC BLM: None	Moderate	A qualified biologist shall survey for southern grasshopper mouse as part of preconstruction SBKR surveys. If ground disturbance does not occur within 72 hours of the survey, temporary fencing will be placed between the planned ground disturbance area and the Preserve lands to prevent animals from returning to the impact area. SBKR exclusionary fencing required by the HCP may be utilized for this purpose. Alternatively, individual animals may be held in appropriate conditions for up to two weeks after collection and any animal captured shall be relocated to adjacent areas of suitable habitat within the Preserve under the direction of the Preserve Manager.
Perognathus longimembris brevinasus Los Angeles pocket mouse	USFWS: None CDFW: SSC BLM: None	Present	A qualified biologist shall survey for Los Angeles pocket mouse as part of preconstruction SBKR surveys. If ground disturbance does not occur within 72 hours of the survey, temporary fencing will be placed between the planned ground disturbance area and the Preserve lands to prevent animals from returning to the impact area. SBKR exclusionary fencing required by the HCP may be utilized for this purpose. Alternatively, individual animals may be held in appropriate conditions for up to two weeks after collection and any animal captured shall be relocated to adjacent areas of suitable habitat within the Preserve under the direction of the Preserve Manager.
Taxidea taxus American badger	USFWS: None CDFW: SSC BLM: None	High	A qualified biologist shall 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.

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BLM =Bureau of Land Management

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FC: Federal candidate

Federal Designations (BLM)
BLM S: BLM Sensitive

State Designations: (California Endangered Species Act, CDFW):
ST: State listed threatened
SE: State listed endangered
FP: Fully protected
SSC: State Species of Concern
WL: California Department of Fish and Wildlife Watch List

Table C.4.3-4. Non-Covered Sensitive Bird Species Present or with Potential to Occur in the Plan Area and Avoidance and Mitigation Measures

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Accipiter cooperii Cooper's hawk	USFWS: None CDFW: WL BLM: S	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP. 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.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	USFWS: None CDFW: WL BLM: None	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP. Area specific management directives must include maintenance of dynamic processes to perpetuate some open phases of coastal sage scrub with herbaceous components. Thinning of vegetation for management of this species could occur if deemed necessary by the Preserve Manager. Areas of open coastal sage scrub suitable for this species and its presence on site will be monitored.
Amphispiza belli belli Bell's sage sparrow	USFWS: BCC CDFW: WL BLM: None	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP.
Aquila chrysaetos Golden eagle	USFWS: None State: FP, WL BLM: S	Present – foraging Low - nesting	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 following the Impact Avoidance and Minimization measure for migratory birds in Section 5.5 of the HCP. Nesting habitat is not present but suitable foraging habitat is. This species has been seen flying over the Plan Area and it has been known to nest in the vicinity. The HCP will provide for the permanent conservation and management of large interconnected blocks of habitat adjacent to other conserved areas. In addition, aggregate mining, the Covered Activity/Proposed Project with the highest level of human caused disturbance, will be consolidated next to existing mining areas, minimizing disturbance to conserved areas. These measures will provide mitigation for the loss of habitat from Covered Activities/Proposed Projects.
Asio flammeus Short-eared owl	USFWS: None CDFW: SSC BLM: None	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP.
Athene cunicularia Burrowing owl	USFWS: BCC CDFW: SSC BLM: S	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP. Prior to any ground disturbance, pre-construction surveys will be conducted for burrowing owl and mitigation measures will be implemented as necessary per the 2012 Burrowing Owl Consortium Burrowing Owl Survey Protocol and Mitigation Guidelines. If the guidelines 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.

Scientific Name Common Name	Status Designation	Potential to Occur	Avoidance and Mitigation Measures
Elanus leucurus White-tailed kite	USFWS: None CDFW: FP BLM: S	Moderate	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP. 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.
Eremophila alpestris actia California horned lark	USFWS: None CDFW: WL BLM: None	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP.
Falco Mexicana Prairie Falcon	USFWS: None CDFW: None BLM: None	Low	The HCP will provide for the permanent conservation and management of large interconnected blocks of habitat adjacent to other conserved areas. In addition, aggregate mining, the Covered Activity/Proposed Project with the highest level of human caused disturbance, will be consolidated next to existing mining areas, minimizing disturbance to conserved areas. These measures will provide mitigation for the loss of habitat from Covered Activities/Proposed Projects.
Lanius ludovicianus Loggerhead shrike	USFWS: BCC CDFW: SSC BLM: None	Present	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 following the Impact Avoidance and Minimization Measure for migratory birds in Section 5.5 of the HCP.

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Federal Designations: (Federal Endangered Species Act, USFWS):
FE: Federally listed endangered
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Federal Designations: (USFWS)
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Federal Designations (BLM)
BLM S: BLM Sensitive

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C.5 TRANSPORTATION SYSTEMS AND TRAFFIC

C.5.1 TRAFFIC STUDY INFORMATION

The *Traffic Study* evaluated baseline traffic conditions,[8] opening year 2008 conditions (anticipated at the time the study was prepared) and forecast year 2030 conditions in the vicinity of the Plan Area. The *Traffic Study* also evaluated a.m. peak hour and p.m. peak hour traffic conditions. At the time the *Traffic Study* was prepared in 2007, the now designated SR-210 that runs north-south in the western portion of the Plan Area was designated SR-30. The mainline freeway section between I-210 in Glendora and the I-10 in Redlands was completed in 2007. This segment was designated SR-210, replacing former designations of SR-330 and SR-30.

Caltrans census data was reviewed to determine if there have been any significant changes in volume along SR-210 in the Plan Area since the *Traffic Study* was prepared in 2007. SR-210 is the primary traffic route through the Plan Area and the best available indicator of traffic volume trends in the study area since 2007.

Caltrans' Traffic Census Program includes traffic counts collected each year for the state highway system, including Interstates, California State Routes, and United States Routes at specific mileposts along these highways. Annual average daily traffic (AADT) is the total traffic volume for the year divided by 365 days (2007-2010). Starting in 2011 the Annual average daily traffic counts were taken for Back AADT and Ahead AADT. Back AADT usually represents traffic south or west of the count location and is the total volume for the year divided by 365 days. Ahead AADT usually represents traffic north or east of the count location ad is the total volume for the year divided by 365 days.

Traffic volumes (AADT) on SR-210 at Fifth Street in Highland (mile post 30.23) in the Plan Area are included in **Table C.5-1: Traffic Volumes on SR-210 at Fifth Street,** from 2007 until 2015 (data at this milepost was not included in the 2012 counts). The most current data available on the Caltrans website is for 2016[9]. Back and Ahead AADT's capture both directions of travel in the count, so adding them together would result in erroneous data.

[8] The use of 2004 traffic levels is based upon the release date of the project Notice of Preparation of the District's EIR.
[9] http://www.dot.ca.gov/trafficops/census/

Table C.5-1: Traffic Volumes on SR-210 at Fifth Street

Year	Milepost	Description	AADT	Back AADT	Ahead AADT
2007	R30.23	Fifth Street, City of Highland	90,000		
2008	R30.23	Fifth Street, City of Highland	90,000		
2009	R30.23	Fifth Street, City of Highland	90,000		
2010	R30.23	Fifth Street, City of Highland		76,000	92,000
2011	R30.23	Fifth Street, City of Highland		76,000	93,000
2013	R30.23	Fifth Street, City of Highland		76,000	93,000
2014	R30.23	Fifth Street, City of Highland		77,500	95,000
2015	R30.23	Fifth Street, City of Highland		77,500	95,000
2016	R30.23	Fifth Street, City of Highland		79,000	97,000

Based on Caltrans' traffic volume data there has been an increase in AADT on SR-210 at Fifth Street in Highland from 2007 to 2016 from 90,000 to 97,000[10], which represents a 7.7% increase over a 9-year period or a 0.86 % increase per year if averaged over the 9-year period. The ambient growth rate used in the *Traffic Study* was 2% annually. Therefore, the cumulative analysis contained in the Traffic Study is a conservative estimate (considered worst-case) of the potential impacts.

The lack of significant increase in traffic volumes since 2007 could be related to the great recession from December 2007 to June 2009[11], or other factors such as higher gas prices or changes in travel behavior due to increased emphasis on alternative modes of transport or an aging population that travels less. Because there has not been a substantial increase in traffic volume in the study area since 2007 the impact analysis and mitigation measures in the 2007 *Traffic Study* are anticipated to remain valid for the purpose of assessing potential impacts from expanded aggregate mining as a result of the Proposed Actions/Projects.

The trips associated with Proposed Projects other than mining, including those for water conservation, wells and water infrastructure, widening roadways, flood control facilities, trails, habitat enhancement and an existing citrus grove are limited in number, and those for construction are temporary in nature and thus are not anticipated to have an appreciable impact on the local highway and roadway network. Trips associated with construction, operation and maintenance of the other Proposed Projects are not analyzed further in this DEIS/SEIR.

The *Traffic Study* for the proposed aggregate mining was prepared using a methodology to calculate the contribution of the proposed aggregate mining trips to intersection volumes for California Environmental Quality Act (CEQA) compliance. This method, specified by the *Congestion Management*

[10] Using Back AADT data for 2010-2016
[11] https://www.federalreservehistory.org/essays/great_recession_of_200709

Program for San Bernardino County[12] and used for CEQA compliance, defines aggregate mining traffic to be the difference between the year 2030 with project peak hour traffic volumes and the baseline peak hour traffic volumes. The aggregate mining's percentage contribution to total new traffic is then calculated by dividing the total new aggregate mining's peak hour trip volume at each study area intersection by the total new traffic.

Additionally, the *Traffic Study* analyzes four separate vehicle circulation alternatives. Alternative D from the *Traffic Study* is the preferred alternative and included in the HCP as Covered Activity CRM.02, Haul Road Expansion. Under Alternative D, the vast majority of Project traffic would travel on the new internal access road with the exception of local delivery trucks (For more information see the description of Alternative D and its depiction in Figure 2D in the *Traffic Study*).

As defined in the *Traffic Study*, roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of Level of Service (LOS), which are defined using letter grades A through F, as recommended by the 2000 Highway Capacity Manual analysis methodologies. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection, the conditions that motorists experience rapidly deteriorate as traffic approaches absolute capacity. Under such conditions, congestion is experienced. There is generally instability in the traffic flow, which means that relatively small incidents can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. LOS definitions are provided in Table C.5-2, *Traffic Level of Service (LOS)* Definitions.

The level of service criteria for unsignalized and signalized intersections is summarized in Table C.5-3, below.

[12] Congestion Management Program for San Bernardino County, 2003 Update, December 3, 2003, by San Bernardino Associated Governments, prepared by SANBAG in cooperation with the Comprehensive Transportation Plan Technical Advisory Committee, Attachment 4, Appendix C, Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2005 Update.

Table C.5-2 Traffic Level of Service (LOS) Definitions

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. The approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number approach full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volume exceeds capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: Transportation Research Board Highway Capacity Manual Special Report 209 1985.

Table C.5-3 – Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Transportation Research Board, 2000 Highway Capacity Manual, Intersection Level of Service Criteria, December 2000.

For all study area intersections, the 2000 Highway Capacity Manual[13] (HCM 2000) analysis methodologies were used to determine intersection levels of service. All levels of service were calculated using the Traffix version 7.8 software, which uses the HCM 2000 methodologies. Saturation flow rates consistent with Congestion Management Program (CMP) guidelines for baseline conditions, opening year, and future year analyses were used in the calculations of intersection capacity. Minimum green times required for pedestrian movements were calculated using Equation 16-2 contained in Chapter 16 of the HCM 2000. Minimum green time calculations are included in Appendix H of the *Traffic Study*.

[13] Transportation Research Board, 2000 Highway Capacity Manual (HCM 2000), December 2000.

The Plan Area spans three jurisdictions for the purpose of traffic analysis: the City of Highland, the City of Redlands, and the California Department of Transportation (Caltrans), which has jurisdiction over State highways and freeway ramp terminus intersections. The City of Redlands uses LOS C as the threshold of acceptability during peak hours; therefore, any intersection operating at LOS D, E, or F would be considered to have a significant impact requiring mitigation. The remaining jurisdictions use LOS D as the threshold of acceptability during peak hours; therefore, any intersection operating at LOS E or F would be considered to have a significant impact requiring mitigation.

Study Area. The study area for the *Traffic Study* includes the following 10 intersections, shown in Figure 4.7-1, Study Intersection Locations:

- Palm Avenue/5th Street;
- Palm Avenue/3rd Street;
- Alabama Street/Robertson's Access;
- Alabama Street/Cemex Access;
- Church Avenue/5th Street;
- Truck Access/5th Street (future intersection);
- SR-210 (SR-30) Southbound Ramps/5th Street;
- SR-210 (SR-30) Northbound Ramps/5th Street;
- Boulder Avenue/Greenspot Road; and
- Orange Street-Boulder Avenue/ Cemex Access.

Per the San Bernardino Associated Governments (SANBAG) TIA methodology, a dedicated right-turn lane has been assumed at the intersections where the rightmost through lane is at least 20 feet wide. These right-turn lanes are indicated with a "D" (for "de facto") in the figure so that they may be distinguished from right-turn lanes that are actually striped.

C.5.2.1 Analysis Scenarios

LOS and volumes are discussed below for three different scenarios against which Project impacts are compared:

- Baseline (2004) setting without the Project;
- Opening year (2008) background without the Project; and
- Future (2030) background without the Project.

Baseline (2004) Setting Baseline Without the Project. Baseline traffic volumes at study area intersections are based on peak hour intersection turning movement counts.[14] Baseline freeway segment volumes are based on bidirectional peak hour traffic counts published by Caltrans in 2004. An intersection level of service analysis was conducted for baseline conditions to determine current circulation system performance. All study area intersections were operating at satisfactory levels of service in 2004. Figure 4.7-2 shows baseline a.m. and p.m. peak hour traffic volumes without the project. The baseline conditions levels of service for the study area intersections are summarized in Table C.5-4, wherein all study area intersections are shown to be operating at satisfactory levels of service during the p.m. peak hour.

Table C.5-5 summarizes the baseline a.m. and p.m. peak hour freeway mainline traffic volumes and levels of service for the freeway segments on SR-210 (SR-30). All freeway segments are operating at satisfactory levels of service during the p.m. peak hour.

Opening Year (2008) Background Without the Project. Traffic volumes at study area intersections for year 2008 background without Project conditions were developed by applying a 2.0 percent per year ambient growth rate (8.24% total) to baseline (2004) counts and adding trips from cumulative projects expected to open by 2008. Information regarding cumulative projects was obtained from the City of Highland and was reviewed to determine which projects would have a significant impact on traffic at the study intersections. The following five projects were determined to be significant:

- Southeast corner of Boulder Avenue/Fifth Street – 300 attached (multifamily) dwelling units.
- Southeast corner of Boulder Avenue/Fifth Street – Drive-through pharmacy retail center.
- Southwest corner of Boulder Avenue/Fifth Street – gasoline station with retail center and Jack-in-the-Box restaurant.
- Northeast corner of Boulder Avenue/Fifth Street – 123 detached (single-family) houses.
- Fifth Street between Boulder Avenue and SR-210 – 40,000 square foot office park.

For analysis purposes, the cumulative projects were grouped into two areas that would be expected to have the same distribution at the study intersections. Trip generation for each of the cumulative projects was developed using rates from the Institute of Transportation Engineers (ITE) Trip Generation (7th Edition).

Year 2008 background without Project a.m. and p.m. peak hour turn volumes for the study area intersections are illustrated in Figure 3.7-3, and year 2008 background without Project levels of service for the study area intersections are summarized in Table C.5-4. All intersections listed would operate at satisfactory levels of service during the a.m. and p.m. peak hours for the 2008 background without Project scenario, with the exception of the following intersections:

[14] Collected by Counts Unlimited, Inc. in November and December 2004, and May 2005. Count sheets are contained in the *Traffic Study*, Appendix J of the Conversation District's 2008 EIR.

- Palm Avenue/5th Street.

Table C.5-5 summarizes the year 2008 background a.m. and p.m. peak hour freeway traffic volumes and levels of service for segments on SR-210 (SR-30). The SR-210 northbound 5th Street Off-Ramp Influence Area is forecast to operate at LOS F during the p.m. peak hour. The SR-210 southbound 5th Street On-Ramp Influence Area is forecast to operate at LOS F during the a.m. peak hour.

Future (2030) Background Without the Project. The CMP *Traffic Impact Analysis* procedures require that an analysis of cumulative long-term conditions be conducted using the horizon year traffic data from an approved local or regional traffic model. The year 2030 traffic volumes for the proposed Project were developed using data from the East Valley Traffic Model (EVTM), maintained by the City of San Bernardino. The EVTM includes a passenger vehicle model and a truck model. The base year for the passenger vehicle model is 2000 and the forecast year is 2030. The base year for the truck model is 1994 (which, according to the SCAG, should be assumed to represent year 2000), and the forecast year is 2020. Sheets illustrating the modeled link volumes from the SCAG are contained in Appendix J of the *Traffic Study*. The socioeconomic data in the EVTM for the forecast years include continued operations of the quarries; therefore, the modeled forecast year traffic volumes include trips generated by the existing plants/ mining operations.

Figure 4.7-4 illustrates year 2030 background without Project PCE peak hour traffic volumes for the study area intersections. A level of service analysis was conducted to evaluate projected circulation system performance. Table C.5-4 summarizes the year 2030 background without Project levels of service for the study area intersections. All intersections examined would operate at satisfactory levels of service during the p.m. peak hour, with the exception of the following seven intersections:

- Palm Avenue/5th Street;
- Palm Avenue/3rd Street;
- Alabama Street/Robertson's Access;
- Alabama Street/Cemex;
- SR-210 (SR-30) Southbound Ramps/5th Street;
- Boulder Avenue/Greenspot Road; and
- Orange Street-Boulder Avenue/Cemex Access

Table C.5-4 Background Without Practice Intersection Levels of Service

Freeway Segment	Baseline (2004)						2008 Without Project						2030 Without Project					
	A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
1. Palm Avenue/ 5th Street	0.57	31.0	C	0.75	38.8	D	0.67	35.6	D	0.90	56.1	E	1.26	191.9	F	1.46	187.2	F
2. Palm Avenue/ 3rd Street	0.38	26.4	C	0.44	33.1	C	0.43	26.9	C	0.48	35.0	C	0.80	71.5	E	0.87	180.2	F
3. Alabama Street/ Robertson's Access		11.9	B		15.9	C		12.5	B		17.5	C		35.6	E		337.8	F
4. Alabama Street/ CEMEX Access		11.1	B		15.8	C		11.6	B		17.4	C		33.2	D		359.4	F
5. Church Avenue/ 5th Street	0.40	13.8	B	0.38	14.3	B	0.47	15.0	B	0.46	14.8	B	0.74	30.1	C	0.71	24.5	C
6. Truck Access/ 5th Street	*Future Intersection*																	
7. SR-210 (SR-30) Southbound Ramps/ 5th Street	0.84	25.8	C	0.60	21.6	C	0.94	32.8	C	0.72	23.8	C	1.21	74.1	F	1.02	38.1	F
8. SR-210 (SR-30) Northbound Ramps/ 5th Street	0.71	24.8	C	0.52	23.7	C	0.82	28.1	C	0.70	25.3	C	1.06	66.7	F	0.87	32.7	C
9. Boulder Avenue/ Greenspot Road	0.55	26.6	C	0.47	27.3	C	0.67	32.7	C	0.58	30.3	C	1.09	83.5	F	1.17	111.9	F
10. Orange Street/ CEMEX Access	0.56	6.4	A	.63	3.8	A	0.62	6.4	A	0.71	5.0	A	1.15	84.4	F	1.33	146.5	F

V/C = Volume/Capacity ratio; Delay measured in seconds; LOS = Level of Service; SR = State Route; Shaded = Exceeds LOS standard

Source: Traffic Study Upper Santa Ana River Wash, San Bernardino County, California; prepared by LSA Associates, Inc.; August 31, 2007, Table D (Baseline), Table G (2008), Table L (2030).

Table C.5-5 – Freeway Mainline Background Levels of Service Without Project

Freeway Segment	Baseline 2004						2008 Without Project						2030 Without Project					
	A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
	S	D	LOS	S	D	LOS	S	D	LOS	S	D	LOS	S	D	LOS	S	D	LOS
SR-210 (SR-30) Northbound																		
5th Street Off-Ramp Influence Area	55.9	31.5	D	55.7	39.8	E	55.7	35.1	E	†	†	F	†	†	F	†	†	F
5th Street On-Ramp Influence Area	56.0	26.4	C	54.0	32.5	D	55.0	29.1	D	53.0	35.9	E	†	†	F	†	†	F
SR-210 (SR-30) Southbound																		
5th Street Off-Ramp Influence Area	56.8	33.8	D	56.8	32.7	D	56.7	37.9	E	56.8	35.0	D	†	†	F	†	†	F
5th Street On-Ramp Influence Area	51.0	38.4	E	53.0	34.4	D	†	†	F	52.0	37.3	E	†	†	F	†	†	F

S = Speed in miles per hour; D = Density in passenger cars per mile per lane; LOS = Level of Service; † Volume exceeds capacity; speed and density not defined for over-capacity segment.
Shaded = Exceeds LOS standard
Level of Service (LOS) criteria are provided in the *Highway Capacity Manual*, and are based on density, expressed in terms of passenger cars per mile per lane (pc/mi/ln).

Source: *Traffic Study Upper Santa Ana River Wash, San Bernardino County, California*; prepared by LSA Associates, Inc.; August 31, 2007, Table RR (Baseline), Table SS (2008).

C.5.2.2 Freeway Level of Service Analysis Procedure

Peak-hour volumes in ramp influence areas were analyzed using the methodology contained in HCM Chapter 25[15] (Ramps and Ramp Junctions), with calculations performed using HCS+ software. The freeway mainline volumes have been converted to PCE volumes by applying a truck percentage (4.65%) and using a truck PCE factor of 1.5, as specified in the *Highway Capacity Manual* (HCM). The truck percentage has been taken from 2004 Caltrans truck traffic volume data. The analysis of on-ramps examines the impacts of merging onto the freeway, while the analysis of off-ramps examines the impacts of diverging from the freeway. A free-flow speed (FFS) of 64 miles per hour has been used for the freeway mainline, consistent with the HCM recommendation for a 2-lane freeway in an urbanized area with 1.25-mile average interchange spacing. A ramp speed of 25 miles per hour has been used for the on-ramps and a ramp speed of 45 miles per hour has been used for the off-ramps. The speed of the ramps should be considered conservative since passenger vehicles, which make up the majority of ramp traffic, would likely enter and exit the freeway at higher speeds.

Level of service is calculated based on the density in passenger cars per mile per lane (pc/mi/ln), with LOS E being the lowest acceptable level of service. Any segment for which demand is forecast to exceed capacity is considered automatically to operate at LOS F, and density and speed functions do not hold for this condition due to unstable traffic flow. Table C.5-6 shows the level of service criteria for freeway ramp junctions.

Table C.5-6 – Level of Service Criteria for Ramp Junctions

Level of Service	Density (pc/mi/ln) for Merge and Diverge Areas
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 28
D	> 28 and ≤ 35
E	>35
F	Demand Exceeds Capacity

Source: Transportation Research Board, Ramp Junctions Level of Service Criteria HCM 2000, 2000.

Freeway Level of Service Analysis, Baseline Conditions. A level of service analysis was conducted to evaluate baseline (2004) peak hour traffic operations at the 5th Street ramps. The results of this analysis are summarized in previously referenced Table C.5-5. The level of service calculation sheets are contained in Appendix Q of the *Traffic Study*. As indicated in Table C.5-5, all freeway segments examined operate at LOS E or better under baseline (2004) conditions.

[15] Transportation Research Board, Ramp Junctions Level of Service Criteria HCM 2000, 2000.

Freeway Level of Service Analysis, Year 2008 Background Conditions. A level of service analysis was conducted to evaluate year 2008 background peak hour traffic operations on SR-210 (SR-30) at the 5th Street ramp influence areas. For this Project, ramp influence areas are defined as the segment extending from San Bernardino Avenue, through the 5th Street junction, and terminating at the Base Line exit on SR-210 (SR-30). Previously referenced Table C.5-5 summarizes the results of this analysis. The level of service calculation sheets are contained in Appendix Q of the *Traffic Study*. As indicated in Table C.5-5, the following freeway segments are projected to operate at LOS F under year 2008 background conditions:

- **SR-210 (SR-30) Northbound, south of 5th Street Off-Ramp (p.m. peak hour):** This segment is forecast to operate at LOS F during the p.m. peak period due to demand exceeding freeway capacity.
- **SR-210 (SR-30) Southbound, south of 5th Street On-Ramp (a.m. peak hour):** This segment is forecast to operate at LOS F during the a.m. peak period due to demand exceeding freeway capacity.

Freeway Level of Service Analysis, Year 2030 Background Conditions. A level of service analysis was conducted to evaluate year 2030 peak hour traffic operations on SR-210 (SR-30) at the 5th Street ramp influence area under background conditions. The results of this analysis indicate that both directions of the freeway will operate at LOS F during both peak periods in the vicinity of the ramps under year 2030 Background without Project conditions. The level of service calculation sheets are contained in Appendix Q of the Traffic Study. No summary data have been shown because speed and density relations do not apply to LOS F conditions, and therefore no quantitative comparison can be made.

C.6 CULTURAL RESOURCES

C.6.1 HISTORIC CONTEXT

C.6.1.1 Prehistoric Context

The local prehistoric cultural setting has been organized into many chronological frameworks by various authors, although there is no definitive sequence for the region. The difficulties in establishing cultural chronologies for western San Bernardino County are a function of its enormous size and the small amount of archaeological excavations conducted there. Moreover, throughout prehistory many groups have occupied the area and their territories often overlap spatially and chronologically resulting in mixed artifact deposits. Due to dry climate and capricious geological processes, these artifacts rarely become integrated in-situ. Lacking a milieu hospitable to the preservation of cultural midden, local chronologies have relied upon temporally diagnostic artifacts, such as projectile points, or upon the presence/absence of other temporal indicators, such as groundstone. Such methods are instructive, but can be limited by prehistoric occupants' concurrent use of different artifact styles, or by artifact reuse or re-sharpening, as well as researchers' mistaken diagnosis, and other factors. Recognizing the

shortcomings of comparative temporal indicators, the local chronology contained in the CRA is based on publications by authors who have drawn upon this method to produce a commonly cited and relatively comprehensive chronology.

C.6.1.2 Ethnography

The project site vicinity is situated at an ethnographic nexus peripherally occupied by the Gabrielino and Serrano. Each group consisted of semi-nomadic hunter-gatherers who spoke a variation of the Takic language subfamily. Individual ethnographic summaries are provided below.

Gabrielino

The Gabrielino probably first encountered Europeans when Spanish explorers reached California's southern coast during the 15th and 16th centuries. The first documented encounter, however, occurred in 1769 when Gaspar de Portola's expedition crossed Gabrielino territory. Other brief encounters took place over the years. The Gabrielino name has been attributed by association with the Spanish mission of San Gabriel, and refers to a subset of people sharing speech and customs with other Cupan speakers (such as the Juaneño/Luiseño/Ajachemem) from the greater Takic branch of the Uto-Aztecan language family. Gabrielino villages occupied the watersheds of various rivers (locally including the Santa Ana) and intermittent streams. Chiefs were usually descended through the male line and often administered several villages. Gabrielino society was somewhat stratified and is thought to have contained three hierarchically ordered social classes which dictated ownership rights and social status and obligations. Plants utilized for food were heavily relied upon and included acorn-producing oaks, as well as seed-producing grasses and sage. Animal protein was commonly derived from rabbits and deer in inland regions, while coastal populations supplemented their diets with fish, shellfish, and marine mammals. Dog, coyote, bear, tree squirrel, pigeon, dove, mud hen, eagle, buzzard, raven, lizards, frogs, and turtles were specifically not utilized as a food source.

Serrano

The generic term “Serrano” has been applied to four groups, each with distinct territories: the Kitanemuk, Tataviam, Vanyume, and Serrano. Only one group, in the San Bernardino Mountains and West-Central Mojave Desert, ethnically claims the term Serrano. The Vanyume, an obscure Takic population, was found along the Mojave River at the time of Spanish contact. The Kitanemuk lived to the north and west, while the Tataviam lived to the west. All may have used the western San Bernardino County area seasonally. Serrano villages consisted of small collections of willow-framed domed structures situated near reliable water sources. A lineage leader administered laws and ceremonies from a large ceremonial house centrally located in most villages. Local Serrano relied heavily on acorns and piñon nuts for subsistence, although roots, bulbs, shoots, and seeds supplemented these. When available, game animals commonly included deer, mountain sheep, antelope, rabbits, small rodents, and various birds –particularly quail.

C.6.1.3 History

Historic-era California is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present).

Spanish Period

The first European to pass through the area is thought to be a Spaniard called Father Francisco Garces. Having become familiar with the area, Garces acted as a guide to Juan Bautista de Anza, who had been commissioned to lead a group across the desert from a Spanish outpost in Arizona to set up quarters at the Mission San Gabriel in 1771 near what today is Pasadena. Garces was followed by Alta California Governor Pedro Fages, who briefly explored the region in 1772. Searching for San Diego Presidio deserters, Fages had traveled through Riverside to San Bernardino, crossed over the mountains into the Mojave Desert, and then journeyed westward to the San Joaquin Valley.

Mexican Period

In 1821, Mexico overthrew Spanish rule and the missions began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings, and released their neophytes.

American Period

The American Period, 1848–Present, began with the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849. The cattle industry reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large pastoral estates in California, and demand for beef during the Gold Rush led to a cattle boom that lasted from 1849–1855. However, beginning about 1855, the demand for beef began to decline due to imports of sheep from New Mexico and cattle from the Mississippi and Missouri Valleys. When the beef market collapsed, many California ranchers lost their ranches through foreclosure. A series of disastrous floods in 1861–1862, followed by a significant drought further diminished the economic impact of local ranching. This decline combined with ubiquitous agricultural and real estate developments of the late 19th century, set the stage for diversified economic pursuits that have continued to proliferate to this day.

C.7 NOISE

C.7.1 CHARACTERISTICS OF SOUND AND VIBRATION

C.7.1.1 Noise Scales and Definitions

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this

compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Figure 3.10-1, *Sound Levels and Human Response*.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table C.7-1, *Noise Descriptors*.

Table C.7-1: Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, Handbook of Noise Control, dated 1979.

Health Effects of Noise

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. However, many factors influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss;
- Interference with Communication;
- Effects of Noise on Sleep;
- Effects on Performance and Behavior;
- Extra-Auditory Health Effects; and
- Annoyance.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community studies was highly annoyed. When levels exceed 65 dBA CNEL, that percentage rose to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

Ground-Borne Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

C.7.2 CITY NOISE STANDARDS

C.7.2.1 City of Highland Noise Standards

The City of Highland's General Plan Noise Element establishes appropriate interior and exterior noise standards for different types of land uses. The City of Highland exterior noise standards for residential land uses are 55 dBA CNEL from 10:00 pm – 7:00 am and 60 dBA CNEL from 7:00 am – 10:00 pm.

The City of Highland Municipal Code limits construction activities to Monday through Saturday between 7:00 am and 7:00 pm with no construction activities performed during city or federal observed holidays.

C.7.2.2 City of Redlands Noise Standards

The City of Redlands' General Plan Noise Element establishes exterior and interior noise standards for the evaluation of compatibility between land uses in the City. The City specifies outdoor and indoor noise limits for residential uses, places of worship, educational facilities, hospitals, hotels/motels, and commercial and other land uses. The City of Redlands has an exterior noise standard of 60 dBA CNEL for residential land uses.

The City of Redlands' Municipal Code limits the hours of construction between the hours of 7:00 am and 6:00 pm from Monday through Saturday. No construction is permitted on Sundays. The ordinance is also designated to protect sensitive areas from intruding noise across property lines. It limits noise at residential properties to 60 dBA from 7:00 am to 10:00 pm and 50dBA from 10:00 pm to 7:00 am. It is unlawful for any person to create noise at noise-sensitive land uses that causes the sound level to exceed the following:

- The noise standard for a cumulative period of more than 30 minutes in any hour;
- The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour;
- The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
- The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour.

C.7.3 TYPICAL NOISE LEVELS FOR OFF ROAD EQUIPMENT

Table C.7-2: Typical Off-Road Equipment and Other Construction Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile drivers, 12,000 to 18,000 ft-lb./blow	81–96	93
Rock drills	83–99	96
Jackhammers	75–85	82
Pneumatic tools	78–88	85
Pumps	74–84	80
Dozers	77–90	85
Scrapers	83–91	87
Haul trucks	83–94	88
Cranes	79–86	82
Portable generators	71–87	80
Rollers	75–82	80
Tractors	77–82	80
Front-end loaders	77–90	86
Hydraulic backhoe	81–90	86
Hydraulic excavators	81–90	86
Graders	79–89	86
Air compressors	76–89	86
Concrete batch plants	80–85	83
Vibratory conveyors	70–80	77
Concrete vibrators	68–81	78
Trucks	81–87	86
Blasting	93–94	94

Source: Conservation District's 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and HCP.

C.7.4 BASELINE TRAFFIC NOISE LEVELS

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the Plan Area vicinity. As previously noted, this model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. Modeling parameters for the future 2030 ADT volumes, vehicle speed, and roadway geometry were obtained from the *Traffic Study* (LSA 2007). The following lists the parameters used for each roadway:

- **5th Street.** 5th Street was modeled as a four-lane roadway (two lanes in each direction) with vehicle speeds at 50 mph.
- **Alabama Street.** Alabama Street was modeled as a two- to four-lane roadway (varying from one to two lanes in each direction) with vehicle speeds at 45 mph.
- **Boulder Avenue.** Boulder Avenue was modeled a two-lane roadway (one lane in each direction) with vehicle speeds at 40 mph.
- **Truck Access Road at 5th Street**. A proposed truck access road connected to 5th Street east of Church Avenue was modeled as a two-lane roadway (one lane in each direction) with vehicle speeds at 40 mph.

The vehicle mix was assumed to be 97.42 percent automobiles, 1.84 percent medium trucks, and 0.74 percent heavy trucks. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values.

Table C.7-3 shows the 2008 baseline traffic noise levels. Table C.7-4 shows the 2008 with-project (mining expansion) noise levels. Table C.7-5 shows the 2030 baseline traffic noise levels. Table C.7-6 shows the 2030 with-project (mining expansion) noise levels. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and model printouts are provided in the Conservation District's November 2008 Final EIR, Appendix I – Noise Model Printouts.

Table C.7-3: 2008 Baseline Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Outermost Lane
5th Street					
West of Alabama Street	10,870	< 50*	97	203	66.9
Between Alabama Street and Church Avenue	21,665	73	150	320	69.9
Between Church Avenue and SR-210 westbound ramp	22,905	75	156	332	70.1
Between SR-210 westbound ramp and SR-210 eastbound ramp	23,620	77	159	339	70.3
Between SR-210 eastbound ramp and Boulder Avenue	22,965	75	156	333	70.1
East of Boulder Avenue	18,760	67	137	291	69.3
Alabama Street					
North of 5th Street	9,330	< 50	75	154	65.1
Between 5th Street and 3rd Street	17,365	< 50	110	232	67.8
Between 3rd Street and Robertson's Access	12,685	< 50	87	188	67.9
Between Robertson's Access and Cemex Access	11,870	< 50	84	180	67.6
South of Cemex Access	11,450	< 50	82	175	67.5
Boulder Avenue					
North of Greenspot Road	8,390	< 50	55	117	64.9
South of Greenspot Road	10,890	< 50	65	140	66.0
North of Cemex Access	16,840	< 50	87	187	67.9
South of Cemex Access	16,870	< 50	87	187	67.9

* Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

Source: Conservation District's November 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

Table C.7-4 – 2008 With-Project (Mining Expansion) Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase from Baseline Conditions
5th Street						
West of Alabama Street	10,880	< 50*	97	203	66.9	0.0
Between Alabama Street and Church Avenue	13,565	56	111	235	67.9	-2.0
Between Church Avenue and Truck Access	22,435	74	154	328	70.0	-0.1
Between Truck Access and SR-210	23,140	76	157	334	70.2	0.1
Between SR-210 westbound ramp and SR-210 eastbound ramp	23,640	77	159	339	70.3	0.0
Between SR-210 and Boulder Avenue	22,805	75	155	331	70.1	0.0
East of Boulder Avenue	18,750	67	137	291	69.3	0.0
Alabama Street						
North of 5th Street	9,330	< 50	75	154	65.1	0.0
Between 5th Street and 3rd Street	9,275	< 50	75	154	65.1	-2.7
Between 3rd Street and Robertson's Access	12,195	< 50	85	183	67.7	-0.2
Between Robertson's Access and Cemex Access	11,920	< 50	84	180	67.6	0.0
South of Cemex Access	11,450	< 50	82	175	67.5	0.0
Boulder Avenue						
North of Greenspot Road	8,390	< 50	55	117	64.9	0.0
South of Greenspot Road	10,740	< 50	64	138	65.9	-0.1
North of Cemex Access	16,690	< 50	86	185	67.8	-0.1
South of Cemex Access	16,870	< 50	87	187	67.9	0.0
Truck Access Road at 5th Street	800	< 50	70	150	66.4	N/A

* Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

Source: Conservation District's November 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

Table C.7-5: 2030 Baseline Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Outermost Lane
5th Street					
West of Alabama Street	19,310	68	139	297	69.4
Between Alabama Street and Church Avenue	34,500	97	203	436	71.9
Between Church Avenue and SR-210 westbound ramp	35,095	98	206	441	72.0
Between SR- 210 westbound ramp and SR-30 eastbound ramp	31,710	92	193	412	71.5
Between SR- 210 eastbound ramp and Boulder Avenue	27,870	85	177	378	71.0
East of Boulder Avenue	16,520	62	126	267	68.7
Alabama Street					
North of 5th Street	16,280	< 50*	105	222	67.5
Between 5th Street and 3rd Street	37,160	86	180	384	71.1
Between 3rd Street and Robertson's Access	34,670	79	170	367	72.3
Between Robertson's Access and Cemex Access	33,840	78	168	361	72.2
South of Cemex Access	33,420	77	166	358	72.1
Boulder Avenue					
North of Greenspot Road	23,340	< 50	108	232	69.3
South of Greenspot Road	29,820	59	127	273	70.4
North of Cemex Access	36,690	68	146	313	71.3
South of Cemex Access	36,690	68	146	313	71.3

* Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

Source: Conservation District's November 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

Table C.7-6 – 2030 With-Project (Mining Expansion) Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase from Baseline Conditions
5th Street						
West of Alabama Street	19,320	68	139	297	69.4	0.0
Between Alabama Street and Church Avenue	19,500	68	140	299	69.4	-2.5
Between Church Avenue and Truck Access	34,590	97	204	437	71.9	-0.1
Between Truck Access and SR-210	35,325	98	207	443	72.0	0.0
Between SR-210 westbound ramp and State Route 210 eastbound ramp	31,730	92	193	412	71.5	0.0
Between SR-210 and Boulder Avenue	27,710	85	176	377	71.0	0.0
East of Boulder Avenue	16,510	62	126	267	68.7	0.0
Alabama Street						
North of 5th Street	16,280	< 50*	105	222	67.5	0.0
Between 5th Street and 3rd Street	22,170	63	128	273	68.8	-2.3
Between 3rd Street and Robertson's Access	34,180	79	169	363	72.2	-0.1
Between Robertson's Access and Cemex Access	33,890	78	168	361	72.2	0.0
South of Cemex Access	33,420	77	166	358	72.1	0.0
Boulder Avenue						
North of Greenspot Road	23,340	< 50	108	232	69.3	0.0
South of Greenspot Road	29,670	59	126	272	70.3	-0.1
North of Cemex Access	36,510	68	145	312	71.2	-0.1
South of Cemex Access	36,690	68	146	313	71.3	0.0
Truck Access Road at 5th Street	800	< 50	70	150	66.4	N/A

* Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

Source: Conservation District's November 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

C.7.5 EXCAVATION

Excavation equipment would include excavators, haul trucks, and water trucks. Excavation equipment would remain the same as existing conditions. Table C.7-7 lists the types of equipment for the Robertson's and Cemex plants, the amount of equipment and number of vehicles, the range of maximum noise levels measured, and the suggested maximum sound levels at 50 feet.

Table C.7-7: Existing Robertson's and Cemex Mining Equipment

Equipment	Quantity	Range of Maximum Noise Levels Measured (dBA at 50 feet)	Suggested Maximum Noise Levels for each Piece of Equipment (dBA at 50 feet)
Robertson's Mining Operations (Old Webster Quarry)			
RH120 shovel (excavator) used 8 hours per day	1	81–90	86
16G blade (excavator) used 2.5 hours per day	1	81–90	86
Cat 777 haul truck used 8 hours per day	3	83–94	88
Water truck used 8 hours per day	1	81–87	86
Robertson's Processing Operations			
Cat 996F yard loader used 8 hours per day	1	77–90	86
Cat 988F loader used 24 hours per day	1	77–90	86
Cat 966F forklift used 1 hour per day	1	79–86	82
Manlift used 8 hours per day	1	79–86	82
Rock crushing plant used 8 hours per day	3	87–103	95
Cemex's Mining Operations			
Trackhoe	1	81–90	86
D10N dozer	1	77–90	85
992C loader	1	77–90	86
988F loader	1	77–90	86
777B haul truck	3	83–94	88
Cemex's Processing Operations			
996 loader	1	77–90	86
980G loader	1	77–90	86
Kawasaki loader	2	77–90	86
Skidsteer	1	77–90	86
Volvo Articulating truck	1	83–94	88
Cat Articulating truck	1	81–87	86
Water truck	2	81–87	86
Rock crushing plant (Type D-1)	1	87–103	95

Sources: Conservation District's 2008 Final EIR (SCH No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

Previously referenced Table C.7-2 lists typical off-road equipment maximum noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor. The excavation phase tends to generate the highest noise levels because the noisiest equipment is excavating equipment. Typical operating cycles for these types of equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings.

On-site operations require the use of excavators, haul trucks, and water trucks. Based on the information in Tables C.7-2 and C.7-7, the maximum noise level generated by excavators on-site is assumed to be 86 dBA L_{max} at 50 feet from the excavator. Haul trucks would generate a maximum noise level of 88 dBA L_{max} at 50 feet, and water trucks would generate a maximum noise level of 86 dBA L_{max} at 50 feet from these vehicles. The excavation area at the East Basin (East Quarry South) is the closest to residences to the south side of the Wash Plan Area. Two excavators, three haul trucks, and one water truck are currently active in the East Quarry South mining area and would remain the same for the Proposed Project. Assuming that each piece of equipment operates at some distance from the other equipment, the worst-case combined noise levels during this phase of aggregate mining would be 95 dBA L_{max} at a distance of 50 feet from the active mining area.

NOTICE OF INTENT, NOTICE OF PREPARATION, COMMENT LETTERS

[Federal Register Volume 80, Number 41 (Tuesday, March 3, 2015)]
[Notices]
[Pages 11463-11466]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2015-04341]

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

Fish and Wildlife Service

[FWS-R8-ES-2015-N254; FXES11120000-156-FF08E00000]

Supplemental Draft Environmental Impact Statement for the Proposed South Coast Resource Management Plan Amendment; for the Proposed Upper Santa Ana River Habitat Conservation Plan and Land Exchange

AGENCY: Fish and Wildlife Service, Interior; Bureau of Land Management, Interior.

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ACTION: Notice of intent and notice of public meeting; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service) and Bureau of Land Management (BLM), intend to prepare a Supplemental Draft Environmental Impact Statement (SDEIS) under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Upper Santa Ana River Wash Habitat Conservation Plan (HCP), and a related land exchange. The SDEIS will be a joint Environmental Impact Statement/ Environmental Impact Report (EIS/EIR), for which the Service, the BLM, and the San Bernardino Valley Water Conservation District (District) intend to gather information necessary for preparation. The proposed HCP has been drafted to meet the requirements of the Federal Endangered Species Act (ESA) of 1973, as amended, and the State of California's Endangered Species Act and Natural Communities Conservation Planning Act. The BLM, in compliance with the Federal Land Policy and Management Act, as amended, will consider this NEPA process and the resulting HCP documents in its analysis toward possible amendment of the BLM South Coast Resource Management Plan (SCRMP) to support the land exchange.

DATES: Please send written comments on or before May 4, 2015.

We will hold two public scoping meetings on March 18, 2015, from 2 to 4 p.m. and 6:30 to 8:30 p.m. at the San Bernardino Valley Water Conservation District office located at 1630 West Redlands Avenue, Redlands, CA 92373. In addition to this notice, we will announce the public scoping meetings in local news media and on the Internet at the BLM Web site (http://www.ca.blm.gov/palmsprings) and the Service Web site (http://www.fws.gov/carlsbad) at least 15 days prior to the event. For more information, see Public Comments and Reasonable Accommodation in the SUPPLEMENTARY INFORMATION.

ADDRESSES: Comments or requests for more information specific to the proposed land exchange and amendment to the SCRMP should be sent via any one of the following methods:

U.S. Mail: Brandon Anderson, Santa Ana River Wash Project, Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, CA 92262.

Email: bganderson@blm.gov. Subject line should include ``Scoping Comments for the Upper Santa Ana River Wash Project.''

Comments or requests for more information specific to the issuance of an incidental take permit and the HCP should be sent to the following:

U.S. Mail: Kennon Corey, Santa Ana River Wash Project, Palm Springs Fish and Wildlife Service Office, 777 E. Tahquitz Canyon Way, Suite 208, Palm Springs, CA 92262.

FOR FURTHER INFORMATION CONTACT: For further information and/or to have your name added to our mailing list, contact Brandon Anderson, Santa Ana River Wash Project, Bureau of Land Management, Palm Springs South Coast Field Office, by telephone at 760-833-7117, or by email at

bganderson@blm.gov, or Kennon Corey, Santa Ana River Wash Project, by mail at Palm Springs Fish and Wildlife Office, 777 East Tahquitz Canyon Way, Suite 208, Palm Springs, CA 92262 or by email at fw8cfwocomments@fws.gov.

SUPPLEMENTARY INFORMATION:

Background

In 1993, representatives of numerous agencies, including water, mining, flood control, wildlife, and municipal interests, formed a Wash Committee to address mining issues that were local to the upper Santa Ana River wash area. The role of the Committee was subsequently expanded, and it began meeting in 1997 to determine how this area might accommodate the ongoing and contemplated future activities of the participating entities. To achieve this goal, the Wash Committee worked with the California Department of Fish and Wildlife (CDFW) and the Service to develop a Habitat Conservation Plan (HCP), which would establish a structure to integrate ongoing operations and planned projects with biological resource conservation within the Plan area. The District prepared a draft HCP on behalf of the Wash Committee in November 2008 and subsequently revised it in January 2010. The District and the Wash Committee subsequently worked with the Service and CDFW to revise the HCP, which now provides additional conservation. The District and the Wash Committee have also been working with the BLM to facilitate a land exchange to accommodate the HCP conservation strategy.

The Supplemental Draft EIR/EIS (SDEIS) will provide an updated analysis to the 2009 Draft EIS issued by the BLM in April 2009 for the Proposed Santa Ana River Wash Land Use Plan Amendment and Land Exchange and the Final EIR issued by the District for the HCP. The SDEIS will consider the environmental effects associated with the proposed land exchange, the proposed amendment to the SCRMP, and the proposed HCP, as well as those of several alternatives.

The SDEIS will evaluate the direct, indirect, and cumulative impacts of several alternatives related to the proposed land exchange and to the proposed issuance of Endangered Species Act permits to permit applicants in San Bernardino County, California. The permit applicants intend to apply for a 30-year permit from the Service that would authorize the incidental take of species resulting from implementation or approval of covered activities, including aggregate mining, the construction of ground water recharge basins, road improvements, trail construction, and other kinds of projects.

Pursuant to 43 CFR 1610.2(c), notice is hereby given that the BLM is considering a proposal to amend the 1994 SCRMP and exchange lands with the District. Additionally, the Service is considering the issuance of an incidental take permit consistent with the Upper Santa Ana River Wash HCP. The SDEIS will describe and analyze alternatives to the proposed land use plan amendment, and HCP. The lands proposed for exchange in the 2009 Draft EIS have been revised to incorporate the activities and conservation strategy to be carried out consistent with the terms of the HCP and the refinement of exchange parcels to allow water conservation, mining, flood control, and other public actions within the study area while protecting and consolidating the natural resources, especially the threatened and endangered species in the area. This analysis will also review reasonably foreseeable activities currently undergoing initial feasibility review for an additional flood control activity, potentially resulting in a new Area of Critical Environmental Concern designation. Covered activities will also be reviewed for potential impacts to land designated as an Area of Critical Environmental Concern and Research Natural Area for protection of two plants federally listed as endangered, Eriastrum densifolium subsp. sanctorum (Santa Ana River woolly-star) and Dodecahema leptoceras (slender-horned spineflower); as well as the federally endangered San Bernardino kangaroo rat (Dipodomys merriami parvus); the federally threatened coastal California gnatcatcher (Polioptila californica californica); and the cactus wren (Campylorhynchus brunneicapillus). In order to respond to comments received on the 2009 Draft EIS, extensive biological fieldwork was conducted to identify the areas in which the species

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are found in both a quantitative and qualitative manner. The Supplemental EIS will address the Federal actions in approving and implementing the project, including the proposed land exchange between the BLM and the District, the proposed amendment to the SCRMP by the BLM to accommodate the land exchange and the overall Wash Plan, and the proposed issuance of an incidental take permit consistent with the HCP. The BLM and the Service will be co-lead Agencies for the Supplemental EIS. The District will be the Lead Agency for the Supplemental EIR,

under the California Environmental Quality Act.

The Service and BLM are publishing this notice to announce the initiation of a public scoping period, during which we invite other agencies (local, State, and Federal), Tribes, nongovernmental organizations, and the public to submit written comments providing suggestions and information on the scope of issues and alternatives to be addressed in the SDEIS. Concurrently with this notice, the District has publicly released a California Environmental Quality Act Notice of Preparation for its EIR via State and local media.

Project Area

The project area lies within San Bernardino County, California, primarily in the cities of Highland and Redlands, as well as within the unincorporated County area. The project area encompasses approximately 4,467 acres within the area bounded by Greenspot Road to the north and east, Alabama Street to the west, and the Santa Ana River Wash to the south.

Potential Applicants

The Upper Santa Ana River Wash Plan is being prepared through a collaboration of Federal, State, and local agencies as the basis for the BLM to amend the SCRMP and exchange lands for the HCP, for the HCP approval and potential issuance of incidental take permits for the implementation of the Upper Santa Ana River Wash Plan by the District, City of Highland, City of Redlands, San Bernardino County, San Bernardino Valley Municipal Water District, and others. The incidental take permits would be issued pursuant to section 10(a)(1)(B) of the ESA and section 2081 (CESA) of the California Fish and Game Code. Only the applicants listed in the applications and HCP could receive incidental take permits for the covered activities and the covered species.

Covered Activities

The HCP is intended to cover two types of activities in the Upper Santa Ana River Wash Plan project area:

(1) Activities related to the operations and maintenance of existing facilities or land uses already in operation in the Wash, covering an area totaling 166.9 acres; and

(2) Expansion or enhancement of facilities planned for the Wash area, totaling 634.1 acres.

It should be noted that activities related to all utilities belonging to Southern California Edison within the project footprint, and the EBX Foothill Pipeline, also located within the project footprint, are excluded from the covered activities described in the HCP.

All listed project activities can be subdivided into the following categories:

(1) Flood Control--activities related to the operation and maintenance of existing flood control facilities;

(2) Mining--activities that support continued aggregate mining activities in the Wash;

(3) Trails--the development of trails and open space opportunities; activities that support the restoration and maintenance of habitat values in the Wash;

(4) Transportation--activities related to the construction and maintenance of planned transportation facilities;

(5) Water Conservation--activities related to water management for conservation purposes, as well as habitat restoration activities, and the continued operations and maintenance of certain miscellaneous activities present on the site such as citrus production; and

(6) Wells--activities related to the recharge or extraction of potable water from groundwater basins as part of the regional water supply.

Covered Species

Covered Species are those species addressed in the proposed Upper Santa Ana River Wash Plan for which conservation actions will be implemented and for which the applicants will seek incidental take authorizations for a period of up to 30 years. Proposed Covered Species are expected to include threatened and endangered species listed under the ESA, species listed under CESA, and unlisted species of Federal and State conservation concern.

Under the ESA, there is no take of federally listed plant species, and authorization under an ESA section 10 permit is not required. Section 9 of ESA does, however, prohibit certain actions related to plants including the removal of federally listed plants from areas under Federal jurisdiction and the removal or destruction of endangered plants in knowing violation of State law. In addition, section 7(a)(2)

of the ESA prohibits Federal agencies from jeopardizing the continued existence of any listed plant or animal species, or destroying or adversely modifying the critical habitat of such species. The species that may be affected by the proposed actions include two plants federally listed as endangered, Eriastrum densiflorum subsp. sanctorum and Dodecahema leptoceras, the federally endangered San Bernardino kangaroo rat and federally threatened coastal California gnatcatcher, and the cactus wren (not currently listed under the ESA).

The species noted above will be evaluated for inclusion in the Upper Santa Ana River Wash Plan as proposed Covered Species. However, the list of Covered Species may change as the planning process progresses; species may be added or removed as more is learned about the nature of Covered Activities and their impact on native species within the Plan area.

Environmental Impact Statement

Before deciding whether to issue the requested Federal incidental take permit, the land exchange and the SCRMP, the Service and BLM will prepare a SDEIS, and a final EIS as part of the joint EIS/EIR, in order to analyze the environmental impacts associated with potential adoption and implementation of the proposed Upper Santa Ana River Wash Plan as a HCP, land exchange, and SCRMP amendment. In the EIS component of the joint EIS/EIR, the Service and BLM intend to consider the following alternatives:

(1) The proposed action, which includes the Service issuance of incidental take Permit consistent with the proposed Upper Santa Ana River Wash Plan HCP under section 10(a)(1)(B) of the ESA to the applicants, and BLM's approval of a land exchange and SCRMP amendment;

(2) No action (no Federal ESA permit issuance, no land exchange, and no SCRMP amendment); and

(3) A reasonable range of alternatives that address different scenarios of development and species conservation on both Federal and non-Federal land. The SDEIS will include a detailed analysis of the impacts of the proposed action and alternatives. The range of alternatives to be considered and analyzed will represent varying levels of conservation and impacts, and may include variations in the scope of

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Covered Activities; variations in the locations, amount, and type of conservation and land exchange; variations in permit duration; or a combination of these elements. The BLM may address other considerations in the SDEIS. In compliance with NEPA, the Service and BLM will be responsible for the scope and preparation of the EIS component of the joint EIS/EIR.

The SDEIS will identify and analyze potentially significant direct, indirect, and cumulative impacts of the Service's authorization of incidental take (permit issuance) and the implementation of the proposed Upper Santa Ana River Wash Plan on biological resources, land uses, utilities, air quality, water resources (including surface and groundwater supply and water quality), cultural resources, socioeconomics and environmental justice, outdoor recreation, visual resources, induced growth, climate change and greenhouse gases, and other environmental issues that could occur with implementation of the proposed action and alternatives. The Service and the BLM will use all practicable means, consistent with NEPA and other essential considerations of national policy, to avoid or minimize significant effects of their actions upon the quality of the human environment.

The CDFW has requested and agreed to be a State cooperating agency. The Service, BLM, and CDFW agree that establishing a cooperating agency relationship will create a more streamlined and coordinated approach in developing this joint EIS/EIR.

Reasonable Accommodation

The Service and BLM are committed to providing access to these scoping meetings for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to Kennon Corey at 760-322-2070 (telephone), ken_corey@fws.gov (email), or 800-877-8339 (TTY), as soon as possible. To allow sufficient time to process requests, please call no later than 1 week before the public meeting. Information regarding this proposed action is available in alternative formats upon request.

Public Comments

We invite other government agencies, Native American Tribes, the scientific community, industry, nongovernmental organizations, and all other interested parties to participate in this scoping process and

provide comments and information. Comments on issues and potential impacts, or suggestions for additional or different alternatives, may be submitted in writing at any public scoping meeting or through one of the methods listed in the ADDRESSES section of this notice.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment--including your personal identifying information--may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Authority

We provide this notice under section 10 of the Act (16 U.S.C. 1531 et seq.) and by NEPA regulations (40 CFR 1501.7, 1506.6, and 1508.22).

Dated: February 23, 2015.
Alexandra Pitts,
Deputy Regional Director, Pacific Southwest Region, U.S. Fish and Wildlife Service, Sacramento, California.
Dated: February 23, 2015.
Tom Pogacnik,
Deputy State Director, Natural Resources, California State Office, Bureau of Land Management, Sacramento, California.
[FR Doc. 2015-04341 Filed 3-2-15; 8:45 am]
BILLING CODE 4310-55-P

NOTICE OF PREPARATION

To: Agencies and Interested Parties

From: San Bernardino Valley Water Conservation District

Date: March 6, 2015

Subject: Announcement of:

1) **Notice of Preparation** of an Environmental Impact Statement/Environmental Impact Report for the Draft South Coast Resource Management Plan Amendment for a Proposed Land Exchange and the Upper Santa Ana River Habitat Conservation Plan
2) **Public Scoping Meeting** to be held on March 18, 2015 from 2 to 4 p.m. and 6:30 to 8:30 p.m. at the San Bernardino Valley Water Conservation District, located at 1630 West Redlands Boulevard, Suite A, Redlands, CA 92373; and
3) **NOP Scoping** Comments due by Friday May 1, 2015.

The Bureau of Land Management (BLM) and the U.S. Fish and Wildlife Service (Service) will be co-lead Agencies for the Supplemental EIS pursuant to the National Environmental Policy Act (NEPA) (42 United States Code [USC] Section 4321 et seq.). The San Bernardino Valley Water Conservation District (District) will be the Lead Agency for the Supplemental EIR, under the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC], Section 21000 et seq.; see also 14 California Code of Regulations [CCR] Sections 15220, 15222 [State CEQA Guidelines]). The BLM, the Service, and the District will prepare a joint Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) for the Land Exchange, SCRMP amendment and Habitat Conservation Plan (HCP) Project (Proposed Project for CEQA purposes) in San Bernardino County, California.

PURPOSE OF THE NOTICE OF PREPARATION: The purpose of a Notice of Preparation (NOP) is to notify responsible and trustee agencies, Federal agencies involved in approving or funding a project, and interested parties that an SEIS/EIR will be prepared. The NOP should provide sufficient information about the proposed project and its potential environmental impacts to allow recipients the opportunity to provide a meaningful response related to the scope and content of the SEIS/EIR, including the potentially significant and significant environmental issues, reasonable alternatives, and mitigation measures that the responsible or trustee agency will need to have explored in the SEIS/EIR (State CEQA Guidelines CCR Section 15082[a][1]).

The Project location and description of the proposed Project are presented below. An initial study has not been prepared because the SEIS/EIR will address all issue areas and it is already known that the proposed Project could have a significant effect on the environment. The SEIS/EIR will also include feasible mitigation measures and evaluate a reasonable range of alternatives to avoid or substantially reduce the proposed Project's significant adverse environmental impacts.

The purposes of this NOP are to:

1. Notify the appropriate parties that an SEIS/EIR will be prepared for the proposed Project;
2. Briefly describe the proposed Project and the anticipated content of the SEIS/EIR;
3. Announce the public scoping meeting to facilitate public input; and

4. Solicit input by from Federal, State, regional, and local agencies, and from interested organizations and individuals, regarding the content and scope of the SEIS/EIR, including the alternatives to be addressed and the potentially significant environmental impacts.

1.0 Project Background and Purpose and Need

A proposed HCP has been drafted to meet the requirements of the Federal Endangered Species Act (ESA) of 1973, as amended, and the State of California's Endangered Species Act and Natural Communities Conservation Planning Act. The BLM, in compliance with the Federal Land Policy and Management Act, as amended, will consider this NEPA process and the resulting HCP documents in its analysis toward possible amendment of the BLM South Coast Resource Management Plan (SCRMP) to support the land exchange. The Proposed Project includes the following:

1. Exchange up to 400 acres of public lands located within the Santa Ana River Wash Area of Critical Environmental Concern (ACEC) for up to 380 acres of land owned by the District in San Bernardino County, California, and;

2. Amend the SCRMP for the Upper Santa Ana River portion that is affected by the land exchange area.

3. Authorize take and implementation of the HCP.

The land exchange and SCRMP Amendment are actions that would assist with implementation of the 2008 Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (Wash Plan). The Wash Plan is a multi-jurisdictional land management strategy involving publicly and privately owned land within the Wash Plan area.

The proposed exchange and SCRMP Amendment would occur under the authority of the Federal Land Policy and Management Act (FLPMA) of 1976, as amended by the Federal Land Exchange Facilitation Act (FLEFA) of 1988, and 43 CFR 1610.

For purposes of the Environmental Impact Statement (EIS), BLM lands proposed for disposal through exchange (federal lands selected for acquisition by the District) are called "Selected Lands". Lands offered by the District to the BLM in exchange for the Selected Lands are called "Offered Lands".

Under the SCRMP, public lands in the Santa Ana River Wash ACEC are not available for exchange or mineral material mining and processing; therefore, the Proposed Action requires an amendment to the SCRMP. As a result of this land exchange, Offered Lands acquired by the BLM would be added to the Santa Ana River Wash ACEC, in order to protect and enhance habitat for federally listed species and for water conservation. Selected Lands would be allocated by the District for mining and mineral processing, habitat conservation, and water conservation in accordance with the Wash Plan. This EIS analyzes the proposed land exchange and SCRMP Amendment, and serves as the environmental document addressing the potential effects caused by the Proposed Action.

Purpose

A primary purpose of the exchange is for the BLM to dispose of isolated lands which have been previously degraded by mining activities within the Santa Ana River Wash ACEC, and in exchange, to acquire District lands with high habitat value adjacent to existing ACEC parcels. The exchange will allow the BLM to consolidate fragmented parcels with high-quality habitat, resulting in improved management

of the ACEC. Lands acquired by the BLM through the proposed exchange would be added to the Santa Ana River Wash ACEC. These lands would also become part of the planned multi-jurisdictional, multi-species Habitat Conservation Area (HCA) described in the Wash Plan. A Policy Action Committee (PAC) was established consisting of elected officials from the County, Cities of Highland and Redlands, the District, and the Field Manager from BLM. A Technical Advisory Committee (TAC) was formed with representatives of the PAC agencies and other water, mining, flood control, and wildlife interests. The District chaired and provided staff support for the Committees.

The proposed designations for land use cross both land ownership (three public agencies and two private entities) land use designations and jurisdictions (City of Redlands, City of Highland, and San Bernardino County). The TAC determined that planned mining expansion would be best addressed by consolidating future mining activity into one area adjacent to existing mining operations within the western half of the Plan Area. This focuses extraction activities on lands currently in or near mining disturbance lands with the least long-term wildlife habitat value. In addition, the TAC determined that portions of the BLM land designated as ACEC were previously disturbed or fragmented by adjacent mining activities, and thus would be better suited for mining expansion. Some of the most intact, viable wildlife habitat areas are contained within lands leased for future mining and currently used for water conservation. The TAC concluded that some of these lands were best suited for joint use as water and habitat conservation rather than mining.

The HCP is part of the permit application submitted by the District to the Service on behalf of the parties implementing the Wash Plan. USFWS is being asked to authorize incidental take of four federally listed species: Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum, Woollystar*), Slender-horned spineflower (*Dodecahema leptoceras, Spineflower*), California gnatcatcher (*Polioptila californica*, *Gnatcatcher*), Coastal cactus wren (*Campylorhynchus brunneicapillus, Cactus wren*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus, SBKR*).

The land exchange would result in a change of ownership and uses of the identified lands. BLM lands received as a result of the exchange would be designated as part of the existing Santa Ana River Wash ACEC and would also become part of the proposed multi-jurisdictional multi-species HCA which is identified in the Wash Plan. A parcel of BLM land currently in the ACEC would be transferred to the District and a portion of that land will be made available for the expansion of mining operations through lease by the District to mining companies.

Need

Past mining and urban encroachment (i.e. roads, utilities and flood control facilities) have degraded suitable habitat within some of the existing Santa Ana River Wash ACEC. The portions of the ACEC that have experienced some level of disturbance in the past, possess aggregate reserves that is suitable for future mining. A need exists to reconfigure the ownership of lands that are best suited for preserving unique habitat and to separate these lands from areas that are more suitable for mining. The land exchange would meet this need. BLM would dispose of disturbed, degraded, and unmanageable land, and acquire high quality, manageable habitat. The exchange of land would allow mining uses to occur on degraded habitat, and would allow the BLM to preserve and consolidate sensitive habitat areas for the improvement of the ACEC.

2.0 Project Description

Project Location

The Selected and Offered Lands are located in the Wash Plan Area which is located in San Bernardino County, California (refer to Figure 1, *Regional Context and Plan Area Boundary*). The Wash Plan Area contains both public and private lands supporting a variety of functions. The principal landowners in the area are the District, the San Bernardino County Flood Control District, the BLM, the City of Highlands, the City of Redlands, and Robertson's Mining Company. The Wash Plan Area in which the parcels proposed for exchange are located generally begins at the mouth of the Santa Ana River Canyon at Greenspot Road and extends westward for approximately six miles to Alabama Street. Greenspot Road forms the northern and eastern boundary of the Wash Plan Area and the south bluffs of the Santa Ana River Wash generally form the southern boundary.

The Wash Plan Area is located on an alluvial plain that provides excellent geological conditions for groundwater recharge. The geological conditions also provide excellent aggregate resources for construction materials such as gravel and sand.

Project Study Area

The study area for this environmental analysis includes areas that may be affected directly, indirectly or cumulatively by implementing the Project. The study area has been broadly defined to ensure evaluation of the potential effects within all areas that would be affected by, and benefit from, implementation of the Project. The scope of the study area varies depending on the impact topic discussed.

Project Description

The Proposed Action consists of core exchange parcels minimally necessary to implement the Wash Plan and equalization parcels to equalize the monetary values of exchange lands, if necessary. Through the exchange, the BLM would dispose of fragmented, degraded, and unmanaged lands, and acquire and consolidate high quality manageable habitat.

The BLM would dispose of Selected Lands to the District and would acquire Offered Lands from the District. This exchange would allow the future expansion of mining activities on BLM Selected Lands which, in their current state, are partially disturbed by mining haul roads and are located adjacent to existing mining operations. The District would adopt a conservation easement or other similar land management tool on certain acquired Selected Lands identified in the Wash Plan for habitat conservation. District Offered Lands transferred to BLM ownership would be designated as part of the Santa Ana River Wash ACEC, providing protection of quality habitat for endangered species, and allowing water spreading operations in non-sensitive habitat areas (see Figure 2, *Plan Area Subcomponents*).

The BLM would convey ownership of approximately 315 acres of partially disturbed and fragmented BLM lands to the District. In return, the BLM would acquire approximately 320 acres of higher quality habitat, which would create a contiguous habitat linkage between existing BLM parcels located south and north of the Offered Lands in Section 12. If necessary, the 60 acres of District equalization parcels and the 85 acres of BLM equalization parcels may be used to equalize the values of the core exchange parcels.

Table 1: Alternatives Acreage Matrix

Component	Alternative A	Alternative B
	No Action/Existing Conditions (acres)1	Proposed Action Future Land Uses (acres)
Water Recharge and Conservation	320	60
Undeveloped Natural Habitat	602	0
Habitat Conservation	339	461
Aggregate Mining and Processing	61	259

Source: Wash Plan EIR 2008.

Notes: Please refer to Table 3.7, Existing Conditions and Table 3.9, Future Land Use for these acreages under the No Action and Proposed Action Alternatives.

1. Per Wash Plan EIR land use breakdown
2. District Land in Santa Ana River channel.
3. Habitat Conservation includes land in BLM ACEC, or conservation easement on for habitat protection.

Consideration of Project Alternatives

Eight Alternatives were evaluated for the SEIS/SEIR. Six were eliminated with specific rational that is located at the end of this chapter. Two alternatives have been carried forward for detailed analyzed in the EIS. Alternative A, the No Action Alternative would allow the continuation of current, existing management on the Selected and Offered Lands. CEQ regulations require a no-action/"current management" alternative to be considered in every document prepared in satisfaction of NEPA. Alternative B, the Proposed Action, would allow the exchange of lands minimally necessary to implement the Wash Plan, as well as additional lands that may be exchanged, if necessary to equalize values between the BLM and District land exchange.

The CEQ NEPA Regulations (40 C.F.R. 1502.14) state that an EIS must consider a reasonable range of alternatives that could accomplish some or all of the objectives established for the Proposed Action. "Reasonable" alternatives are those that could be carried out based on technical, economic, environmental, and other factors. Alternatives that do not meet some or all of the objectives or do not satisfy the Lead Agency's "reasonableness" criteria need not be evaluated in the Draft EIS. Alternatives to the Proposed Action were developed utilizing an interdisciplinary team that included the District, BLM staff and cooperating agencies.

The phrase "range of alternatives" also refers to the alternatives discussed in environmental documents. It includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them. Section 1502.14. A decision maker must not consider alternatives beyond the range of alternatives discussed in the relevant environmental documents. Moreover, a decision maker must, in fact, consider all the alternatives discussed in an EIS. Section 1505.1(e).

3.0 Probable Environmental Impacts

The SEIS/EIR will describe the direct and indirect potentially significant environmental impacts of the proposed Project. The SEIS/EIR will also evaluate the cumulative impacts of the Project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The probable environmental impacts of the proposed Project are as follows (for each potentially significant

impact, the SEIS/EIR will identify Project Design Features, existing regulations, mitigation measures and/or Project alternatives that could avoid, reduce or offset potential impacts):

- **Aesthetics:** Temporary construction-related impacts and long-term operational changes in scenic views or visual character of the Project area may occur. The SEIS/EIR will address construction-related and operational impacts of site improvements, including light/glare effects at construction sites and security lighting.
- **Air Quality:** Temporary and short-term increases in pollutant emissions and objectionable odors associated with construction activities, and long-term increases in pollutant emissions during project operation (including stationary and mobile-source emissions) may occur. Development of the proposed Project could result in pollutant emissions from short-term construction activities. The SEIS/EIR will quantify potential air quality impacts and identify appropriate mitigation measures to reduce exposure of sensitive receptors to below substantial pollutant concentrations. In addition, a localized analysis will be performed in accordance with SCAQMD Localized Significance Thresholds (LST) methodology for construction and operations (stationary sources) for carbon monoxide (CO), nitrous oxides (NO_x), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}), and particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$).
- **Biological Resources:** The Santa Ana River Wash ACEC encompasses 760 acres of BLM lands north of the City of Redlands, within the floodplains of the Santa Ana River and Plunge Creek. The Santa Ana River Wash ACEC provides special management for the conservation and recovery of the slender-horned spineflower (*Dodecahema leptoceras*) and Santa Ana River woolly-star (*Eriastrum densifolium ssp. canctorum*). The ACEC is managed according to decisions stated in the SCRMP, which define the ACEC as a right-of-way avoidance area, unavailable for mineral sales, closed to motorized vehicle use, and unavailable for livestock grazing. These management prescriptions generally limit the amount and extent of surface-disturbing activities permitted within the ACEC in order to protect and conserve habitat for which the area was designated.

  Approximately 339 acres of BLM Selected Lands are located within the Santa Ana River Wash ACEC and set aside for habitat conservation. BLM Selected Lands within the Santa Ana River Wash ACEC are primarily located within Section 10. Much of the Selected Lands are located on a portion of the ACEC that has been disturbed by mining haul roads and unauthorized mining activities.

  Approximately 60 acres of District Offered Lands are suitable for habitat conservation but are not formally managed by the District as such.

  While the purpose of the HCP is to provide conservation regulations for special status species, other components of the proposed Project may impact biological resources. This will be further analyzed in the SEIS/EIR.
- **Cultural Resources:** Project construction could impact portions of historic properties which are adjacent to the existing roadways. In addition, potentially significant archaeological and/or paleontological resources could be inadvertently unearthed or discovered during construction. The District, will initiate Section 106 consultation with the State Historic Preservation Officer as part of the federal consultation process. As such, the proposed Project's potential impacts on archaeological, paleontological, and historic resources will be analyzed in the SEIS/EIR.

- **Geology and Mineral Resources:** Multiple geological conditions exist within the Project area that warrant thorough geological and soils analysis. The potential for liquefaction and landslide is considered "high" in the Project area. Additionally, slope failure is a possibility in the Project area.

  In general, the Project Area is not within an area of high mineral resources other than that of aggregate resources. There is a very low potential for oil and gas based on the geologic setting of the area; however, high-quality sand, gravel, and aggregate resources are present in the alluvial deposits throughout the Project Area and the Santa Ana River Wash. The entirety of the Wash Plan Area, specifically the core exchange parcels and associated equalization parcels, has been classified as MRZ-2, which indicates the likelihood of significant mineral deposits. There are currently three active mining operations within the general area of the Selected and Offered Lands: Matich; Cemex; and Robertson's. No permitted and authorized mining activity is currently being pursued in the Project Area. This will be further analyzed in the SEIS/EIR.

- **Greenhouse Gas Emissions:** Temporary construction activities associated with the proposed Project could result in emissions of greenhouse gasses including CO_2, N_2O, and CH_4 emissions. The SEIS/EIR will quantify potential greenhouse gas emissions from construction and operational activities, evaluate potential impacts, and identify appropriate mitigation measures, where necessary, to avoid and/or minimize pollutant emissions.
- **Hazards and Hazardous Materials:** Potential spills of, and exposure to, hazardous materials during construction may occur with Project implementation, due to the use of various products that could contain materials classified as hazardous (including solvents, adhesives, cements, paints, cleaning agents, and degreasers), as well as fuels such as gasoline and diesel used in heavy equipment and other construction vehicles. Therefore, additional analysis of the anticipated impacts relative to hazardous waste and materials will be provided in the SEIS/EIR. The Project's potential to impair implementation of an adopted emergency response plan or emergency evacuation plan will also be evaluated in the SEIS/EIR.
- **Hydrology and Water Quality:** Long-term hydrology and water quality impacts may result with Project implementation, as discussed below:
  - *Hydrology:* The Santa Ana River enters the Project Area from the northeast and continues along the southern boundary of the Project Area, flowing southwest to Prado Basin. Upstream tributary flows into this reach of the Santa Ana River include Plunge Creek to the north and City Creek to the northwest.

    Plunge Creek enters the Wash Plan Area along the northern boundary, and City Creek skims the northwest boundary of the Wash Plan Area. Mill Creek joins the Santa Ana River near the southeast corner of the Wash Plan Area. The Seven Oaks Dam, upstream of the Project Area, provides flooding mitigation from the main-stem Santa Ana River and the mountain-based tributaries. The extensive levee system within the vicinity of the Project Area has been designed to mitigate flooding and redirect flows, including 100-year rain event flows from Mill Creek.

    Groundwater underlying the Wash Plan Area is part of the Bunker Hill II sub-basin of the Upper Santa Ana Valley Groundwater Basin. The Bunker Hill Basin covers 89,600 acres (120 square miles), has an estimated storage capacity of 5,976,000 acre-feet,

and has a current anticipated storage of 5,890,300 acre-feet. The Bunker Hill Basin is identified as a groundwater recharge zone, and is bounded on the north by the bedrock of the San Bernardino Mountains (north of the San Andreas Fault), on the southeast by the Crafton fault, and on the west by the San Jacinto Fault. These geologic faults act as barriers to groundwater movement.

- *Water Quality:* The Project Area lies within the Bunker Hill Basin which is known for its high-quality water because there are relatively few sources of contamination discharged to the Santa Ana River from upstream sources. Sewage generated from nearby cities converges to other urbanized areas before converging with the Santa Ana River. Furthermore, the Bunker Hill percolation basins rely on rainfall and stream flow from the Santa Ana River for recharge. The groundwater also provides a central water supply for communities; consequently, protecting this source of water is an important part of providing safe drinking water to the public.

  There are no long-term data on the quality of storm water runoff within the Project Area. In the absence of site-specific data, expected storm water quality can be discussed qualitatively by relating pollutants to specific land use. The Project Area contains a direct road for the hauling of mineral resources. Pollutants expected include sediment, pathogens, pesticides, and salts. The amount of runoff depends upon rainfall intensity.

- **Land Use and Planning:** The Project Area consists of the lands proposed for exchange by the District and the BLM within the City of Highland and the City of Redlands, within the County of San Bernardino, California. Approximately 80 acres of Selected Land and approximately 320 acres of Offered Land are located within the City of Highland. Approximately 220 acres of Selected Land and approximately 60 acres of Offered Land are located within the City of Redlands.

  The BLM Palm Springs Field Office administers both surface and subsurface estate on the Selected Lands in accordance with the SCRMP which is currently undergoing revision. The SCRMP provides a framework to maximize resource values and the multiple uses of BLM lands through a rational, consistently applied set of procedures. The Draft SCRMP revision was published 2011 and recognized the ongoing development of the Santa Ana Wash HCP as well as the proposed land exchange plan amendment. While most sensitive habitats are to be retained for management in collaboration with local jurisdictions, state and federal agencies, and public/private interest groups, disposals of such habitats can occur only if broader conservation goals can be achieved. Further analysis will be conducted in the SEIS/EIR.

- **Noise:** Noise associated with Project construction would occur over the short term. Construction noise for the proposed Project would be generated by construction equipment, including trucks, backhoes, excavators, and other associated equipment, and may impact nearby sensitive receptors (such as schools and residences). The SEIS/EIR would include an evaluation of potential noise impacts, focusing on short-term construction noise (including truck hauling) and groundborne vibration, and long-term operations related to noise, and would specifically address impacts associated with the Project on noise-sensitive land uses both within the Project site and along existing offsite roadways where traffic would be generated.

- **Recreation:** Construction and implementation of the proposed Project may impact recreational facilities on and near the Project area. This will be further analyzed in the SEIS/EIR.
- **Socioeconomics (Including Population, Employment and Housing):** Temporary and permanent increase in local/regional employment, increased need for housing or potential displacement of housing or persons, and inducement of substantial population growth associated with project implementation will be evaluated in the SEIS/EIR.
- **Transportation/Traffic:** The Project is not considered a trip-generating project; however, temporary construction-related traffic impacts relative to levels of service standards and inadequate emergency access may occur. Therefore, further analysis will be conducted in the SEIS/EIR.
- **Environmental Justice:** Due to the presence of minority and low-income populations in the Project area (according to the U.S. Census Bureau 2010 Census), disproportionately high and adverse effects on minority or low-income populations may occur with Project implementation, the analysis of which is required by NEPA. The SEIS/EIR will conduct a demographic analysis of these populations both within proximity to the proposed Project and living in other areas that would be serviced by the Project, provide graphical representations of their locations, and evaluate and provide mitigation for any potential disproportionately high and adverse impacts to minority and low-income populations.
- **Growth Inducement:** Potential growth-inducing impacts may results from project construction, including substantial new temporary employment opportunities.

These issue areas will be discussed further in the SEIS/EIR, and mitigation measures will be recommended wherever reasonable and feasible to reduce potentially significant impacts.

4.0 Scoping Meeting

A public scoping meeting will be held on **March 18**, **2015** at two different times for the convenience of interested parties - one from 2 to 4 PM and one from 6 to 8 PM (it is only necessary to attend one of the scoping meetings, as they will have the same information and purpose).

Scoping Meeting Information

Wednesday, March 18, 2015
2-4 PM and 6-8 PM

San Bernardino Valley Water Conservation District
1630 West Redlands Boulevard, Suite A
Redlands, CA 92373
Phone: (909) 793-2503
http://www.sbvwcd.dst.ca.us/

The scoping meeting will include a brief presentation regarding the proposed Project, followed by public comments. Attendees will be provided an informational packet, will have the opportunity to ask questions, and will be provided with a comment card to submit to the District prior to the close of the public review period.

5.0 Comments

This NOP is being circulated for a 60-day public comment period, beginning on Friday March 6, 2015, and ending on Friday May 1, 2015. Written or oral comments on the proposed content and scope of the SEIS/EIR can be provided at the public scoping meeting, or written comments may be provided directly to the District. Comments must be ***received no later than 5:00 p.m. on Friday May 1, 2015***. Agencies that will need to use the SEIS/EIR when considering permits or other approvals for the proposed Project should provide the name of a contact person, as well as any specific requirements or recommended mitigation measures or alternatives necessary to satisfy the agency's respective permit/approval process. Comments provided by e-mail should include the name and address of the sender. Please send all written and/or e-mail comments to one of the following:

Jeff Beehler
Resources Manager
1630 West Redlands Blvd., Suite A
Redlands, California 92373
jbeehler@sbvwcd.org

All comments received during the public comment period will be considered and addressed in the SEIS/EIR, which is anticipated to be available for public review in mid-2015.

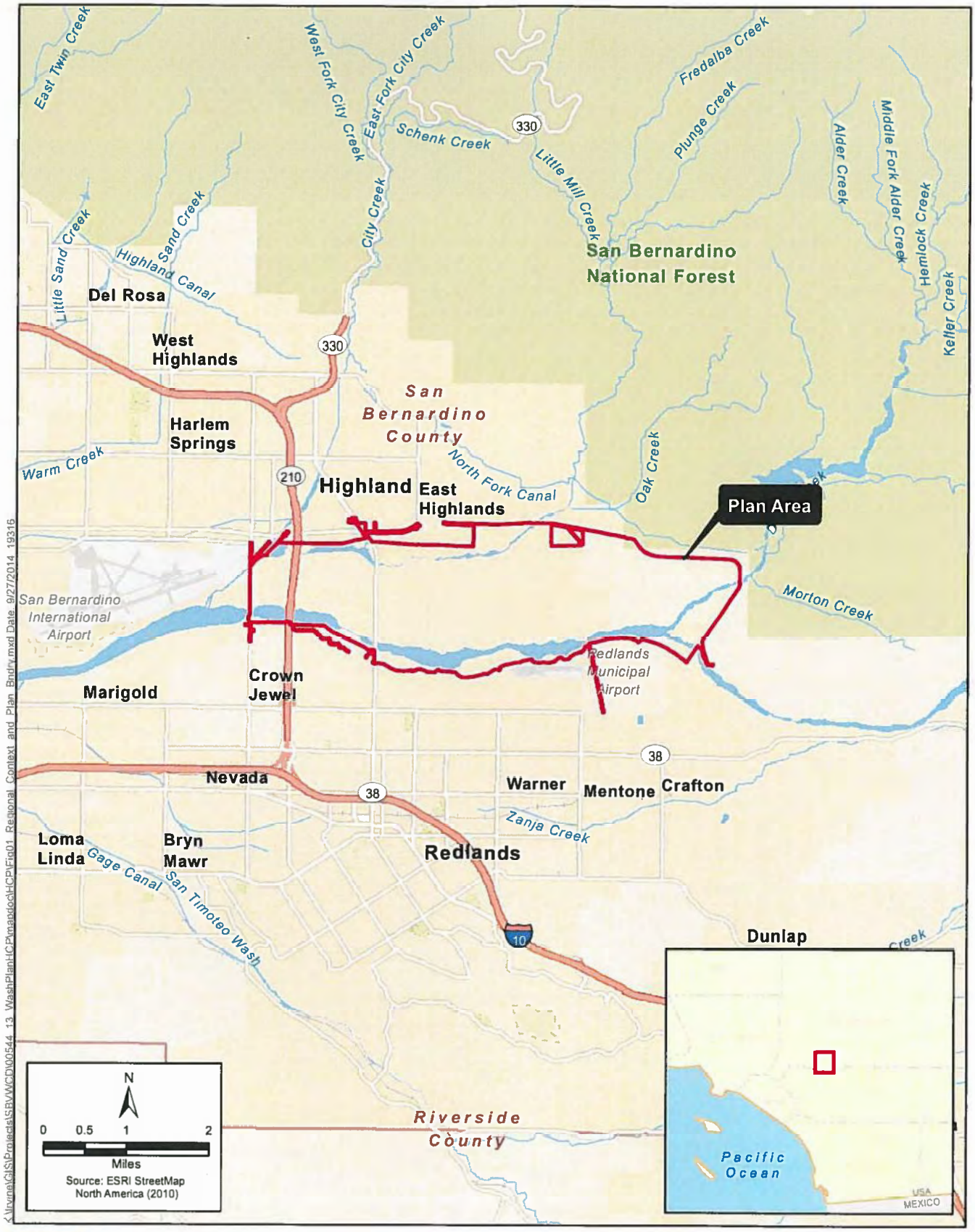

Figure 1
Regional Context and Plan Area Boundary
Wash Plan HCP

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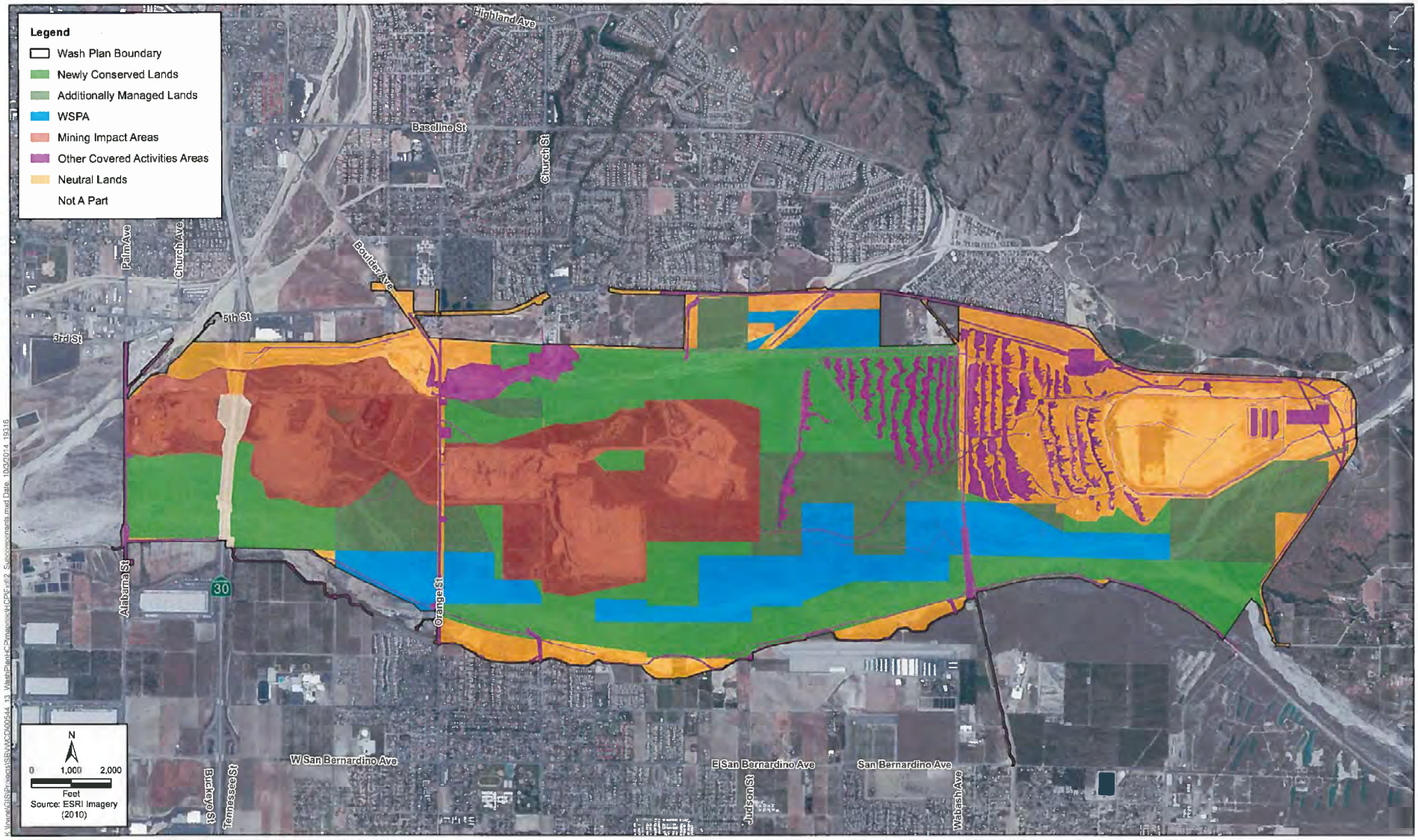

Figure 2
Plan Area Subcomponents
Wash Plan HCP

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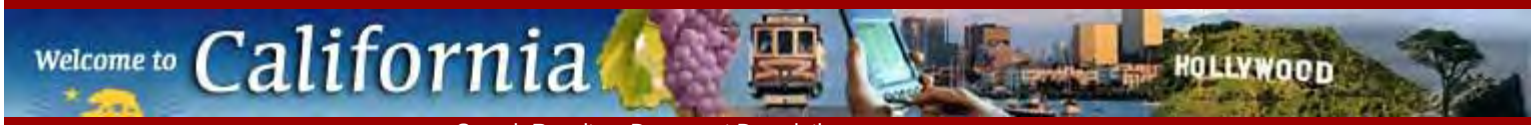

Upper Santa Ana River Wash Plan Supplemental EIS/EIR

SCH Number: 2015031022

Document Type: NOP - Notice of Preparation

Project Lead Agency: San Bernardino Valley Water Conservation District

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Project Description

Note: Reference SCH# 2004051023 The Proposed Project includes the following: 1. Exchange up to 400 acres of public lands located within the Santa Ana River Wash Area of Critical Environmental Concern (ACEC) for up to 380 acres of land owned by the District in San Bernardino County, CA, and; 2. Amend the SCRMP for the Upper Santa Ana River portion that is affected by the land exchange area. 3. Authorize take and implementation of the HCP.

Contact Information

Primary Contact:
Jeff Beehler
San Bernardino Valley Water Conservation District
714/793-2503
1630 West Redlands Blvd
Redlands, CA 92373

Project Location

County: San Bernardino
City: Redlands, Highland
Region:
Cross Streets: Alabama Street, 5th Street
Latitude/Longitude: 34° 5' 44" / 117° 9' 50" Map
Parcel No: multiple
Township: 1S
Range: 3W
Section: 11
Base: SBB&M
Other Location Info:

Proximity To

Highways: Hwy 210
Airports: Redlands Municipal Airport
Railways:
Waterways: Seven oak Dam, Santa Ana River
Schools: Citrus Valley HS, Beattie
Land Use: Open Space, Mining, Recreational Facilities

Development Type

Recreational, Mining, Other (Habitat Conservation)

Local Action

Other Action (HCP and land Ex)

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Upper Santa Ana River Wash Plan Supplemental EIS/EIR

Lead Agency: San Bernardino Valley Water Conservation District
Contact Person: Jeff Beehler
Mailing Address: 1630 West Redlands Blvd.
Phone: 909-793-2503
City: Redlands
Zip: 92373
County: San Bernardino

Project Location: County: San Bernardino
City/Nearest Community: Redlands, Highland
Cross Streets: Alabama Street, 5th Street
Zip Code: 92373
Longitude/Latitude (degrees, minutes and seconds): 34 ° 5 ′ 44 ″ N / 117 ° 9 ′ 50 ″ W
Total Acres:
Assessor's Parcel No.: multiple
Section: 11
Twp.: 1 South
Range: 3 West
Base: SB
Within 2 Miles: State Hwy #: 210
Waterways: Seven Oaks Dam, Santa Ana River
Airports: Redlands Municipal Airport, SF
Railways: N/A
Schools: Citrus Valley HS, Beattie

Document Type:

CEQA:
- [x] NOP
- [ ] Early Cons
- [ ] Neg Dec
- [ ] Mit Neg Dec
- [ ] Draft EIR
- [x] Supplement/Subsequent EIR (Prior SCH No.) 2004051023
- Other:

NEPA:
- [ ] NOI
- [ ] EA
- [ ] Draft EIS
- [ ] FONSI

Other:
- [ ] Joint Document
- [ ] Final Document
- [ ] Other:

Local Action Type:

- [ ] General Plan Update
- [ ] General Plan Amendment
- [ ] General Plan Element
- [ ] Community Plan
- [ ] Specific Plan
- [ ] Master Plan
- [ ] Planned Unit Development
- [ ] Site Plan
- [ ] Rezone
- [ ] Prezone
- [ ] Use Permit
- [ ] Land Division (Subdivision, etc.)
- [ ] Annexation
- [ ] Redevelopment
- [ ] Coastal Permit
- [x] Other: HCP and land Ex

Development Type:

- [ ] Residential: Units ____ Acres ____
- [ ] Office: Sq.ft. ____ Acres ____ Employees ____
- [ ] Commercial: Sq.ft. ____ Acres ____ Employees ____
- [ ] Industrial: Sq.ft. ____ Acres ____ Employees ____
- [ ] Educational:
- [x] Recreational:
- [ ] Water Facilities: Type ____ MGD ____
- [ ] Transportation: Type
- [x] Mining: Mineral
- [ ] Power: Type ____ MW ____
- [ ] Waste Treatment: Type ____ MGD ____
- [ ] Hazardous Waste: Type
- [x] Other: Habitat Conservation

Project Issues Discussed in Document:

- [x] Aesthetic/Visual
- [ ] Agricultural Land
- [x] Air Quality
- [x] Archeological/Historical
- [x] Biological Resources
- [ ] Coastal Zone
- [x] Drainage/Absorption
- [ ] Economic/Jobs
- [ ] Fiscal
- [x] Flood Plain/Flooding
- [ ] Forest Land/Fire Hazard
- [x] Geologic/Seismic
- [x] Minerals
- [x] Noise
- [ ] Population/Housing Balance
- [x] Public Services/Facilities
- [x] Recreation/Parks
- [ ] Schools/Universities
- [ ] Septic Systems
- [ ] Sewer Capacity
- [x] Soil Erosion/Compaction/Grading
- [ ] Solid Waste
- [x] Toxic/Hazardous
- [x] Traffic/Circulation
- [x] Vegetation
- [x] Water Quality
- [ ] Water Supply/Groundwater
- [x] Wetland/Riparian
- [x] Growth Inducement
- [x] Land Use
- [x] Cumulative Effects
- [ ] Other:

Present Land Use/Zoning/General Plan Designation:

Open Space, Mining, Recreational Facilities

Project Description: *(please use a separate page if necessary)*

The Proposed Project includes the following:

1. Exchange up to 400 acres of public lands located within the Santa Ana River Wash Area of Critical Environmental Concern (ACEC) for up to 380 acres of land owned by the District in San Bernardino County, California, and;
2. Amend the SCRMP for the Upper Santa Ana River portion that is affected by the land exchange area.
3. Authorize take and implementation of the HCP.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

S Air Resources Board
____ Boating & Waterways, Department of
____ California Emergency Management Agency
____ California Highway Patrol
S Caltrans District #8
____ Caltrans Division of Aeronautics
____ Caltrans Planning
____ Central Valley Flood Protection Board
____ Coachella Valley Mtns. Conservancy
____ Coastal Commission
____ Colorado River Board
S Conservation, Department of
____ Corrections, Department of
____ Delta Protection Commission
____ Education, Department of
____ Energy Commission
S Fish & Game Region #6
____ Food & Agriculture, Department of
____ Forestry and Fire Protection, Department of
____ General Services, Department of
____ Health Services, Department of
____ Housing & Community Development
S Native American Heritage Commission

S Office of Historic Preservation
____ Office of Public School Construction
____ Parks & Recreation, Department of
____ Pesticide Regulation, Department of
____ Public Utilities Commission
S Regional WQCB #8
____ Resources Agency
____ Resources Recycling and Recovery, Department of
____ S.F. Bay Conservation & Development Comm.
____ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____ San Joaquin River Conservancy
____ Santa Monica Mtns. Conservancy
____ State Lands Commission
____ SWRCB: Clean Water Grants
____ SWRCB: Water Quality
____ SWRCB: Water Rights
____ Tahoe Regional Planning Agency
____ Toxic Substances Control, Department of
____ Water Resources, Department of

____ Other: ____
____ Other: ____

Local Public Review Period (to be filled in by lead agency)

Starting Date March 6, 2015 Ending Date May 1, 2015

Lead Agency (Complete if applicable):

Consulting Firm: RVA & Associates, Inc.
Address: 3602 Inland Empire Boulevard
City/State/Zip: Ontario, CA 91764
Contact: Ruth Villalobos
Phone: 909-685-5942

Applicant: San Bernardino Valley Water Conservation District
Address: 1630 W. Redlands Blvd.
City/State/Zip: Redlands, CA 92373
Phone: 909-793-2503

Signature of Lead Agency Representative: ____ **Date:** 3-4-15

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Project Issues

Aesthetic/Visual, Air Quality, Archaeologic-Historic, Biological Resources, Drainage/Absorption, Flood Plain/Flooding, Geologic/Seismic, Minerals, Noise, Public Services, Recreation/Parks, Soil Erosion/Compaction/Grading, Toxic/Hazardous, Traffic/Circulation, Vegetation, Water Quality, Wetland/Riparian, Growth Inducing, Landuse, Cumulative Effects

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Reviewing Agencies (Agencies in **Bold Type** submitted comment letters to the State Clearinghouse)

Resources Agency; Department of Conservation; Cal Fire; Department of Parks and Recreation; **Department of Water Resources**; **Department of Fish and Wildlife, Region 6**; Office of Emergency Services, California; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Air Resources Board; Regional Water Quality Control Board, Region 8

Date Received: 3/5/2015 **Start of Review:** 3/5/2015 **End of Review:** 4/3/2015

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THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

April 29, 2015

Brandon Anderson
Santa Ana River Wash Project
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Dear Mr. Anderson

Scoping Comments for the Supplemental Draft Environmental Impact Statement for the Proposed South Coast Resource Management Plan Amendment and Proposed Upper Santa Ana River Habitat Conservation Plan and Land Exchange

The Metropolitan Water District of Southern California (Metropolitan) reviewed the Notice of Intent (NOI) for the Supplemental Draft Environmental Impact Statement (SDEIS) for the Proposed South Coast Resource Management Plan Amendment and Proposed Upper Santa Ana River Habitat Conservation Plan and Land Exchange. Additionally, Metropolitan staff attended a scoping meeting on March 18, 2015 at the San Bernardino Valley Water Conservation District Office in Redlands, California.

The U.S. Fish and Wildlife Service (Service) and Bureau of Land Management (BLM), intend to prepare an SDEIS under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Upper Santa Ana River Wash Habitat Conservation Plan (HCP), and a related land exchange. The SDEIS will be a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR), for which the Service, the BLM, and the San Bernardino Valley Water Conservation District (District) intend to gather information necessary for preparation. The proposed HCP has been drafted to meet the requirements of the Federal Endangered Species Act (ESA) of 1973, as amended, and the State of California's Endangered Species Act and Natural Communities Conservation Planning Act. The BLM, in compliance with the Federal Land Policy and Management Act, as amended, will consider this NEPA process and the resulting HCP documents in its analysis toward possible amendment of the BLM South Coast Resource Management Plan (SCRMP) to support the land exchange.

Metropolitan owns and operates a number of facilities, rights-of-way and property holdings within the area of the proposed land exchange and HCP area (see attached map). These rights-of-way and facilities are operated and maintained by Metropolitan for the purpose of water supply and any proposed use for this property should be consistent with this use and must be

700 N. Alameda Street, Los Angeles, California 90012 • Mailing Address: Box 54153, Los Angeles, California 90054-0153 • Telephone (213) 217-6000

approved by Metropolitan in writing. Any proposed land use classifications and restrictions shall not include Metropolitan's facilities or rights-of-way, nor restrict Metropolitan's access to said facilities and rights-of-way. Enclosed is a Compact Disc (CD) containing shape files of Metropolitan's pipelines and rights-of-way in the plan area. In order to avoid potential conflicts with Metropolitan's right-of-way, we require that any design plans for any construction project or other activity in the area of Metropolitan's pipelines, canals, or facilities be submitted for our review and written approval. More detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-6564.

We appreciate the opportunity to provide input to your planning process and look forward to working with you in the future. If we can be of further assistance, please contact Mr. Sean Carlson at (213) 217-6276.

Very truly yours,

Debbie Drezner
Principal, Environmental Planning Team

SAC/sac
(J:\Environmental Planning Team\COMPLETED FOLDERS\March 2015\Job No. 20150315EXT)

Enclosure: Compact Disc containing shapefiles

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Date
4/28/2015

SIGNATURE / SURNAMING CIRCULATION

ORIGINATOR

ID No.	Full Name	Group	Location/Office	MetNet No.
08416	CARLSON,SEAN A	ENGINEERING SERVICES GROUP	US.03.217.CA	76276

Section	Unit	Team
FACILITY DEVELOPMENT SECTION	ENGINEERING SYSTEMS PLANNING	ENVIRONMENTAL PLANNING TEAM

DOCUMENT ROUTING RECORD

Document Title (Enter the title of the document being routed for signature.)

comment letter- NOI for a Supplemental EIS for Land Exchange and HCP

	DATE ROUTED	ROUTE TO	DATE SIGNED	COMMENTS
1	4/22/15	Sean Carlson	4/22/15	
2	4/22/15	Kieran Callanan	4/28/15	Ok per voicemail No Comments
3	4/28/15	Cathy Stites	4/28/15	Via e-mail No comments
4		Debbie Drezner		
5				
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15				

Enter all of the internal and external names that were sent a Cc: of the routed document.

Enter all of the internal and external names that were sent a Bcc: of the routed document.

COMMENTS

CONTACT

When Signed, Call	Date	MetNet
CARLSON,SEAN A	4/28/2015	76276

NOTE: If contact name is different than originator, override the name in the field for 'When Signed, Call' and enter the desired name.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

April 1, 2015

Mr. Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Boulevard
Redlands, California 92373

Notice of Preparation, Supplemental Draft Environmental Impact Report, Upper Santa Ana River Wash Plan, City of Redlands, California Aqueduct, Southern Field Division, SCH 2015031022

Dear Mr. Beehler:

Thank you for the opportunity to review and comment on the Notice of Preparation for the Upper Santa Ana River Wash Plan near the City of Redlands, Supplemental Draft Environmental Impact Report (EIR) in Los Angeles County. The Wash Plan is a multi-jurisdictional land management strategy involving public and private lands, which need to be reconfigured to preserve the habitat areas within the Wash Plan. In the proposal, San Bernardino Valley Water Conservation District (District) will offer exchange lands with favorable habitat to the Bureau of Land Management (BLM) in exchange for lands favorable for mining and water conservation within the Upper Santa Ana River Wash Plan. The proposed new habitat conservation lands will be adjacent to the new Mentone Pipeline, which is part of Department of Water Resources (DWR) right of way (ROW). Any exchange lands in the vicinity of the DWR's ROW that will be used as habitat, shall not impede DWR's ability to perform existing and future operation and maintenance on the Mentone Pipeline.

Please provide DWR with a copy of any subsequent environmental documentation when it becomes available for public review. Any future correspondence relating to this project should be sent to:

Leroy Ellinghouse, Chief
SWP Encroachments Section
Division of Operations and Maintenance
Department of Water Resources
1416 Ninth Street, Room 641-1
Sacramento, California 95814

In addition, please continue to keep DWR informed of any future actions with respect to your project.

If you have any questions, please contact Leroy Ellinghouse, Chief of DWR's SWP Encroachments Section, at (916) 653-7168.

Sincerely,

David M. Samson, Chief
State Water Project Operations Support Office
Division of Operations and Maintenance

cc: State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, California 95814

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

March 23, 2015

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, CA 92373

Sent by Fax: (909) 793-0188
Number of Pages: 2

RE: Upper Santa Ana River Wash Plan, San Bernardino County.

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

Native American Contact List
San Bernardino County
March 19, 2015

San Manuel Band of Mission Indians
Lynn Valbuena, Chairwoman
26569 Community Center Serrano
Highland , CA 92346
(909) 864-8933

(909) 864-3370 Fax

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning , CA 92220 Serrano
(951) 849-8807
(951) 755-5200
(951) 922-8146 Fax

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 Fernandeño
Newhall , CA 91322 Tataviam
tsen2u@hotmail.com Serrano
(661) 753-9833 Office Vanyume
(760) 885-0955 Cell Kitanemuk
(760) 949-1604 Fax

Serrano Nation of Mission Indians
Goldie Walker, Chairwoman
P.O. Box 343 Serrano
Patton , CA 92369

(909) 528-9027
(909) 528-9032

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
dtorres@morongo-nsn.gov
(951) 572-6004 Fax

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

San Manuel Band of Mission Indians
Daniel McCarthy, M.S.., Director-CRM Dept.
26569 Community Center Drive Serrano
Highland , CA 92346
dmccarthy@sanmanuel-nsn.gov
(909) 864-8933 Ext 3248

(909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Upper Santa Ana River Wash Plan, San Bernardino County.

825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.787

www.SBCounty.gov

SAN BERNARDINO COUNTY

Department of Public Works

- Environmental & Construction • Flood Control
- Operations • Solid Waste Management
- Surveyor • Transportation

Gerry Newcombe
Director

April 28, 2015

File: 10(ENV)-4.01

Jeff Beehler
Resources Manager
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, CA. 92373
jbeehler@sbvwcd.org

RE: CEQA – NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SOUTH COAST RESOURCE MANAGEMENT PLAN AMENDMENT FOR A PROPOSED LAND EXCHANGE AND THE UPPER SANTA ANA RIVER HABITAT CONSERVATION PLAN FOR THE SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT

Mr. Beehler:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on March 09, 2015,** and pursuant to our review, we have no comments.

Sincerely,

NIDHAM ARAM ALRAYES, MSCE, PE, QSD/P
Public Works Engineer III
Environmental Management

NAA:PE:nh/2015-04-28-02.docx

State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director

April 2, 2015

Mr. Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd.
Redlands, CA 92373

Subject: Notice of Preparation of a Supplemental Draft Environmental Impact Report
Upper Santa Ana River Wash Plan Project
State Clearinghouse No. 2015031022

Dear Mr. Beehler:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Supplemental Draft Environmental Impact Report (DEIR) for the Upper Santa Ana River Wash Plan Project (project) [State Clearinghouse No. 2015031022]. Pursuant to The Guidelines for the Implementation of CEQA (Cal. Code Regs., tit. 14, § 15000 *et seq.*; hereafter CEQA Guidelines), the Department has reviewed the NOP and offers comments and recommendations on those activities involved in the project that are within the Department's area of expertise and germane to its statutory responsibilities, and/or which are required to be approved by the Department (CEQA Guidelines, §§ 15086, 15096 & 15204).

CEQA ROLE

The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources). The Department is a Trustee Agency with responsibility under CEQA for commenting on projects that could affect biological resources. As a Trustee Agency, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities (CEQA Guidelines, § 15386; Fish & G. Code, § 1802).

The Department will also act as a Responsible Agency based on its discretionary authority regarding project activities that impact streams and lakes (Fish & G. Code, §§ 1600 – 1616), in this case the Santa Ana River and Mill Creek, or result in the "take" of any species listed as candidate, threatened, or endangered pursuant to the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), in this case the

project identifies potential impacts to Santa Ana River Woollystar (*Eriastrum densifolium ssp. sanctorum*) and Slender-horned Spineflower (*Dodecahema leptoceras*).

PROJECT DESCRIPTION

The proposed project includes:

1. The exchange of up to 400 acres of public lands located within the Santa Ana River Wash Area for up to 380 acres of land owned and operated by the San Bernardino Valley Water Conservation District (District);
2. An amendment to the Bureau of Land Management's South Coast Resource Management Plan (SCRMP) for the Upper Santa Ana River portion that is affected by the land exchange area; and,
3. The authorization of take and implementation of the Upper Santa Ana River Wash Habitat Conservation Plan.

COMMENTS AND RECOMMENDATIONS

The Department offers the comments and recommendations presented below to assist the San Bernardino Valley Water Conservation District in adequately identifying and/or mitigating the project's significant, or potentially significant, impacts on biological resources. These comments and recommendations are based on the requirement for the Department (who will be acting as both as responsible and trustee agency for this project) to provide specific detail about the scope and content of the environmental information related to the Department's area of statutory responsibility that must be included in the DEIR (CEQA Guidelines § 15082(b)).

Overall the Department recommends that the DEIR include the following:

1. The DEIR should include a project description, including reasonably foreseeable future phases of the proposed project, that contains sufficient information to evaluate and review the project's environmental impact (CEQA Guidelines, §§ 15063, 15124 & 15378).

2. The DEIR should include a description of the environmental setting that contains sufficient information to understand the project's, and its alternative's (if applicable), significant impacts on the environment (CEQA Guidelines, §§ 15063, 15125 & 15360).

3. The DEIR should include identification of environmental impacts of the proposed project (CEQA Guidelines, §§ 15063, 15065, 15126, 15126.2,15126.6 & 15358); and

4. The DEIR should include a description of feasible mitigation measures to avoid potentially significant impacts, and/or mitigate significant impacts, of the proposed project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370).

The Department also recommends that the DEIR specifically address the following:

Biological Resources and Impacts

The DEIR should contain sufficient, specific, and current biological information on the existing habitat and species at the project site; measures to minimize and avoid sensitive biological resources; and mitigation measures to offset the loss of native flora and fauna and State waters. The CEQA document should not defer impact analysis and mitigation measures to future regulatory discretionary actions, such as a Lake or Streambed Alteration Agreement.

To provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, regionally and locally unique species, and sensitive habitats, the DEIR should include the following information:

(a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]);

(b) A thorough, recent, floristic-based assessment of special status plants and natural communities, following the Department's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see http://www.dfg.ca.gov/habcon/plant/);

(c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at the project site and within the neighboring vicinity. *The Manual of California Vegetation*, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

(d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by the project. The Department's California Natural Diversity Data Base (CNDDB) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat. The Department recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp

Please note that the Department's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. The Department recommends that it be used

as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

(e) A complete, *recent* assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines § 15380). Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service; and,

(f) A recent, wildlife and rare plant survey. The Department generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if the project is proposed to occur over a protracted time frame, or in phases.

California Endangered Species Act (CESA)

The Department is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to the CESA. The Department recommends that a CESA ITP be obtained if the project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the project. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats. The Department encourages early consultation, as significant modification to the proposed project and mitigation measures may be necessary to obtain a CESA ITP. Revisions to the California Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA ITP unless the Project CEQA document addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit.

Fully Protected Species

Several of the species having the potential to occur within or adjacent to the project area, including, but not limited to: American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), White-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are fully protected species under the Fish and Game Code.

Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the project area.

The Department also recommends that the DEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. The Department recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.

Nesting Birds and Migratory Bird Treaty Act

Please note that it is the project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) also afford protective measures as follows: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

The Department recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the Department recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

Wildlife Movement and Connectivity

The project area supports significant biological resources and contains habitat connections and supports movement across the broader landscape, sustaining both transitory and permanent wildlife populations. Onsite features, which contribute to habitat connectivity, should be evaluated and maintained. Aspects of the project could create physical barriers to wildlife movement from direct or indirect project-related

activities. Indirect impacts from lighting, noise, dust, and increased human activity may displace wildlife in the general area. A discussion of both direct and indirect impacts to wildlife movement and connectivity should be included in the DEIR.

Biological Direct, Indirect, and Cumulative Impacts

To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR:

1) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address project-related changes on drainage patterns and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. Mitigation measures proposed to alleviate such impacts should be included;

2) A discussion regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;

3) The impacts of zoning of areas for development projects or other uses nearby or adjacent to natural areas, which may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document; and,

4) A cumulative effects analysis, as described under CEQA Guidelines § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Avoidance, Minimization, and Mitigation for Sensitive Plants

The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts. The Department considers these communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3 and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2008).

Lake and Streambed Alteration Program

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to http://www.dfg.ca.gov/habcon/1600/forms.html.

Please note that the Department has observed that several biological consulting companies in the area are incorrectly referencing California Code of Regulations (CCR) Title 14, section 1.72 in reference to the Department's jurisdiction under section 1600 *et seq.* of the Fish and Game Code. Please note that CCR Title 14, section 1.72 *does not* pertain to the Department's jurisdiction as embodied in California Fish and Game Code (FGC) section 1600 *et seq.*, and *is not* the definition of a stream used by the Department. The section 1.72 definition was developed to address a specific sport fish issue that came before the Fish and Game Commission, and although the definition does speak to periodic and intermittent flow, section 1.72 is limited to fish-bearing or aquatic life-bearing streams.

Rather than limiting Department jurisdiction to fish-bearing streams alone, FGC Chapter 6, Fish and Wildlife Protection and Conservation, Section 1600 *et seq.* was enacted to provide for the conservation of fish and wildlife resources associated with stream ecosystems. The FGC further defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities, including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45, and Division 2, Chapter 1, section 711.2(a), respectively). Fish means wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn or ova thereof (FGC, Division 5, Chapter 1, section 45).

For the purposes of implementing sections 1601 and 1603 of the FGC, California Code of Regulations Title 14, section 720 requires submission to the Department of "...general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, government agency, state or local, and any public utility, of any project which will divert, obstruct or change the natural flow or bed of any river, stream or lake designated by the Department, or will use material from the streambeds designated by the Department, all rivers, streams, lakes, and streambeds in the State of

California, including all rivers, streams and streambeds which may have intermittent flows of water, are hereby designated for such purpose."

Division 2, Chapter 5, Article 6, Section 1600 *et seq.* of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence or absence of specific vegetation types or communities. By long practice, the Department defines a stream as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators. The "*historic hydrologic regime*" is defined in practice by the Department as circa 1800 to the present." Thus, a channel is not defined by a specific flow event, nor by the path of surface water as this path might vary seasonally. Rather, it is the Department's practice to define the channel based on the topography or elevations of land that confine the water to a definite course when the waters of a creek rise to their highest point.

The Department's website has information regarding dryland streams in "A review of Stream Processes and Forms in Dryland Watersheds," available at this location: http://www.dfg.ca.Gov/habcon/1600/1600resources.html.

Additional information can also be found in "Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants, With the MESA Field Guide - Final Project Report" (Mesa Report) available here: http://www.energy.ca.gov/2014publications/CEC-500-2014-013/index.html Please review page 9 of the Mesa Report. Please also refer to page E-14, which includes the definition of a stream used by the Department's Lake and Streambed Alteration Program.

The following information will be required for the processing of a Notification of Lake or Streambed Alteration and the Department recommends incorporating this information into the CEQA document to avoid subsequent documentation and project delays. Please note that failure to include this analysis in the project's environmental document could preclude the Department from relying on the Lead Agency's analysis to issue an LSA Agreement without the Department first conducting its own, separate Lead Agency subsequent or supplemental analysis for the project:

1) Delineation of lakes, streams, and associated habitat that will be temporarily and/or permanently impacted by the proposed project (include an estimate of impact to each habitat type);
2) Discussion of avoidance and minimization measures to reduce project impacts; and,
3) Discussion of potential mitigation measures required to reduce the project impacts to a level of insignificance. Please refer to section 15370 of the CEQA Guidelines for the definition of mitigation.

Compensatory Mitigation

The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

Revegetation/Restoration Plan

Plans for restoration and re-vegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

The Department recommends that local onsite propagules from the project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the project; examples could include retention of woody material, logs, snags, rocks, and brush piles for a more detailed discussion of special habitat elements).

Cumulative Impacts

Cumulative effects analysis should be developed as described under CEQA Guidelines Section 15130. Please include all potential direct and indirect project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife

movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis.

Alternatives Analysis

The CEQA document should analyze a range of fully considered and evaluated alternatives to the Project (CEQA Guidelines Section 15126.6). The analysis should include a range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources. The CEQA document should include an evaluation of specific alternative locations with lower resource sensitivity where appropriate.

Further Coordination

The Department appreciates the opportunity to comment on the NOP of a Supplemental DEIR for the Upper Santa Ana River Wash Plan Project (SCH No. 2015031022). If you should have any questions pertaining to the comments provided in this letter, please contact Joanna Gibson at (909) 987-7449 or at Joanna.gibson@wildlife.ca.gov.

Sincerely,

(For) Leslie MacNair
Acting Regional Manager

cc: State Clearinghouse, Sacramento

Literature Cited

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2008. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California.

Response to:

FWS-R8-2015-N254; FXES11120000-156-FF08E00000

Supplemental Draft EIS Santa Ana Wash.

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1. Covered species.

The Santa Ana wash is a complex and peculiar community The assemblage of plants from different communities is uncommon and includes several interesting species notably the old junipers that must be able to withstand the flood. The area in the EIS and indeed that area of the whole wash is small, only 450 acres. The most robust conclusion of conservation biology is that the chance of extinction is inversely related to population size and small areas support small populations. The end of floods due to the Seven Oaks Dam has altered the ecology of the area and puts some species such as the woolly star in direct jeopardy. It will take intensive management to maintain the biodiversity.

An HCP provides an opportunity to look to the future in biological planning and provide protection not just for currently threatens species but for species whose ranges and populations are likely t be reduced in the future. The large scale MSHCP in Western Riverside has 146 covered specie the great majority of which are not now listed as Threatened or Endangered. Development will continue in Southern California and it is obvious that plants and animal will be reduced. 'No surprises" makes the situation worse. Even if species such as the burrowing owl continues to decline precipitously, there will be no way to recognize this and include it in the HCP. I advocate a generous approach to covered species.

Dudek in the document 'Existing Biological Conditions for the Upper Santa Ana HCP (Feb 200) identified 12 uncommon species. Most of these species were rare in the wash but were known to occur there. I will not argue the list species by species but would suggest that all of these species be covered. I would add the black-tailed jack rabbit, a species included in the Western Riverside MSHCP and known to be declining widely.

I would make a case for two species in particular namely the burrowing owl and the Los Angeles pocket mouse. Both are recognized as species of concern by both California Department of Fish and Wildlife and FWS. In other words their decline has been noted and it is not unreasonable to think that if these decline at the same rate in the future that both species will end up Threatened or Endangered. The pocket mouse has a wide range but almost the entire range is suitable for human development. The burrowing owl has been in decline for a long time. It is covered in the Western Riverside MSHCP and

surveys done as part of the MSHC revealed a tiny population outside Lake Skinner (MS HCP Monitoring Program). Like the pocket mouse the owl's habitat bring it into direct conflict with both farming and urban development.

In summary it seems very shortsighted not to take the HCP as a chance to 'cover' not only species currently Threatened and Endangered but others whose populations are likely to decline within the life of the plan. Currently the cactus wren is the only non TES species covered

Land Exchange

The endangered species act makes the take of plants on private land much easier than on federal land. I would be happier if the land around the current gravel pits were in federal hands. There will be accommodations to the miners in the HCP but looking down the road there will be continual pressure to expand the mines. (I have good photographic evidence that the mines have enlarged over the last 30 years and this creep has eliminated woolly stars)

I believe that some limited exchanges between the water district and BLM could achieve the goal of consolidation stated by BLM. In particular there some bits of BLM land such as that on the dam tailings that are of very low conservation value. It would be good to connect the two BLM parcels.

This solution would avoid the odd arrangement in which BLM owns the trap shoot.

Mitigation

I welcome the suggestion that FWS provides intensive management in exchange for the take of covered species. As stated above, the wash is a diverse, but small and hence imperiled piece of land. It will take skill and energy to maintain the biodiversity (and perhaps also provide an educational component).

However I think that there is a strong argument that take should be mitigated by securing an equal or greater area of habitat. There are good populations of woolly stars further down the wash (e.g by Pepper Ave) that are in private hands and should be secured.

CENTER for BIOLOGICAL DIVERSITY Because life is good

protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law
submitted via Electronic Mail and USPS

5/4/2015

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Jeff Beehler,
San Bernardino Valley Water Conservation District
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Redlands, California 92373

RE: Scoping Comments for the Upper Santa Ana River Wash Project. (80 FR 11463)

Dear Mssrs. Anderson, Corey, and Beehler

Please accept the following scoping comments on the Notice of Intent to Prepare a Supplemental Draft Environmental Impact Statement and Report for the Proposed South Coast Resource Management Plan Amendment; for the Proposed Upper Santa Ana River Habitat Conservation Plan and Land Exchange (SDEIS/R) (80FR11463) on behalf of the Center for Biological Diversity (the "Center").

The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats in the Western Hemisphere through science, policy, and environmental law. The Center has over 825,000 members and on-line activists throughout California and the western United States, including members within the project vicinity. The Center has been involved in Santa Ana River issues for years, including numerous scoping and comment letters on previous iterations of the Wash Plan and BLM land exchange including our most recent comments on the Draft Environmental Impact Report (DEIR) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan SCH No. 2004051023 dated May 23, 2008, and comments on Draft South Coast Resource Management Plan Amendment And Draft Environmental Impact Statement (EIS) for the Santa Ana River Wash Land Exchange DOI-BLM-CA-D060-2009-0005-EIS - OPEC Control No. DES 09-12, BLM/CA/ES-2009-022+8300 dated October 22, 2009. We incorporate those comments herein.

Biological Resources

Complete surveys and documentation of all locations for any rare, sensitive, threatened and endangered species, not just covered species, need to be accurately evaluated and used as a

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basis for impact analysis. The SDEIS/R then needs to be designed to avoid and minimize impacts to these declining species.

Other rare species with potential to occur on the project site and tracked by state and federal resource agencies include:

Common Name	Scientific Name	Fed/State/CA
marsh sandwort	*Arenaria paludicola*	FE/CE/1B.1
Nevin's barberry	*Berberis nevinii*	FE/CE/1B.1
Plummer's mariposa-lily	*Calochortus plummerae*	--/--/4.2
smooth tarplant	*Centromadia pungens* ssp. *laevis*	None
salt marsh bird's-beak	*Chloropyron maritimum* ssp. *maritimum*	FE/CE/1B.2
Parry's spineflower	*Chorizanthe parryi* var. *parryi*	S/--/1B.1
white-bracted spineflower	*Chorizanthe xanti* var. *leucotheca*	S/--/1B.2
Peruvian dodder	*Cuscuta obtusiflora* var. *glandulosa*	--/--/2B.2
slender-horned spineflower	*Dodecahema leptoceras*	FE/CE/1B.1
Santa Ana River woollystar	*Eriastrum densifolium* ssp. *sanctorum*	FE/CE/1B.1
California satintail	*Imperata brevifolia*	--/--/2B.2
Robinson's pepper-grass	*Lepidium virginicum* var. *robinsonii*	--/--/4.3
Parish's bush-mallow	*Malacothamnus parishii*	--/--/1A
Hall's monardella	*Monardella macrantha* ssp. *hallii*	--/--/1B.3
Parish's gooseberry	*Ribes divaricatum* var. *parishii*	--/--/1A
Parish's checkerbloom	*Sidalcea hickmanii* ssp. *parishii*	S/--/1B.2
southern jewelflower	*Streptanthus campestris*	S/--/1B.3
Busck's gallmoth	*Carolella busckana*	
Santa Ana speckled dace	*Rhinichthys osculus* ssp. 3	--/SSC/--
Santa Ana sucker	*Catastoma santaanae*	FT/SSC/--
southern mountain yellow-legged frog	*Rana muscosa*	FE/SSC/--
silvery legless lizard	*Anniella pulchra pulchra*	--/SSC/--
orangethroat whiptail	*Aspidoscelis hyperythra*	--/SSC/--
California mountain kingsnake (San Bernardino population)	*Lampropeltis zonata (parvirubra)*	S/SSC/--
coast horned lizard	*Phrynosoma blainvillii*	S/SSC/--
two-striped garter snake	*Thamnophis hammondii*	S/SSC/--
Cooper's hawk	*Accipiter cooperii*	--/WL/--
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	--/WL/--
burrowing owl	*Athene cunicularia*	S/SSC/--
Swainson's hawk	*Buteo swainsoni*	S/CT/--
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT/SE/--
white-tailed kite	*Elanus leucurus*	S/FP/--
southwestern willow flycatcher	*Empidonax traillii extimus*	FE/CE/--
California horned lark	*Eremophila alpestris actia*	--/WL/--
yellow-breasted chat	*Icteria virens*	--/SSC/--
loggerhead shrike	*Lanius ludovicianus*	--/SSC/--
coastal California gnatcatcher	*Polioptila californica californica*	FT/SSC/--
yellow warbler	*Setophaga petechia*	--/SSC/--
least Bell's vireo	*Vireo bellii pusillus*	FE/CE/--
pallid bat	*Antrozous pallidus*	S/SSC/--
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	--/SSC/--

San Bernardino kangaroo rat	*Dipodomys merriami parvus*	FE/SSC/--
Stephens' kangaroo rat	*Dipodomys stephensi*	FE/SE/--
western mastiff bat	*Eumops perotis californicus*	S/SSC/--
western yellow bat	*Lasiurus xanthinus*	--/SSC/--
San Diego desert woodrat	*Neotoma lepida intermedia*	--/SSC/--
pocketed free-tailed bat	*Nyctinomops femorosaccus*	--/SSC/--
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	--/SSC/--
American badger	*Taxidea taxus*	--/SSC/--

Federal Designation
FE Federally listed as endangered.
FT Federally listed as threatened.
S – BLM Sensitive
State Designation
FP – Fully protected species
CE State listed as endangered. Species whose continued existence in California is jeopardized.
CT State listed as threatened. Species that although not presently threatened in California with extinction are likely to become endangered in the foreseeable future.
SSC "Species of Special Concern." Species with declining populations in California.
California Rare Plant Rank
1A Plants presumed extinct in California
1B.1 Plants Rare, Threatened, or Endangered in California and Elsewhere and seriously threatened in CA.
1B.2 Plants Rare, Threatened, or Endangered in California and Elsewhere and fairly threatened in CA.
2B.1 Plant rare, threatened or endangered in California, but more common elsewhere, and seriously threatened in CA.
2B.2 Plant rare, threatened or endangered in California, but more common elsewhere, and fairly threatened in CA.
4.2 Watch List - moderately threatened in CA.
4.3 Watch List – not very threatened in CA

In addition, several rare plant communities are also known from the general project area including Southern Cottonwood Willow Riparian Forest, Southern Coast Live Oak Riparian Forest, Southern Riparian Forest, Southern Riparian Scrub, Southern Willow Scrub and Riversidean Alluvial Fan Sage Scrub. While all of theses unique plant communities are important, numerous seral stages of the Riversidean Alluvial Fan Sage Scrub are dominant component of the Santa Ana River Wash and conservation and enhancement of this rare plant community needs to be a key component of this plan.

Biological Surveys and Mapping

In order to present a full picture of the biological impacts of the project, thorough, seasonally appropriate surveys must be performed for sensitive plant species and vegetation communities, and animal species under the direction and supervision of the resource agencies such as the US Fish and Wildlife Service and/or the California Department of Fish and Wildlife. Full disclosure of survey results to the public and other agencies without limitations must be implemented to assure full NEPA/CEQA compliance.

Surveys for the plants and plant communities should follow California Native Plant Society (CNPS)[1] and California Department of Fish and Wildlife's (CDFW) floristic survey guidelines[2] and should be documented as recommended by CNPS[3] and California Botanical Society policy guidelines. A full floral inventory of all species encountered needs to be documented and included in the EIS/R. Surveys for animals should include an evaluation of the California Wildlife Habitat Relationship System's (CWHR) Habitat Classification Scheme. All rare species (plants or animals) need to be documented with a California Natural Diversity Data Base form and submitted to the California Department of Fish and Wildlife using the CNDDB Form[4] as per the State's instructions[5].

In order for the public to properly evaluate the data, the vegetation maps must be at a large enough scale to be useful for evaluating the impacts. Vegetation/wetland habitat mapping should be at such a scale as to provide an accurate accounting of wetland and adjacent habitat types that will be directly or indirectly affected by the proposed activities, including downstream reaches of the Santa Ana River. A half-acre minimum mapping unit size is recommended, such as has been used for other development projects. Habitat classification should follow the CNPS' Manual of California Vegetation.

Impact Analysis

The SDEIS/R must evaluate all direct, indirect, and cumulative impacts to sensitive habitats, including impacts associated with unpermitted recreational activities, the introduction of non-native plants, water quality and quantity impacts and the loss and disruption of critical and essential habitat.

The SDEIS/R must identify and evaluate impacts to species and ecosystems from invasive, exotic species. For example, last year, the highly invasive red algae (*Compsopogon coeruleus*) was documented in the Santa Ana sucker occupied habitat in the Santa Ana River.[6] Additionally, mesic terrestrial exotic species such as giant reed (*Arundo donax*) is also present in the Santa Ana River and has invaded and displaced native vegetation upon which numerous species depend. While giant reed eradication has occurred on the Santa Ana River, it has not occurred in a comprehensive, well-planned top-of-the-watershed to downstream. Instead the haphazard giant reed abatement only results in on-going mitigation opportunities as the invasive re-establishes itself through downstream dispersal. Invasive species displace native vegetation, degrade functioning ecosystems, and provide little or no habitat for native animals. All of these factors for exotic plants are present in the project, and their effects must be evaluated in the EIS/R.

Wildlife Movement

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1 http://www.cnps.org/cnps/rareplants/inventory/guidelines.php
2 http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf
3 http://www.cnps.org/cnps/archive/collecting.php
4 http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf
5 http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp
6 http://www.pe.com/articles/fish-693195-river-algae.html

A thorough and independent evaluation of the project's impacts on wildlife movement is essential. The Santa Ana River corridor is one of the last, best, albeit tenuous, linkages for wildlife movement through the highly urbanized inland empire between larger conservation refugia. The EIS/R must evaluate all direct, indirect, and cumulative impacts to wildlife movement corridors from any changes in hydrology. The analysis should cover movement of mammals, as well as other taxonomic groups, including birds, reptiles, amphibians, invertebrates, and vegetation communities. The EIS/R should analyze whether wildlife movement would be further impeded by changes in hydrology.

Mitigation and Restoration

For affected sensitive habitat and vegetation types, the EIS/R should prioritize avoidance, followed by durable habitat replacement at a mitigation ratio calculated to ensure success, followed by durable onsite restoration and enhancement, followed by durable off-site mitigation. Identification and securing of mitigation areas, with establishment of effective long-term management, should occur prior to any change in hydrological regimes.

Specific, measurable, feasible, and enforceable mitigation measures for impacts from the project as well as associated with unpermitted recreational activities, the introduction of non-native plants, and the loss and disruption of essential habitat due to the proposed project are available and should be included in the SDEIS/R,.

Habitat enhancement, particularly for avian species should be incorporated into the project to enhance the corridor for habitat and nesting.

Air Quality

The SDEIS/R must consider the project's potential to impair attainment goals for the Air Basin, a basin that is already not in compliance with air quality standards. The SDEIS/R should consider specific mitigation measures to reduce air quality impacts associated with any reduction in surface flows, reduction in stabilizing vegetation and all earth moving during construction and maintenance, including a firm requirement for construction equipment to use low-sulfur diesel fuel and particulate traps.

Greenhouse Gas Emissions

The SDEIS/R must disclose the project's net contribution to greenhouse gas emissions from all sources, including future mining and incorporate feasible mitigation measures and alternatives to reduce this impact. For mobile sources, since consistency with the AQMP will not necessarily achieve the maximum feasible reduction in mobile source greenhouse emissions, the SDEIS/R should evaluate specific mitigation measures to reduce greenhouse emissions from mobile sources. Consistent with California law setting greenhouse gas emissions reduction goals, the SDEIS/R should consider measures and an alternative that achieve "carbon neutrality" (no net contribution of greenhouse gas emissions) for the project.

Water Quality

The SDEIS/R must provide detailed descriptions of the project's water quality impacts. In particular, the SDEIS/R must evaluate the water quality impacts associated with the any decreases in flows that may concentrate substances detrimental to the health/life of sensitive instream and downstream receptors. These impacts must be disclosed and analyzed in the SDEIS/R.

Water Supply

The SDEIS/R must identify all sources of water for the project which will be necessary to maintain ecological processes in the Wash. The SDEIS/R must also evaluate all environmental impacts associated with use of all identified water sources. The SDEIS/R should disclose the legal status of any water rights asserted as a basis for the project's water supply, and indicate any further administrative or legal proceedings that are necessary to perfect such rights.

Cumulative Impacts

The SDEIS/R must disclose the impacts from all proposed adjacent projects. It is impossible to fully understand the impacts of the project, particularly its regional impacts on the rare species, wildlife movement, etc. without full disclosure of all other approved, proposed, and planned projects.

As required by NEPA/CEQA, the SDEIS/R must include a list of past, present, and probable future projects producing related or cumulative impacts, together with a summary of the expected environmental impacts from those projects and a reasonable analysis of the cumulative impacts of the relevant projects. (Also see below regarding concerns about this proposal and the Upper Santa Ana River HCP).

Alternatives

The SDEIS/R should consider a range of alternatives including ones that reduce or avoid the project's environmental impacts, including an alternative that would allow for more natural function of the wash through timely water releases from Seven Oaks Dam.

Environmental Baseline

The baseline for environmental analysis should not simply be set based on the existing environmental conditions because the environment itself is changing. Instead, the SDEIS/R analysis should be based on a dynamic baseline that accounts for global warming (this may particularly affect water supply and demand and wildlife movement patterns).

Other Key Issues

Other issues that the HCP/SDEIS needs to incorporate and be analyzed under CEQA and NEPA include:

1) Craft the Wash Plan to address the unique Santa Ana Wash landscape
Recognition and incorporation of essential hydrological functions – Many of the covered species are dependent upon specific hydrological regimes that are no longer occur naturally in the Wash because of previous hydromodification. Careful evaluation of past hydrological regimes, sediment flow, inundation durations etc., needs to be used as a basis for proposing and implementing requisite regimes that will mimic the actions of historic hydrology. This issue is essential to maintaining the Santa Ana Wash system and the covered species that call the wash home.

2) Direct conservation activities towards the highest resource value lands
Mitigate inside biological conservation areas – Land acquisition mitigation should occur within areas of the highest biological sensitivity. Mitigation in lower sensitivity areas is a missed opportunity to establish a consolidated and viable preserve system.

3) Maximize protection of the rarest resources
Avoid impacts to the rarest resources – The Wash Plan should avoid all narrow endemic species, sensitive plant species, critical population locations, and all wetlands to the maximum extent practicable. This approach - the "avoidance standard" – should also be clearly articulated in the Wash Plan and all related implementing regulations and agreements.

Ensure in-kind mitigation – All impacts to biological resources should be mitigated through conservation on-site or elsewhere of the same kinds of resources, as conditions of the Wash Plan and all related implementing regulations and agreements.

Articulate narrow exemptions to the avoidance standard – Any exemptions to the avoidance standard should be narrowly drafted to articulate those limited circumstances when impacts to the rarest resources will proceed despite the avoidance standard, as part of the Wash Plan and all related implementing regulations and agreements. Impacts to resources protected by the avoidance standard should only be allowed as necessary for linear essential public health and safety projects and for biologically superior alternatives, all according to specifically defined criteria in the biological mitigation ordinances.

Protect critical landscape connections – Critical landscape connections and ecological linkages both on and off-site should be identified and their viability ensured. These goals should be clearly articulated in the Wash Plan and all related implementing regulations and agreements.

4) Ensure conservation of covered resources commensurate with take
Establish Wash Plan implementation benchmarks – The Wash Plan should include benchmarks for tracking program progress and ensuring that conservation will occur commensurate with take of covered species and habitat. Benchmarks should be included as conditions of coverage

in the Wash Plan and all related implementing regulations and agreements. Take authorization should be provided in increments only after completion of conservation activities identified in the previous benchmark.

Benchmarks are particularly important for conservation of specific amounts of land for each narrow endemic species, sensitive plant species, critical population locations, each covered habitat type, and provision of assured funding.

5) Ensure availability of necessary conservation funding
Establish assured funding sources – Adequate assured funding sources should be established to cover all costs over the entire duration of the Wash Plan. An adequate assured funding source should be established for increments of permitted take. Assured funding sources should be included as conditions of coverage in all related implementing regulations and agreements. Funding sources should provide adequate contingency funding for changed and unforeseen circumstances.

The Implementing Agencies should establish a policy at the time of approval of the Wash Plan to provide yearly budgets necessary to carry out conservation obligations. Future state and federal allocations should only be considered assured funding sources if the County/Cities will accept responsibility for any shortfalls. State or federal allocations and grants should not be considered assured funding sources, though once obtained may offset County/Cities obligations.

Provide contingency funding and management – Contingency funding and management addressing potential harm to Santa Ana River Wash resources or changed circumstances should be included in the Wash Plan and implementing agreement. These should include future water diversions from upstream of the proposed plan area, fire, fire fighting activities, un-mitigated projects by other agencies, and changed circumstances including climate change impacts.

6) Base conservation activities on the best available scientific information
Biological goals and objectives – Specific biological conservation goals and objectives should be provided for all Wash Plan natural communities and covered species.

Establish ecological criteria for resource surveys – Sound ecological criteria triggering species surveys should be clearly articulated in the Wash Plan and all related implementing regulations and agreements. Surveys should be carried out for covered species prior to any impacts in all suitable habitats as reflected by soils, vegetation, location and others.

7) Manage for viability of covered species and maintenance of preserve lands
Ensure adequate funding for conservation management – An open space management plan funding analysis should be conducted as part of the Wash Plan, similar to that conducted by the Center for Natural Lands Management on behalf of the City of Carlsbad for the Carlsbad Habitat Management Plan. Assured funding should be provided consistent with any funding

analysis conclusions as part of the Wash Plan and all related implementing regulations and agreements.

Ensure conservation management for all future preserve land – Conservation management should be provided for all lands counted towards total preservation obligations as part of the Wash Plan and all related implementing regulations and agreements. Development projects should not be approved, and mitigation lands should not be considered conserved absent all of the following conservation management measures:

Preparation of an area-specific plan for permanent conservation management

Provision of assured funding from the funding sources

Identification and retainer of a conservation manager

Provision of agreements authorizing access for conservation management and enforcement, and/or provision of proof of management and enforcement consistent with Wash Plan's goals and objectives.

Provide up-front conservation management for existing preserve land – Area-specific management directives, assured funding, a conservation manager, and access (presented in greater detail above) should be provided for all existing preserved land credited towards total preservation obligations at the time of approval of the Wash Plan. Open space easements and existing preserves should not be credited toward preservation obligations absent these elements.

8) Articulate sophisticated conservation assurances

Clearly articulate conservation assurances – Language addressing conservation measures in the Wash Plan and all related implementing regulations and agreements should be clear, non-discretionary, and at least as sophisticated as any development assurances provided to the Plan participants and beneficiaries.

9) Provide for independent review and transparent decision making

Provide for periodic, independent review of Wash Plan – The Plan participants should provide three levels of review and reporting on Wash Plan documents and implementation, including a) Pre-approval independent scientific, legal, and financial review; b) Annual implementation review and staff report; and c) Periodic, independent implementation review and report, at least once every three years.

Provide all important documents for public comment – Public review and comment should be provided for all important Wash Plan documents prior to approval, including the implementing agreement, management directives for lands considered preserved at the time of plan approval, the biological opinion, and Section 10 Findings.

10) Other HCP's along the Santa Ana River

Currently the Upper Santa Ana River HCP is also being pursued. While it is our understanding that the Wash Plan will deal with the terrestrial impacts, and the Upper Santa Ana River will deal with water impacts, in the Santa Ana River Wash, these impacts go hand-in-hand. Our preference is a SINGLE HCP that would encompass a holistic strategy for the Santa Ana River Wash and the rare species and habitat that it encompasses.
If indeed the two HCPs move forward it is essential that they are closely coordinated.

Conclusion

We look forward to continuing to advocate for strong conservation in the Santa Ana River Wash area on behalf of all of the rare species that reside there. Please add us to the distribution list for the SDEIS/R and all related notices associated with the project.

Sincerely,

Ileene Anderson
Senior Scientist
Center for Biological Diversity

AB 52

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In Reply Refer To:
FWS/BLM-SB-08B0318-15CPA0239

Robert Martin, Chairman
Morongo Band of Mission Indians
12700 Pumarra Rd.
Banning, California 92220

MAY 13 2015

Dear Chairman Martin:

The Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (Service) as Co-Lead Federal Agencies; and the San Bernardino Valley Water Conservation District (District), as the lead agency under California Environmental Quality Act (CEQA); hereafter collectively referred to as the Agencies, wish to invite your participation in a multi-agency effort regarding the development of the proposed Upper Santa Ana Wash Habitat Conservation Plan (HCP). This cooperative effort would also involve a proposed amendment to the BLM South Coast Resource Management Plan by considering a land exchange between BLM and the District for the purposes of supporting the conservation goals of the HCP. The Agencies published a Notice of Intent in the Federal Register (80 FR 1143) on March 3, 2015, to prepare a draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on their joint proposed action to approve the HCP and land exchange.

Under various Federal laws, regulations, and policies, the BLM and the Service are responsible for analyzing the impacts of Federal actions that may affect public or private lands. In evaluating proposed Federal projects or planning efforts, the BLM and the Service must comply with the requirements of the National Environmental Policy Act (NEPA), which requires that Federal agencies proposing actions under their jurisdiction consider the environmental impacts associated with development, including project construction, operations, and maintenance. The joint Federal action we are evaluating is the proposed issuance of an incidental take permit for federally listed species in conjunction with approval of the HCP, and the proposed land exchange. The HCP intends to cover land uses in the Upper Santa Ana River Wash, including water conservation, mining, flood control, and wildlife habitat. Issuance of incidental take permits and the land exchange are both considered Federal undertakings as defined by the National Historic Preservation Act (NHPA). As undertakings, these actions will be analyzed concurrently for their potential to affect historic properties, as required by Section 106 of the NHPA. The Agencies will utilize the public commenting process under NEPA to partially meet our public involvement and tribal consultation responsibilities under the NHPA.

Under CEQA, the District (as the responsible trustee agency) is required to assess whether a project will have a substantial adverse change in the significance of a historical resource, and if so, to mitigate that effect. In addition to research and fieldwork conducted by cultural resource professionals, early consultation with Native American tribes in the region is typically practiced to aid in avoiding unanticipated discoveries once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historical resources in the project area. Contact information and access to limited Native

American cultural resource information is available through the California Native American Heritage Commission.

Specific to Section 106 of the National Historic Preservation Act, the implementing regulations at 36 CFR 800 requires the BLM and the Service to consult with tribes that attach religious or cultural significance to historic properties which may be affected by an undertaking. We request your assistance in identifying any issues or concerns your tribe may have about the proposed action (approving the HCP, issuing an Incidental Take Permit, and implementing the land exchange), including identifying places of religious and cultural significance that might be affected. The regulations at 36 CFR 800.2(c)(2)(ii)(C) also state that Federal agency consultation with a tribe must recognize the government-to-government relationship and require the agency to consult with representatives designated or identified by the tribal government. To facilitate government-to-government consultation on the proposed action for the purposes of Section 106 and to meet the requirements of the regulations, the BLM requests that the Morongo Band of Mission Indians Tribal Government identify those tribal representatives who have been designated to consult with BLM on the proposed land exchange. The Service requests that the Tribal Government also designate those tribal representatives to consult with the Service on the proposed HCP and permit. The BLM and the Service would like to jointly consult with the Morongo Band of Mission Indians on their joint proposed action, and request your concurrence with this approach.

We would also like to take this opportunity to offer Cooperating Agency Status to the Morongo Band of Mission Indians under NEPA. If you are interested in being a Cooperating Agency for this joint proposed action, please let us know, and we can discuss it further at your convenience.

Background Information

In 1993, representatives of water, mining, flood control, wildlife, and municipalities formed the Wash Committee to address local mining issues in the Upper Santa Ana River Wash. Subsequently, the role of the Committee was expanded to address all the land use functions in the Wash. The Committee initially met on an as-needed basis with other stakeholders in the Wash area. In 1997, the Wash Committee began meeting on a regular basis to determine how to accommodate all of the important functions within the Wash. A Policy Action Committee was established, consisting of elected officials from San Bernardino County, the Cities of Highland and Redlands, the District, and the BLM Field Manager. A Technical Advisory Committee was formed with representatives of the Policy Action Committee agencies and other water, mining, flood control, and wildlife interests. In 2009, the BLM and the District released a Draft Environmental Impact Statement (EIS) and Draft Environmental Impact Report (EIR) respectively. Based on public and agency comments, the BLM and the District decided that more detail was needed on specific species and habitats, as well as potential covered activities, within the land exchange area. To that end, the Agencies (including the Service) have agreed to combine the NEPA and CEQA processes for the proposed land exchange and to include the proposed HCP and incidental take permit in a Supplemental Draft EIS/EIR.

The 2009 Draft EIS/EIR identified 18 historic cultural resource sites, consisting of 15 refuse

scatters and 3 water conveyance (flood control) systems. No prehistoric cultural resources were discovered. Evaluation of these resources through archival research and field investigations has concluded that none of the 18 cultural resources meet the National Register of Historic Places criteria for eligibility; some of those resources lack integrity, and therefore were recommended as not eligible for that reason.

We are writing to you at this early stage of public review to notify you about the proposed HCP, permit, and land exchange. We are seeking your views and comments, particularly with regard to any issues that may affect resources that are important to your tribe. The BLM will update the Tribe on the proposed action throughout the review process, unless the Tribe has no further interest in consulting on it. If you wish to obtain the original cultural reports that were the basis for the 2009 NEPA and CEQA documents, please let us know how you would like us to transmit them to you.

If you would like to schedule a government-to-government consultation meeting with the Agencies, please send us the contact information for your designated representative. Please contact us if you have any questions or concerns about the proposed HCP and land exchange. Additionally, a detailed description of the HCP and land exchange proposal can be found on the District's website at http://www.sbvwcd.dst.ca.us/our-projects/wash-plan.html.

We look forward to hearing from you regarding your interest in the proposed HCP and land exchange, our invitation to initiate a government-to-government consultation, and Cooperating Agency Status for the EIS/EIR. If you have additional questions or if we can provide any clarification, please do not hesitate to contact us at the telephone numbers and email addresses listed below.

For the BLM: George Kline, Archaeologist, telephone 760 833-7135; email gkline@blm.gov.

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For the District: Jeff Beehler, Land Resources Manager, telephone 909-793-2503; email jbeehler@sbvwcd.org.

Sincerely,

G. Mendel Stewart
Field Supervisor
U.S. Fish and Wildlife Service

John R. Kalish
Field Manager
Bureau of Land Management

U. S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008
760-431-9440
FAX 760-431-9624

Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
760-833-7100
760-833-7199

In Reply Refer To:
FWS/BLM-SB-08B0318-15CPA0239

Goldie Walker, Chairwoman
Serrano Nation of Mission Indians
P.O. Box 343
Patton, California 92369

MAY 13 2015

Dear Chairwoman Walker:

The Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (Service) as Co-Lead Federal Agencies; and the San Bernardino Valley Water Conservation District (District), as the lead agency under California Environmental Quality Act (CEQA); hereafter collectively referred to as the Agencies, wish to invite your participation in a multi-agency effort regarding the development of the proposed Upper Santa Ana Wash Habitat Conservation Plan (HCP). This cooperative effort would also involve a proposed amendment to the BLM South Coast Resource Management Plan by considering a land exchange between BLM and the District for the purposes of supporting the conservation goals of the HCP. The Agencies published a Notice of Intent in the Federal Register (80 FR 1143) on March 3, 2015, to prepare a draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on their joint proposed action to approve the HCP and land exchange.

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We would also like to take this opportunity to offer Cooperating Agency Status to the Serrano Nation of Mission Indians under NEPA. If you are interested in being a Cooperating Agency for this joint proposed action, please let us know, and we can discuss it further at your convenience.

Background Information

In 1993, representatives of water, mining, flood control, wildlife, and municipalities formed the Wash Committee to address local mining issues in the Upper Santa Ana River Wash. Subsequently, the role of the Committee was expanded to address all the land use functions in the Wash. The Committee initially met on an as-needed basis with other stakeholders in the Wash area. In 1997, the Wash Committee began meeting on a regular basis to determine how to accommodate all of the important functions within the Wash. A Policy Action Committee was established, consisting of elected officials from San Bernardino County, the Cities of Highland and Redlands, the District, and the BLM Field Manager. A Technical Advisory Committee was formed with representatives of the Policy Action Committee agencies and other water, mining, flood control, and wildlife interests. In 2009, the BLM and the District released a Draft Environmental Impact Statement (EIS) and Draft Environmental Impact Report (EIR) respectively. Based on public and agency comments, the BLM and the District decided that more detail was needed on specific species and habitats, as well as potential covered activities, within the land exchange area. To that end, the Agencies (including the Service) have agreed to combine the NEPA and CEQA processes for the proposed land exchange and to include the proposed HCP and incidental take permit in a Supplemental Draft EIS/EIR.

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For the District: Jeff Beehler, Land Resources Manager, telephone 909-793-2503; email jbeehler@sbvwcd.org.

Sincerely,

G. Mendel Stewart
Field Supervisor
U.S. Fish and Wildlife Service

John R. Kalish
Field Manager
Bureau of Land Management

U. S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008
760-431-9440
FAX 760-431-9624

Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
760-833-7100
760-833-7199

In Reply Refer To:
FWS/BLM-SB-08B0318-15CPA0239

Lynn Valbuena, Chairperson
San Manuel Band of Serrano Mission Indians
26569 Community Center Drive
Highland, California 92346

MAY 13 2015

Dear Chairperson Valbuena:

The Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (Service) as Co-Lead Federal Agencies; and the San Bernardino Valley Water Conservation District (District), as the lead agency under California Environmental Quality Act (CEQA); hereafter collectively referred to as the Agencies, wish to invite your participation in a multi-agency effort regarding the development of the proposed Upper Santa Ana Wash Habitat Conservation Plan (HCP). This cooperative effort would also involve a proposed amendment to the BLM South Coast Resource Management Plan by considering a land exchange between BLM and the District for the purposes of supporting the conservation goals of the HCP. The Agencies published a Notice of Intent in the Federal Register (80 FR 1143) on March 3, 2015, to prepare a draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on their joint proposed action to approve the HCP and land exchange.

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We would also like to take this opportunity to offer Cooperating Agency Status to the San Manuel Band of Serrano Mission Indians under NEPA. If you are interested in being a Cooperating Agency for this joint proposed action, please let us know, and we can discuss it further at your convenience.

Background Information

In 1993, representatives of water, mining, flood control, wildlife, and municipalities formed the Wash Committee to address local mining issues in the Upper Santa Ana River Wash. Subsequently, the role of the Committee was expanded to address all the land use functions in the Wash. The Committee initially met on an as-needed basis with other stakeholders in the Wash area. In 1997, the Wash Committee began meeting on a regular basis to determine how to accommodate all of the important functions within the Wash. A Policy Action Committee was established, consisting of elected officials from San Bernardino County, the Cities of Highland and Redlands, the District, and the BLM Field Manager. A Technical Advisory Committee was formed with representatives of the Policy Action Committee agencies and other water, mining, flood control, and wildlife interests. In 2009, the BLM and the District released a Draft Environmental Impact Statement (EIS) and Draft Environmental Impact Report (EIR) respectively. Based on public and agency comments, the BLM and the District decided that more detail was needed on specific species and habitats, as well as potential covered activities, within the land exchange area. To that end, the Agencies (including the Service) have agreed to combine the NEPA and CEQA processes for the proposed land exchange and to include the proposed HCP and incidental take permit in a Supplemental Draft EIS/EIR.

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Sincerely,

G. Mendel Stewart
Field Supervisor
U.S. Fish and Wildlife Service

John R. Kalish
Field Manager
Bureau of Land Management

cc: Daniel McCarthy, M.S., Director – CRM Department

U. S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008
760-431-9440
FAX 760-431-9624

Bureau of Land Management
Palm Springs South Coast Field Office
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760-833-7100
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In Reply Refer To:
FWS/BLM-SB-08B0318-15CPA0239

MAY 13 2015

John Valenzuela, Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, California 91322

Dear Chairperson Valenzuela:

The Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (Service) as Co-Lead Federal Agencies; and the San Bernardino Valley Water Conservation District (District), as the lead agency under California Environmental Quality Act (CEQA); hereafter collectively referred to as the Agencies, wish to invite your participation in a multi-agency effort regarding the development of the proposed Upper Santa Ana Wash Habitat Conservation Plan (HCP). This cooperative effort would also involve a proposed amendment to the BLM South Coast Resource Management Plan by considering a land exchange between BLM and the District for the purposes of supporting the conservation goals of the HCP. The Agencies published a Notice of Intent in the Federal Register (80 FR 1143) on March 3, 2015, to prepare a draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on their joint proposed action to approve the HCP and land exchange.

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We would also like to take this opportunity to offer Cooperating Agency Status to the San Fernando Band of Mission Indians under NEPA. If you are interested in being a Cooperating Agency for this joint proposed action, please let us know, and we can discuss it further at your convenience.

Background Information

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For the District: Jeff Beehler, Land Resources Manager, telephone 909-793-2503; email jbeehler@sbvwcd.org.

Sincerely,

G. Mendel Stewart
Field Supervisor
U.S. Fish and Wildlife Service

John R. Kalish
Field Manager
Bureau of Land Management

SBV WATER CONSERVATION DISTRICT
OUR NAME IS OUR MISSION

SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT

Established 1932

1630 West Redlands Boulevard, Suite A
Redlands, CA 92373-8032
(909) 793-2503
Fax: (909) 793-0188

Email: info@sbvwcd.org
www.sbvwcd.org

October 6, 2017

Mr. Joseph Ontiveros
Director of Cultural Resources
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

Subject: Habitat Conservation Plan for the Upper Santa Ana River Wash

Dear Mr. Ontiveros:

The San Bernardino Valley Water Conservation District (SBVWCD) is responding to your request for formal notification of the SBVWCD's "CEQA projects" pursuant to AB52, Public Resources Code section 21080.3.1, subsection (b), which stated that the SBVWCD is located within the Tribes' ancestral territory.

Although initiation of this project predates the statutory requirement for consultation under AB52, this letter is to notify you that the SBVWCD is proposing to implement a project that would exchange land with the Bureau of Land Management (BLM), amend the BLM South Coast Resource Management Plan and implement a Habitat Conservation Plan for the Upper Santa Ana River Wash. A Project Description and Project Map are provided in Attachment 1. The Cultural Resources Report prepared for the Project is provided in Attachment 2. The SBVWCD is charged with operating and maintaining its existing facilities in the Santa Ana River and Mill Creek for groundwater recharge, as it has since approximately the 1920s.

Federal Partners in the implementation of this project are the BLM and the United States Fish and Wildlife Service (FWS). Both the BLM and the FWS have tribal consultation requirements under the National Environmental Policy Act (NEPA) and these will be undertaken by the Federal Agencies.

The Soboba Band of Luiseño Indians has 30 days to request formal consultation regarding the Project in writing under Public Resources Code 21080.3.1, subsections (b) and (d). Such request should be directed to:

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, California 92373
Phone: 909.793.2503
Email: JBeehler@sbvwcd.org>

If we do not receive notification within the 30-day period, we will assume that Soboba Band of Luiseño Indians has no tribal cultural resource concerns for the Project and we will proceed with the public review of a Supplemental Environmental Impact Statement in accordance with California Environmental Quality Act procedures.

Please do not hesitate to contact me with any questions or concerns regarding the above.

Sincerely,

Jeff Beehler

Attachments:
Attachment 1 - Project Description and Project Map
Attachment 2 – Cultural Resources Report

SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT
Established 1932
1630 West Redlands Boulevard, Suite A
Redlands, CA 92373-8032
(909) 793-2503
Fax: (909) 793-0188
Email: info@sbvwcd.org
www.sbvwcd.org

October 6, 2017

Mr. Robert Martin
Tribal Chairman
The Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Subject: Habitat Conservation Plan for the Upper Santa Ana River Wash

Dear Mr. Martin:

The San Bernardino Valley Water Conservation District (SBVWCD) is responding to your request for formal notification of the SBVWCD's "CEQA projects" pursuant to AB52, Public Resources Code section 21080.3.1, subsection (b), which stated that the SBVWCD is located within the Tribes' ancestral territory.

Although initiation of this project predates the statutory requirement for consultation under AB52, this letter is to notify you that the SBVWCD is proposing to implement a project that would exchange land with the Bureau of Land Management (BLM), amend the BLM South Coast Resource Management Plan and implement a Habitat Conservation Plan for the Upper Santa Ana River Wash. A Project Description and Project Map are provided in Attachment 1. The Cultural Resources Report prepared for the Project is provided in Attachment 2. The SBVWCD is charged with operating and maintaining its existing facilities in the Santa Ana River and Mill Creek for groundwater recharge, as it has since approximately the 1920s.

Federal Partners in the implementation of this project are the BLM and the United States Fish and Wildlife Service (FWS). Both the BLM and the FWS have tribal consultation requirements under the National Environmental Policy Act (NEPA) and these will be undertaken by the Federal Agencies.

The Morongo Band of Mission Indians has 30 days to request formal consultation regarding the Project in writing under Public Resources Code 21080.3.1, subsections (b) and (d). Such request should be directed to:

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, California 92373
Phone: 909.793.2503
Email: JBeehler@sbvwcd.org>

If we do not receive notification within the 30-day period, we will assume that Morongo Band of Mission Indians has no tribal cultural resource concerns for the Project and we will proceed with the public review of a Supplemental Environmental Impact Statement in accordance with California Environmental Quality Act procedures.

Please do not hesitate to contact me with any questions or concerns regarding the above.

Sincerely,

Jeff Beehler

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cc: Raymond Huaute, Cultural Resource Specialist, Morongo Band of Mission Indians

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OUR NAME IS OUR MISSION

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October 6, 2017

Mr. Raymond Huaute
Cultural Resource Specialist
The Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Subject: Habitat Conservation Plan for the Upper Santa Ana River Wash

Dear Mr. Huaute:

The San Bernardino Valley Water Conservation District (SBVWCD) is responding to your request for formal notification of the SBVWCD's "CEQA projects" pursuant to AB52, Public Resources Code section 21080.3.1, subsection (b), which stated that the SBVWCD is located within the Tribes' ancestral territory.

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Federal Partners in the implementation of this project are the BLM and the United States Fish and Wildlife Service (FWS). Both the BLM and the FWS have tribal consultation requirements under the National Environmental Policy Act (NEPA) and these will be undertaken by the Federal Agencies.

The Morongo Band of Mission Indians has 30 days to request formal consultation regarding the Project in writing under Public Resources Code 21080.3.1, subsections (b) and (d). Such request should be directed to:

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, California 92373
Phone: 909.793.2503
Email: JBeehler@sbvwcd.org>

If we do not receive notification within the 30-day period, we will assume that Morongo Band of Mission Indians has no tribal cultural resource concerns for the Project and we will proceed with the public review of a Supplemental Environmental Impact Statement in accordance with California Environmental Quality Act procedures.

Please do not hesitate to contact me with any questions or concerns regarding the above.

Sincerely,

Jeff Beehler

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cc: Robert Martin, Tribal Chairman, Morongo Band of Mission Indians

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October 6, 2017

Ms. Lee Clauss
Director, CRM
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

Subject: Habitat Conservation Plan for the Upper Santa Ana River Wash

Dear Ms. Clauss:

The San Bernardino Valley Water Conservation District (SBVWCD) is responding to your request for formal notification of the SBVWCD's "CEQA projects" pursuant to AB52, Public Resources Code section 21080.3.1, subsection (b), which stated that the SBVWCD is located within the Tribes' ancestral territory.

Although initiation of this project predates the statutory requirement for consultation under AB52, this letter is to notify you that the SBVWCD is proposing to implement a project that would exchange land with the Bureau of Land Management (BLM), amend the BLM South Coast Resource Management Plan and implement a Habitat Conservation Plan for the Upper Santa Ana River Wash. A Project Description and Project Map are provided in Attachment 1. The Cultural Resources Report prepared for the Project is provided in Attachment 2. The SBVWCD is charged with operating and maintaining its existing facilities in the Santa Ana River and Mill Creek for groundwater recharge, as it has since approximately the 1920s.

Federal Partners in the implementation of this project are the BLM and the United States Fish and Wildlife Service (FWS). Both the BLM and the FWS have tribal consultation requirements under the National Environmental Policy Act (NEPA) and these will be undertaken by the Federal Agencies.

The San Manuel Band of Mission Indians has 30 days to request formal consultation regarding the Project in writing under Public Resources Code 21080.3.1, subsections (b) and (d). Such request should be directed to:

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, California 92373
Phone: 909.793.2503
Email: JBeehler@sbvwcd.org>

If we do not receive notification within the 30-day period, we will assume that San Manuel Band of Mission Indians has no tribal cultural resource concerns for the Project and we will proceed with the public review of a Supplemental Environmental Impact Statement in accordance with California Environmental Quality Act procedures.

Please do not hesitate to contact me with any questions or concerns regarding the above.

Sincerely,

Jeff Beehler

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October 6, 2017

Mr.Andrew Salas
Chairperson
Gabrieleno Band of Mission Indians – Kizh Nation
PO Box 393
Covina, CA 91723

Subject: Habitat Conservation Plan for the Upper Santa Ana River Wash

Dear Mr. Salas:

The San Bernardino Valley Water Conservation District (SBVWCD) is responding to your request for formal notification of the SBVWCD's "CEQA projects" pursuant to AB52, Public Resources Code section 21080.3.1, subsection (b), which stated that the SBVWCD is located within the Tribes' ancestral territory.

Although initiation of this project predates the statutory requirement for consultation under AB52, this letter is to notify you that the SBVWCD is proposing to implement a project that would exchange land with the Bureau of Land Management (BLM), amend the BLM South Coast Resource Management Plan and implement a Habitat Conservation Plan for the Upper Santa Ana River Wash. A Project Description and Project Map are provided in Attachment 1. The Cultural Resources Report prepared for the Project is provided in Attachment 2. The SBVWCD is charged with operating and maintaining its existing facilities in the Santa Ana River and Mill Creek for groundwater recharge, as it has since approximately the 1920s.

Federal Partners in the implementation of this project are the BLM and the United States Fish and Wildlife Service (FWS). Both the BLM and the FWS have tribal consultation requirements under the National Environmental Policy Act (NEPA) and these will be undertaken by the Federal Agencies.

The Gabrieleno Band of Mission Indians – Kizh Nation has 30 days to request formal consultation regarding the Project in writing under Public Resources Code 21080.3.1, subsections (b) and (d). Such request should be directed to:

Jeff Beehler
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, California 92373
Phone: 909.793.2503
Email: JBeehler@sbvwcd.org>

If we do not receive notification within the 30-day period, we will assume that Gabrieleno Band of Mission Indians – Kizh Nation has no tribal cultural resource concerns for the Project and we will proceed with the public review of a Supplemental Environmental Impact Statement in accordance with California Environmental Quality Act procedures.

Please do not hesitate to contact me with any questions or concerns regarding the above.

Sincerely,

Jeff Beehler

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From: Lee Clauss [mailto:LClauss@sanmanuel-nsn.gov]
Sent: Wednesday, November 29, 2017 9:09 AM
To: Jeff Beehler; George Kline (gkline@blm.gov)
Subject: Re: Habitat Conservation Plan for the Upper Santa Ana River Wash

Good morning, Jeff,

Thank you again for hosting a meeting between SBVWCD, BLM, and SMBMI on the 27th of this month to discuss the Habitat Conservation Plan (HCP) for the Upper Santa Ana River Wash. I greatly appreciate all of the history and insights offered during our time together.

To recap the Tribe's comments that were shared during the meeting, please refer to the following notes:

1. SMBMI greatly desires to continue traditional gathering of plants, as outlined in the current MOU with SBVWCD, and appreciates you clarifying and assuring the Tribe that the adoption and/or implementation of the HCP will not in any way diminish or alter this agreement, as this is considered a covered activity. Thank you for also reaffirming that the Tribe may conduct gathering activities,, as outlined in the MOU, throughout all of the HCP lands, and on other lands governed by the SBVWCD (other than those areas closed to restricted activity, of course, such as mining operations).

2. SMBMI expressed concern about the projected/potential use of herbicides for the eradication of non-native plants and plant thinning. I reminded all present that the Tribe gathers plant material within the HCP lands for subsistence, medicinal uses, and traditional crafts--all activities which result in the ingestion of plant materials. We discussed the HCP land managers being acutely aware of the dangers posed by potential ingestion of herbicides, as well as exposure to skin and other surfaces during gathering activities. To address these concerns, we discussed the HCP land managers' notifying the Tribe of herbicide application locations and timing, the rotational application of herbicides with gathering seasons, and the judicious point-of-source application of herbicides (instead of broadcasting). The Tribe, of course, also strongly supports and encourages non-native plant removal and plant thinning vis a vis non-chemical means whenever possible (goats/sheep; handwork; etc.)

3. SMBMIalso expressed some concern with the removal of plants that are regarded as non-native, but for which the Tribe has adapted ethnobotanical uses over the last 200+ years. An example we discussed at length is tree tobacco. The Tribe would appreciate not all of the tree tobacco being eradicated, if at all possible. Perhaps the preservation of a small stand of a half-dozen plants could be permitted in an easily accessible gathering location. Also, to this point, it would be helpful for the Tribe to be supplied with a list of the plants that the HCP land managers currently eradicate (or plan to remove in the future) so that we can identify any other plants of cultural use/sensitivity to the community.

4. SMBMI presented their review of the BCR-authored cultural resources survey report to the parties present, as well. The CRM Department is disappointed in the lack of detail BCR included in the historic context, background research, and methodology sections. The Tribe recommended BCR be asked to supply an addendum to the report that (1) provides a much more thorough history of the HCP lands, with an increased focus on historic land use across this acreage; (2) provide a map showing where previous cultural resources studies were conducted within the HCP lands and the 1-mile records search radius adjoining the HCP lands and; (3) provide a map indicating exactly where BCR performed field reconnaissance, along with a more detailed narrative as to why a 20% sample was selected, why certain parts of the APE were not accessible, and what the ground cover/visibility was in each location that was surveyed.

COMMENTS AND RESPONSES ON THE DRAFT EIS/SEIR AND HCP

F. O INTRODUCTION

This appendix contains the comments received on the Draft Wash Plan Habitat Conservation Plan and EIS/SEIR. Each comment has been assigned a unique number from 1 to 192. The General Response to Comments is Comment 1, therefore the response to individual comments starts with comment 2.

The appendix is organized by presentation of each comment immediately followed by the responses to that comment. The comment letters are presented in section F.3 at the end of the appendix, with the exception of letter 1, which we couldn't photocopy. **Table 1** summarizes the comment letter, agency or individual that submitted the letter, and date of the comment letter

TABLE 1 Summary of Comment Letters

No	Date	From	Comments/Concerns
1.	9-Jan-20	Chuck Jojola	Interest in gold panning in/adjacent to Upper Santa Ana River Wash
2.	13-Jan-20	City of Redlands Municipal Airport (REI)	Adjust HCP boundaries to incorporate REI Master Plan, Land Uses , associated Airport Capital Improvement Plan, Existing Air Space and Noise Plans, etc. into the HCP/EIS. Revise HCP and EIS to address impacts/implications for adding these items to the HCP as well as recognizing REI in FAA's National Plan of Integrated Airport Systems
3.	20-Jan-20	California Pilots	Concerns with land use compatibility with airports
4.	21-Jan-20	City of Highland	Would like to provide clarifications to maps and languages used to describe City properties and facilities in various parts of the HCP, and will not in any way affect the technical analyses or conclusions of the associated EIS and Supplemental EIR
5.	21-Jan-20	Dennis Barton	Supports the balance the Wash Plan HCP provides
6.	21-Jan-20	Center for Biological Diversity	Concerns of survival and recovery of listed species. Requests to address potential deficiencies in HCP, clarification of conservation lands and further justification of take. Concerned HCP does not provide adequate analysis that full mitigation will be achieved.

No	Date	From	Comments/Concerns
7.	22-Jan-20	U.S. Environmental Protection Agency	Supports the overall goals of environmental stewardship of the HCP. Concerns about potential impacts from activities covered by the HCP to several resource areas. Need further clarification on: Water Quality, groundwater, aggregate mining, Waters of the U.S., flood control, air quality, Santa Ana Sucker, and SBKR impacts. HCP does not address concomitant management with HCP Preserve lands. Clarification of BLM land classifications after land exchange. Address Children's Environmental Health and Safety as affected by mining activities. Provide more information regarding Consultation and Coordination with Tribal Governments. Address environmental justice. Provide most current data.
8.	22-Jan-20	Albert Kelley, Bettina MacCleod	Concerns about exact usage for the acreage designated as "conserved", who will be in control of patch work of ownership of conservation lands, water recharge basin expansion effects to species, mitigation lands, label of "neutral land" on the borrow pit site. Request additional mitigation land for BLM land transfer. Disagree with 30% reduction in mining land use. Concerns about effects to RAFSS
9.	22-Jan-20	Save Lytle Creek Wash/Jane Hunt, Lynn Boshart	Concerns about adequate mitigation lands set aside for SBKR in perpetuity
10.	22-Jan-20	Redlands Airport Association	Redlands Airport Association
11.	23-Jan-20	US Federal Aviation Administration	Concerns of land use and separation criteria for potential wildlife hazard attractants and increase of aviation hazards with implementation of HCP
12.	23-Jan-20	Vulcan Materials Company Western Division	Concerns with the conservation strategy
13.	27-Jan-20	California Dept of Fish and Wildlife	Concerns about spatial/temporal isolation of spineflower island

NEPA and CEQA regulations direct the lead agencies to make a “good faith, reasoned analysis” in response to “significant environmental issues raised” in comments on a Draft EIS/SEIR (see State CEQA Guidelines Section 15088(c); 40 CFR 1503.4). Most of the comments addressed the issuance of an Incidental Take Permit and various elements of the Habitat Plan itself (i.e., the Proposed Action in the EIR/SEIS). All other comments were considered to be related to the Habitat Plan. Nevertheless, to streamline documentation and avoid confusion, all public comments received during the comment periods are responded to in this Final EIS/SEIR. Per CEQA and NEPA guidance, where there has been voluminous response, similar comments have been summarized and consolidated; however, all substantive issues raised in comments received on the Draft EIR/SEIS are addressed. This section contains General Responses that address common comments received and responses to other comments that do not fall within the scope of the general responses.

F.1 GENERAL RESPONSES TO COMMENTS

The Local Partners and the Service and BLM reviewed and responded to each of the 192 public and agency comments on the Draft Habitat Plan and EIS/SEIR. In the review of all public comments received on the Draft Habitat Plan and EIS/SEIR, the Local Partners and the Service identified 8 recurring themes, which are expressed in this introductory section. Instead of repeating responses to these themes throughout the individual responses, the Local Partners and Wildlife Agencies are responding to them in this introductory section. When individual comments can be addressed (or partially addressed) by a General Response, the individual response directs the reader to this introductory section. General Response to Comments: 1) Adequacy of alternatives; 2) Need to recirculate; 3) Climate Change-Impact to Species HCP authorizes otherwise lawful activities (e.g. other permits needed); 4) Adequacy of Mitigation; 5) Additional Permitting/Scope of EIS/SEIR; 6) Specificity of Comments; 7) Edge Effects; 8) Possible Future Changes to ACEC by BLM.

ADEQUACY OF ALTERNATIVES

The EIR/SEIS considered nine different alternatives, and brought three alternatives forward for detailed analysis. [EIS, p. 2.0-1] These were the No Project Alternative, the proposed action, and the 2008 land use plan. It should be noted in this respect that the 2008 plan, which was described in the predecessor EIR of the San Bernardino Valley Water Conservation District, was itself formulated after consideration of a series of alternatives in that 2008 environmental document. Those included not only the "No Project" alternative, but also mining of then-existing leases, limited mining in then-existing quarries, and a reduced mining footprint.

The NEPA requirements for consideration of alternatives appear in 40 CFR section 1502.10(E), and section 1502.14. The discussion of alternatives is subject to a standard of reasonableness, which admits to no hard and fast rules. ("Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg 18, 026 (1981), Question 1(b).") (Cited as "Forty Questions" herein.) Further, the reasonableness of the defined range of alternatives may be viewed in light of a project's purpose. (*City of Carmel by the Sea v. U.S. Department of Transportation*, 123 F 3d 1142 (9th Cir 1997.) When a project's purpose is to protect the environment, the alternatives requirement is interpreted less strictly. (*Kootenai Tribe v. Veneman*, 313 F 3d 1094, 1120 (9th Circuit 2002).)

The Wash Plan is such a project to protect the environment. Its consolidation of existing "checkerboard" mining properties, increased connectivity through conservation of habitat areas into contiguous conservation areas, enhanced benefits of coordinated habitat management on current and future conservation lands (including the Wooly Star Preserve Area ("WSPA") to be dedicated as part of the conservation mitigation strategy, and BLM lands that will be exchanged pursuant to congressional dictate, all advance environmental objectives.

In this light, the three alternatives given specific, NEPA-level analysis are sufficient to represent the spectrum of alternatives available. The required "no action" analysis is present, and is consistent with consideration of no change from current habitat management or intensity. (Forty Questions, Question 3.) The 2008 land use plan synthesizes over a decade of prior history of the

project's processing and analysis, and offers meaningful comparison to both the "no project' and proposed project scenarios.

No commenting party has suggested any specifically formulated additional alternative that it contends is consistent with the project's purpose, as set forth in the "Purpose and Need" section, which has gone unanalyzed.

Moreover, in establishing new conservation areas, selection of a reasonably determined amount and location of acreage for the conservation preserve is justified. Where there are a potentially very large number of alternatives (involving innumerable potential ranges of acreages devoted to habitat or conservation uses), only a reasonable number of examples need be analyzed and compared. (Forty Questions, Question 1(b).)

Those alternatives considered, but not brought forward for analysis, have also been adequately described in the EIS. (EIS, pages 2.1-14; 2.5-1, 2.) Given congressional legislation that directs the completion of the land exchange[1], the elimination of other potential BLM-related alternatives, such as those previously considered in the 2008 EIR, is appropriate. The considered alternatives of complete take avoidance and/or avoiding any spineflower impact, have also been discussed, and their infeasibility adequately described.

Regarding CEQA, the requirements for alternatives discussion are less detailed. CEQA does not require that a discussion of alternatives be exhaustive, but only that agencies make an objective, good-faith effort to comply. (*Foundation for San Francisco's Architectural Heritage v. City and County of San Francisco* (1980) 106 Cal.App.3d 893, 910 ["Absolute perfection is not required."].) "Under the 'rule of reason,' an EIR's discussion of alternatives is adequate if it provides sufficient information to compare the project with a reasonable choice of alternatives." (*Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1264 ["An EIR need not consider every conceivable alternative but must consider a range of alternatives sufficient to permit the agency to evaluate the project and make an informed decision, and to meaningfully inform the public."].)

In addition to the Proposed Project (Alternative B), the EIS/EIR analyzed 2 alternatives in detail, including a No Action Alternative and the 2008 Land Management Plan Alternative. It also considered and rejected several additional alternatives, and explained while they were not selected for detailed analysis.

Accordingly, the EIS/EIR satisfied CEQA's requirement that a reasonable range of alternatives be analyzed. In addition, notwithstanding comments suggesting that feasible alternatives are available to ensure a more biologically robust conservation plan can be adopted, no commenter actually identifies any such alternative.

NEED TO RECIRCULATE

Under 40 CFR 1502.9(c)(1), supplemental environmental impact statements are required only if: (i) the agency makes substantial changes in the proposed action that are relevant to

[1] *See*, discussion of P.L. 116-9, *infra*.

environmental concerns; or (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

Neither situation is presented here. The proposed project has not been changed in any meaningful way in response to comments. For example, a supplemental air quality analysis has been performed, and shows that, given updated emissions analytics, the applicable air quality thresholds of significance are not met, and therefore project modifications are not necessary. Clarification to conservation area acreages clearly define prior estimates, and do not constitute significant new information. None of the circumstances under NEPA that would require a supplemental or recirculated EIS are present here. It might also be noted that NEPA processes are expected to require some 12 months total. (Forty Questions, Question 35.) The scoping on this particular EIS/EIR occurred in 2015, taking this environmental review process well beyond that expected timeframe. Preparation of a supplemental EIS, and re-circulation of same, would prolong an already protracted process.

With regard to CEQA, recirculation is required only in specified circumstances, *e.g.*, where significant new information shows a new significant impact would result from the project, or where a "draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (Guidelines, § 15088.5(a).) Recirculation is expressly not required where the new information added to the EIR "merely clarifies or amplifies" the information contained in the draft EIR. (Guidelines, § 15088.5(b); *Laurel Heights Improvement Assn. v. U.C. Regents* (1993) 6 Cal.4th 1112, 1138.)

As indicated above, none of the additional information that has been added to the record on this EIS/EIR changes the conclusions on environmental impacts, or mitigation. Rather, such information merely clarifies and confirms the information contained in the EIS/EIR by adding additional context to the determinations made therein. Accordingly, recirculation is not required under CEQA or NEPA.

CLIMATE CHANGE-IMPACT TO SPECIES

Certain comments acknowledge that the EIS/EIR discusses the Project's potential contribution to global climate change, but request that an analysis of the potential impacts of climate change on the Santa Ana River wash and its flora and fauna be included.

The impacts of climate change in the wash are discussed in the Wash Plan, which is part of the Project analyzed in the EIS/EIR. (*See, e.g.*, Wash Plan, pp. 6-6 to 6-7.) As explained therein, although, "the extent and nature of impacts from climate change within the Plan Area are unknown," "[p]rotection of habitat connectivity, especially along ecological gradients such as elevational gradients and along natural hydrologic features, provides the opportunity for species to shift their range and area of occupied habitat in response to climate change." (Wash Plan, p. 6-7.) The Wash Plan further notes that "[a]dditional adaptive management may be needed to enhance connectivity at key locations, or to translocate individuals across existing barriers to movement." Accordingly, the EIS/EIR has considered the interplay between global climate change and the impact to species and their habitats. In addition, the detailed land management plan based on the current AMMP will further analyze the interplay of climate changes and species persistence utilizing data from the Bureau of Reclamation Climate Change Analysis for

the Santa Ana River Watershed and recommendations from NWF's Climate Smart Conservation: Putting Adaptation Principles into Practice.

ADEQUACY OF MITIGATION

A number of comments call into question the EIR/EIS determination of the adequacy of the conservation mitigation strategy, and seem to urge standards of mitigation that are not supported by law.

Recognizing that the long-term goal of the Endangered Species Act is to bring species to a point where Endangered Species Act protections are no longer necessary (*see*, Comment 11), that does not mean that every project must assure full recovery for every species listed under the FESA. Under section 10 of the FESA, HCP applicants must minimize and mitigate the impacts of the taking to the maximum extent practicable and ensure that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. 16 U.S.C. section 1539(a)(2)(B)(ii) and (iv); 50 CFR 17.22(b)(2)(i)(B) and (D)/17.32(b)(2)(i)(B) and (D).

The Wash Plan HCP mitigates for permanent (585.3 acres) and temporary (99.7 acres) impacts to natural and/or non-native vegetation through permanent conservation of 892.5 acres of natural and/or non-native vegetation along with management of an additional 665.8 acres of lands owned by BLM or other partners. The conservation and management of 1,558.2 acres of rare, threatened and endangered species and habitats will support long-term persistence of the Covered Species in an area subject to strong development pressure. The development of the HCP Preserve focused on both the amount and location of lands needed to mitigate for Covered Activities, resulting in a pattern of conservation that minimizes edge effects, strengthens existing preserves, and maximizes connectivity across the Upper Santa Ana River Wash. Management efforts, funded through the Wash Plan endowment, will further limit fragmentation through active land management and monitoring including access control, habitat enhancement, restoration, and monitoring. Additionally species-specific avoidance and minimization measures are included (Final EIS/SEIR Table 2.0-3). The conservation strategy offsets the effects of the takings on the species, and the long-term conservation and management provided by implementation of the HCP will contribute to the recovery of the listed species.

Finally, it might be noted that while a number of comments take issue with the mitigation strategy, no commenting party has suggested any specific, feasible mitigation measures that allegedly should have been incorporated, but were not. In the face of non-specific complaints regarding methodology, an agency is not under an obligation to issue a lengthy reiteration of its methodology for any portion of an EIS, including the mitigation strategy. (Forty Questions, Question 29(A).)

ADDITIONAL PERMITTING/SCOPE OF EIS/SEIR

A number of commenters note that additional permitting, including permits relating to waters of the United States or streambed alteration permits, may be required for various covered activities. This is acknowledged. Section 10(A) of the Federal Endangered Species Act allows for permitting only for activities that are "otherwise lawful." Comments indicating that individual

covered activities may require individual specific additional permitting, including permits from the California Department of Fish and Wildlife, are acknowledged. In compliance with 40 CFR section 1502.25(b), a list of anticipated additional permits, potentially implicated by various of the covered activities referenced in the EIS/EIR, has been included as Section B1.1 of Appendix B of the EIS/EIR.

It should be noted, however, that a number of commenting parties seem to have misconstrued the scope of the proposed project. For example, the project does not propose any substantial increase in groundwater production. The Covered Activities include two wells, both of which are intended to serve ground water management functions, consistent with existing groundwater management under the applicable adjudication. The Bunker Hill Ground Water Basin, over which the Wash Plan area lies, is an adjudicated basin, and regulations for its groundwater administration occurred in *Western Municipal Water District, et al. v. East San Bernardino County Water District, et al.*, Case No. 78246-County of Riverside. This project neither regulates, nor expands, any party's right to groundwater production pursuant to that adjudication regulatory regime. Though the Wash Plan project does contemplate additional groundwater recharge basins, those recharge basins are proposed only as a potential facility option for groundwater recharge, and once developed will exist independent of diversion practices or changes in water rights, which fall outside the scope of this project. No expansion or relocation of diversion facilities, or diversion practices, are included in the Wash Plan Covered Activities. Further, to the extent that such diversion practices are derived from operation of the Seven Oaks Dam, that facility already operates under a Biological Opinion from 2002, and nothing in the Covered Activities intends to, or actually does, implicate any change in dam operations under that BO. Asserted impacts to the Santa Ana Sucker fish species, or other alleged impacts resulting from dam operations, must be directed to the Army Corps of Engineers, and the Local Sponsors who operate the seven Oaks Dam in cooperation with it. Such issues are beyond the purview of this project, and this EIS/EIR.

Last, the formation of the Upper Santa Ana Valley Bunker Hill Groundwater Council in 2018 provides the oversight mechanism for area-wide, coordinated groundwater management, including the import of groundwater recharge supplies, and replenishment. Such activities would therefore not occur unilaterally by any of the parties implementing the Wash Plan, but rather, would be subject to that organization's joint, and cooperative, activities.

Regarding streambed impacts from mining, it must be noted that no mining activity is proposed to occur within any active streambed. All mining will occur in upland areas not regulated as waters of the United States. Existing mining haul roads that cross streambed areas were constructed under permits previously processed, and are considered a part of the existing environmental condition baseline. New or expanded crossings either have, or as part of project implementation will have, permit applications in process.

SPECIFICITY OF COMMENTS

Some commenting parties, including the Center for Biological Diversity (*see*, Comment 9) attempt to incorporate, in wholesale fashion, comments made to the San Bernardino Valley Water Conservation District Draft Environmental Impact Report prepared in 2008, a document no longer under review. The Conservation District provided full responses to all of those

comments made by Center for Biological Diversity on 2008, and such responses were included in the Final EIR as Appendix K, Response to Comment Letter M. The EIR for which those comments were submitted was certified as final by the Conservation District, and no litigation or other legal challenge to the adequacy of the EIR, or its response to comments, was ever brought. Prior comments have therefore already been addressed. Further, such wholesale incorporation as is attempted here by the comment does not appear to be sufficient to raise, or preserve, issues relating to this EIS/EIS. It should also be noted that in 2008, the EIR had been undertaken prior to the development of the HCP. This EIS/EIR proceeds with the HCP for which incidental taking permits will be sought already prepared, and fully vetted for public review and comment. This EIS/EIR therefore proceeds under entirely different circumstances.

It is incumbent upon those who wish to participate in NEPA processes to structure their participation so that it is meaningful, in a manner that alerts the agency to the commenting party's position and contentions. (*Vermont-Yankee Nuclear Power Corp v. Natural Resources Defense Council*, 435 US 519, 553 (1978).) Passing reference to a 2008 comment letter fails to meet this standard. Moreover, issues raised by Center for Biological Diversity in the scoping processes here have been met. (See EIS/EIR, page 5.0-2.) Center for Biological Diversity submitted a March 4, 2015 letter, that called for complete surveys, enforceable mitigation, and an update of an air quality analysis. Each of these has been done and incorporated either directly into the EIS/EIR or in this response to comments. As such, detailed responses to each and every comment to the 2008 comment letter from Center for Biological Diversity to the San Bernardino Valley Water Conservation District Draft Environmental Impact Report prepared in 2008 are not required, and have not been provided here.

EDGE EFFECTS

Commenting parties have criticized the consideration of "edge" effects of uses adjacent to conservation areas. (*See, e.g.*, comments 23, 24.) These comments fail to acknowledge that the project, and the habitat conservation plan for which the incidental take permits will be sought, occur within an urban matrix. The proposed action maximizes habitat and conservation area contiguity, combines management of existing and new habitats, and also propagates interstitial areas to minimize occurrence of "edges" themselves. Therefore, the project – by definition – reduces "edges," and therefore, of necessity, "edge effects." By combining all of these project features, the proposed action minimizes "edge" effects, and maximizes cohesive benefits. The proposed action also takes otherwise fragmented and unconnected mining properties, consolidating them into a single contiguous mining area, further reducing "edges." In essence, the entire proposed land exchange with BLM itself is a "edge" mitigation measure.

POSSIBLE FUTURE CHANGES TO ACEC BY BLM

Various comments, including those by the United States Environmental Protection Agency, question the management by the Wash Plan of exchanged lands, and raise the prospect of future revision by the Bureau of Land Management of ACEC, or other land use policies, governing its lands. BLM's existing commitment to environmental management of its lands is governed by the South Coast Resource Management Plan, which is in the process of being amended to conform with conservation objectives already determined to occur as a result of the project, in

the land exchange legislation passed by Congress. (*See*, P.L. 116-9.) At this juncture, any such changes by BLM are purely speculative. It cannot be determined, with any level of certainty meaningful for environmental analysis at this juncture, whether, when, or how such policy changes would occur. An agency need not discuss remote or speculative impacts of a proposed action in its EIS. *San Luis Obispo Mothers for Peace v. Nuclear Regulatory* Commission 449 F. 3d 1016, 1031 (9th Cir. 2006). Further, any such policy changes by BLM would be subject to its internal NEPA review, should they occur at some point in the future.

It should also be noted that to the extent land exchange activities are alleged to create impacts, the passage of legislation by the U.S. Congress has effectively eliminated the discretion of BLM with respect to such exchanges. P.L. 116-9 was signed by the President on March 12, 2019, and in Section 1003, directs the BLM to accept offered exchange lands by the Conservation District, and convey defined exchange lands from the BLM. That land exchange is in specific furtherance of the Wash Plan proposal analyzed by this EIS/EIR. Any future regulatory actions by BLM, however they may occur, could not countermand the congressional directive for the exchange.

F.2 RESPONSE TO COMMENT LETTERS

Comment 2

Barton, Dennis

If the Upper Santa Ana River Wash Habitat Conservation Plan had to be described with one word, that word would have to be “balance”. It balances the need to protect sensitive and endangered species and their habitats with the needs to serve an ever-growing population with water, transportation, recreation, construction materials.

Response

Thank you for your comment.

Comment 3

Barton, Dennis

I am a father, a grandfather, and hopefully in 10 years or so, a great-grandfather. An observation I share when people lament the population growth and its impacts is, we have children, our children have children and we refuse to die! We have to provide housing, water, transportation and other infrastructure to support them. At the same time, we need to protect species and their habitat. The Upper Santa Ana River Wash Habitat Conservation Plan provides for both. Balance.

Response

Thank you for your comment.

Comment 4

Barton, Dennis

I commend the those who have developed the Upper Santa Ana River Wash Habitat Conservation Plan, and in particular the resource agencies such as the US Fish and Wildlife Service. Everyone has had to give a little to make this plan work; we cannot think only of ourselves and our specific needs or wants. Balance.

Response

Thank you for your comment.

Comment 5

Barton, Dennis

I trust that the Upper Santa Ana River Wash Habitat Conservation Plan will come to fruition for the benefit of all.

Response

Thank you for your comment.

Comment 6

CDFW

The Conservation District has not applied for an Incidental Take Permit (ITP) for covered activities listed under the HCP and does not have authorization to "take" CESA Listed species. CESA authorizes CDFW to issue ITPs only when the impacts of the authorized take associated with the activity will be minimized and fully mitigated, and when the project permittee has ensured adequate funding to carry out all mitigation, compliance, and effectiveness monitoring. Additionally, CDFW is prohibited from issuing an ITP if in doing so, the activities would jeopardize the continued existence of the species. Documentation for an ITP application and required measures in an ITP may differ from federal documentation and authorizations. CDFW encourages the Conservation District to apply for an ITP to ensure coverage and compliance with the CESA.

Response

SBVWCD agrees that State permitting is an important step for Wash Plan Covered Activities and has prepared the Wash Plan with the goal of supporting the Conservation District's request to CDFW for an ITP pursuant to Section 2081(b) of the CESA (Wash Plan Page ES-2, Section 1.1.1). The District and CDFW have met to discuss this topic, most recently on October 17, 2019. In coordination with CDFW staff, SBVWCD presented options for State permitting to the Wash Plan Task Force for feedback on December 10, 2019. Following review of Task Force feedback, SBVWCD will evaluate appropriate process and next steps and ITP application for State permitting.

Comment 7

CDFW

Page 4.4-10 discusses the contingency parcel, "an island of habitat (for slender-horned spineflower) surrounded by existing and future aggregate mining operations." The footnote at the bottom of page 4.4-10 states "The contingency parcel, while initially conserved, could be mined in the future contingent upon the successful establishment of spineflower elsewhere in the HCP Preserve." Though CDFW appreciates the Conservation District's attempts to preserve the spineflower population while, and until, new populations of spineflower can be established, the Conservation District should consider the isolation of the population on the "island of habitat" as an impact, itself. Were attempts to establish new populations of spineflower unsuccessful, the isolation of the existing population could be detrimental to the continued existence of the species, and should therefore be considered an impact, and mitigated appropriately.

Response

Due to Wash Plan phasing (Wash Plan HCP Table 1-3) and the annual limits on mine production per the Conditional Use Permit (CUP) for the East Quarry North Mine and Reclamation Plan (January 2009), Covered Activity CRM.01, Aggregate Mining, locations adjacent to this spineflower population area are not expected to be mined until approximately 2040. Per the CUP, the Johnson North Silt Ponds (approximately 18 acres), which are located to the north of the spineflower contingency parcel, will be backfilled with silts, allowed to dry, graded for positive drainage, covered with 1-2 feed of alluvium and revegetated (see also SMARA-approved Mine and Reclamation Plan for the Upper Santa Ana River Wash Aggregate lands to be Operated by CEMEX Construction Materials L.P. [March 2006].) These actions would limit impacts from isolation over the long-term regardless of the results of efforts to establish new spineflower populations. Wash Plan HCP Section 4.3.1 and DEIS/SEIR Page 4.4-10 have been updated for clarification, and DEIS/SEIR Section 3 has been updated to remove the incorrect reference to spineflower impacts from Wells and Water Infrastructure as consistent with the Wash Plan HCP.

Comment 8

CDFW

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, §21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDBFieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plantsandanimals.asp.

Response

Relevant biological data has been reported to the California Natural Diversity Database (CNDDB).

Comment 9

Center for Biological Diversity

The Center has been involved in Santa Ana River issues for years, including numerous scoping and comment letters on previous iterations of the Wash Plan and BLM land exchange including comments on the Draft Environmental Impact Report (DEIR) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan SCH No. 2004051023 dated May 23, 2008, and comments on Draft South Coast Resource Management Plan Amendment And Draft Environmental Impact Statement (EIS) for the Santa Ana River Wash Land Exchange DOI-BLM-CA-D060-2009-0005-EIS - OPEC Control No. DES 09-12, BLM/CA/ES-2009-022+8300 dated October 22, 2009, and scoping comments on the Upper Santa Ana River Wash Project. (80 FR 11463) submitted on 5-4-15. We incorporate all of those comments herein.

Response

Refer to General Response, Specificity of Comments.

Comment 10

Center for Biological Diversity

The HCP must not "appreciably reduce the likelihood of survival and recovery" of covered species in the wild. ESA § 10(a)(2)(B)(iv); *see also* Cal. Fish & Game Code § 2081 (providing equivalent protections under state law). In addition, the HCP must provide additional biological protections where feasible ("the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such a taking."). ESA § 10(a)(2)(b)(ii)); Cal. Fish & Game Code § 2081; *see also* Cal. Pub. Res. Code §§ 21002, 21002.1, 21801 (under CEQA, projects may not be approved where feasible alternatives and mitigation measures available to avoid or lessen environmental impacts). In ESA Section 10, the term "conservation plan" must be consistent with the term "conservation" as described in Section 3, meaning "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." Regulated taking should occur *only* "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved," ESA § 3(3). The HCP must abide by these principles to ensure the survival and contribute to the recovery of all the species covered by the plan. While this version of the HCP is an improvement over previous proposals, feasible alternatives and mitigation measures are available to ensure a more biologically robust conservation plan can be adopted. The San Bernardino Valley Water Conservation District has the opportunity – and the legal mandate under both state and federal law – to undertake such actions when feasible.

Response

Refer to General Response, Adequacy of Mitigation.

Comment 11

Center for Biological Diversity

The HCP must include measures that will bring federal and state-listed species to a point where ESA protections are no longer necessary. The foundation of the proposed Wash Plan is the Habitat Conservation Area that would provide habitat and management for covered species. The Plan Area is comprised of lands under both federal and private land ownership where important habitat areas will be set aside to contribute to the conservation of covered species. While the DEIS/SEIR appears to base its proposal on the best available data on species and habitat, we request a supplemental document address the following potential deficiencies in the proposed HCP.

Response

Refer to General Response, Recirculation.

Comment 12

Center for Biological Diversity

A variety of acres is attributed to the Conservation Lands both within the DEIS/SEIR and between the DEIS/SEIR and the Final Draft Upper Santa Ana River Wash Habitat Conservation Plan (HCP). For example, the DEIS/SEIR identifies a 2,302-acre Conservation Area (at pg. 1.0-3) yet in Section 4.4, it states "approximately 1,659.5 acres of habitat in the Plan Area that will be conserved and managed and make up the HCP Preserve" (at pg. 4.4-4). At pg. 4.4-5, the DEIS/SEIR states "implementation of the HCP conservation program, including the conservation and management of 1,529.8 acres of habitat in the Plan Area". The Final Draft Upper Santa Ana River Wash Habitat Conservation Plan identifies that 1659.4 acres will be included in the Conservation area (at pg. ES-3, Table ES-1). These differing numbers add confusion to the environmental analysis and potentially the on-the-ground conservation in the future. We request that consistent acreages for conservation and impacts analysis be included, and that consistent number be used for analysis of impacts and mitigations.

Response

Conservation Area refers to the total contiguous area in conservation following implementation of the Wash Plan, including existing conservation such as the Santa Ana River Wooly-star Preserve Area. The HCP Preserve is 1659.5 acres in size, including 1529.8 acres of sage scrub habitat, 28.4 acres of non-native vegetation types, and 101.3 acres of existing disturbed/developed lands (refer to DEIS/SEIR Table 4.4-1 and Wash Plan Table 4-2). Acreages were determined with reference to the use of GIS, therefore rounding inconsistencies are inevitable with the use of this tool and small discrepancies in numbers cannot be avoided.

Comment 13

Center for Biological Diversity

The proposed "take" of species/habitat is a net loss to the existing habitat in the Wash area as presented in the DEIS/SEIR. In some instances, no mitigation is proposed for the impacts to important habitats and species. For example, for Riversidean Sage Scrub (RSS), a rare plant community, and habitat for California gnatcatchers which is proposed as a covered species under the Wash Plan, is proposed to have permanent impacts to 7.8 acres (at 4.4-8, Table 4.4-1), yet no RSS is located on the proposed conservation lands in order to offset the impact.

Response

The Wash Plan (Section 3.3.1) and associated EIS/DEIR (Appendix C.4.1.2) note that 9.4 acres of RSS are found within the Plan area, where it "predominantly occurs on cut slopes that have been revegetated where no alluvial processes are present." The 7.8 acres to be lost are revegetated RSS on cut slopes within an active mining pit and were assessed as low quality (Wash Plan Figure 4-5). No California gnatcatcher have been recorded within the impacted RSS within the Plan Area (Wash Plan Figure 3-8). California gnatcatcher are known to utilize alluvial fan scrub (Atwood 1993) and have been observed in Riversidean Alluvial Fan Sage Scrub in the Plan Area (Wash Plan Figure 4-5). The species is also known to utilize RAFSS found on adjacent conserved lands such as the Woolly-star Preserve Area and Redlands Conservancy Lands. The conservation strategy includes conservation and management of a total of 1,292.1 acres of high, medium, and low quality habitat to support gnatcatchers, including nesting, wintering and dispersal within the Plan Area (Wash Plan Section 5.1.2, Coastal California Gnatcatcher Species Objectives). Refer to Pages 4.4-6-4.4-7 of the DEIS/SEIR for analysis of the impacts to RSS, which were determined to be less than significant. Refer to General Response, Adequacy of Mitigation.

Comment 14

Center for Biological Diversity

Similarly, riparian vegetation, another rare plant community particularly in southern California, is proposed to have permanent impacts to 0.2 acres and temporary impacts of 2.7 acres (at 4.4-8, Table 4.4-1), yet no riparian vegetation is included on the proposed conservation lands in order to offset the impact.

Response

The willow thickets occuring within the Plan Area is the result of ponding from sand washing as part of mining operations. This vegetation community does not persist within the Plan Area without a sustained, artificial provision of water. The Wash Plan minimizes impacts to riparian communities as a whole with 0.2 acres of permanent impacts to willow scrub and 2.7 acres of temporary impacts to mule fat scrub, which represents 0.35% of the total impact associated with Covered Activities. The loss of this habitat does not represent a significant loss of this habitat type within its range or appreciably reduce the likelihood of survival/recovery of associated listed species. In the Plan Area portion of the Upper Santa Ana River Wash, riparian scrub and riparian forest area not naturally occurring vegetation communities. Refer to Pages 4.4-6-4.4-7 of the DEIS/SEIR for analysis of the impacts to riparian habitat, which were determined to be less than significant.

Comment 15

Center for Biological Diversity

This troubling issue also occurs for covered species. For example, the 13.4 acres of permanent impact to cactus wrens' cactus patches for primary nesting habitat represents a 29% impact to the existing habitat with only 32.5 acres of existing habitat and 0.2 acres of temporary impacts (presuming the temporary impacts are temporary) occurring in the conservation area (at 4.4-9, Table 4.4-2). In general, for all of the habitats and species, the proposed action would decrease the habitat and population of the covered species. To date, we are not aware of successful rehabilitation of habitat or covered species that moves them away from the ongoing declines that caused the need for Endangered Species Act protections. These species need an increase in occupied habitat and population size.

Response

In addition to both conservation and long-term management of 32.5 acres of existing cactus wren habitat, the Wash Plan requires an expansion of suitable habitat within the Upper Santa Ana River Wash per CAWR Objective 2: Establish and manage eight new cactus patches suitable for nesting cactus wren in the HCP Preserve (DEIS/SEIR Pages 4.4-11-4.4-12, Wash Plan HCP Page 5-6). Thus, mitigation is proposed to cover the impacts to cactus wren habitat by Covered Activities. Four total areas that have supported nesting cactus wrens would be affect by Covered Activities: One area for VD.01, Enhanced Recharge, and three for CRM.01, Aggregate Mining. While VD.01, Enhanced Recharge, is likely to proceed within the first five years of Wash Plan HCP implementation, CRM.01, Aggregate Mining, is expected to proceed in phases over the next 30-40 years. Thus, CAWR Objective 2 is likely to precede take at some of the mining areas, allowing for both spatial and temporal replacement prior to total take of the areas that have supported nesting. In addition, CAWR Action 2 references translocation of cactus pads and/or cholla stems from areas that will be permanently impacts (Wash Plan HCP Page 5-6). CAWR Objective 2 (Wash Plan HCP Page 5-6) has been updated to incorporate recently available data on successful cactus wren habitat restoration (e.g. https://sdmmp.com/view_species.php?taxaid+917698, Winchell et al. in press). Overall, the Wash Plan includes the goal of providing for the conservation of the five Covered Species and their habitat within the Plan Area through conserving land in a configuration and area sufficient to maintain ecological processes, including connectivity (Wash Plan HCP Page ES-1, ES-10). The Wash Plan also provides funding to monitor and adaptively managed these conserved lands in perpetuity to alleviate threats (e.g. illegal access, invasive species) that may degrade the habitat over time and space (Wash Plan HCP Page ES-10, Sections 5 and 7). Refer to General Response, Adequacy of Mitigation.

Comment 16

Center for Biological Diversity

The analysis for the critically endangered slender-horned spineflower is inadequate regarding the methodology used to evaluate the species occurrences. While we recognize the challenges intrinsic to evaluating annual plant species population numbers, the methodology used here does

not adequately inform the reader as to the actual extent of the species' occurrence in the Wash Plan. What is a patch? How does that compare to a Historic Occurrence? Have the Historic Occurrences been extirpated due to disturbance or is the habitat still present? (at 4.4-9, Table 4.4-2) While we appreciate that "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" (at 4.4-10) is proposed, it is unclear why only 100 acres was chosen. To our knowledge, the pollination regime for the slender-horned spineflower is unknown, although other members of the Polygonaceae are insect pollinated. It is essential that adequate habitat for the spineflower's pollinator(s) be conserved, likely through adaptive management requirements. However, we believe that the DEIS/SEIR is premature to conclude that no future mitigation will be required for this species, particularly as climate change advances (Memmett et al. 2007).

Response

Patch is a delineated area occupied by a more or less continuous distribution of spineflower individuals following *2010 Patch Characteristics and Interannual Variability in the Santa Ana River Woolly-star Preserve Area, San Bernardino County California* (SAIC 2010) as referenced in the Wash Plan HCP. Historic Occurrences are defined as observations recorded prior to 2005 (Wash Plan HCP Section 4.3.1, Figure 4-2). The Wash Plan will permanently conserve and manage 20 extant patches of spineflower and 36 historic spineflower locations within the HCP Preserve, as well as a science-based Spineflower Restoration Program to address the potential establishment of six new populations in potential habitat, including historically occupied areas (Wash Plan HCP Section 5.1.2). In addition, Covered Activity impacts to both extant patches and historic occurrences were analyzed (Wash Plan HCP Table 4-5, DEIS/SEIR Page 4.4-10). One hundred acres of permanent conservation and management represents an approximate 250 foot buffer around extant and historic spineflower patches within HCP Preserve lands. We recognize that the pollination regime for the species is unknown at this time and agree that it is likely to be insects based on research within the family. As a whole, the HCP Preserve will be monitored and managed to maintain and enhance the quality of the native plant communities, supporting native insect populations through improving the expression of native annuals on over 1,600 acres (Preserve Objective 4 [Wash Plan HCP Page 5-10], Preserve Objective 10 [Wash Plan HCP Page 5-12]). In addition, prioritized intensive invasive species treatments will be conducted within suitable spineflower habitat, with an additional 15 meter buffer of treatment area (SHSF Objective 6 [Wash Plan HCP Page 5.3]). The intent is to protect ecological processes that maintain spineflower habitat and to accommodate future changes in spineflower distribution in response to environmental conditions (SHSF Objective 2 [Wash Plan HCP Page 5-2). The conservation strategy includes establishment of six new patches of spineflower of at least 35 square meters expressing in 5 years of any 8 year period in the HCP Preserve (SHSF Objective 4 [Wash Plan HCP Page 5.3]). Establishment of these new populations along with the conservation and management described above offsets the loss of up to three extant populations due to Covered Activities. Failure of the Slender-horned Spineflower Enhancement and Relocation Program is included as a Changed Circumstance in Section 6.4.1 of the Wash Plan HCP. Refer to General Response, Adequacy of Mitigation.

Comment 17

Center for Biological Diversity

The proposed HCP Purpose and Need include: “The purpose of the USFWS action is to protect and conserve multiple Endangered Species Act (ESA) listed species and other native species; to conserve, enhance and restore the habitat and ecosystems upon which these species depend upon; and to ensure the long-term survival of these species, within the Santa Ana River Wash.” "The need for the proposed action is to respond to the Conservation District’s application for an ITP under the authority of section 10(a)(1)(B) of the ESA to take certain Covered Species as a result of their proposed aggregate mining, water conservation, wells and water infrastructure, transportation, flood control, trails, habitat enhancement, and agriculture.”

Response

Agreed.

Comment 18

Center for Biological Diversity

Unfortunately, the HCP does not provide adequate analysis that full mitigation under CEQA, ESA, and CESA for impacts to species and their habitats will be achieved. Because not all acres have the same habitat values for every species, adaptive management will be key.

Response

Refer to General Response, Adequacy of Mitigation and DEIS/SEIR Chapters 2 and 4. The Conservation Strategy provides for the conservation and/or management of approximately 1,659.4 acres adjacent to 764 acres of conservation at the Woolly-star Preserve Area (WSPA). Legal protection of the HCP Preserve and long-term, adaptive management will provide for the long term conservation of the species. The species and preserve management objectives (Wash Plan HCP Section 5.1.2) combined with the stay ahead provisions (Wash Plan HCP Section 6.2.1) of the HCP will ensure that Covered Activity impacts are offset and less that significant. We agree that monitoring and adaptive management over the life of the HCP are critical; thus, adaptive management and associated funding is included in the Wash Plan (see Section 5.2.2, 5.2.3, 5.3, 5.4 and 7).

Comment 19

Center for Biological Diversity

The HCP identified that: "Preparation of a detailed Adaptive Management and Monitoring Program (AMMP) for the protection and management of multiple habitats and species in the Wash, as indicated in the Mitigation Monitoring and Reporting Plan (MMRP) for the Wash Plan HCP EIR (anticipated to occur by the end of 2018)” Final Draft HCP at pg. 1-4 However, we could not locate an AMMP. Absent this important plan, the DEIS/SEIR environmental review is incomplete.

Response

The AMMP is included in the Wash Plan as Appendix B, as referenced in Wash Plan Section 5.3.

Comment 20

Center for Biological Diversity

In approving an incidental take permit for the plan, the Fish and Wildlife Service must find that the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking. 16 U.S.C. § 1539(a)(2)(B). Section 15021 of CEQA states that a public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant environmental effects of the project.

Response

CEQA regulation has been accurately quoted.

Comment 21

Center for Biological Diversity

The Council on Environmental Quality, which wrote the NEPA regulations, describes the alternatives requirement as the "heart" of the environmental impact statement. 40 C.F.R. § 1502.14. The purpose of this requirement is to insist that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including no action. "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Alaska Wilderness Recreation & Tourism v. Morrison, 67 F.3d 723, 729 (9th Cir. 1995). The DEIS/SEIR must "[r]igorously explore and objectively evaluate all reasonable alternatives" to a proposed action. 40 CFR § 1502.14(a) (emphasis added). See City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990).*

Response

The alternatives analyzed in the DEIS/SEIR were designed to meet basic project objectives. It is unclear what viable but unexamined alternatives remain to be analyzed. Please see response to General Response, Alternatives.

Comment 22

Center for Biological Diversity

The DEIS/SEIR must specify any harmful effects of the proposed action in order to meet the requirements of the ESA (10(a)(2)(a)(i)), CESA, and CEQA. Without a full analysis of all effects of a proposed action, any choice among alternatives and mitigation measures is uninformed. The DEIS/SEIR must include comprehensive analyses of edge effects, such as urban versus agricultural matrix, domestic pets, roads and trails (currently within the proposed Conservation Area, and any new roads/trails anticipated in the Planning Area), and increased air pollution in the Plan Area, including cumulative effects. Such harmful effects will negatively affect the

recovery and survival of covered species. The proposed DEIS/SEIR does not analyze in detail these harmful edge effects. More detailed edge analyses should be conducted on a species-specific basis.

Response

We agree with the commenter's statements regarding the importance of a comprehensive analysis of edge effects. The Wash Plan Conservation Program recognizes goals to conserve land in a configuration and area sufficient to maintain ecological processes and to protect core habitat areas and the connections between them, in addition to avoiding and minimizing effects from Covered Activities and actively managing conserved lands to counteract indirect effects/edge effects (Wash Plan HCP Page ES-10; DEIS/SEIR Section 4.4.1.2). In addition, the San Bernardino Valley Conservation District has purchased 25 acres adjacent to the HCP Preserve to provide an additional buffer between Wash Plan conservation areas and potential future development, with additional Neutral Lands adjacent to the HCP Preserve set aside for conservation for non-Wash Plan projects. The adverse effects from Covered Activities on live-in and foraging habitat, wildlife movement and connectivity, as well as disturbance from noise, light and dust are analyzed in DEIS/SEIR Section 4.4.1.2 (Page 4.4-3, 4.4-4, 4.4-5, 4.4-24, and 4.4-25). Acreage of breeding habitat was used to estimate take of wildlife species (Wash Plan HCP Section 4.3.2). Within the Santa Ana River Wash, urban growth has caused the river to become constrained, forming isolated blocks of land (DEIS/SEIR Page 4.13-14). Wash Plan implementation would reconfigure land ownership to conserve Covered Species habitat in largely intact blocks with high connectivity within and among habitat types (DEIS/SEIR Page 4.13-15), thus limiting negative edge effects on the HCP Preserve. Refer to General Response, Edge Effects.

Comment 23

Center for Biological Diversity

Habitat fragmentation affects numerous ecological process across multiple spatial and temporal scales, including changes in abiotic regimes, shifts in habitat use, altered population dynamics, and changes in species compositions (Schweiger et al. 2000). Patch size has been identified as a major feature influencing the plant and small mammal communities, and native rodent populations are vulnerable to collapse in habitat fragments. The composition, diversity, and spatial configuration of patch types, distances from sources, edge-to-area ratios, and ecotonal features may also structure the plant and small mammal communities. More detailed species-specific analyses on patch size is needed in the conservation analyses. Habitat fragmentation can also increase impacts on rodent predators. Housecats, coyotes, striped skunks, opossums, great-horned owls, and red-tailed hawks are as abundant or more abundant in fragments than in unfragmented habitat (Bolger et al. 1997).

Response

We agree with the commenter's statements regarding the importance of habitat connectivity to the long-term persistence of Covered Species. Within the Santa Ana River Wash, urban growth has caused the river to become constrained, forming isolated blocks of land (DEIS/SEIR Page

1.0-5 and 4.13-14). The Wash Plan Conservation Program recognizes goals to conserve land in a configuration and area sufficient to maintain ecological processes and to protect core habitat areas and the connections between them (Wash Plan HCP Page ES-10; DEIS/SEIR Section 4.4.1.2). These goals are implemented in part through reconfiguration of land ownership to conserve Covered Species habitat in largely intact blocks with high connectivity within and among habitat types (DEIS/SEIR Page 4.13-15). Acreage of breeding habitat was used to estimate take of wildlife species (Wash Plan HCP Section 4.3.2). The adverse effects from Covered Activities on live-in and foraging habitat, wildlife movement and connectivity are analyzed in DEIS/SEIR Section 4.4.1.2 (Page 4.4-24). Also see response to Comment 22; General Response, Edge Effects; and General Response, Sufficiency of Mitigation.

Comment 24

Center for Biological Diversity

The same edge can evoke different kinds of effects with different species (Joppa et al. 2008). No species-specific analysis was offered in the proposed Wash Plan on the type of edge that each covered species might experience in the Conservation Area, and whether the matrix will provide some measure of permeability. The level of connectivity needed to maintain a population will vary with the demography of the population, including population size, survival and birth rates, and genetic factors such as the level of inbreeding and genetic variance (Rosenberg et al. 1997). These factors must be obtained to be able to conduct any reasonable analyses of the viability of populations of covered species in the proposed reserve.

Response

Covered Species natural history requirements (e.g. home range, territory) are provided in Wash Plan HCP Table 3-8). The best available data were utilized in development of the Wash Plan HCP (e.g. *Genetic Structure in the Cactus Wren in Coastal Southern California* [Barr et al. 2013]); remaining uncertainty is addressed through long-term monitoring (Wash Plan HCP Section 5.2.3) and adaptive management (Wash Plan Section 5.3.2), funded in perpetuity (Wash Plan Section 7.1.1), as well as additional research on Covered Species (e.g. *Range-wide Genetics of the Endangered San Bernardino Kangaroo Rat* Dipodomys merriami parvus (Shier et al. [2018]). Edge effects are futher minimized, beyond the requirements of the Wash Plan, through additional land purchases and conservation easements contiguous with the HCP Preserve (e.g. San Bernardino Valley Conservation District purchase of 25 acres in 2018, conservation easements on over 400 acres of Neutral Lands for non-Wash Plan project mitigation. Refer to responses to Comments 23 and 24; General Response, Edge Effects; and General Response, Sufficiency of Mitigation.

Comment 25

Center for Biological Diversity

The DEIS/SEIR relies on the 2008 air quality analysis and contends that new regulations will reduce various pollutants identified in the 2008 report. While new regulations will reduce pollutants, the DEIS/SEIR fails to evaluate the increase in pollution from the massive expansion of warehouse fleets in the proposed project area. While the air pollution from cleaner mining

fleet haul trucks and processing equipment and limitations on idling of commercial/construction vehicles will reduce sourced emissions, the cumulative impact to air quality is likely to still be degraded beyond its already poor air quality. The DEIS/SEIR fails to adequately identify this cumulative impact.

Response

Air quality has improved since 2008 for pollutants affecting the wash area: SCAQMD air quality monitoring data (http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year) indicate lower concentrations of PM10 and ozone due to implementation of significant permit conditions on stationary sources and Tier >4 mobile source requirements. Thus the regulations imposed subsequent to 2008 have further reduced degradation on air quality from the baseline condition, and implementation of the Wash Plan will not increase the production of pollution in the Plan Area. In addition, due to a continuation on current limitations for mining production of 3 million tons per year, applicable evidence indicates no negative impacts to air quality. However, due to the increase in the number of years in which mining will occur due to the Wash Plan, we have identified significant and unavoidable impacts to Air Quality in the DEIS/SEIR Section 4.1.1.2.

Comment 26

Center for Biological Diversity

The DEIS/SEIR discusses climate change in the context of production and reduction of greenhouse gas emissions. However, we did not find an analysis of the potential impacts on the Santa Ana River wash and its flora and fauna as the effects of climate change continue to manifest. An analysis of the interplay between global climate change and the impact to species and their habitats must be included and the analyses used as a basis for the AMMP.

Response

Although localized in scope, the Wash Plan HCP supports resiliency of Covered Species and associated habitats through provision of long-term conservation in a configuration designed to provide maximum connectivity through one of the largest remaining alluvial fan ecosystems in California. (DEIS/SEIR Pages 1.0-5, 4.13-14 and Section 4.4.1.2, Wash Plan HCP Page ES-10). The Adaptive Monitoring and Management Plan recognizes annual variations in climate and climate change as key uncertainties to be addressed (Wash Plan HCP Appendix B, Page B-8). In addition, climate change is listed as a Changed Circumstance in Wash Plan HCP Section 6.4.1, noting: The Wash Plan HCP conservation strategy protects and enhances through restoration and management the habitat connectivity of the region. Protection of habitat connectivity, especially along ecological gradients such as elevational gradients and along natural hydrologic features, provides the opportunity for species to shift their range and area of occupied habitat in response to climate change. Additional adaptive management may be needed to enhance connectivity at key locations, or to translocate individuals across existing barriers to movement. Refer to General Response, Climate Change - Impact to Species.

Comment 27

Center for Biological Diversity

The DEIS/SEIR has not demonstrated that "the applicant will ensure that adequate funding for the plan will be provided." 16 U.S.C. 1539(a)(2)(B)(iii) (emphasis added); *see also* Cal. Fish & Game Code § 2080. Assured funding is critical to the success of the conservation strategy and is a mandatory requirement of any HCP. *See, e.g., National Wildlife Federation v. Babbitt,* 128 F.Supp.2d 1274 (E.D.Cal. 2000). As a preliminary matter, neither the DEIS/SEIR nor the HCP clearly delineates and specifies all funding needs for implementation of the plan, including but not limited to costs associated with adaptive management for the reserves and covered species, and scientific and compliance monitoring, law enforcement and other activities. Only with this baseline information can the DEIS/SEIR accurately calculate and assure the amount of funding necessary to carry out the necessary measures for the life of the permit. The DEIS/SEIR must ensure sufficient funding for all agencies (whether local, state, or federal) with implementation responsibilities related to the Conservation Area. The HCP does identify some aspects of where the funding could come from, but the necessary assurances for funding are not clear. Funding without an identified source is an exercise in speculation.

Response

HCP permit issuance requires funding assurances for direct and indirect costs (Wash Plan HCP ES-14, Section 7.1.1), with Participating Entities implementing Covered Activities with permanent impacts paying their proportional mitigation fee to the Conservation District six months prior to the planned initiation of ground disturbing events (Wash Plan HCP Section 7.1.2). Additional details of Wash Plan funding are discussed in Chapter 7, including land acquisition, stewardship (e.g. patrol/enforcement, legal support, access control, trash removal, etc.), adaptive species and habitat management, monitoring and reporting, and costs for emergencies, contingencies and overhead. Funding assurances are described in Wash Plan Section 7.1.2; Wash Plan Appendix A, Implementing Agreement for the Upper Santa Ana River Wash Habitat Conservation Plan, Section 8; and Wash Plan Appendix A, Implementing Agreement for the Upper Santa Ana River Wash Habitat Conservation Plan, Exhibit D, Certificate of Inclusion Agreement, Section 5.3. Note that while the Wash Plan Certificate of Inclusion requires payment of funds prior to project implementation, the majority of the Participating Entities have signed the MOU and deposited the required funds prior to approval of the Wash Plan. At this time, more than $2.8 million of the required Wash Plan non-wasting endowment is held by the San Bernardino Valley Conservation Trust to fund implementation (e.g. management of the HCP Preserve and Covered Species) upon issuance of the ITP.

Comment 28

Center for Biological Diversity

The HCP states: "lands that will be placed into conservation are primarily owned by the Conservation District, with additional holdings by the BLM, Flood Control, and Redlands (see Table 3-1). Appropriate assurances of long-term conservation will be provided within the first two years of the plan implementation (and before any impacts on Covered Species are allowed by Covered Activities), either through conservation easements or other agreement acceptable to the Wildlife Agencies" (HCP at 7-1). Permanent conservation easements may work for the lands

controlled by the Conservation District, Flood Control and Redlands, but, as the HCP recognizes, BLM does not allow for conservation easements on the public lands that they manage. The HCP then relies on a BLM land use designation of an Area of Critical Environmental Concern (ACEC). However, ACEC land use designations can be changed by a subsequent land use plan amendments, so reliance on this impermanent designation is not possible.

Response

The Wash Plan HCP conservation strategy has been designed to offset the impacts of the Covered Activities as a whole, with funding for monitoring and management of District Managed (e.g. BLM) lands at the same level at District Conserved lands in perpetuity (Wash Plan HCP Sections 1.2.2, 6.2.1, and 7.1.1). The District and BLM are coordinating to develop a Memorandum of Understanding for District management of BLM lands to provide further assurances that the habitat enhancement provided by the Wash Plan endowment will not be at risk. In addition, Wash Plan HCP Section 6.4, Responses to Changed Circumstances, has been revised to include an approach for addressing this unlikely event, with an associated increase in the reserve fund cap for Changed Circumstances to $150,000 in Wash Plan Section 6.4.1. At this juncture, any revision to the ACEC is remote and speculative and, were it to occur, would be subject to its own environmental and public review. Refer to General Response, Possible Future Changes to ACEC by BLM.

Comment 29

Center for Biological Diversity

The above comments highlight the failure of the DEIS/SEIR and HCP to adequately ensure protection of species and conservation of habitat. The above sections reveal not only the failure of the environmental review documents to comply with the federal and state ESA, but also the (1) lack of detailed analysis of significant direct, indirect, and cumulative impacts (and adequate explanation for why other impacts are considered insignificant); (2) lack of adequate analysis of irreversible significant environmental effects that cannot be avoided if the project is implemented; (3) and lack of analysis and adoption of sufficient mitigation measures to reduce the impacts to less than significant levels (or that mitigations and alternatives identified in the DEIS/SEIR are infeasible and the unmitigated effects are outweighed by the project's benefits). The DEIS/SEIR is inadequate under CEQA a for the above-listed reasons and a host of additional environmental impacts, including but not limited to (1) air quality impacts; (2) loss of open space; and (3) cumulative impacts of past, present, and reasonably foreseeable activities.

Response

Refer to General Response, Adequacy of Mitigation.

Comment 30

Center for Biological Diversity

The Final Draft HCP needs to be revised to clarify the final language regarding jurisdictional responsibilities, provide an updated Implementing Agreement, provide the AMMP and other required plans and recirculate the updated version for public comment.

Response

We understand the term "jurisdictional" in the comment to refer to the roles and responsibilities in HCP implementation among those implementing the Covered Activities. Such responsiblities are clarified in Wash Plan Appendix A, Implementing Agreement for the Upper Santa Ana River Wash Habitat Conservation Plan, Exhibit D, Certificate of Inclusion Agreement. See Wash Plan Appendix B for the AMMP. Refer to General Response, Recirculation.

Comment 31

Center for Biological Diversity

Thank you for the opportunity to comment on this important DEIS/SEIR. We urge the Agencies to fully address our comments and incorporate the missing following changes to the proposed Wash Plan to ensure a biologically adequate plan that will meet the goals of the HCP. Please include us on all subsequent notices/documents on this project.

Response

We thank you for your comments and have provided responses in response to Comments 9-30 and General Responses, Specificity of Comments, Adequacy of Mitigation, Recirculation, Edge Effects, Climate Change - Impact to Species, Possible Future Changes to ACEC by BLM, and Recirculation. The Wash Plan HCP and/or DEIS/SEIR have been corrected/clarified where needed to reflect the correct acreages for preservation, conservation, and management, and additional information has been provided where necessary.

Comment 32

City of Highland

The City of Highland would like to offer the following comments relative to the Upper Santa Ana River Wash Habitat Conservation Plan (Draft Final dated May 2019). The City's comments are intended to provide clarifications to the maps and languages used to describe City properties and facilities in various parts of the HCP, and will not in any way affect the technical analyses or conclusions of the associated EIS and Supplemental EIR.

Response

Thank you for your comment.

Comment 33

City of Highland

A. City-owned Properties Within the boundaries of the HCP, the City owns in fee two 10-acre parcels located south of Greenspot Road west of Plunge Creek. In addition, the City owns in fee a 1.3-acre parcel, which consist of a 57' wide strip of land, on which the south half of the newly-realigned Greenspot Road was constructed by the City several years ago. The City acquired this 1.3-acre strip of land out of a larger parcel owned by East Valley Water District. (See attached Grant Deed for reference.) However, the entire larger parcel is erroneously shown to be owned by the City in the HCP.

Response

Refer to response to Comments 34-36.

Comment 34

City of Highland

Therefore, the City suggests that the following revisions be made: 1. Section 3.2.2 "Ownership and Easement" - Change the last sentence to read, "Highland owns a 57'-wide strip of land consisting of the south half of the re-aligned Greenspot Road in the northeast portion of the Plan Area (1.3 acres), as well as two parcels in the north-central portion of the Plan Area just west of Plunge Creek (19.9 acres)."

Response

Wash Plan Section 3.2.2 has been revised as requested.

Comment 35

City of Highland

2. Figure 3-1 (Ownership Map) - Correct the map to reflect that the 57'-wide strip of land, being used as Greenspot Road right-of-way is under Highland ownership, and that the larger parcel is under East Valley Water District ownership. Change color of the larger parcel from brown to green.

Response

HCP Figure 3-1 and EIR Figure 1.0-3 have been revised as requested.

Comment 36

City of Highland

3. Table 3-1"0wnership in the Plan Area" - Correct "Acres in Plan Area" for City of Highland from
39.9 acres to 21.2 acres.

Response

Wash Plan Table 3-1 has been revised as requested.

Comment 37

City of Highland

B. Highland Biological Mitigation Area. The City of Highland owns two 10-acre parcels located in the north-central portion of the Plan Area just west of Plunge Creek. As correctly stated under "Other Areas within the Plan Area Boundary" on Page 1-6 of the HCP, and under "Existing Conserved Lands" on Page 10-2 of the HCP, these two 10-acre parcels are available for Highland to mitigate impacts not associated with the HCP Covered Activities.

Response

Agreed.

Comment 38

City of Highland

For internal consistency of the HCP document, the City suggests that the following revisions be made: 1. Section 5.6.2 "City of Highland Biological Mitigation Area" - Modify the paragraph to read, "The City of Highland owns two 10-acre mitigation parcels on the south side of Greenspot Road, with one parcel located on the east side of the BLM property and the other on the west side of the BLM property. These two 10-acre parcels are available for Highland to mitigate impacts not associated with the HCP Covered Activities.

Response

Wash Plan Section 5.6.2 has been revised as requested.

Comment 39

City of Highland

2. Figure 1-2 (Plan Area Subcomponents Map)- Delineate the boundaries of the City of Highland's
10-acre parcel located on the east side of the BLM property and label it "Highland BMA".

Response

Figure 1-2 was reviewed to confirm that the boundaries and label are shown as requested.

Comment 40

City of Highland

C. Greenspot Road Improvements While Figure 2-1 (Covered Activities Map) correctly shows the location of the southeasterly extent of Greenspot Road lmprovements (High.03), the southeasterly project limit of High.03 is not clearly described in the HCP.

Response

Refer to Response to Comment 41.

Comment 41

City of Highland

Therefore, the City suggests the following revisions be made: 1. Section 2.2.4 "Transportation, City of Highland Activities", Page 2-18 "Greenspot Road Improvements (High.03)" - Revise the first sentence to read, "Greenspot Road will be widened on the south side between Weaver Street and Santa Paula Street and on both sides between Santa Paula Street and the southeasterly limit of the realigned portion of Greenspot located south of the new bridge at Santa Ana River."

Response

Wash Plan Section 2.2.4 has been revised as requested.

Comment 42

City of Highland

D. General Road Maintenance. As stated under Section 2.2.4 "Transportation, General Road Maintenance", Page 2-18, "long-term road maintenance includes drainage facility management, which should take place at least once a year at the inlets and outlets of drainage facilities." In addition, Footnote 14 of this paragraph specifies that "All work will take place within the defined ROWs of the roads and as depicted and defined in the HCP."

Response

Thank you for your comment.

Comment 43

City of Highland

It is common for general road maintenance to include cleanup of soil deposits and debris in culverts that carry drainage flows under and across a public road that requires the cleanup work be extended upstream and downstream of the culverts beyond the street ROWs. For example, there is an existing 12' -wide x 8' -tall concrete box culvert across Greenspot Road at the north-east portion of the Plan Area, and proper maintenance of this culvert involves clearing of dirt and vegetation both upstream and downstream of the culvert. Depending on the amount of buildup, it is possible that clearing of the flow path could extend beyond the street ROW in order to obtain the minimum grade needed for positive flow. Since Footnote 14 specifies that all work is to take

place within street ROW, the City may not be able to properly perform all needed general road maintenance under this section of the HCP.

Response

General Road Maintenance includes a descripton of drainage facility management. The Wash Plan conservation analysis is based on the description of General Road Maintenance (Wash Plan Section 2.2.4). Covered Activities will be reviewed via the Certificate of Inclusion process, including review of all proposed impacts and associated HCP coverage.

Comment 44

City of Highland

Therefore, the City requests that under Section 2.2.4 "Transportation, General Road Maintenance", Page 2-18, a new sentence be added as the 5th sentence of the paragraph, to read as follows: "Maintenance of roadway drainage inlets and outlets includes clearing of the upstream and downstream drainage flow paths located within or outside of street ROW to the extent needed to achieve the minimum grade for positive drainage flow."

Response

Refer to response to Comment 43.

Comment 45

City of Highland

E. Greenspot Bridge and Road Realignment Several years ago, the City of Highland constructed a new 4-lane bridge across the Santa Ana River approximately 250' downstream from the existing historic iron bridge, and realigned approximately 3,500' of Greenspot Road to match the location of the new bridge. While the new bridge was built to its ultimate width of 98', which is wide enough to provide for 4 future travel lanes, the realigned portion of Greenspot Road was only built to its interim configuration, with the pavement widened from 26' to 40' and remains to be a 2-lane road.

Response

Thank you for your comment.

Comment 46

City of Highland

Since the scope of this project was not accurately described in the Wash Plan, the City suggests that the following changes be made: 1. Section 2.3.4 "Greenspot Bridge and Road Realignment" Page 2-28, change the first sentence to read, "The City of Highland recently realigned a portion

of the Greenspot Road and upgraded the width of the realigned roadway from 26'"to 40', providing for 2 travel lanes and 2 striped bike lanes.

Response

Wash Plan Section 2.3.4 has been revised as requested.

Comment 47

City of Highland

F. Greenspot Road Drain Outlets (High.11). The City's roadway drainage systems currently outlet onto the east side of Plunge Creek south of Greenspot Road and onto the west side of Plunge Creek north of Greenspot Road. (See attached aerial photo.) While the attached enlarged Covered Activities Map clearly shows the Wash Plan boundary to include the north side of Greenspot Road at Plunge Creek covering the locations of all City drainage outlets at Plunge Creek located on both sides of Greenspot Road, the drainage outlet locations are not fully described in the HCP.

Response

The description of Covered Activity High.11, Greenspot Road Drain Outlets, is based upon information provided by the Participating Entity. Covered Activities High.11 and FC.01 overlap within the impact area. Covered Activities will be reviewed via the Certificate of Inclusion process, including review of all proposed impacts and associated HCP coverage. Changes or refinements to the Covered Activities may not result in additional take or reduced conservation.

Comment 48

City of Highland

Therefore, the City requests that the following revisions be made: 1. Section 2.2.5 "Flood Control, City of Highland Activities", Page 2-21 "Greenspot Road Drain Outlets (Highl.12) - Revise the first sentence to read, "Maintenance and operation of the existing outlets of two city storm drains in Greenspot Road would occur on the east side of Plunge Creek south of Greenspot Road and on the west side of Plunge Creek north of Greenspot Road, and would include the concrete headwalls, grouted riprap, and the dirt channel area near the outlets."

Response

See response to Comment 47.

Comment 49

U.S. Environmental Protection Agency

Water Resources: Water Quality The Draft Environmental Impact Statement acknowledges that covered activities have the potential to affect surface and groundwater quality in the Plan Area

by increasing sediment and other pollutants in stormwater runoff, but does not fully disclose impacts of each covered activity. Such information is necessary to assure compliance with state and federal water quality regulations, assess impacts to species of concern, and to support a determination of the potential impacts of such activities. For example, the DEIS does not disclose that the Enhanced Recharge Project, upon completion, would remove 500 cubic feet per second (cfs) from the Santa Ana River 1 and no potential impacts to the Santa Ana sucker are disclosed or analyzed.

Response

The construction of the Enhanced Recharge basins, as well as the capacity to utilize them within the existing water diversion of 190 cfs, are included as a Wash Plan Covered Activity and provide operational flexibility for recharge of water with existing diversion facilities. Covered Activity VD.01, Enhanced Recharge, will add basins but do not implicate any changes to the regulatory permits or physical practices of water diversion to fill them. Alteration of hydrologic conditions at and below the point of current diversion for the Enhanced Recharge Project are not part of this project nor covered under this HCP, and will not otherwise be allowed until the effects of such hydrologic changes on the endangered Santa Ana sucker have been analyzed and permitted as appropriate under the FESA (Wash Plan Page 2-10). In addition, any hydrologic changes are subject to regulation by the Santa Ana Regional Water Quality Control Board. Water quality issues were addressed in a prior EIR for Wastewater Change Petition WW-0045 under proceedings by the State Water Resources Control Board. Reference General Response, Additional Permitting/Scope of EIS/EIR.

Comment 50

U.S. Environmental Protection Agency

As noted in the DEIS, Reach 4 of the Santa Ana River downstream of Plan Area is listed as impaired under Section 303(d) of the Clean Water Act (p. 3.3-4). Aggregate mining may worsen existing impairments and adversely affect beneficial uses throughout the watershed. Certain activities associated with the Habitat Conservation Plan, such as aggregate mining, require National Pollutant Discharge Elimination System permitting pursuant to CWA Section 402. The DEIS determines that implementing best management practices through regulatory requirements would prevent the degradation of water quality and that the potential to violate waste discharge requirements would be significantly reduced (p.4.13-12). However, more analysis and discussion are needed to support this determination.

Response

The existing mining operations and proposed expansions (e.g. Covered Activity CRM.01, Aggregate Mining) are located in upland habitats (Wash Plan Table 4-3) within the larger floodplain of the upper Santa Ana River and tributaries including Mill Creek, Plunge Creek and City Creek as shown in DEIS/SEIR Figures 2.0-1, Covered Activities, and 3.3-1, Surface Hydrology, but not within the active low flow channels of these drainage features (DEIS/SEIR Page 4.3-12). As identified in the Cemex and Robertson's Mining and Reclamation Plans, mining would be restricted to no less than 20 feet above ground water, with no operations allowed in

standing groundwater (DEIS/SEIR Page 4.3-6). This is to ensure that sediment and other potential contaminants resulting from mining excavation activities are not directly discharged to the groundwater table and the basin (DEIS/SEIR Page 4.3-5). Therefore, CRM.01 is not likely to contribute to degradation of surface or groundwater quality or hydrology, and is not likely to contribute to degradation of the Santa Ana River within Reach 5 or downstream of the Plan Area (Reach 4) which is impaired due to pathogens.

Comment 51

U.S. Environmental Protection Agency

Recommendation for the Final EIS: 1) Identify all water quality impacts to the Santa Ana River and its tributaries. Discuss the monitoring protocols and the water quality thresholds to be used to ensure the Santa Ana River is not further impaired due to covered activities, specifically the mining expansion, Enhanced Recharge Project, and Elder/Plunge Creek Restoration Project.

Response

Covered Activity CRM.01, Aggregate Mining, occurs in upland habitats (with the exception of 0.2 acres of impact to willow scrub) outside of the Santa Ana River (Wash Plan Table 4-3, DEIS/SEIR Figure 2.0-1). Covered Activity VD.01, Enhanced Recharge, occurs entirely in upland habitats outside of the Santa Ana River (Wash Plan Table 4-3, DEIS/SEIR Figure 2.0-1). Covered Activity FC.09, Elder/Plunge Creek Restoration, restores braided channel structure and sedimented stream channels, implements lead remediation, and constructs new flood control facilities in Plunge and Elder Creeks. Thus, CRM.01, VD.01, and FC.09 are not likely to impact water quality within the Santa Ana River and its tributaries. Monitoring protocols for discharge from upland activities are detailed in the approved Stormwater Pollution Prevention Plans for mining and construction projects (e.g. WDID No. 836I005066 and WDID No. 836I005074).

Comment 52

U.S. Environmental Protection Agency

2) Provide additional detail specifying how covered activities would comply with state and federal industrial storm water regulations, including CWA Section 402 and requirements at 33 CPR 323.4. The EPA is available to provide technical assistance related to the CWA Section 402 program.

Response

While the Wash Plan has been developed to support permitting under the federal Endangered Species Act, compliance with federal and state wetland laws and regulations must be achieved through the permit process established by the regulatory agencies (Wash Plan Section 1.3.6). Statutory criteria for Habitat Conservation Plans include the requirement for taking to be incidental to otherwise lawful activity (Wash Plan Section 1.3.1); thus, all required state and/or federal permits must be obtained prior to utilizing federal Endangered Species Act 'take' for Wash Plan Covered Activities. DEIS/SEIR Page 4.4-27 - 4.4-28 contains Mitigation Measure BIO MM-2, Jurisdictional Permitting, which includes the requirements for Covered Activities

with potential wetland impacts to conduct formal delineations and obtain additional permits as appropriate. Permitted mining activities within the Wash Plan boundary operate under State Water Resources Control Board Water Quality Order 2014-0057-DWQ and NPDES General Permit No. CAS000001, as well as approved Stormwater Pollution Prevention Plans. Robertson's Ready Mix also holds an Industrial Stormwater NPDES General Permit No. CAS000001 effective July 1, 2015. They operate under two Stormwater Pollution Prevention Plans covering the Rock Plant (WDID No.: 836I005066) and the Batch Plant (WDID No.: 836I005074). Neither facility has any violations since permits issuance.

Comment 53

U.S. Environmental Protection Agency

3) Include the updated and finalized plan of operations and storm water pollution prevention plans for the Cemex and Robertson's Ready Mix mines.

Response

Mining facilities operate under the following Stormwater Pollution Prevention Plans: 1) Cemex - WDID No. 36100190 and 361001908, and 2) Robertson's Readymix - WDID No. 836I005066 and 836I005074.

Comment 54

U.S. Environmental Protection Agency

Water Resources: Groundwater In recent years, water usage in the Bunker Hill groundwater basin has led to decreases in groundwater storage levels.2 The HCP would allow for eight to 14 new groundwater wells to be installed and used in conjunction with other wells for aggregate mining. These proposed wells are not anticipated to substantially deplete groundwater supplies or interfere with groundwater recharge (p.4.3-11), but the DEIS does not quantify any groundwater usage aside from aggregate mining. Therefore, when all wells are in use, it is unclear what the impacts would be to water resources.

Response

See Wash Plan HCP Section 2.2.3, San Bernardino Valley Municipal Water District Activities, for details of water extraction from the proposed wells. The Bunker Hill Basin is adjudicated per Western Municipal Water District et al. vs. East San Bernardino County Water District et al. (Case No. 78426 - County of Riverside), with responsibility for basin management assigned to the San Bernardino Valley Water Conservation District and the San Bernardino Valley Municipal Water District. Covered Activities VD.09, Redl.13, Redl.11, EVWD.08 and CD.03 function as part of the comprehensive groundwater basin management plan as described in Wash Plan Section 2.2.3. Refer General Response, Additional Permitting/Scope of EIS/EIR.

Comment 55

U.S. Environmental Protection Agency

According to San Bernardino County's Community Indicators Report, the county is estimated to experience a 28 percent increase in population growth between 2020 and 2045. The DEIS also lists multiple housing and commercial developments adjacent to the Plan Area that would contribute to increases in population during the HCP term (Section 4.13.2). This population growth and the adjudication of the groundwater basin could lead to cumulative impacts that are not discussed in the DEIS. Section 4.13.3.3 states that the HCP covered activities would include projects that would allow the water resource agencies to continue to provide and maintain a secure source of water for residents and businesses in the watershed, but does not provide details for these projects, such as the Enhanced Recharge Project. Implementation of these projects could result in further impacts.

Response

The groundwater basin and surface water diversions have been adjudicated or permitted since 1969 (DEIS/SEIR Page 4.3-9). The purpose of the Covered Activities is to sustainably manage existing supply of water. Recharge mitigates the impacts to groundwater basins. The San Bernardino Regional Urban Water Management plan updated in 2017 indicated that adequate supplies from surface, groundwater and imported water are available in single and multiple dry year scenarios with expected increased demand due to projected growth that are contained in City and County General Plans. In addition, SBX7-7 requires additional conservation and will reduce future demand. SB 610 and SB 221 of 2001 require each substantial development to demonstrate adequate water is available to serve the development. Recharge activities continue to be an important part of water sustainability for the groundwater basin as they have been since the early 1900's. While the EIR/EIS does not analyze development or other projects outside the Wash Plan, area groundwater and water supply are expected to be enhanced by Wash Plan Covered Activities (DEIS/SEIR Pages 4.3-10 - 4.3-11). Refer to General Response, Specificity of Comments.

Comment 56

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Include a quantitative analysis of how implementation of new pumping wells and additional mining water may impact water resources in the project area. This may include a water balance approach that summarizes current water usage and projects future water usage that would result from increased groundwater pumping.

Response

Refer to response to Comment 54. If extractions exceed the safe yield of the basin, the District will work with Robertsons and Cexmex to replenish the basin (DEIS/SEIR Section 4.3). Average mining-related production approximately 360 AF per year, or 0.225% of the 166,000 AF produced from the basin (SBVWCD Engineering Investigation, 2020).

Comment 57

U.S. Environmental Protection Agency

Evaluate the cumulative impacts to the Bunker Hill groundwater basin. Include baseline hydrologic data, hydrogeologic characterization of the project area, and overall water usage to assess potential impacts from land-use changes and implementation of the HCP. Provide more detailed information about proposed water conservation activities.

Response

Adjudication (Western Municipal Water District et al. vs. East San Bernardino County Water District et al., Case No. 78426 - County of Riverside) requires preparation of an Annual Report of the Western-San Bernardino Watermaster with baseline data from 1954 to present for the Bunker Hill Basin. In addition, the San Bernardino Valley Water Conservation District prepares an annual Engineering Investigation (EI) which assesses the hydrologic condition of the Bunker Hill Basin, including the Plan Area (Wash Plan Figure 1-1). Data for overall water usage in the Bunker Hill Basin are reported annually in the EI. For example, in 2019, the EI notes that users produced approximately 157,354 acre feet of water from the Bunker Hill Basin, which is lower than prior drought years and represents an above average rainfall year. Basin storage increased by 152,408 acre feet from the prior year, with the basin remaining 418,310 acre feet below its maximum in 1993 (following multiple wet years). In cooperation with Groundwater Council partners, the San Bernardino Valley Water Conservation District recharged over 70,000 acre feet in 2019. The San Bernardino Valley Water Conservation District recharges flows not needed by surface water treatment plants as well as available imported water. In addition, all local water agencies comply with California conservation requirements and coordinate conservation programs through the Basin Technical Advisory Committee of the Integrated Regional Water Management Plan. This combination of monitoring, recharge and conservation required by the adjudication ensure no significant long term impacts to groundwater in the Bunker Hill Basin. Wash Plan HCP Implementation will provide facilities to benefit the Bunker Hill groundwater basin (e.g. VD.01). There are no land use changes proposed for the Plan Area as all land uses are compatible with existing zoning designations (DEIS/SEIR Section 4.5.1.2). Refer to responses to Comments 54 -56 for additional information.

Comment 58

U.S. Environmental Protection Agency

Expanded mining operations would result in 401.5 acres of permanent impacts to covered species' habitat (p. 2.0-4). The DEIS does not provide adequate information to fully assess the potential impacts from mine expansion, including impacts to surface and groundwater quality and hydrology. Also, the DEIS does not analyze impacts from the new haul road that would cross Plunge Creek and City Creek (HCP p. 2-7).

Response

Refer to DEIS/SEIR Section 4.3.1.2 for analysis of impacts to surface and groundwater quality and hydrology from Covered Activity CRM.01, Aggregate Mining. The existing mining operations and proposed expansions are located within the larger floodplain of the upper Santa Ana River and tributaries including Mill Creek, Plunge Creek and City Creek as shown in Figure 3.3-1, *Surface Hydrology,* but not within the active low flow channels of these drainage features

(DEIS/SEIR Page 4.3-12). As identified in the Cemex and Robertson's Mining and Reclamation Plans, mining would be restricted to no less than 20 feet above ground water, with no operations allowed in standing groundwater (DEIS/SEIR Page 4.3-6). This is to ensure that sediment and other potential contaminants resulting from mining excavation activities are not directly discharged to the groundwater table and the basin (DEIS/SEIR Page 4.3-5). Therefore, CRM.01 is not likely to contribute to degradation of surface or groundwater quality or hydrology. Covered Activity CRM.02, Haul Road Expansion, improves haul road conditions on crossings of Plunge and City Creeks. These crossings would be subject to additional permitting as appropriate (e.g. Clean Water Act) (Wash Plan HCP Section 1.3.6). The current crossings are permitted under appropriate regulations. Revisions have been made to clarify mining-associated impacts (refer to DEIS/SEIR Page 4.4-26).

Comment 59

U.S. Environmental Protection Agency

According to the DEIS, new mining operations would be located outside the low flow channels of the Santa Ana River, Plunge Creek, and City Creek, and would not include any earthmoving activities or structures that would alter the course of these drainages (p. 4.3-13). However, existing berms around quarries would be extended as the quarries expand to prevent stormwater from flowing into them (p. 4.3-4). The DEIS concludes that these actions would not alter the course of Santa Ana River, Plunge Creek, or City Creek and that potential impacts are less than significant (p. 4.3-13). Additional analysis is needed to support this conclusion.

Response

Wash Plan HCP Section 2.2.1 and DEIS/SEIR Page 2.0-3 have been updated to clarify that the berms are located within the footprint of Covered Activity CRM.01. Covered Activity CRM.01, Aggregate Mining, occurs in upland habitats (Wash Plan Table 4-3, DEIS/SEIR Figure 2.0-1) and are located within the larger floodplain of the upper Santa Ana River and tributaries including Mill Creek, Plunge Creek and City Creek as shown in Figure 3.3-1, Surface Hydrology, but not within the active low flow channels of these drainage features (DEIS/SEIR Page 4.3-12). Thus, the existing analysis is sufficient to support the conclusion. Additional alleged impacts are therefore speculative and, if they occur, would require additional environmental review (e.g. RWQCB, ACOE permits).

Comment 60

U.S. Environmental Protection Agency

The DEIS states "the mining activities are considered an irreversible commitment of resources as the riverine hydraulic functions and values for habitat are lost for an extremely long period of time" (p. 4.13-25). The Santa Ana River and its tributaries are complex systems that have developed in a climatic regime of wide precipitation fluctuation ranging from drought to flood. Given the scale of the proposed mining expansion (both spatial and temporal), the project would have long-term adverse effects on river geomorphology, and therefore, adverse effects on biological communities. The EPA would expect the amount and scope of the proposed mine

expansion to impact the hydrologic and ecological functions of rivers/streams on and off-site. The DEIS does not discuss the loss of these functions.

Response

The comment correctly identifies the extraction of aggregate as an irreversible commitment of resources. Following the completion of the Seven Oaks Dam, which interrupts what otherwise might have been natural replenishment of the aggregate material over time, the extraction and use of aggregate renders the resource non-renewable. Regarding geomorphology, the existing mining operations and proposed expansions (e.g. Covered Activity CRM.01, Aggregate Mining) are located in upland habitats (Wash Plan Table 4-3) within the larger floodplain of the upper Santa Ana River and tributaries including Mill Creek, Plunge Creek and City Creek as shown in DEIS/SEIR Figures 2.0-1, Covered Activities, and 3.3-1, Surface Hydrology, but not within the active low flow channels of these drainage features (DEIS/SEIR Page 4.3-12). The construction of Seven Oaks Dam eliminated the hydrogeomorphic processes upstream of the project on the Santa Ana River, thus it is no longer able to refresh and provide aggregate material for the covered species. The irreversible commitment of resources is the loss of this aggregate. The loss of habitat is analyzed and mitigated in the HCP and EIS/EIR.

Comment 61

U.S. Environmental Protection Agency

Recommendations for the FEIS: Complete additional analysis to determine the direct, secondary and cumulative impacts from mine expansion. We recommend addressing: 1) anticipated changes to vegetation communities and channel morphology both upstream and downstream of the project; 2) anticipated changes to stream substrate; 3) and potential adverse effects to aquatic and terrestrial life dependent on the aquatic ecosystem. The potential secondary effects to be analyzed include: 4) changes in hydrology and sediment transport capacity of waters; 5) changes to water velocity; 6) the potential for headward and downstream erosion; 7) impacts from excavation proposed in the 100-year floodplain; 8) increases in the volume and velocity of polluted stormwater; 9) increase in discharge of pollutants associated with mining and transport activities; 10) decreases in water quality from the impairment of floodplain and ecosystem services including water filtration, groundwater recharge, and flood attenuation; and 11) disruption of hydrological and ecological connectivity.

Response

Refer to responses to Comments 58-60. In summary: 1) There are no impacts or significant changes to riverine hydrology and riparian vegetation as mining has been carefully sited in upland areas (e.g. Wash Plan HCP Section 1.1.2 and 1.1.3). 2) No changes to stream substrate are anticipated as the result of current or proposed mining. 3) No potential adverse effects to aquatic or terrestrial species depending on the aquatic ecosystem, except those identified and mitigated in the DEIS/SEIR, are anticipated as a result of Covered Activities, including mining. 4) The proposed project would not result in changes to hydrology or sediment transport. 5) The proposed project would not result in changes to water velocity. 6) The proposed project would not result in changes to headward or downstream erosion. 7) Current mining is conducted within

the 100-year floodplain; however, risks to mining are minimal due to flood control features such as levees and the Seven Oaks Dam. Other effects of mining are analyzed in DEIS/SEIR Section 4.3. 8) There are no expected increases in volume or velocity of polluted stormwater due to the proposed project. However, if identified, these would result in revisions to the required SWPPPs. 9) No increase in pollutants are expected due to continuation of mining and transport beyond those analyzed in DEIS/SEIR Section 4.3. If identified, an increase would result in revisions to the permits issued by SCAQMD for compliance with the Clean Air Act. 10) No impacts to water quality are identified. Groundwater quality and recharge will be increased through the proposed project. 11) The proposed project does not result in disruptions to hydrologic connectivity. Impacts to ecological connectivity were addressed through Wash Plan HCP Preserve design.

Comment 62

U.S. Environmental Protection Agency

Impacts to Waters of the U.S. The scale of the covered activities within the Plan Area and the magnitude of potential impacts requires a detailed evaluation impacts to waters of the U.S. (WOTUS), including the Santa Ana River, Plunge Creek, and City Creek. These waters provide hydrologic connectivity, facilitating movement of water, sediment, nutrients, wildlife and plant propagules throughout the watershed. Other ecosystem processes include dissipation of energy as part of natural fluvial adjustment and the movement of sediment and debris. Currently, there is insufficient information in the DEIS to evaluate the effects of covered activities (e.g., aggregate mining, flood control, water conservation) on the Santa Ana River and its tributaries.

Response

The majority of Covered Activities, including mining, occur in upland areas that are not regulated as WOTUS. However, existing mining haul roads include creek crossings. Maintenance of existing haul roads, which include creek crossings, is included in Covered Activity CRM.03, Ongoing Aggregate Mining Operations. The Plunge Creek and City Creek crossings are being reengineered to minimize impacts and have applicable permit application in preparation (e.g. Army Corps [404], RWQCB [401], CDFW [1600]. Wetland waters impacts that cannot be avoidance will be mitigated in accordance with the appropriate permit requirements. DEIS/SEIR Figure 4.4-7 has been updated to include Covered Activities. Refer to response to Comment 63 and to General Response, Additional Permitting/Scope of EIR/EIS.

Comment 63

U.S. Environmental Protection Agency

Several covered activities may require a permit under Section 404 of the Clean Water Act from the U.S. Army Corps of Engineers (USACE). A Section 404 permit can only be issued for the Least Environmentally Damaging Practicable Alternative. It is unclear from the information provided in the DEIS whether the covered activities, as proposed, would satisfy the requirements for such a permit.

Response

While the Wash Plan has been developed to support permitting under the federal Endangered Species Act, compliance with federal and state wetland laws and regulations must be achieved through the permit process established by the regulatory agencies (Wash Plan Section 1.3.6). Statutory criteria for Habitat Conservation Plans include the requirement for taking to be incidental to otherwise lawful activity (Wash Plan Section 1.3.1); thus, all required state and/or federal permits must be obtained prior to utilizing federal Endangered Species Act 'take' for Wash Plan Covered Activities. Table B.1-1 has been added to DEIS/SEIR Appendix B, Section B.1.1, for additional details.

Comment 64

U.S. Environmental Protection Agency

The DEIS estimates that permanent impacts to WOTUS from covered activities is 7.8 acres (p. 4.4-26). The DEIS also indicates that implementation of covered activities would not affect the hydrology of Santa Ana River, Plunge Creek, or City Creek (p. 4.3-4), but does not support this determination with its impact analysis. A verified wetland delineation and jurisdictional determination would be needed before the CWA Section 404 permitting process can proceed, and an assessment of wetland conditions is needed to fully evaluate the potential impacts of the project, as well as to identify potential opportunities to mitigate such impacts.

Response

We agree that verified wetland delineations and/or jurisdictional delineations may be needed for individual projects to support applicable, non-Endangered Species Act permits, which is required by Mitigation Measure BIO MM-2 (DEIS/SEIR Page 4.4-27). In addition, Wash Plan HCP Avoidance and Minimization Measure: Streams and Drainages and Runoff states, "Construction activity and access roads will be minimized to the extent practicable in all drainages, streams, pool, or other features that could be under the jurisdiction of the USACE, State Water Board, and/or CDFW. If impacts on these features are identified, a formal jurisdictional delineation and permit applications to the regulatory agencies may be required." The following Covered Activities may include separately permitted aquatic impacts based on initial evaluation and modeling: 1) High.04, Orange Street/Boulder Avenue Improvements; 2) Redl.09.2, Santa Ana River Trail; 3) Redl.15, Orange Street Improvements; 4) Redl.02, Church Street Drainage Pipe; 5) VD.04, Orange Street Connector; 6) VD.09, Wells and Connector Pipeline; 7) CRM.01, Aggregate Mining; 8) CRM.02, Haul Road Expansion; 9) High.23, Highland/Redlands Regional Connector; 10) FC.09, Elder/Plunge Creek Restoration; 11) CD.07, Plunge Creek Project; 12) High.02, Alabama Street Improvements; 13) Redl.14, Alabama Street Improvements; 14) VD.10, Alabama Street Connector Pipeline; 15) High.03, Greenspot Road Improvements.

Comment 65

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Disclose the ecosystem functions provided by the specific wetland or WOTUS that could be impacted by the covered activities.

Response

Ecosystem functions for specific wetlands and/or WOTUS that may be impacted by Covered Activities will be determined through appropriate permitting prior to project implementation. Refer to response to Comment 64.

Comment 66

U.S. Environmental Protection Agency

2) Disclose steps taken to achieve compliance with the CWA Section 404(b)(l) Guidelines.

Response

Each individual Covered Activity will comply with the Clean Water Act as necessary. Refer to Wash Plan Section 1.3.6 and General Response, Additional Permitting/Scope of EIS/EIR. Table B.1-1 has been added to DEIS/SEIR Appendix B, Section B.1.1, for additional details.

Comment 67

U.S. Environmental Protection Agency

3) Describe any efforts to work with the USACE to obtain a formal jurisdictional delineation of WOTUS in the Plan Area. If available, include a map of the delineated waters and the anticipated impacts to those waters to streamline future Section 404 compliance efforts.

Response

Refer to DEIS/SEIR Section 3.3.1.1, HYD MM-1 (DEIS/SEIR Page 4.3-21), and BIO MM-2 (DEIS/SEIR Page 4.4-27 - 4.4-28).

Comment 68

U.S. Environmental Protection Agency

4) Conduct an assessment of the aquatic resources in the project footprint, using a scientific method such as the California Rapid Assessment Method, and include the results.

Response

Assessment of project-specific effects to aquatic resources is premature at this time. Refer to response to Comment 64, 65, 66 and 67.

Comment 69

U.S. Environmental Protection Agency

5) Discuss avoidance of, minimization of, and mitigation for impacts separately to clarify how aquatic resources are preserved and avoided to the greatest extent feasible by selecting the least damaging project type, spatial location, and extent compatible with achieving the purpose of the covered activity.

Response

Refer to response to Comment 64 and General Response, Additional Permitting/Scope of EIS/EIR. The configuration of the Wash Plan HCP Preserve was based on optimizing the land use based on conservation values regardless of ownership, including significant evaluations least environmentally damaging project type and location (Wash Plan Section 1.1.3).

Comment 70

U.S. Environmental Protection Agency

Flood Control Extensive flood control features are included in the HCP as covered activities (HCP p. 2-19 to 2-22). Disconnecting the active channels from their floodplains reduces a channel's capacity to dissipate flow volumes and energy on their floodplains and has a negative impact on a full spectrum of ecosystem functions. The DEIS does not provide a complete description of these cumulative impacts and does not include an analysis of direct and secondary impacts to waters from anticipated flood control activities.

Response

No Covered Activities which disconnect active channels from their floodplains are included in the Wash Plan. As currently designed, Covered Activity FC.09, Elder/Plunge Creek Restoration, collects flows from the upstream, urbanized, impervious environment and delivers them directly to the historic flood plain to support ecological function in the Wash Plan Preserve (DEIS/SEIR Pages 4.3-7, 4.3-8, 4.3-11, 4.3-14, 4.3-15, 4.3-20). Other Flood Control projects are In-Stream Maintenance (FC.01), Access Road Maintenance (FC.02), Levee Maintenance (FC.03), and Stockpiling (FC.04) which will not result in a decrease in connection between active channels and their floodplains from baseline.

Comment 71

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Disclose all direct, secondary and cumulative impacts from flood control activities, including the Elder/Plunge Creek Restoration Project, to the floodplain within the Plan Area and downstream.

Response

Refer to DEIS/SEIR Pages 4.3-7, 4.3-8, 4.3-11, 4.3-14, 4.3-15, 4.3-20 for analysis of impacts from Flood Control activities.

Comment 72

U.S. Environmental Protection Agency

Air Quality The EPA's regulations at 40 CFR 93.150-165 provide a method for federal agencies to demonstrate general conformity with the National Ambient Air Quality Standards (NAAQS).

Estimated annual emissions from a federal action are compared to the de minimis thresholds through an applicability assessment. If the emissions exceed the de minimis threshold, general conformity is applicable to the federal action and the EPA's regulations offer methods to demonstrate conformity as well as other requirements for the conformity demonstration, such as public involvement.

Response

Thank you for your comment. Refer to DEIS/SEIR Section 4.1 for EPA thresholds and criteria. DEIS/SEIR Section 4.1 and Appendix C.1.4 have been revised to provide a General Conformity Determination Assessment based on the updated mobile source model as requested in Comment 75.

Comment 73

U.S. Environmental Protection Agency

The Plan Area is located within the South Coast Air Basin (SCAB), which the EPA currently designates as extreme nonattainment for ozone, serious nonattainment for particulate matter of less than 2.5 microns (PM2.s), and maintenance for particulate matter of less than 10 microns (PMw), carbon monoxide (CO), and nitrogen dioxide. The DEIS indicates there would be short-term degradation of air quality during the construction of several covered activities and long-term degradation of air quality during mining operations. It also appears that general conformity de minimus thresholds may be exceeded, thus requiring a demonstration of conformity.

Response

An assessment of proposed project emissions with EMFAC 2017 indicates increases that remain below the Southern California Air Quality Management District (SCAQMD) de minimus thresholds in the approved State Implementation Plan (SIP). Mining entities have SCAQMD Permits to Operate for stationary sources, while mobile sources are below Clean Air Act NAAQP thresholds as shown in DEIS/SEIR Table 4.1-2 and Appendix C.1.4 General Conformity Determination Assessment. Therefore, project does not result in violations of NAAQS, nor does it significantly worsen or delay attainment of NAAQS. The permitted quarry, ready mix and crushing operations are reasonably expected to be in the growth projects by SCAG and including the SCAQMP in compliance with the approved SIP. This determination of compliance is clarified in Section 4.1 of the Final EIS/SIER.

Comment 74

U.S. Environmental Protection Agency

Appendix B of the DEIS incorrectly states that "SCAQMD [South Coast Air Quality Management] is the authorized state agency to determine the General Conformity of the present project with de minimis requirements of the Clean Air Act (Rule 1901)" (p. B-12). Rule 1901 states that SCAQMD is "the 'State agency primarily responsible for the applicable implementation plan as used in Part 51, Subchapter C, Chapter I, Title 40, of the CFR." Under Section 176(c)(l) of the Clean Air Act, each agency has an affirmative responsibility to assure

compliance with the applicable implementation plan. The DEIS does not appear to address general conformity beyond this brief sentence and does not include a comparison of annual emissions to the de minimis thresholds.

Response

Appendix C.1.4 has been revised to include a General Conformity Determination Assessment. In addition, revisions to DEIS/SEIR Table 4.1-4 update net increases in regional emissions from Covered Activity CRM.01, Aggregate Mining, at maximum capacity for CO, ROG, N0x, PM10, PM2.5 and CO2; none of which exceeds SQAMD thresholds. Because Covered Activity CRM.01, Aggregate Mining, contributes to meeting the goals of the Project, MM AQ-1 and MM AQ-2 are retained. Additionally, an assessment of emissions under EMFAC 2017 indicates increases are in compliance with 40 CFR 93.153 de minimus thresholds.

Comment 75

U.S. Environmental Protection Agency

Table 4.1-4 provides the change in daily emissions resulting from the expansion of aggregate mining, and notes that the emissions estimate is derived from the San Bernardino Water Conservation District's November 2008 Final Environmental Impact Report for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (p. 4.1-8). The daily nitrogen oxides (NOx) emissions rate, 59 pounds per day, multiplied over a year would exceed the 10 ton per year de minimis threshold for the SCAB. This would trigger the need for a new emissions estimate, because a conformity determination is required to use the latest and most accurate emission estimation techniques (e.g., EMFAC 2017, California's EPA-approved mobile source model for estimating on-road emissions).

Response

Mobile emissions for PM10, PM2.5 and N0x were revaluated using EMFAC 2017 and related guidance for Covered Activity CRM.01, Aggregate Mining. Mining production is assumed to go from 4.5 million tons average up to a maximum of 6 million tons per year per adopted Conditional Use Permits. The updated results for PM10, PM2.5 and N0x are shown in Appendix C.1.4. The General Conformity Determination Assessment indicates that the increase in emissions for the proposed project are below the de minimus thresholds. Refer to revisions to DEIS/SEIR Table 4.1-4 and response to Comment 73.

Comment 76

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Provide documentation of the emissions estimate from the Conservation District's November 2008 Final Environmental Impact Report for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan.

Response

Refer to Appendices D and J in the Final Environmental Impact Report for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (November 2008) available online at www.sbvwcd.org.

Comment 77

U.S. Environmental Protection Agency

2) Include a draft conformity determination, if appropriate. If you have questions about general conformity, we encourage your staff to contact Tom Kelly with our Air Planning Office at (415) 972-3856 or kelly.thomasp@epa.gov.

Response

A General Conformity Determination Assessment has been included as DEIS/SEIR Appendix C.1.4. We greatly appreciate the EPA's assistance in Clean Air Act conformity documentation.

Comment 78

U.S. Environmental Protection Agency

Biological Resources Santa Ana Sucker According to the DEIS, designated critical habitat for the Santa Ana sucker includes 462.2 acres of the Santa Ana River and City Creek, or nine percent of the Plan Area (p. 4.4-16). The DEIS notes that "City Creek and the Santa Ana River provide stream and storm waters required to transport coarse sediments that are necessary to maintain preferred substrate conditions in portions of the Santa Ana River occupied by Santa Ana sucker" and concludes that these water bodies "were determined to be essential for the conservation of the species" (p. 4.4-16). The EPA is concerned that the DEIS does not address impacts to the Santa Ana sucker, including loss of flow due to the Enhanced Recharge Project, reduction in coarse sediment transport due to mining, or hydrological changes due to the Seven Oaks Dam.

Response

Refer to response to Comment 49 regarding potential impacts to Santa Ana Sucker. Refer to response to Comment 57 regarding potential mining impacts. Seven Oaks Dam is not a Covered Activity within the Wash Plan, nor does it occur within the Wash Plan Plan Area or boundary. Seven Oaks Dam is an existing condition. All mining is located outside of the available to the Santa Ana River for sediment transport. VD.01, Enhanced Recharge Project, will not result in a change in diversion from Seven Oaks Dam or elsewhere on the Santa Ana River. Refer to General Response, Additional Permitting/Scope of EIS/EIR.

Comment 79

U.S. Environmental Protection Agency

The USFWS Recovery Plan for the Santa Ana Sucker lists aggregate mining as a threat to the recovery of the Santa Ana sucker due to the removal of necessary substrates from the watershed

and discharge of fine residual sediment back into the watershed (Recovery Plan p. I-13).4 The DEIS does not provide a hydrogeomorphic or sediment transport study to evaluate mining impacts to the downstream population of Santa Ana sucker (and critical habitat) on the Santa Ana River between South La Cadena Drive to Prado Dam. The USFWS states that "with the implementation of the proposed conservation measures, impacts to Santa Ana sucker and its critical habitat would be less than significant" and that "additional mitigation is not required," but does provide analysis to support this determination (p. 4.4-16).

Response

Refer to response to Comment 57 and 78. Thus, a hydrogeomorephic or sediment transport study is not needed because no mining will occur within the Santa Ana River. Refer to General Response, Additional Permitting/Scope of EIS/EIR.

Comment 80

U.S. Environmental Protection Agency

The Recovery Plan states that hydrological modifications are major threat to the Santa Ana sucker and that the presence of water is vital to the species (I-24). According to the Conservation District's website, the Enhanced Recharge Project, upon completion, would divert up to 500 cfs from the Santa Ana River. In addition, the USACE's approved mitigation for the Seven Oaks Dam required water releases "to mimic pre-dam hydrologic processes (scour and deposition) upon which the endangered species are dependent" (Seven Oaks Dam Water Control Manual p. 7-8). It is unclear in the DEIS if these releases have occurred. If releases have not occurred, the EPA anticipates that hydrological and ecological processes that have historically maintained habitat for Santa Ana sucker have been reduced or eliminated. The DEIS does not disclose or discuss the impacts of these projects.

Response

Refer to response to Comment 49 regarding potential impacts to Santa Ana Sucker. Operation of the Seven Oaks Dam is not a Covered Activity within the Wash Plan, nor does it occur within the Wash Plan Plan Area or boundary. The EPA is correct in the observation that the referenced releases have not occurred. However, the Covered Activities will not affect the criteria for or feasibility of such releases.

Comment 81

U.S. Environmental Protection Agency

The USFWS provided comments pertaining to the Santa Ana sucker for a proposed project adjacent to the Plan Area in June 4, 2014. The letter states that coarse sediment into the Santa Ana River has been substantially reduced by the presence of Seven Oaks Dam and modifications to Plunge Creek, and that any further reduction of coarse sediment is a potentially significant cumulative impact. At that time, the USFWS requested a sediment transport study to analyze hydrological and sediment transport changes, but the current DEIS does not discuss the need for such an analysis for the current proposal.

Response

Refer to response to Comment 57 regarding potential mining impacts. A sediment transport study is not needed because the Santa Ana River does not transport sediment through areas affected by current or future mining.

Comment 82

U.S. Environmental Protection Agency

According to a call with the USFWS on January 3, 2020, impacts to the Santa Ana sucker will be considered as part of the Upper Santa Ana River Habitat Conservation Plan, which includes the entire Plan Area. However, the current HCP covers activities that may adversely affect the Santa Ana sucker and the DEIS does not include analysis of impacts from these activities.

Response

Anticipated consultation would be for any future increase in diversions. Refer to response to Comment 49 regarding potential impacts to Santa Ana Sucker.

Comment 83

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Fully analyze impacts to the Santa Ana sucker from activities covered by the proposed HCP, including cumulative impacts of any past, present and future projects. Describe sediment transport conditions in City Creek, Plunge Creek and the Santa Ana River. Include projects adjacent to the Santa Ana River and its tributaries, including Lytle and Cajon Creeks, and Mill Creek as well as adjacent fluvial terraces and watersheds which provide or provided coarse sediments to the Santa Ana River and its major tributaries.

Response

Refer to response to Comment 49 and 78-82 regarding potential impacts to Santa Ana Sucker. Covered Activities do not change the sediment transport conditions in City Creek, Plunge Creek or the Santa Ana River from baseline (Wash Plan Table 4-3, DEIS/SEIR Figure 2.0-1).

Comment 84

U.S. Environmental Protection Agency

2) Complete a hydrogeomorphic or sediment transport study to fully assess the impacts to the Santa Ana sucker due to the coarse sediment removal by the Seven Oaks Dam and proposed mine expansion as well as the Plunge Creek settling basin.

Response

Refer to response to Comment 49 and 78-82 regarding potential impacts to Santa Ana Sucker. Covered Activities do not change the sediment transport conditions in City Creek, Plunge Creek or the Santa Ana River from baseline (Wash Plan Table 4-3, DEIS/SEIR Figure 2.0-1).

Comment 85

U.S. Environmental Protection Agency

3) Explain how the HCP and covered activities are consistent with the goals of the Recovery Plan.

Response

Santa Ana Sucker is not a Covered Species under the Wash Plan. The Wash Plan does not impede or prevent the Recovery Goal and Objectives included in the U.S. Fish and Wildlife Service Recovery Plan for the Santa Ana Sucker (*Catostomus santaanae*) (2017).

Comment 86

U.S. Environmental Protection Agency

4) Include information from the Section 7 consultation and append the Biological Opinion.

Response

The intra-Service section 7 consultation will be completed after the FEIS/SEIR and prior to the Record of Decision.

Comment 87

U.S. Environmental Protection Agency

San Bernardino Kangaroo Rat The DEIS indicates that the Seven Oaks Dam dramatically reduced the downstream potential for flooding in the Plan Area, resulting in the loss of early successional Riversidean Alluvial Fan Sage Scrub habitat required by the San Bernardino kangaroo rat (p. 4.4-6). However, the DEIS further states that "the majority of the area which is still subject to the levels of intermittent flooding necessary to rejuvenate RAFSS would be conserved" (p. 4.4-6). This determination does not appear to be supported by analysis in the DEIS or any documents related to intermittent flooding, including planned releases from the dam.

Response

Significant portions of the channel of the Santa Ana River subject to intermittent flooding (from both Santa Ana River and Mill Creek) following construction of Seven Oaks Dam will be conserved as part of District Conserved, SBCFCD Conserved, Future SBCFCD Mitigation Area and District Managed lands (Wash Plan HCP Figure 1-2, DEIS/SEIR Figures 1.0-6 and 4.4-7). In addition, some portions of the active channel currently lie within the existing conservation lands

such as the Woolly-star Preserve Areas (Wash Plan HCP Figure 1-2, DEIS/SEIR Figures 1.0-6 and 4.4-7).

Comment 88

U.S. Environmental Protection Agency

The EPA requests clarification of critical habitat acreage within the Plan Area. The DEIS states that the entire Plan Area is included within designated critical habitat. Appendix B of the DEIS states that critical habitat designation includes approximately 561 acres (B-31). The HCP states that the entire Plan Area is designated critical habitat, except for the Seven Oaks Dam borrow pit area (HCP p. 4-13).

Response

The DEIS and HCP correctly state that the entire Plan Area is designated critical habitat for San Bernardino Kangaroo Rat. Appendix B has been revised for correctness.

Comment 89

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Provide analysis to support the efficacy of intermittent flooding resulting in early successional RAFSS. Describe the frequency of intermittent flooding.

Response

Refer to response to Comment 87. Significant differences in RAFSS total vegetative cover were recorded following flooding at intervals of 1-40, 41-70 and 70+ years (Smith 1980, Wheeler 1991, Burk et al. 2007 as referenced in Wash Plan HCP Section 3.3.1). Additional studies on flood frequency related to the operations of Seven Oaks Dam are currently in progress (e.g. High Flow Study of Seven Oaks Dam: Phase 1 [March 2019]); applicable findings will be utilized in Wash Plan implementation where feasible.

Comment 90

U.S. Environmental Protection Agency

2) Correct the DEIS and its appendices to clarify the area of SBKR critical habitat. We recommend adding a table in the FEIS to list the critical habitat, as was done for the Santa Ana sucker on page 4.4-16 of the DEIS.

Response

Refer to response to Comment 88 regarding SBKR critical habitat. Table 4.4-3: San Bernardino Kangaroo Rat Critical Habitat in the Plan Area has been added to DEIS/SEIR Page 4.4-14.

Comment 91

U.S. Environmental Protection Agency

3) Summarize and append any relevant documents associated with the Section 7 consultation, including the Biological Opinion, SBKR translocation plan, and SBKR long-term monitoring plan. Discuss additional mitigation and monitoring measures that may result from consultation. Include specific timeframes and metrics of success to evaluate successful translocation of SBKR.

Response

Refer to response to Comment 86. Prior to ground disturbance by Covered Activities, the U.S Fish and Wildlife Service will review and approve standardized translocation procedures for San Bernardino kangaroo rat within the Wash Plan area.

Comment 92

U.S. Environmental Protection Agency

HCP Preserve The HCP notes that 1,095 acres of separate mitigation areas are located within the Plan Area: Woolly-Star Preserve Area (WSPA), City of Highland mitigation area, and future flood control mitigation (HCP p. 5-34, 35). As these properties are critical to the conservation of the covered species within the Plan Area, the EPA is concerned that the HCP does not address concomitant management with HCP Preserve lands.

Response

Management of existing mitigation lands is pursuant to approved, project specific requirements, e.g. Santa Ana River Woolly Star Preserve Area, San Bernardino, California, Final Multi-Species Habitat Management Plan (2012). Wash Plan Section 1.2.2 states: The HCP Preserve will be managed in coordination with the entities responsible for the Existing Conserved Lands. HCP Preserve-wide Objectives, Preserve Objective 2, Preserve Action C, states: Coordinate with local entities (including the Cities of Highland and Redlands, County of San Bernardino, and BLM) to limit potential impacts from unauthorized access and illegal activities (Wash Plan Page 5-10). HCP Preserve-wide Objectives, Preserve Objective 2, Preserve Action E, states: Establish communication with local government and social services to monitor and address repeated trespass (Wash Plan Page 5-10). Wash Plan Section 5.4 states: Planning for all management activities will include ongoing coordination among the Wildlife Agencies, Conservation District, Participating Entities, and SBCFCD, as well as among managers of other conserved lands in the area. Wash Plan Table 7-2, Habitat Management Cost Estimate per Year, includes $4,200 annually for 'Coordination Meetings, Coordination with adjoining land managers.' Wash Plan Section 8.4 states: Further, implementation of the HCP will be coordinated with the USACE's proposed Multi-species Habitat Management Plan for the WSPA.

Comment 93

U.S. Environmental Protection Agency

It is unclear whether the D-Dike and adjacent groundwater recharge basins are included as mitigation lands. The EPA is also concerned that fragmented lands in between the proposed

Enhanced Recharge Project's groundwater basins (VD.01) would be counted as part of the HCP Preserve.

Response

Temporary impacts associated with maintenance of existing recharge basins, including D-dike, are included in Covered Activity CD.01, Existing Recharge Basis and Access Roads. Temporary impact areas are depicted within the HCP Preserve area for overall mapping purposes (Wash Plan HCP Figure 1-2); however, they are clearly characterized as "Existing Features" (e.g. not habitat) in conservation calculations (Wash Plan HCP Tables 4-2, 4-6 and 5-1). In addition, D-dike was not included in vegetation or species conservation analyses or management areas (Wash Plan HCP Figures 4-1, 4-4, 4-5, 4-6, 5-10, 5-11, 5-12). Refer to response to Comment 97.

Comment 94

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Describe how the non-HCP mitigation areas would be managed concomitantly with HCP Preserve lands. We recommend that the FEIS and Record of Decision commit the USFWS to working with the USACE, Conservation District, and the City of Highland to ensure HCP requirements are incorporated into the management of these lands.

Response

Refer to response to Comment 92.

Comment 95

U.S. Environmental Protection Agency

2) Clarify the WSPA acreage. The HCP lists the WSPA as 764 acres (HCP p. l-6) and the DEIS lists the WSPA as 544.5 acres (p. 1.0-4).

Response

DEIS/SEIR Section 1.1.3 has been revised for correctness.

Comment 96

U.S. Environmental Protection Agency

3) Clarify if the D-Dike and adjacent groundwater recharge basins are counted as mitigation lands. Discuss how lands fragmented by the proposed Enhanced Recharge Project recharge basins (VD.Ol) can be counted as mitigation. Update the mitigation figures and ratio, as needed.

Response

Refer to responses to Comments 93 and 97.

Comment 97

U.S. Environmental Protection Agency

BLM Lands The HCP proposes to mitigate the impacts of "take" partly through conservation of existing Bureau of Land Management lands, which would include the land exchange between the Conservation District and the BLM. Reliance of the BLM lands as mitigation assumes that a major management goal would provide for the conservation and protection of covered species and sensitive resources. However, the BLM manages its lands for multiple uses, such as mineral resources, water conservation, and recreation, which can have adverse effects on sensitive species and habitats. According to the 2015 Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed, the administration of valid existing rights supersedes the BLM's conservation abilities in the Santa Ana River Area of Critical Environmental Concern (p. 2-52). As such, the Enhanced Recharge Project would fragment nearly half of the estimated 320 acres that the BLM would receive, which is already fragmented by the D-Dike and groundwater recharge basins (Figure 2.0-1).

Response

Covered Activity VD.01, Enhanced Recharge Project, will occur on lands that will be transferred from the San Bernardino Valley Water Conservation District to BLM through the Santa Ana River Wash Plan Land Exchange Act (Wash Plan HCP Figure 3-3). The Act recognizes the Enhanced Recharge Project, stating: "The exchange of lands under this section shall be subject to continuing rights of the Conservation District under the Act of February 20, 1909 (35 Stat.641), on the non-Federal land and any exchanged portion of the non-Federal exchange parcel for the continued use, maintenance, operation, construction, or relocation of, or expansion of, groundwater recharge facilities on the non-Federal land, to accommodate groundwater recharge of the Bunker Hill Basin to the extent that such activities are not in conflict with any Habitat Conservation Plan or Habitat Management Plan under which such non-Federal land or non-Federal exchange parcel may be held or managed." Approximately 654 acres of BLM lands which are outside the boundaries of Covered Activities will be enhanced through perpetual funding for monitoring and management (Wash Plan Table ES-1, Figure 5-1, Section 7.1.1). These lands are included as District Managed lands within the Wash Plan conservation strategy (Wash Plan HCP Section 6.2.1).The IRMWP does not have land use authority and does not modify ACEC. In addition, BLM proposes to place ACEC protections on the land they receive in the land exchange (Wash Plan HCP Section 7.1.1). The Enhanced Recharge project was sited in low quality habitat to limit impacts (Wash Plan Figures 4-2 - 4-5), with restoration land management to improve the overall habitat of the Wash Area.

Comment 98

U.S. Environmental Protection Agency

It is unclear how many acres of BLM land would be part of the HCP Preserve, though Figures 1.0-3, 1.0-6, and 1.0-7 indicate that the majority of BLM land would be counted (p. A-4, 7, and 8). Given that these lands would provide an estimated half of the HCP Preserve, the EPA is concerned that the DEIS does not discuss the legal assurances or long-term management

commitments beyond right-of-way avoidance (HCP p. 7-2). Additional land may need to be acquired to meet the HCP conservation requirements for covered species if assurances not cannot be provided in perpetuity.

Response

Approximately 654 acres of BLM lands will be included as District Managed Lands (Wash Plan HCP Section 1.2.2, Table 1-3). A FESA Section 7 consultation between U.S. Fish and Wildlife Service and the Bureau of Land Management would evaluate any effects on listed species on federal lands in connection with activities covered by the Wash Plan (Wash Plan HCP Page ES-2). Refer to response to Comment 28.

Comment 99

U.S. Environmental Protection Agency

The DEIS states that a separate Section 7 consultation would be completed for BLM lands (p. 1.0-2). However, it is unclear if mining would occur on BLM lands prior to the land exchange, potentially requiring two formal consultations over the term of the HCP.

Response

Wash Plan Covered Activity CRM.01, Aggregate Mining, will occur in a phased manner to ensure that the land exchange authorized by the Santa Ana River Wash Plan Land Exchange Act (approved March 12, 2019) will be complete prior to the implementation of mining on exchanged lands (Wash Plan Table 1-3, ES-13). A FESA Section 7 consultation between U.S. Fish and Wildlife Service and the Bureau of Land Management would evaluate any effects on listed species on federal lands in connection with activities covered by the Wash Plan, prior to implementation of Covered Activities (Wash Plan HCP Page ES-2).

Comment 100

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Provide details about the legal instrument(s) that would ensure BLM lands would fulfill the goals and objectives of the HCP in perpetuity.

Response

Refer to response to Comment 28.

Comment 101

U.S. Environmental Protection Agency

2) Provide the total BLM acreage included as mitigation. Clarify the BLM land classifications within the Plan Area after the land exchange.

Response

Refer to response to Comment 98. BLM proposes to designate the lands transferred from the San Bernardino Valley Water Conservation District as ACEC for habitat preservation and water conservation purposes (Wash Plan HCP Page 3-5).

Comment 102

U.S. Environmental Protection Agency

3) Clarify the Section 7 timeline for the BLM Lands, both pre- and post-land exchange. Describe how the process for assuring Section 7 consultation(s) and HCP decisions would be consistent and complementary.

Response

Refer to response to Comment 99.

Comment 103

U.S. Environmental Protection Agency

Children's Environmental Health and Safety Executive Order 13045 on Children's Health and Safety directs each federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. The DEIS does not describe the potential direct, indirect, and cumulative impacts of the project on children's health. For example, localized increases in $PM_{2.5}$ emissions could lead to an increase in $PM_{2.5}$ exposure at the four schools located within a mile of the Plan Area. We also note that Figure 4.1-1 Sensitive Receptors (p. A-34) does not identify sensitive receptor locations, including schools and daycare facilities, adjacent to the Plan Area.

Response

The California Air Resources Board identifies standards for air quality which are implemented by the local air quality management districts. Older adults with chronic heart or lung disease, children and asthmatics are identified as the groups most likely to experience adverse health effects with exposure to PM10 and PM2.5 (refer to https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health).

Comment 104

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Evaluate the potential direct, indirect, and cumulative health impacts of mining activities on children's health, including potential respiratory impacts, such as asthma, from air pollutant emissions and generation of fugitive dust.

Response

The Upper Santa Ana River Wash Land Management and Habitat Conservation Plan EIR (2008) included an evaluation of nearby sensitive receptors (Figure 4.1-3). Figure 4.1-1 in the DEIS/SEIR has been updated to show Beattie Middle school which is approximately one half mile to the north, with other schools significantly further from the project area. Tables 4.3.S and 4.3.T in the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan EIR (2008) show that the concentrations PM2.5 and PM10 for the proposed project at residences are indistinguishable from no project condition. Therefore, the approval of the Wash Plan HCP and subsequent implementation of Covered Activity CRM.01, Aggregate Mining, do not result in a violation of Executive Order 13045. Despite these findings, MM AQ-3 has been added to require notification of areas schools when mining production reaches six million tons per year, with assistance for schools to implement maintenance and limit exposure provided by Cemex and Robertsons.

Comment 105

U.S. Environmental Protection Agency

2) Identify mitigation measures to reduce impacts from the proposed project's construction and operation to schools and child care centers near the proposed project area. Measures may include those identified in the School Siting Guidelines (https://www.epa.gov/sites/production/files/2015-06/documents/school_siting_guidelines-2.pdt) and Development and Implementation of a School Environmental Health Program (https://www.epa.gov/schools/ read-state-school-environmental-health-guidelines). Commit to engaging local school districts, child care providers, and others to identify mitigation measures.

Response

Refer to response to Comment 104.

Comment 106

U.S. Environmental Protection Agency

3) Include Beattie Middle School, Highland Grove Elementary, Arroyo Verde Elementary, and Citrus Valley High School on Figure 4.1-1 Sensitive Receptor Map. Update sensitive receptor information in Chapter 4 (p. 4.1-17).

Response

DEIS/SEIR Figure 4.1-1, Sensitive Receptor Map, has been updated to show schools near the Plan Area.

Comment 107

U.S. Environmental Protection Agency

Consultation and Coordination with Tribal Governments The DEIS states that the USFWS and the Conservation District separately consulted with tribes in 2015 and 2017, respectively. The Conservation District also established a Memorandum of Agreement between itself and the San Manuel Band of Serrano Mission Indians for traditional gathering and management of culturally important plants on the HCP Preserve (p. 1.0-13).

Response

Thank you for your comment.

Comment 108

U.S. Environmental Protection Agency

Recommendations for the FEIS: 1) Provide an update on consultation between the USFWS and tribal governments. Discuss issues that were raised, how those issues were addressed, and how impacts to tribal or cultural resources would be avoided or mitigated, consistent with Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, Section 106 of the National Historic Preservation Act, and Executive Order 13007, Indian Sacred Sites.

Response

Refer to DEIS/SEIR Appendix E, AB 52, summary of outreach and consultation with tribal governments regarding the Wash Plan. In addition, the San Bernardino Valley Water Conservation District holds a Memorandum of Agreement with the San Manuel Band of Mission Indians for collection activities on District lands, which was considered during development of the Wash Plan conservation strategy. The District and representatives from San Manuel met on several occasions to discuss the Wash Plan HCP and, based on requests from the Band, notification for herbicide use, preservation of a tobacco tree area, a commitment to coordinate during Wash Plan implementation were added to the MOU and/or Wash Plan as appropriate (e.g. Wash Plan Table 5-4, Avoidance and Minimization Measures, Traditional Gathering by Native American Tribes; Wash Plan Section 5.2.2). On January 15, 2020, the District met with representatives from San Manuel to review inclusion of these requests into the Draft Final Wash Plan HCP; tribal representatives indicated that revisions to address their requests were acceptable. No other tribal governments requested additional meetings or follow up after the 2015 notification letter from U.S. Fish and Wildlife Service or the 2017 notification letter from the Conservation District. No comments on the DEIS/SEIR or Draft Final Wash Plan HCP were received from tribal governments.

Comment 109

U.S. Environmental Protection Agency

2) Describe the difference between the Conservation District and the USFWS' consultations and how the tribes were identified for each.

Response

Notification of the project was provided to San Manuel Band of Mission Indians, Gabrieleno Band of Mission Indians - Kizh Nation, Morongo Band of Mission Indians, and Soboba Band of Luiseno Indians, with coordinated AB-52/Section 106 meetings held interested tribal governments representatives. DEIS/SEIR Appendix E has been revised to list all tribal governments who were notified of the Wash Plan HCP and associated projects.

Comment 110

U.S. Environmental Protection Agency

3) Include the tribes in the distribution list for the FEIS and Record of Decision.

Response

Tribes were confirmed to be included in FEIS distribution list.

Comment 111

U.S. Environmental Protection Agency

Ensure to consistency between the information provided and corresponding determinations.

Response

DEIS/SEIR and Wash Plan have been updated as noted in other response to comments for correctness and/or clarity where needed.

Comment 112

U.S. Environmental Protection Agency

Provide estimated timelines for when major covered activities would occur during the HCP term.

Response

The Covered Activities are expected to occur within the 30-year permit timeframe following issuance of the Wash Plan HCP Incidental Take Permit under which they are covered (e.g. San Bernardino Valley Water Conservation District, San Bernardino County Flood Control District). Covered Activity CRM.01, Aggregate Mining, occurs in phases tied to conservation thresholds (DEIS/SEIR Tables 2.0-4 and 4.2-1). Conservation and management will occur ahead of impacts through the Jump Start and Stay-ahead Phasing requirements (Wash Plan HCP Sections 6.2.1 and 7.1.1). All Covered Activities will occur after issuance of a project-specific Certificate of Inclusion, including associated requirements such as funding (Wash Plan HCP Section 6.3.1).

Comment 113

U.S. Environmental Protection Agency

Ensure the most current data available in analyzing impacts.

Response

DEIS/SEIR and Wash Plan have been updated as noted in other response to comments for to utilize most current data available. For example, mobile emissions for air quality were updated using EMFAC 2017 data.

Comment 114

U.S. Environmental Protection Agency

Include the aquatic resources plan referenced on page 2.0-2.

Response

The reference to the aquatic resources plan on DEIS/SEIR Page 2.0-2 has been removed. Refer to General Response, Additional Permitting/Scope of EIS/EIR.

Comment 115

U.S. Environmental Protection Agency

Provide the reference list.

Response

Section 6.0, References, has been added to the DEIS/SEIR.

Comment 116

U.S. Environmental Protection Agency

Include a map with all known mining operations, as was done in Figure 4.10.2 of the 2008 EIR.

Response

Existing and future mining operations within the Wash Plan area are shown in the Figures 1.0-6, 1.0-7, and 2.0-1, as well as others. Limitation on length of of EIR/EIS Documents necessitates references to non-critical information. No new significant mining operations have been added in the intervening eleven years.

Comment 117

U.S. Environmental Protection Agency

Ensure the most up-to-date data is used in the environmental justice analysis. We note the most current ACS data is from 2013-2017, but the DEIS uses 2009-2103. EnviroScreen is a resource

that may make updating ACS data easier. Please let me know if you or your staff has any questions.

Response

ACS data referenced in DEIS/SEIR Section 3.6.3.1 have been updated to utilize 2014-2018 estimates.

Comment 118

U.S. Environmental Protection Agency

As a minority population refers to individuals who list their racial status as a race other than white, consider adding a column to Tables 3.6-2 and 3.6-3 (p. 3.6-3) to document the total minority populations in each jurisdiction.

Response

DEIS/SEIR Tables 3.6-2 and 3.6-3 have been updated to include a total minority percentage.

Comment 119

U.S. Environmental Protection Agency

Correct the poverty threshold to the 2019 level of $25,750. Consider that poverty and low income can be measured in various ways, and the ACS does not account for California's housing costs or other critical family expenses and resources.

Response

DEIS/SEIR has been updated to reflect the 2019 poverty threshold.

Comment 120

U.S. Environmental Protection Agency

Include sulfur oxide (SOx) emissions in Table 3.1-2 and Table 4.1-2. Add a row totaling each emission. Include state and federal averaging times for each pollutant.

Response

These tables are sourced from the Final EIR (SCh No. 2004051023) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan. Emissions rates for SOx associated with the Wash Plan were very low (DEIS/SEIR Table 4.1-4). SOx was also analyzed as part of the General Conformity Determination Assessment included in Appendix C.1.4.

Comment 121

U.S. Environmental Protection Agency

Include NAAQS and State AAQS thresholds and total mine emissions in Table 4.1-4.

Response

Federal de minimus thresholds for emissions were added to DEIS/SEIR Table 4.1-4. NAAQS and State AAQS standards are included in DEIS/SEIR Table 3.1-1.

Comment 122

U.S. Environmental Protection Agency

Create a new table (combining Tables 3.1-2 and 4.1-4) to capture total aggregate mining emissions and exceedances for NOX , PM2.5, and PM10. Include state and federal averaging times for each pollutant.

Response

DEIS/SEIR Table 3.1-2 inclueds existing Wash Plan area emissions.DEIS/SEIR Table 4.1-4 was updated with EMFAC 2017 data for mobile sources and includes Federal De Minimus thresholds. DEIS/SEIR Table 4.1-5 was added as part of the General Conformity Determination Assessment. DEIS/SEIR Table 3.3-1 includes state and federal averaging times for each pollutant. See response to Comment 75.

Comment 123

U.S. Environmental Protection Agency

Repeat of paragraphs on p. 4.3-10.

Response

We were unable to find a repeat of paragraphs on this page.

Comment 124

U.S. Environmental Protection Agency

P. 4.3-9 has different AFY numbers than Table 3.3-7 in paragraph 1 of Aggregate Mining.

Response

We were unable to locate DEIS/SEIR Table 3.3-7. DEIS/SEIR Table 3.3-5, Existing Cemex and Robertson's Operations Water Use, is consistent with paragraph three under Aggregate Mining on DEIS/SEIR Page 4.3-9, which discusses current water use. Paragraph one under Aggregate Mining outlines the approximate water use based on the Mine and Reclamation Plans for both Cemex and Robertson's.

Comment 125

Chuck Jojola

We are interested in gold panning activities within the Wash Plan area (map attached).

Response

Regarding gold panning within the Wash, San Bernardino County Flood Control District owns the majority of the area of interest shown in the map. Contact information Flood is available at http://cms.sbcounty.gov/dpw/FloodControl.aspx.

Comment 126

Federal Aviation Administration

The Federal Aviation Administration (FAA) has reviewed the Proposed Upper Santa Ana River Wash Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (EIS); San Bernardino County, California. The U.S. Fish and Wildlife Service (USFWS) is proposing issue incidental take permits for the federally endangered San Bernardino kangaroo rat (Dipodomys merriami parvus, SBKR), Santa Ana River woolly-star (Eriastrum densifolium ssp. sanctorum, woolly-star), slender-horned spineflower (Dodecahema leptoceras, spineflower); the threatened coastal California gnatcatcher (Polioptila californica, gnatcatcher); and the cactus wren (Campylorhynchus brunneicappilis) consistent with the HCP. The HCP covered activities include construction and/or operation and maintenance of land or facilities associated with the following: Aggregate mining; Water conservation; Wells and water infrastructure; Transportation; Flood Control; Trails; Habitat Enhancement; and Agriculture. These activities would include land adjacent to the boundaries of Redlands Municipal (REI) and San Bernardino International (SBD) Airports.

Response

Thank you for your comment.

Comment 127

Federal Aviation Administration

A significant part of the FAA mission is to ensure a safe and efficient national airport system. The FAA does this is by establishing standards and guidance including Advisory Circular (AC) 150/5200-33 Hazardous Wildlife Attractants On or Near Airports. This AC provides guidance on land uses that have the potential to attract hazardous wildlife on or near public-use airports like REI and SBD. These requirements are important for all airports, but the Federal government has a particular duty to help protect the safety of those airports that are available for public use. There are even more stringent requirements for airports that serve certain levels of scheduled commercial service. The FAA certificates these airports (including San Bernardino International) under 14 CFR Part 139.

Response

Thank you for your comment.

Comment 128

Federal Aviation Administration

Wildlife in or near the airport environment is a safety hazard to aircraft due to the possibility of wildlife/aircraft strikes. Striking even a single bird can cause aircraft or engine damage. Striking multiple birds, such as a flock, can cause major aircraft damage and risk to human life. Wildlife strikes can and do occur with great frequency, and have caused hundreds of millions of dollars in damage and have resulted in fatalities on more than one occasion.

Response

Thank you for your comment.

Comment 129

Federal Aviation Administration

The FAA (2019) Wildlife Strikes to Civil Aircraft in the United States 1990-2018 report States that: "Aircraft collisions with birds and other wildlife (wildlife strikes) have become an increasing concern for aviation safety in recent years. Factors that contribute to this increasing threat are increasing populations of large birds and increased air traffic by quieter, turbofan-powered aircraft. Globally, wildlife strikes killed more than 282 people and destroyed over 263 aircraft from 1988-2018. The number of strikes annually reported to the Federal Aviation Administration (FAA) increased 8.7-fold from 1,850 in 1990 to a record 16,020 in 2018. The 2018 total was an increase of 1,356 strikes (9 percent) compared to the 14,664 strikes reported in 2017. For 1990-2018, 214,048 strikes were reported (209,950 in USA and 4,098 strikes by US-registered aircraft in foreign countries). In 2018, birds were involved in 94.7 percent of the reported strikes, bats in 3.2 percent, terrestrial mammals in 1.8 percent, and reptiles in 0.3 percent. For commercial and GA aircraft, 71 and 72 percent of bird strikes, respectively, occurred at or below 500 feet above ground level (AGL). Above 500 feet AGL, the number of strikes declined by 34 percent for each 1,000-foot gain in height for commercial aircraft, and by 44 percent for GA aircraft. Strikes occurring above 500 feet were more likely to cause damage than strikes at or below 500 feet. "A full copy of this report can be found at https://www.faa.gov/airports/airport safety/wildlife/media/Wildlife-Strike-Report-1990-2018.pdf. Other resources on wildlife strikes can be found on the FAA website https://www.faa.gov/airports/airport safety/wildlife/resources.

Response

Thank you for your comment.

Comment 130

Federal Aviation Administration

In 2003, a Memorandum of Agreement (MOA) was signed between the FAA and several federal agencies, including the USFWS (attached). In this agreement, the signatory agencies agreed to "diligently consider the siting criteria and land use practice recommendations stated in FAA Advisory Circular (AC) 150/5200-33, Hazardous Wildlife Attractants On or Near Airports (attached).

Response

Thank you for your comment.

Comment 131

Federal Aviation Administration

Airport sponsors have made legal commitments ("assurances") to operate those airports in accordance with FAA standards, regulations and orders, by having accepted either Federal funding through the Airport Improvement Program (AlP) and/or by accepting land and property through the Surplus Property Act. These assurances are attached to and become part of the formal legally binding grant agreement that every airport sponsor signs when accepting AlP grants. FAA Order 5190.6B covers the grant assurances an airport sponsor shall comply with when receiving a grant from the FAA. The following grant assurances could be impacted for the City of Redlands (sponsor of REI) and City Highland (as a member of the San Bernardino Airport Authority, sponsor of SBD) with the implementation of this HCP.

Response

Thank you for your comment.

Comment 132

Federal Aviation Administration

Grant Assurance 20 (Hazard Removal and Mitigation) requires airport sponsors to "take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of :future airport hazards." This includes wildlife hazards. "Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes. As such, the airport sponsor must take appropriate action to mitigate those hazards."

Response

Thank you for your comment.

Comment 133

Federal Aviation Administration

Grant Assurance 21 (Compatible Land) requires airport sponsors "to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft." PerFAA Order 5190_6b, Section 21.6.f(6). Incompatible Land Uses include, "Introducing a wildlife attractant or failure to take adequate steps to mitigate hazardous wildlife at the airport can also result in an incompatible land use. Incompatible land uses can include wastewater ponds, municipal flood control channels and drainage basins, sanitary landfills, solid waste transfer stations, electrical power substations, water storage tanks, golf courses, and other bird attractants."

Response

Thank you for your comment.

Comment 134

Federal Aviation Administration

While certain threatened or endangered species may not pose a direct threat to aviation safety because of their small size, their presence on or near the airport frequently attracts larger predatory animals to the vicinity, the presence of these predators, such as coyotes or raptors, poses a strike risk to aircraft taking off or landing. Airport operators have a responsibility to deter wildlife from the airport environment, using bot passive (e.g. fencing) and active (e.g. hazing) measures to reduce wildlife attractants. In short, an airport environment is specifically designed to deter wildlife and will seldom be an appropriate refuge for threatened or endangered species.

Response

Thank you for your comment.

Comment 135

Federal Aviation Administration

Based on the information, references, and MOA provided above the USFWS should reevaluate the following sections: Land-use needs to consider FAA AC 150/5200-33B guidance on land uses and separation criteria for potential wildlife hazard attractants. Non-compatible land uses near the airport includes natural resources, natural areas and wetlands.

Response

FEIS/FSEIR Section 4.5.1.2 has been revised to include the following: Federal Aviation Administration Advisory Circular No. 150/5200-33B provides guidance on land uses and separation criteria from airports for potential wildlife hazard attractants such as water management facilities and wetlands. The Wash Plan HCP Preserve will remain in the existing undeveloped condition. No change is proposed to the historic condition which is compatible with airport operations.

The Wash Plan HCP Preserve does not include creation or restoration of wetlands as defined in FAA Advisory Circular 150/5200-33B, nor are riparian/aquatic vegetation types conserved within the Preserve. In addition, no mitigation is proposed on airport lands as part of the Wash Plan. Proposed Projects relating to water management are sited as far as possible from airport operations within the appropriate geomorphology and are for ground water recharge purposes only. Recharge operations are dependent upon precipitation and/or other water availability, with significant dry periods during typical years.

Approximately 115 acres of native vegetation in the Plan Area are within the San Bernardino International Airport 5,000 foot Airport Influence Zone and 449 acres are within San Bernardino International Airport 10,000 foot Airport Influence Zone. The native habitat areas include the Santa Ana River and City Creek.

The City of Redlands is considering an expansion of Airport facilities. We have included the proposed expansion area in our discussion of the Airport Influence areas. Approximately 1,183 acres of native vegetation in the Plan Area are within the Redlands Municipal Airport 5,000 foot Airport Influence Zone. There are an additional 231 acres of native vegetation within this zone outside of the Plan Area. Approximately 2,937 acres are within the Redlands Municipal Airport 10,000 foot Airport Influence Zone. There are an additional 663 acres within this zone outside of the Plan Area. The native habitat areas include the Santa Ana River and Mill Creek.

Operation and maintenance of the Covered Activities will result in the development of 135 and 255 acres of native vegetation the 5,000, and 10,000 -foot Redlands Municipal Airport Zones of Influence respectively. These areas will not provide habitat for wildlife after development of the Covered Activities.

See also responses 145 and 152.

Comment 136

Federal Aviation Administration

Aviation hazards - need to include wildlife hazards to aviation. There is a potential to increase aviation hazards with the implementation of the HCP.

Response

DEIS/SEIR Section 3.11.2.1 has been revised to include the following: Federal Aviation Administration Advisory Circular No. 150/5200-33B (AC) provides guidance on land uses and separation criteria from airports for potential wildlife hazard attractants. For example, the AC recommends a minimum separation distance of 5,000 feet from airports serving piston-powered aircraft, 10,000 for airports serving turbine-powered aircraft, and 5 statute miles from approach, departure airspace for all airports for the following: waste disposal operations, water management facilities, wetlands, dredge spoil containment areas, agricultural activities, golf courses and landscaping. The AC incorporates by reference the Memorandum of Agreement between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes (MOA). The MOA encourages local coordination between federal resource agencies to address these issues in the planning process, including those related to conservation/mitigation habitats or other land uses that could attract hazardous wildlife to airports or nearby areas. The MOA notes that federal resource agencies may approve exceptions to the siting criteria for habitats that provide unique ecological functions or values (e.g. critical habitat for federally-listed endangered or threatened species, ground water recharge.

There are approximately 2,176 acres of undeveloped native habitat which support a variety of wildlife species in the Plan Area. There are no large wetlands or notable resident flocks of large or medium sized birds supported by the undeveloped habitat. Of the common species, coyote (*Canis latrans*) is most likely to present a hazard on a runway or taxiway. The Conservation District operates approximately 69 acres of groundwater recharge basins in the north east corner of the Plan Area. While the basins are opportunistically visited by small numbers of water fowl, basin maintenance practices prevent the development of vegetation which would foster use of the basins by water fowl. In addition, because the basins are only seasonally ponded, they do not provide the conditions necessary to provide food or nesting habitat for waterfowl.

DEIS/SEIR Section 4.11.1.2 has been revised to include the following: The Federal Aviation Administration Advisory Circular No. 150/5200-33B (AC) guidance on land uses and separation criteria from airports for potential wildlife hazard attractants was utilized for analysis of the Plan HCP. The Plan Area includes natural lands to be conserved in perpetuity for habitat values; however, these will remain in their existing undeveloped condition, thus no change is proposed which is incompatible with airport operations. The Wash Plan HCP Preserve does not include creation or restoration of wetlands as defined in FAA Advisory Circular 150/5200-33B, nor are riparian/aquatic vegetation types conserved within the Preserve. In addition, no mitigation is proposed on airport lands as part of the Wash Plan. Proposed Projects relating to water management are sited as far as possible from airport operations within the appropriate geomorphology and are for ground water recharge purposes only. The presence of surface water in the proposed ground water recharge basins is dependent upon precipitation and/or other State water availability. The basins are subject to lengthy dry periods during typical years. Basin maintenance requires the removal of surface material and any vegetation from the basins each year. This prevents the development of food resources and vegetation that would foster use by waterfowl. Implementation of the Covered Activities will result in the development of 135 and 255 acres of native vegetation the 5,000, and 10,000 -foot Redlands Municipal Airport Zones of

Influence respectively. These areas will not support wildlife after the development of the Covered Activities.

See also responses 145 and 152.

Comment 137

Federal Aviation Administration

The FAA strongly supports efforts to protect threatened and endangered species, as a matter of principle and consistent with the Endangered Species Act of 1973. We appreciate your cooperation with the FAA on the protection of threatened and endangered species, and your consideration of these critical issues as we continue to work together to achieve these goals while also protecting the traveling public and our critical national transportation system.

Response

We thank you for your comments and support.

Comment 138

MacCleod, B; Kelley, A

We would like to comment on the Upper Santa Ana River Wash Plan. We have concerns about the exact usage for the acreage designated as "conserved". We are concerned about duplicative mitigation areas which are already preserved as part of the Seven Oaks project.

Response

Proposed HCP Preserve lands have not been previously utilized for mitigation; however, they are adjacent to Existing Mitigation Lands for projects such as Seven Oaks Dam (Wash Plan Figure 1-2, Section 1.2.2).

Comment 139

MacCleod, B; Kelley, A

According to the interview with Betsy Miller, the land resources manager, SBVWCD, in the January 17th Redlands Community Newspaper, and her presentation on the 9th at the SBVWCD office, she stated that the wash plan has a comprehensive preserve program. "There are 778 acres set aside in new conservation land and over 880 acres managed by 'public owner's? There are also an additional 600 acres owned by San Bernardino County Flood Control, for future 'preservation' and 750 acres of existing preserve" and we wonder who will be in control of this patch work of ownership. We are concerned that part of the expansion of the water recharge basin will destroy over 40 acres of intact Upland Woodland Holly-leafed Cherry that harbors California Legless Lizard, Coast Horned Lizard, and Coastal Cactus Wren. We also don't know what the "public owners" intentions are for their future management of the 880 acres.

Response

Refer to response to Comment 92 regarding coordination of land management within the Upper Santa Ana River Wash. Details of Covered Activity impacts are described in Wash Plan Chapter 2, Table 2-1, and analyzed in DEIS/SEIR Chapter 4. Refer to Wash Plan Chapter 5 for details on land management requirements within the HCP Preserve.

Comment 140

MacCleod, B; Kelley, A

The 600 acres for "future preservation" owned by the county flood control in the wash plan should be used as mitigation for the city of Yucaipa/SBC's flood control Wilson Creek project that contains the 2nd highest population of Parry's Spineflower and the largest intact Alluvial Fan Sage Scrub habitat through out the east valley. The Santa Ana River Wooly Star Mainstem habitat area, south of the river, east of Boulder needs to be restored where 75 acres was bulldozed by a Redlands land owner. SBCWCD already has a $10 million endowment for monitoring and management activities for the wash plan. It should not be used as a mitigation bank.

Response

Utilization of the Future SBCFCD Mitigation Area is at the discretion of San Bernardino County Flood Control District and subject to approval by appropriate regulatory agencies. The Wash Plan requires recordation of conservation easements on District Conserved Lands; thus, those lands may not be utilized as a mitigation bank for other projects (Wash Plan Sections 6.7 and 7.1.1).

Comment 141

MacCleod, B; Kelley, A

We disagree with the label of "neutral land " on the borrow pit site because it is already classified as mitigation for the Seven Oaks dam construction and is not conserved in this wash plan.

Response

The borrow pit was permanently impacted during construction of Seven Oaks Dam with mitigation for impacts occurring in the Woolly Star Preserve Area Biological (refer to Biological Opinions 1-6-88-F-6 and 1-6-98-F-21). Thus, the site does not currently support natural habitat values and is not proposed for conservation in the Wash Plan.

Comment 142

MacCleod, B; Kelley, A

The local congressmen, Aguilar and Cook, arranged to 'transfer' BLM public land, without public comment, for aggregate mining use. This action did not include any mitigation for this

change in land ownership. When asked about land swaps at the Jan. 17, we were told there had been no" land swaps", which was technically true but not done under the HCP plan so they could deny it. We would like to see additional mitigation land set aside for this to be honest about the congressional obfuscation.

Response

The BLM and San Bernardino Valley Water Conservation District land exchange was authorized on March 12, 2019, under the Santa Ana River Wash Plan Land Exchange Act. For additional details on the exchange, please see Wash Plan Pages ES-4, ES-11, ES-12, ES-13, 1.4, and Sections 1.2.6 and 6.2.1, and Figure 1.0-7 in the DEIS/SEIR.

Comment 143

MacCleod, B; Kelley, A

We disagree with SBVWC statement that the mining land use was reduced by 30%. Was it reduced by 30% from the time when their plan was to mine most of the wash? We think it looks like an expansion from what they are currently using, an expansion of 401.5 acres without mitigation. They used to have to mitigate for all expansions of mining, but under the HCP they don't have to because they are seeking a biological opinion and incidental take permit under the fish and wildlife service and signing a Record of Decision.

Response

Covered Activity CRM.01, Aggregate Mining, permanently impacts 400.7 acres (Wash Plan Tables 2-1 and 4-7). Mitigation is achieved through land conservation, restoration, management and dedicated funding in perpetuity required by the Wash Plan (Wash Plan Page ES-10, Tables 4-5 and 4-6, and Chapters 5 and 7.

Comment 144

MacCleod, B; Kelley, A

Your newsletter about the Upper Santa Ana River Wash Habitat Conservation Plan says it consists of relatively rare habitat called Riversidian Alluvial Fan Sage Scrub.In fact it is the rarest habitat in the USA, with over 99% of it being destroyed already. It is incumbent upon us all to save as much as possible and we expect the SBVWCD and partners to do better!

Response

We agree that Riversidean Alluvial Fan Sage Scrub is highly endangered. The Wash Plan conserves, funds and manages 1529.8 acres of Sage Scrub within the Plan Area (Wash Plan Table 5-1, Chapter 7).

Comment 145

City of Redlands

Thank you for the presentation and discussions yesterday at the public meeting hosted at your offices. In response to the information presented as well as the referenced documents, the City of Redlands Municipal Airport (REI) has prepared the below comments expressing our concerns and requests: 1.) Adjust the HCP boundary to REI's northern boundary, see example Figure and Exhibits included below: Figure I-2 -Plan Area Subcomponents; Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan; C) Exhibit 2 - Existing Airport Layout Plan.

Response

Section 2.3.6, Redlands Municipal Airport, has been added to Wash Plan Section 2.3, Projects and Activities Not Covered by the HCP: "The City of Redlands Municipal Airport (REI) lies to the south of the Wash Plan, with approximately 34.86 acres of undeveloped Neutral Lands owned by the City within the Wash Plan boundary. REI is a long-standing local and national asset in FAA's National Plan of Integrated Airport Systems, and airport operations are considered compatible with the Wash Plan. The REI Master Plan and Airport Capital Improvement Plan are not Covered Activities. Adoption of the Wash Plan does not restrict the use, maintenance or future development of REI whether inside or outside the Wash Plan boundary." The Wash Plan recognizes that San Bernardino County Flood Control District owns approximately 150.9 acres of alluvial habitat within the active channel of the Santa Ana River which may be used as mitigation for future projects not identified in or covered by the Wash Plan (Section 1.2.2). Future mitigation proposed for these lands should be reviewed by the FAA and appropriate airport operator(s) per the MOA for compliance with Advisory Circular 150/5200-33B Section 2.4. The location of the Wash Plan boundary is based on requests for inclusion of Covered Activities (e.g. Redl.09) by Wash Plan Task Force member agencies. See Wash Plan Section 1.2.2 for details on Neutral Lands.

Comment 146

City of Redlands

2.) Request approved REI Master Plan, Land Uses and associated Airport Capital Improvement Plan be incorporated as covered projects in the HCP, see Exhibits included below: Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan, Exhibit 2 - Existing Airport Layout Plan

Response

See response to Comment 145.

Comment 147

City of Redlands

3.) Request REI's Existing Air Space Plan be incorporated/recognized in the HCP/EIS, see Exhibit 3 - Existing Air Space Plan.

Response

See response to Comment 145. Refer to DEIS/SEIR Sections 3.5.2.5, 3.11.2, 4.5, 4.5.1.2, and 4.11.1.2 for analysis of potential hazards and land use conflicts related to REI, including a detailed evaluation of the Redlands Municipal Airport Land Use Compatibility Plan.

Comment 148

City of Redlands

4.) Request REI's Approved Land Use Compatibility Plan be incorporated/recognized in the HCP/EIS. See Exhibit 4 - REI Land Use Compatibility Plan.

Response

See response to Comment 145. Refer to DEIS/SEIR Sections 3.5.2.5, 3.11.2, 4.5, 4.5.1.2, and 4.11.1.2 for analysis of potential hazards and land use conflicts related to REI, including a detailed evaluation of the Redlands Municipal Airport Land Use Compatibility Plan.

Comment 149

City of Redlands

5.) Request REI's Existing Noise Plan, Fixed Wing and Helicopter Patterns be incorporated/recognized in the HCP/EIS. See Exhibit 5 - REI Existing Noise Plan, Fixed and Wing and Helicopter Patterns.

Response

See response to Comment 145. Refer to DEIS/SEIR Sections 3.5.2.5, 3.11.2, 4.5, 4.5.1.2, and 4.11.1.2 for analysis of potential hazards and land use conflicts related to REI, including a detailed evaluation of the Redlands Municipal Airport Land Use Compatibility Plan.

Comment 150

City of Redlands

6.) Revise HCP and EIS documents including actions and analysis to address and consider impacts/implications to Exhibits listed and included below: Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan; Exhibit 2 - Existing Airport Layout Plan; Exhibit 3 - Existing Air Space Plan; Exhibit 4 - REI Land Use Compatibility Plan; Exhibit 5 - REI Existing Noise Plan, Fixed and Wing and Helicopter Patterns

Response

See response to Comment 145. Refer to DEIS/SEIR Sections 3.5.2.5, 3.11.2, 4.5, 4.5.1.2, and 4.11.1.2 for analysis of potential hazards and land use conflicts related to REI, including a detailed evaluation of the Redlands Municipal Airport Land Use Compatibility Plan.

Comment 151

City of Redlands

7.) Revise HCP and EIS including actions and analysis to properly recognize, reference and analyze REI airport as a long standing local and national asset in FAA's National Plan of Integrated Airport Systems:
a. FAA Advisory Circular, dated 8/28/2007, AC No. 150/5200-33B.

Response

See response to Comment 145. Refer to DEIS/SEIR Sections 3.5.2.5, 3.11.2, 4.5, 4.5.1.2, and 4.11.1.2 for analysis of potential hazards and land use conflicts related to REI, including a detailed evaluation of the Redlands Municipal Airport Land Use Compatibility Plan.

Comment 152

City of Redlands

i. Mitigation must not inhibit the airport operations to effectively control hazardous wildlife on or near the mitigation sites or effectively maintain other aspects of safe airport operations.

Response

See response to Comment 145. The Wash Plan HCP Preserve (i.e. mitigation lands) do not include creation or restoration of wetlands as defined in FAA Advisory Circular 150/5200-33B, nor are riparian/aquatic vegetation types conserved within the Preserve (Wash Plan Table 4-2). The Wash Plan HCP Preserve will remain undeveloped, thus no change is proposed to the historic condition which is not in conflict with airport operations. In addition, no mitigation is proposed on airport lands as part of the Wash Plan HCP. The MOA Between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes (2003) notes that "development of conservation/mitigation habitats or other land uses that could attract hazardous wildlife to airports or nearby areas" is "of most concern" to achieving the MOA's purpose (Section 1.C). Section 1.F notes that "not all habitat types attract hazardous wildlife" and recommends that "the signatory agencies will diligently consider the siting criteria and land use practice[s]…stated in FAA AC 150/5200-33" (Section 1.H).

Regarding the Wash Plan, five species are listed as "Covered Species":

1) Slender-horned spineflower (*Dodecahema leptoceras*) is a 1-3 inch tall plant that is known to occur within the Wash Plan HCP Preserve.

2) Santa Ana River woolly-star (*Eriastrum densifolium ssp. sanctorum*) a 24-40 in tall plan that is known to occur within the Wash Plan HCP Preserve.

3) Cactus wren (*Campylorhynchus brunneicapillus*) is a 1.65 oz. bird species that is known to occur within the Wash Plan HCP Preserve. This species is normally found in pairs or family groups on established territories (Anderson and Anderson 1957 and 1973 in The Birds of North

America Online), thus they are not expected to form the large flocks noted to cause 97% of reported civilian aircraft-wildlife strikes (MOA Page 2, Background).

4) California gnatcatcher (*Polioptila california californica*) is a less than one ounce bird species that is known to occur within the Wash Plan HCP Preserve. This species is normally found in pairs throughout the year, although foraging groups of up to five individuals were occasionally observed in habitat outside known territories during the non-breeding season (Preston et al. 1998b in The Birds of North America Online), thus they are not expected to form the large flocks noted to cause 97% of reported civilian aircraft-wildlife strikes (MOA Page 2, Background).

5) San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is the smallest kangaroo rat in the United States. Its body is about 3.7 inches long with a long tail, up to 6 inch tail. Individuals are primarily solitary but have overlapping home ranges (Randall 1993), resulting in low population densities across the landscape. The species exhibits nocturnal behavior, foraging from dusk to dawn and sheltering from high daytime temperatures in underground burrows. Given this population density and lack of daytime activity, this species is not anticipated to attract common, large-bodied birds such as red-tailed hawks which are noted to cause 97% of reported civilian aircraft-wildlife strikes (MOA Page 2, Background).

The Wash Plan recognizes that San Bernardino County Flood Control District owns approximately 150.9 acres of alluvial habitat within the active channel of the Santa Ana River which may be used as mitigation for future projects not identified in or covered by the Wash Plan (Section 1.2.2). Future mitigation proposed for these lands should be reviewed by the FAA and appropriate airport operator(s) per the MOA for compliance with Advisory Circular 150/5200-33B Section 2.4.

MOA Section 1.F notes that "exceptions to the…siting criteria…described in Section 2.4b of the AC will be considered because they typically involve habitats that provide unique ecological functions or values (e.g. critical habitat for federally-listed endangered or threatened species, ground water recharge)." The Wash Plan boundary is entirely within designated critical habitat for San Bernardino kangaroo rat (Figure 3-9). Wash Plan Covered Activities CD.01, CD.07, VD.01, and EVWD.04 are related to ground water recharge.

Comment 153

City of Redlands

ii. Mitigation areas must be designed to avoid attracting hazardous wildlife in a manner the meets FAA safety standards.

Response

See response to Comments 135, 136, 145 and 152.

Comment 154

City of Redlands

iii. City of Redlands and FAA will review any proposed and or future onsite mitigation proposals to determine compatibility with safe airport operations.

Response

See response to Comments 135, 136, 145 and 152.

Comment 155

City of Redlands

iv. A wildlife damage management biologist should evaluate any mitigation projects that are needed to protect unique habitat functions and that must be located in the separation criteria in Sections 1-2 through 1-4 of FAA AC 150/5200-33B, before the mitigation is implemented.

Response

See response to Comments 135, 136, 145 and 152.

Comment 156

City of Redlands

v. A Wildlife Hazard Assessment (WHA) should be developed to reduce all wildlife hazards and depending on the WHA findings, the HCP may need a Wildlife Hazard Management Plan.

Response

See response to Comments 135, 136, 145 and 152.

Comment 157

City of Redlands

b. FAA, Memorandum of Agreement between FAA and USFWS and other federal airport air and ground operations, signed 2002.

Response

See response to Comments 136 and 145.

Comment 158

City of Redlands

c. FAA Wildlife Hazard Management at Airports, second edition July 2005.

Response

See response to Comments 135, 136, 145 and 152.

Comment 159

City of Redlands

d. FAA Airport Sponsor Assurances, dated 2014,
https://www.faa.gov/airports/aip/grant_assurances/.

Response

See response to Comments 136, 145, and 152.

Comment 160

City of Redlands

e. FAA CERTALERT dated 11/21/2006 No. 06-07.

Response

See response to Comments 136 and 145.

Comment 161

City of Redlands

f. Exclude REI lands from all HCP actions that would place REI in violation of Assurance 19, 20 and 21, FAA Airport Sponsor Assurances, dated 2014, https://www.faa.gov/airports/aip/grant_assurances/.

Response

See response to Comments 136 and 145.

Comment 162

Save Lytle Creek Wash

"Without adequate mitigation and conservation lands set aside for SBKR in the HCP by SBVWCD and in Lytle Creek by FFWS, the species won't survive anywhere."
Early in 2010, on a walk through of the Lytle Creek Ranch Specific Plan project site under the DEIR comment period, ACOE representative Crystal Huerta took notes to record the major events and discussions that took place between the participants. One entry in Huerta's notes came from a Service representative stating that the project as proposed would trigger a Jeopardy Opinion. Under Karin Cleary-Rose that Jeopardy Opinion seems to have been removed. The developer has not changed the LCRSP project's intent to destroy nearly all of SBKR's habitat and refugia, so why no JO from Karin Cleary-Rose?

Response

Lytle Creek is not a Covered Activity within the Wash Plan nor does it occur within the Wash Plan Boundary, thus issues raised regarding Lytle Creek are outside the purvue of this project. Preservation of San Bernardino kangaroo rat in additional locations throughout their range, such as Lytle Creek, would be complimentary to the Wash Plan HCP. Our project commentary shows no record of quoted remarks referenced here.

Comment 163

Save Lytle Creek Wash

In fact Karin Ceary-Rose, a lead on the SBVWCD's HCP wasn't present to showcase the wash plan on January 9, 2020, and therefore couldn't address that question. Neither was Gary Hund, the USFWS consulting biologist.

Response

Thank you for your comment. Geary Hund has retired from USFWS.

Comment 164

Save Lytle Creek Wash

Although, the HCP addresses SBKR's survival there, without adequate mitigation lands set aside in perpetuity in both areas of concern, SBKR's march toward eventual extinction continues. This is unacceptable.

Response

We agree that Riversidean Alluvial Fan Sage Scrub is highly endangered. The Wash Plan conserves, funds and manages 1529.8 acres of Sage Scrub within the Plan Area (Wash Plan Table 5-1, Chapter 7).

Comment 165

Save Lytle Creek Wash

NEPA and CEQA clearly demonstrate the need to study cumulative impacts of any and all projects that could affect this Wash Plan.

Response

Thank you for your comment.

Comment 166

Save Lytle Creek Wash

The approval of the East Gate project at the former Norton Air Force Base requires no mitigation, however does take 17 acres of critical habitat for California Gnatcatcher and Wooly Star. Up to 100 flights of cargo planes directly over the wash will impact species in the Wash Plan with high intensity sound and potentially bird/aircraft conflict. In addition to this was the proposal at the Wash Plan January 9th meeting by Redlands Airport official to open a helibase on site.

Response

Redevelopment of the former Norton Air Force Base and potential future Redlands Airport improvements are not Covered Activities in the Wash Plan HCP and thus would be analyzed in separate environmental documents. The San Bernardino International Airport Eastgate Building 1 Project EIR (SCH #2018071038) indicates that impacts to biological resources were mitigated to a less than significant level, with no comments received to the contrary (Page 217).

Comment 167

Save Lytle Creek Wash

One of the Wash Plan maps illustrated a continuous line around Lytle Creek, Cajon Creek, and the Santa Ana River project area. In light of the California Department of Fish and Wildlife unanimous decision to accept petition for listing SBKR for state endangered listing in 2019 and the recent NJO issued by the USFWS, the approval of the SBVWCD Wash Plan should be postponed until all these issues are resolved.

Response

Adoption of the Wash Plan will provide conservation, funding and management for 1,622.5 acres of land modeled to support San Bernardino Kangaroo Rat (Wash Plan Table 4-5). The conditions and measures in the Wash Plan HCP were designed to meet the issuance criteria for 2081 permits for all Covered Species (Wash Plan Section 1.3.2; see also Wash Plan Page ES-2 and Section 1.1.1). Refer to response to Comment 6 for additional details of coordination with CDFW on the Wash Plan HCP.

Comment 168

California Pilots Association

The California Pilots Association mission is to Preserve, Protect and Promote and the state's airports. As a statewide volunteer organization, we work tirelessly to maintain the State's airports in the best possible condition.

Response

Thank you for your comment.

Comment 169

California Pilots Association

The California Pilots Association and the San Carlos Airport Pilots Association share the same concerns as the City of Redlands and the Redlands Airport Association (RAA) about the proposed HCP as it relates to the airport. We do not believe the property associated with Redlands Municipal Airport (REI) should be included in the HCP. We are requesting the northern boundary of the HCP be changed to the northern boundary of Redlands Municipal Airport for the same following reasons:

Response

The location of the Wash Plan boundary is based on requests for inclusion of Covered Activities (e.g. Redl.09) by Wash Plan Task Force member agencies, with property to the north of REI designated as Neutral Lands (refer to Wash Plan Section 1.2.2). Thus, adoption of the Wash Plan does not restrict the use, maintenance or future development of REI whether inside or outside the Wash Plan boundary. See response to Comment 145.

Comment 170

California Pilots Association

1) The REI Airport Master Plan and Airport Layout Plan include future improvements on the north side of REI's runway. They also include plans for a runway extension. These proposed plans are well documented with Caltrans Division of Aeronautics and the Federal Aviation Administration. The costs and challenges associated with developing these improvements inside of the proposed HCP area may make them impractical to construct.

Response

See response to Comment 145. Analysis of the Redlands Municipal Airport Land Use Compatibility Plan and the City of Redlands General Plan and Zoning did not determine any project conflicts with these adopted land use plans (DEIS/SEIR Sections 3.5.2.5 and 4.5.1.2).

Comment 171

California Pilots Association

2) The future improvements identified in the REI airport master plan will contribute economic benefit to the airport enterprise fund. Any development limitations created by the proposed HCP boundaries within the airport could reduce any potential development related revenue. This could make the cost of operating the airport an economic burden for the City of Redlands.

Response

See response to Comment 169.

Comment 172

California Pilots Association

We also believe that the creation of the HCP should include the development of an FAA approved Wildlife Hazard Mitigation Plan to mitigate any associated wildlife hazard impacts on aircraft operating at REI.

Response

See responses to Comments 135-136 and 152-158.

Comment 173

Redlands Airport Association

We have reviewed the Draft EIS associated with the Proposed Upper Santa Ana River HCP. We are concerned regarding its impact on Redlands Municipal Airport (REI) and offer the following comments. The HCP boundaries appear to include property within REI. This property belongs to the City of Redlands. We are also aware the City of Redlands does not want this property included in the HCP.

Response

The location of the Wash Plan boundary is based on requests for inclusion of Covered Activities (e.g. Redl.09) by Wash Plan Task Force member agencies, with property to the north of REI designated as Neutral Lands (refer to Wash Plan Section 1.2.2). Thus, adoption of the Wash Plan does not restrict the use, maintenance or future development of REI whether inside or outside the Wash Plan boundary. See response to Comment 145.

Comment 174

Redlands Airport Association

The RAA shares the same concerns as the City of Redlands about the proposed HCP as it relates to the airport. We do not believe the property associated with Redlands Municipal Airport should be included in the HCP. We are requesting the northern boundary of the HCP be changed to the northern boundary of Redlands Municipal Airport for the following reasons.

Response

See response to Comment 145.

Comment 175

Redlands Airport Association

1) The REI Airport Master Plan and Airport Layout Plan include future improvements on the north side of REI's runway. They also include plans for a runway extension. These proposed plans are well documented with Caltrans Division of Aeronautics and the Federal Aviation

Administration. The costs and challenges associated with developing these improvements inside of the proposed HCP area may make them impractical to construct.

Response

See response to Comment 145. Analysis of the Redlands Municipal Airport Land Use Compatibility Plan and the City of Redlands General Plan and Zoning did not determine any project conflicts with these adopted land use plans (DEIS/SEIR Sections 3.5.2.5 and 4.5.1.2).

Comment 176

Redlands Airport Association

2) The future improvements identified in the REI airport master plan will contribute economic benefit to the airport enterprise fund. Any development limitations created by the proposed HCP boundaries within the airport could reduce potential development related revenue. This could make the cost of operating the airport an economic burden for the City of Redlands.

Response

See response to Comment 169.

Comment 177

Redlands Airport Association

REI users have coexisted with the Santa Ana River environment since the airport was founded in 1947. We believe the Santa Ana Wash area to the north of the airport is a great buffer for aircraft noise and overflight. REI users have also had to deal with the wildlife impacts associated with the Santa Ana wash area. We do believe that the creation of the HCP should include the development of an FAA approved Wildlife Hazard Mitigation Plan to mitigate any associated wildlife hazard impacts on aircraft operating at REI.

Response

See responses to Comments 135-136 and 152-158.

Comment 178

Redlands Airport Association

The City of Redlands purchased REI in 1962 from private owners. Since that time, it has grown responsibly to serve the aviation needs of Redlands and the surrounding communities. There are approximately 220 aircraft based at REI. The airport facilitates about 60,000 annual operations from visitors, business and personal travel, recreational flights, flight training activities, air ambulance operations and firefighting activities. The flight training activities at the airport are significant and provide valuable training to the next generation of pilots. The airport is also part of US National Plan of Integrated Airport Systems and will be used to facilitate emergency air

support to the community during civil emergencies. The airport generates about $5 million a year in revenue. There are approximately 50 people employed at the airport and is estimated to support another 1500 jobs. REI's net worth to the community (Land Buildings and Revenue) were recently estimated to be $80,000,000.

Response

Thank you for your comment.

Comment 179

Redlands Airport Association

The RAA believes the economic and societal impacts of the proposed HCP to REI should be thoroughly considered before implementation.

Response

See response to Comment 145. Analysis of the Redlands Municipal Airport Land Use Compatibility Plan and the City of Redlands General Plan and Zoning did not determine any project conflicts with these adopted land use plans (DEIS/SEIR Sections 3.5.2.5 and 4.5.1.2).

Comment 180

Redlands Airport Association

The RAA represents users and friends of Redlands Airport. We are a Chapter of the California Pilots Association, and many of our members are members of the Aircraft Owners and Pilots Association.

Response

Thank you for your comment.

Comment 181

Vulcan Materials Company – Western Division

On behalf of Vulcan Materials Company – Western Division (Vulcan), I have reviewed the draft Environmental Impact Statement/Supplement Environmental Impact Report for the Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan, San Bernardino County, California and have the several comments for your consideration. The comments largely center about the potential impacts to the species covered by the draft HCP – the federal endangered San Bernardino kangaroo rat (SBKR), Santa Ana River woolly star (SARWS), and slender-horned spineflower (SHSF) as well as the threatened coastal California gnatcatcher (CAGN) and State Species of Concern Cactus wren (CAWREN).

Response

Thank you for your comment.

Comment 182

Vulcan Materials Company – Western Division

As you are aware, I have been aiding Vulcan with management of Riversidian alluvial fan sage scrub (RAAFSS) habitat on their Cajon Creek properties since the early 1990s. This effort culminated in the establishment of the Cajon Creek Habitat Conservation Management Area (Conservation Area) in 1996 through a Memorandum of Understanding (MOU). It is acknowledged by the three signatory agencies (i.e., the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers) that the Conservation Area does or has the high potential to provide habitat for the five species covered by the proposed Wash Plan. During the first 20 years of managing the Conservation Area, Vulcan successfully restored over 200 acres of the RAFSS community and continues to undertake RAFSS enhancement/restoration projects on-site. On the twentieth anniversary of the establishment of the Conservation Area, Vulcan undertook a major revision of the management plan that is part of the MOU based on their management experience. The revisions were adopted in the 2017 amendment to the MOU. The amendment added significant new management and monitoring measures to ensure the maintenance of habitat suitable for SBKR and the other forty-four special status species that have been recognized as being present or having a high potential to be present. Because of Vulcan's interest in protecting RAFSS habitat and the species that use it, Vulcan also is sponsoring academic studies on habitat maintenance methodologies and has provided other researchers access to the Conservation Area to aid in undertaking their studies. These efforts has lead to the new information being published regarding RAFSS habitat and management needs for SBKR. The following comments are provided for your consideration.

Response

Wash Plan Permittees appreciate Vulcan's 20 years of experience in SBKR management and look forward to coordination and collaboration during Wash Plan implementation.

Comment 183

Vulcan Materials Company – Western Division

It would be helpful if consistent numbers regarding the amount of impacts and conservation were used throughout the document or the differences explained. Based on the initial description in the document, it appears that the seven project proponents would be allowed to permanently impact approximately 1,050 acres of habitat used by the covered species for proposed aggregate mining, water conservation, water infrastructure, transportation, flood control, and trail projects within the 4,892.2-acre Plan Area. Table 1 has been prepared based on the information on pages 2.0-3 to 2.0-6 of the document. However, in Section 4.0, the numbers associated with permanent impacts are much smaller. Table 4.4-1 provides that the permanent impacts total 615.7 acres and the temporary impacts total 216.6 acres in the Plan Area. Table 4.4.-2 where there is an analysis of impacts on the covered species also provides different numbers than that based on the project description in Section 2. Based on the two tables, it can be assumed that the impacts by species may have been caused by the double counting of some lands because the five species can be

found in similar habitats. Nevertheless, it would be helpful if numbers in the document were either consistent or an explanation provided.

Response

As described in the comment, the discrepancies in impact numbers relate to the overlap in species' habitat areas on a finite portion of land. For example, Aggregate Mining impacts a total of 401.5 acres, of which 289.9 acres are identified as habitat for California gnatcatcher and 380.8 acres are identified as habitat for San Bernardino kangaroo rat, including approximately 286 acres acres of habitat that are identified as habitat for both species. DEIS/SEIR Section 2.3 has been updated to include the following: "Acreages of species impacts may sum to a number greater than the total impact acreage due to overlap among species habitats (see Figures 3.4-3-3.4-7)."

Comment 184

Vulcan Materials Company – Western Division

This problem is again present in the discussions describing the proposed offsets for these losses. In the description of alternatives, the document states that to offset this loss, the project proponents would implement both avoidance and minimization measures as well as conserve and manage approximately 1,569.1 acres. Table 2.0-2 in the document provides a summary of conserved natural communities. However, the text in the document states that an “additional 156.3 acres of non-native grasslands” (NNG) will be conserved. The table from the document is provided below, however NNG is not included as a community in this table. It is unclear if the NNG being conserved is a component of one or more natural communities and if it is included in this table. This is further complicated because in the Section 4 of the document (page 4.4-4), the document states that the proponents would provide for the permanent conservation of 963.3 acres along with 696.2 acres of District Managed Lands. These two numbers add up to the 1,659.5 acres which is different from either the 1569.1 or the 1,735.4, if the NNG is added to the numbers in the above table.

Response

DEIS/SEIR Table 2.0-2, Summary of Conserved Natural Communities, does not include non-native grassland because it is not a native plant community conserved to support Covered Species. The total acreage of NNG within the Plan Area is 156.3 (Wash Plan HCP Table 3-3); thus the DEIS/SEIR Page 2.0-7 has been corrected to state that 28.4 acres of NNG will be conserved within the HCP Preserve (Wash Plan HCP Table 4-2). DEIS/SEIR Table 2.0-2, as well as other references within the DEIS/SEIR, have been corrected to state that the Wash Plan would conserve and manage approximately 1,529.9 acres to correct the inadvertent double-counting of the 39.3 acres of chamise chaparral. The HCP Preserve is 1659.6 acres in size, including 1529.9 acres of sage scrub habitat, 28.4 acres of non-native vegetation types, and 101.3 acres of existing disturbed/developed lands (refer to DEIS/SEIR Table 4.4-1 and Wash Plan Table 4-2).

Comment 185

Vulcan Materials Company – Western Division

The primary management approach defined in the document is as follows: 1) 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. 2) 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.

Response

DEIS/SEIR has been accurately quoted.

Comment 186

Vulcan Materials Company – Western Division

The proposed management activities are said to include the following: 1) Habitat enhancement, restoration, and creation. 2) Operational changes to enhance in-stream habitat. 3) Control of invasive plant species (e.g., mowing, grazing, herbicide application, prescribed fire and hand clearing). 4) Relocation of Covered Species from impact sites to the HCP Preserve (e.g., in cases where impacts are unavoidable and relocation has a high likelihood of success). 5) Vegetation thinning using livestock grazing, manual labor, herbicide application, or prescribed burning. 6) Monitoring activities in the Plan Area and mitigation areas. 7) Species surveys and research. 8) Fire management including prescribed burning, mowing, and establishment of temporary fuel breaks.

Response

DEIS/SEIR has been accurately quoted.

Comment 187

Vulcan Materials Company – Western Division

It would have been helpful if more information regarding management from the Habitat Conservation Plan had been included because there appears to be inconsistencies between the habitat requirements on the species and the management plan. In the petition to the California Fish and Wildlife Commission to list SBKR as endangered, the following was stated: “The Wash Plan HCP, which also incorporates some BLM properties, is expected to be completed in late 2019. As proposed by the draft Wash Plan HCP, 570.9 acres of permanent impacts and 109.1 acres of temporary impacts to SBKR would be offset by conservation of 1,622.5 acres of conserved and managed lands. However, over half (54%) of the total Wash Plan HCP Preserve SBKR conservation lands are considered low or very low suitability for SBKR, and only 18% of the conservation lands are considered high suitability for SBKR (ICF 2018). While the plan impacts relatively little highly suitable habitat, and seeks to balance interests, it nevertheless

would permit the continued loss of SBKR habitat and relies on unproven management measures." From Petition at page 34.

Response

Additional details on proposed management are available in Wash Plan HCP Chapter 5. The Wash Plan HCP is incorporated by reference in the DEIS/SEIR. The petition referenced in the comment accurately summarizes information included in Wash Plan HCP Table 4-5.

Comment 188

Vulcan Materials Company – Western Division

One of the biggest problems appears to be the lack of hydrology to maintain habitat for three of the covered species (i.e., SHSF, SARWS, and SBKR) and how this will be addressed. For example, the section on SHSF states that the approximately 100 acres of the site would be managed for SHSF. The document also mentions that sheet flows of water during storm events is important to maintaining SHSF habitat. However, hasn't this entire area been shut-off from such flows with the construction of Seven Oaks Dam, even though the approval for that project required that such releases be made?

Response

While large-scale flooding and hydrogeomorphic processes are not likely to occur following the construction of Seven Oaks Dam, sheet flow from rainfall during storm events is anticipated within the Wash. Wash Plan HCP Section 5.1.2 includes Slender-horned Spineflower Species Objectives, including permanent conservation and management of 100 acres of spineflower habitat in a manner that preserves ecological processes. In addition, development of a science-based Spineflower Restoration Program is required to address issues unique to the maintenance and enhancement of existing spineflower populations, including adaptive management actions necessary to replicate natural processes where necessary. Development of the Spineflower Restoration Program will include input from the Spineflower Working Group. Failure of the Slender-horned Spineflower Enhancement and Relocation Program is included as a Changed Circumstance (Wash Plan Section 6.4.1).

Comment 189

Vulcan Materials Company – Western Division

In addition, one of the major parcels to be managed for this species appears to be further isolated from potential scour flows because it is located between on-going and future mining operations. Further explanation regarding how this area will be preserved and managed is needed. Similar issues arise with the management of the SARWS and SBKR.

Response

See responses to Comments 7 and 187.

Comment 190

Vulcan Materials Company – Western Division

Another problem is the document may be overly optimistic in the amount of habitat that can be managed for each of the species. For example, the document states that the plan would impact approximately 424 acres of CAGN habitat and conserve/manage approximately 1,292 acres of habitat for the benefit of this species. The only way that this is feasible is if habitat for SARWS and SBKR is included in the CAGN conservation total. Since these three species can be found using the same plant community, this may appear to be reasonable. However, this could be considered misleading because CAGN tends to prefer habitat that is much denser than that preferred by SBKR and SARWS.

Response

See response to Comment 183. Species-Based Management (Wash Plan HCP Pages 5-20 - 5-22) discusses when co-management of species is appropriate. Coastal California Gnatcatcher Management (Wash Plan HCP Pages 5-21 - 5-22) notes that the majority of the habitat in the Plan Area does not contain sufficient shrub cover and structure to support nesting and wintering gnatcatchers.... Suitable habitat areas within the HCP Preserve will be managed to benefit the gnatcather, primarily through measures to maintain the suitability of nesting habitat and adjacent wintering and foraging habitat. Co-management of gnatcatcher habitat will also occur as part of non-native controls and related measures for SBKR and woolly-star.

Comment 191

Vulcan Materials Company – Western Division

As to the management of SBKR, the proposed plan does not appear to reflect the latest recommendations for managing this species. Recent studies have refined the preferred habitat structure for this species. A recent habitat use model developed by the San Diego Zoo Institute for Conservation Research (ICR) indicates that the SBKR generally is confined to areas with low shrub cover (less than 20 percent), low annual grass cover (less than 30 percent), appropriate soil openness and texture (greater than 50 percent bare ground with exposed sand with a gravel component greater than 25 percent), and low cover of woody debris (6-13 percent) (Shier *et al.* 2019). These numbers have been further refined by Chock et al (2020).

Response

The Wash Plan HCP includes the results of studies available during document development. New data will be incorporated into management actions as required by Wash Plan Section 5.3.2, Adaptive Management, which states that adjustments to/evaluation of methods should occur "When new information from the literature or other relevant research indicates that a feasible and superior alternative method for achieving biological goals and objectives exists.

Comment 192

Vulcan Materials Company – Western Division

In addition, recent SBKR genetic studies have found that the three remaining SBKR populations (i.e., the Santa Ana River, Lytle-Cajon Creek, and San Jacinto River) exhibit low effective population size and are well below the level at which a long-term loss of genetic diversity is expected. This indicates that a genetic management plan that includes translocation and likely captive breeding will be necessary to conserve and recover SBKR. While recent reports also mention that there is little information on translocation success, this could be corrected by adequate monitoring studies. For example, in the previously cited petition to State list SBKR, it was noted that in 2015 and 2016, 366 SBKR were relocated from a site within the Santa Ana River floodplain to the Cajon Conservation Area. The petition notes that "Only 59 SBKR were captured at the receiver site in 2018" and assesses this as a low success rate for the translocation. However, the petition fails to note that the monitoring requirement was only for the translocation site and there was nothing preventing the animals from leaving the site. Debra Shier, who was working on a range-wide genetics study of SBKR, indicated that one of the SBKR ear snip samples that was provided her from the 2017 Cajon Wash trapping survey showed genetic characteristics of animals from the Santa Ana River population of SBKR. This animal was trapped approximately 4,000 feet upstream of the relocation area. At the time of this trapping effort, it was noted that because this individual SBKR was trapped at a randomly placed trapping plot suggested that other animals from the relocation effort may have also moved out of the original site. Therefore, the relocation monitoring study may have been insufficient in geographical scope to adequately monitor the relocation results of the project. Nevertheless, the goal of the two populations interbreeding would have been achieved. It appears that based on these study results, any mitigation for impacts to SBKR should have a twofold approach. The first is to ensure that the size of the population being impacted is retained or increased. The second is that individuals impacted be moved or relocated in one of the other two population centers for this species. The 2020 study by Chock et al explains the importance of the use of these two strategies.

Response

In alignment with Chock, et al. 2020, the Wash Plan provides for permanent conservation and management of SBKR habitat, maintenance of a stable or increasing SBKR population within the HCP Preserve, and prevention/minimization of impacts to SBKR by covered activities, including relocation/translocation where appropriate (Wash Plan Section 5.1.2 [SBKR Objective 1, SBKR Objective 3, SBKR Objective 5, SBKR Objective 6], Table 5-4).

F.3 COMMENT LETTERS

City of
REDLANDS
Incorporated 1888
City of Redlands
35 Cajon Street, Suite 222, Redlands, CA 92373
909-798-7655

FACILITIES & COMMUNITY
SERVICES DEPARTMENT

Chris Boatman
Director

Tim Sullivan
Assistant Director

January 13, 2020

Daniel Cozad, San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Ste. A
Redlands, CA 92373

Proposed Upper Santa Ana River Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (EIS); San Bernardino County, CA
FWS-R8-ES-2019-N111; FXES11140000-189-FF08E00000

Dear Daniel Cozad,

Thank you for the presentation and discussions yesterday at the public meeting hosted at your offices. In response to the information presented as well as the referenced documents, the City of Redlands Municipal Airport (REI) has prepared the below comments expressing our concerns and requests:

1.) Adjust the HCP boundary to REI's northern boundary, see example Figure and Exhibits included below:
   Figure 1-2 – Plan Area Subcomponents
   Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan
   Exhibit 2 - Existing Airport Layout Plan
2.) Request approved REI Master Plan, Land Uses and associated Airport Capital Improvement Plan be incorporated as covered projects in the HCP, see Exhibits included below:
   Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan
   Exhibit 2 - Existing Airport Layout Plan
3.) Request REI's Existing Air Space Plan be incorporated/recognized in the HCP/EIS, see Exhibit included below:
   Exhibit 3 - Existing Air Space Plan
4.) Request REI's Approved Land Use Compatibility Plan be incorporated/recognized in the HCP/EIS.
   Exhibit 4 - REI Land Use Compatibility Plan
5.) Request REI's Existing Noise Plan, Fixed Wing and Helicopter Patterns be incorporated/recognized in the HCP/EIS.
   Exhibit 5 - REI Existing Noise Plan, Fixed and Wing and Helicopter Patterns
6.) Revise HCP and EIS documents including actions and analysis to address and consider impacts/implications to Exhibits listed and included below:
   Exhibit 1 - Existing REI Master Plan and Airport Capital Improvement Plan
   Exhibit 2 - Existing Airport Layout Plan
   Exhibit 3 - Existing Air Space Plan
   Exhibit 4 - REI Land Use Compatibility Plan
   Exhibit 5 - REI Existing Noise Plan, Fixed and Wing and Helicopter Patterns

7.) Revise HCP and EIS including actions and analysis to properly recognize, reference and analyze REI airport as a long standing local and national asset in FAA's National Plan of Integrated Airport Systems:

a. FAA Advisory Circular, dated 8/28/2007, AC No. 150/5200-33B.
    i. Mitigation must not inhibit the airport operations to effectively control hazardous wildlife on or near the mitigation sites or effectively maintain other aspects of safe airport operations
    ii. Mitigation areas must be designed to avoid attracting hazardous wildlife in a manner the meets FAA safety standards
    iii. City of Redlands and FAA will review any proposed and or future onsite mitigation proposals to determine compatibility with safe airport operations.
    iv. A wildlife damage management biologist should evaluate any mitigation projects that are needed to protect unique habitat functions and that must be located in the separation criteria in Sections 1-2 through 1-4 of FAA AC 150/5200-33B, before the mitigation is implemented.
    v. A Wildlife Hazard Assessment (WHA) should be developed to reduce all wildlife hazards and depending on the WHA findings, the HCP may need a Wildlife Hazard Management Plan.

b. FAA, Memorandum of Agreement between FAA and USFWS and other federal airport air and ground operations, signed 2002.

c. FAA Wildlife Hazard Management at Airports, second edition July 2005.

d. FAA Airport Sponsor Assurances, dated 2014, https://www.faa.gov/airports/aip/grant_assurances/

e. FAA CERTALERT dated 11/212006 No. 06-07.

f. Exclude REI lands from all HCP actions that would place REI in violation of Assurance 19, 20 and 21, FAA Airport Sponsor Assurances, dated 2014, https://www.faa.gov/airports/aip/grant_assurances/.

If you have questions or need more details relating to our concerns about protecting our airport please contact Carl Bruce Shaffer, Airport Supervisor, at 909-557-8520 or email cshaffer@cityofredlands.org.

Sincerely

Chris Boatman
Director
Facilities & Community Services Department

Redlands Municipal Airport Master Plan and Airspace Zones

Exhibit 1 – REI Existing Master Plan and Airport Capital Improvement Plan

Exhibit 2 – REI Existing Airport Layout Plan

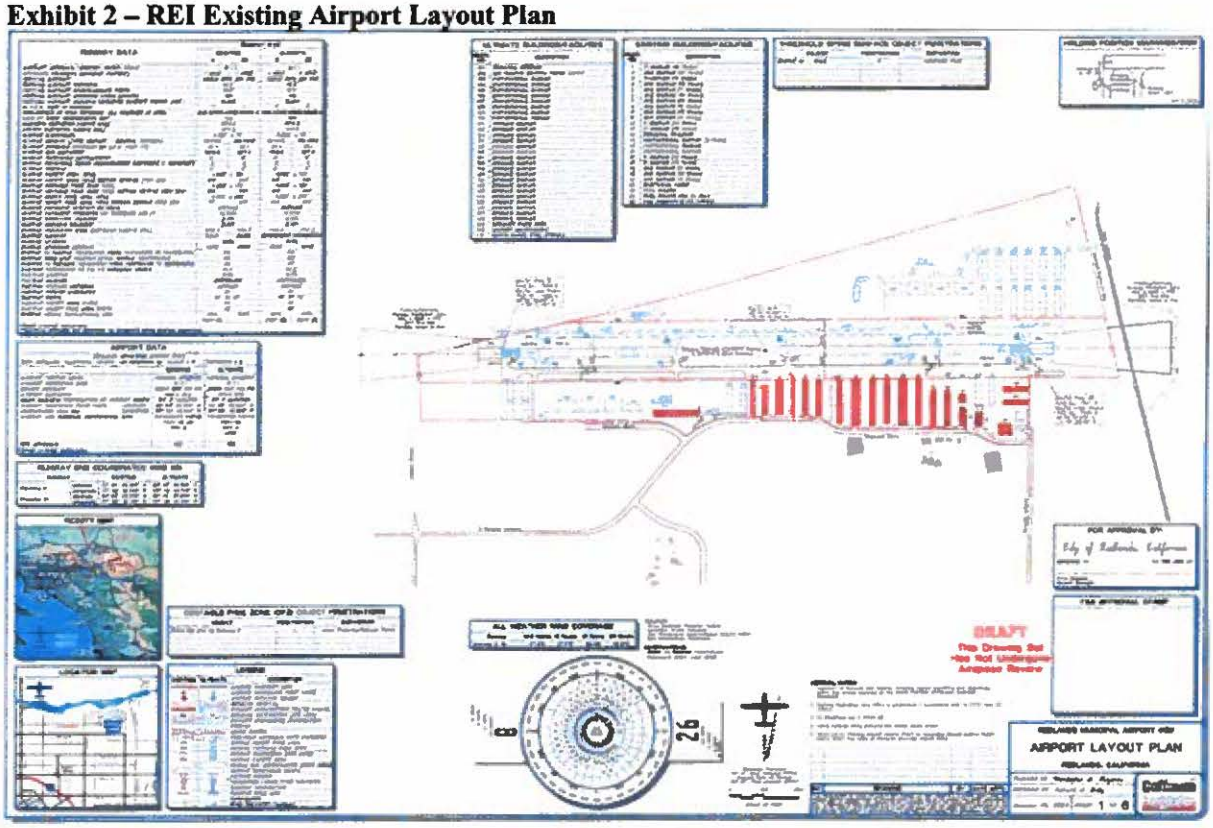


Exhibit 3 – REI Existing Air Space Plan

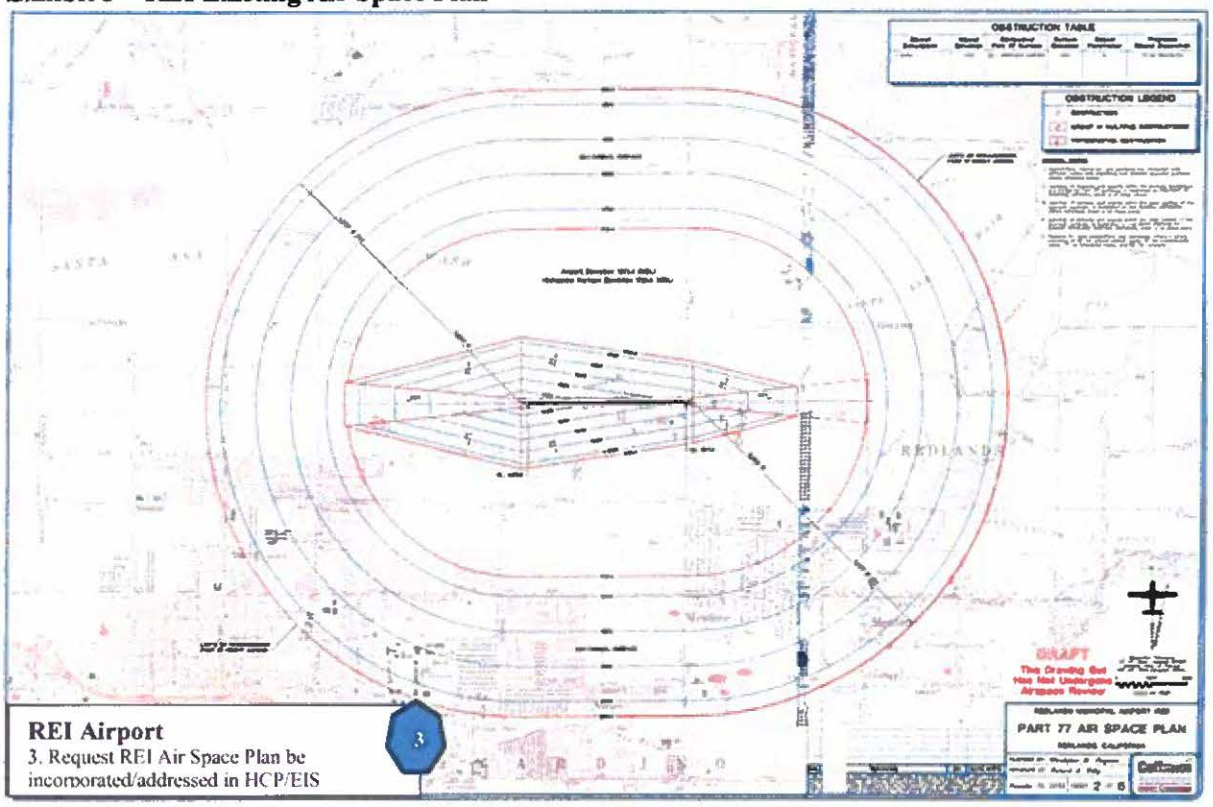


Exhibit 4 – REI Land Use Compatibility Plan

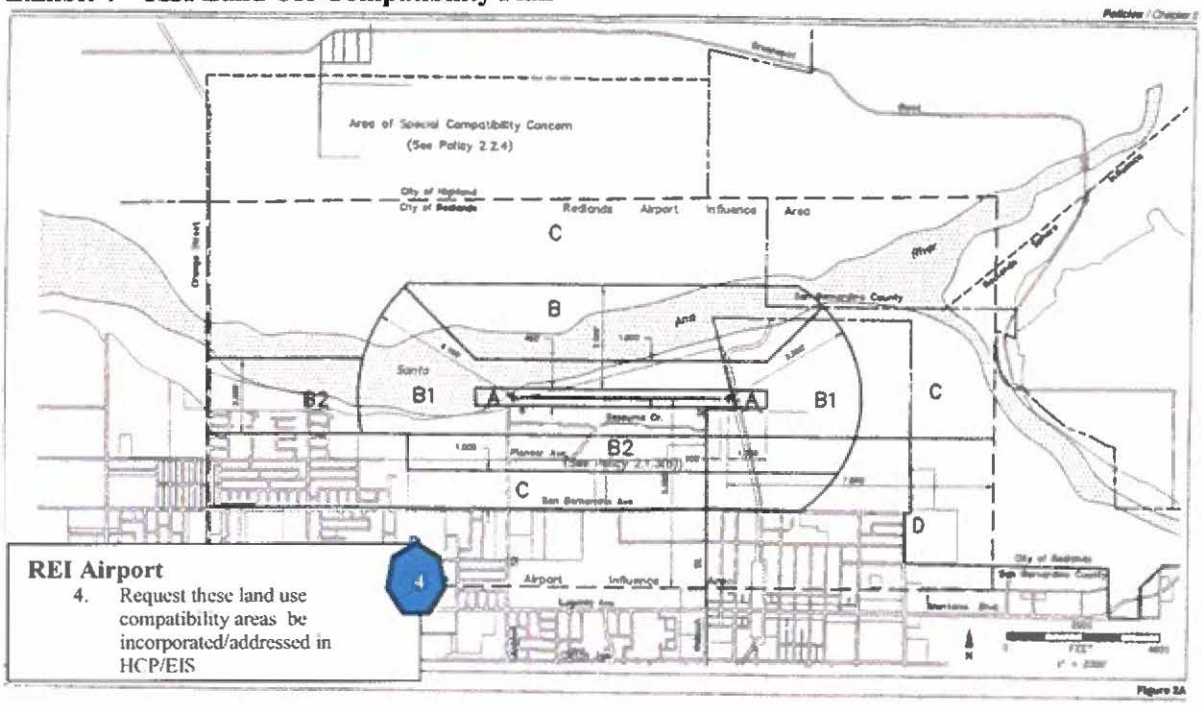
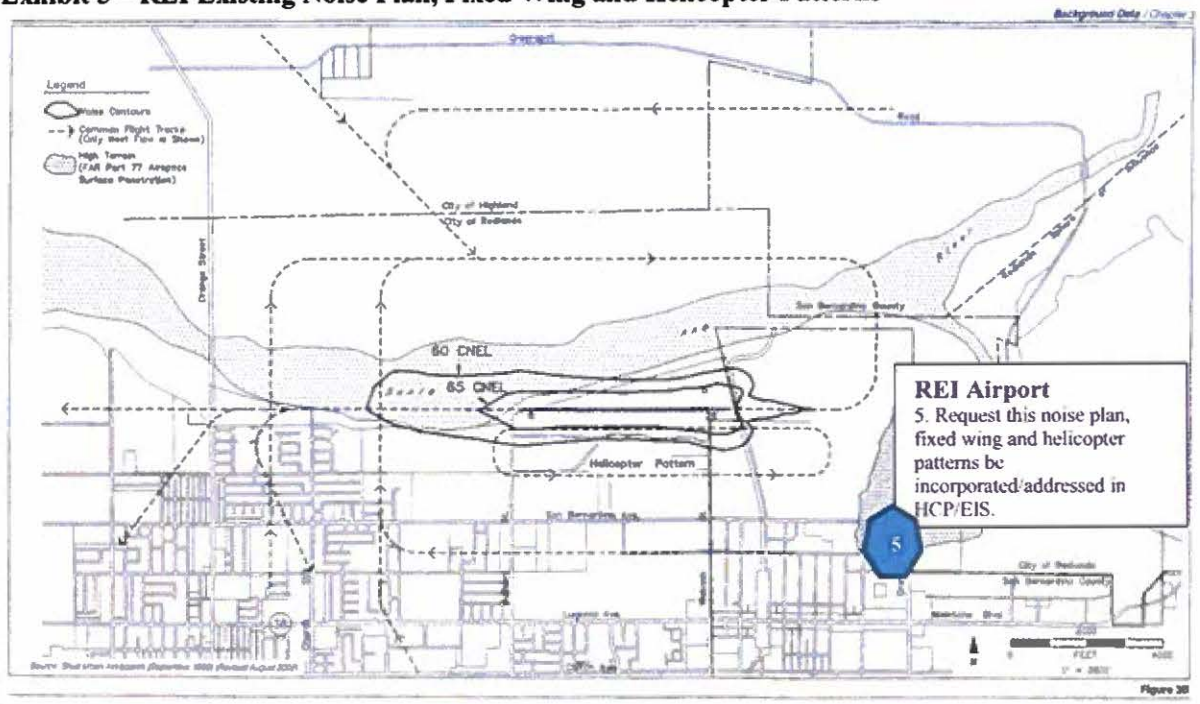


Exhibit 5 – REI Existing Noise Plan, Fixed Wing and Helicopter Patterns



Draft Final
Upper Santa Ana River Habitat Conservation Plan (HCP)
Wash Plan Upper Santa Ana River
and
Draft Environmental Impact Statement (EIS); San Bernardino County, CA
FWS-R8-ES-2019-N111; FXES11140000-189-FF08E00000

Figure 1-2 – Plan Area Subcomponents

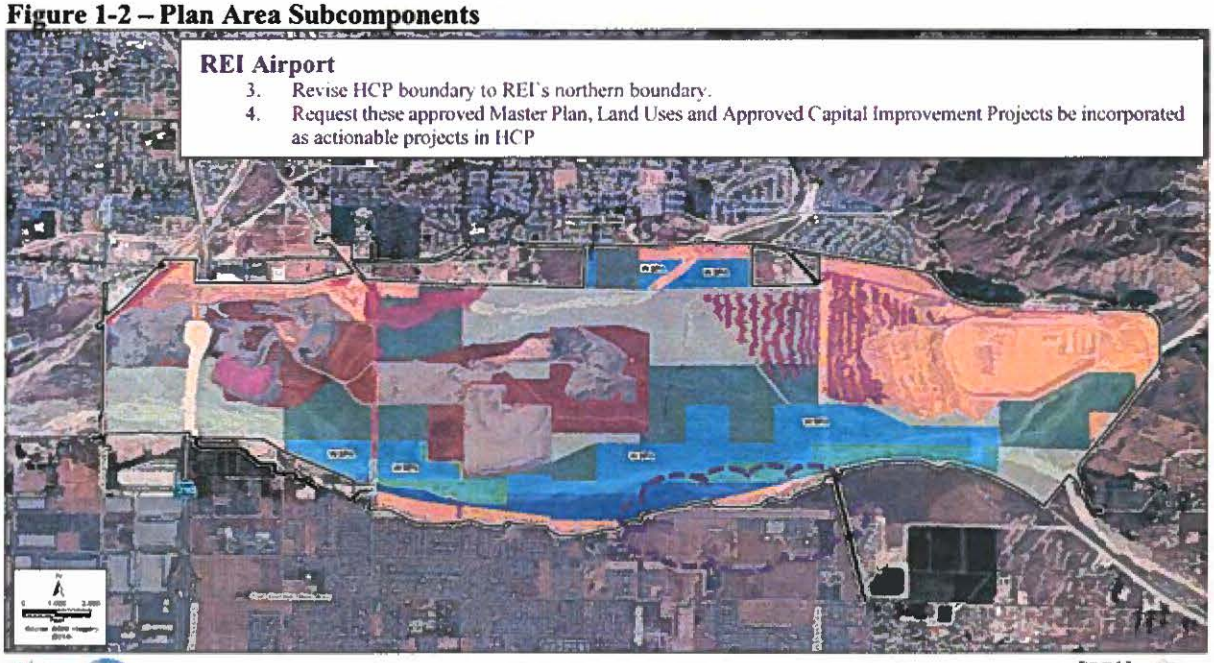


Figure 1-2
Plan Area Subcomponents
Wash Plan HCP

Figure 3-1 – Ownership within the Plan Area

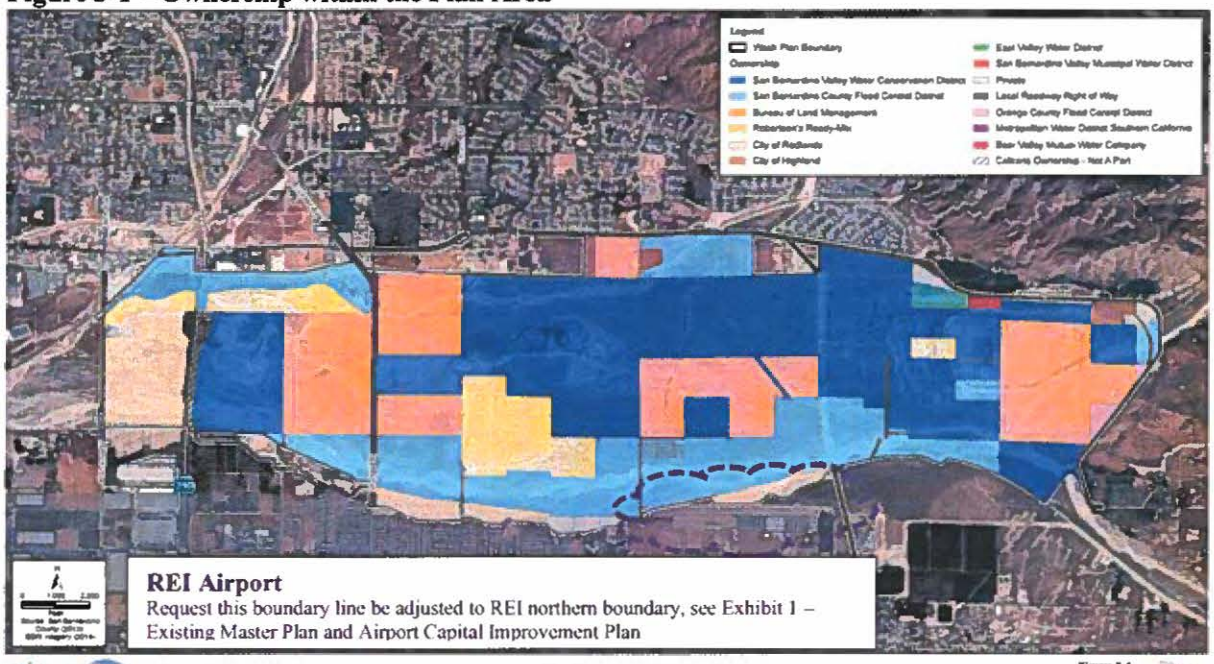


Figure 3-1
Ownership within the Plan Area
Wash Plan HCP

Figure 3-7 – Potentially Suitable Cactus Wren Habitat and Occurrences

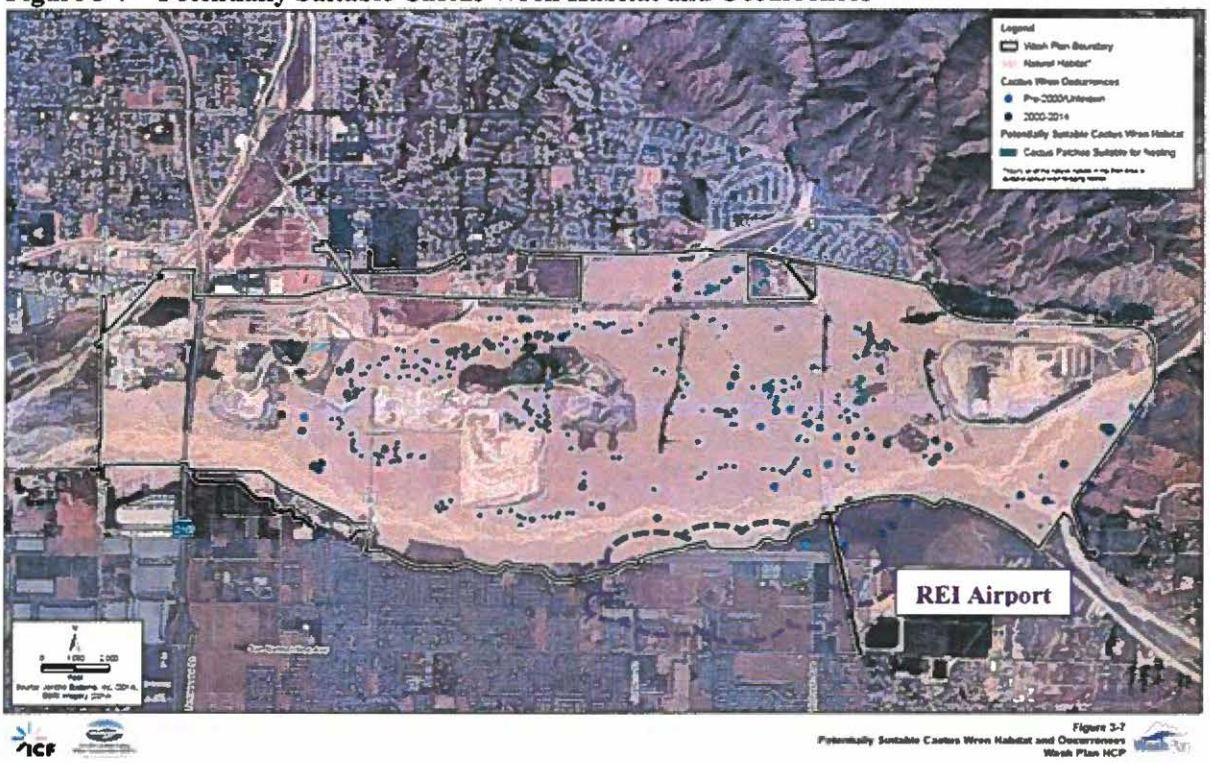


Figure 3-8 – Coastal California Gnatcatcher Habitat

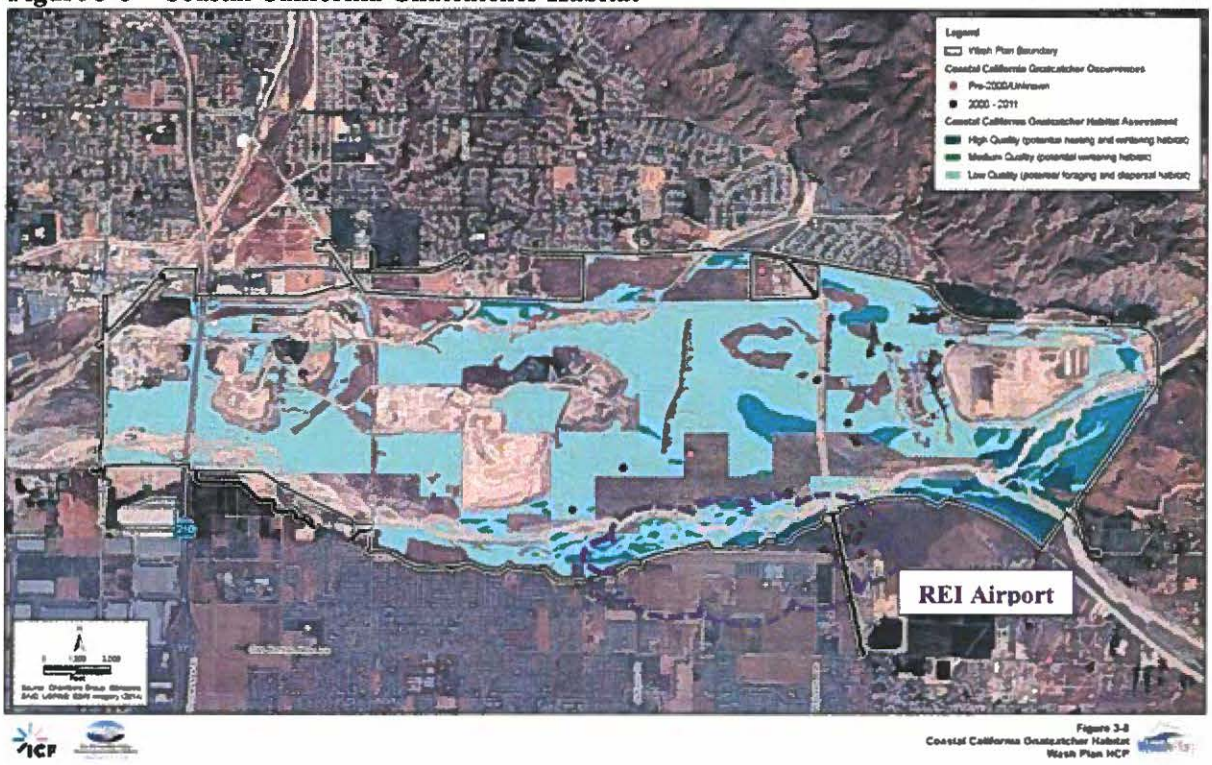


Figure 3-9 – San Bernardino Kangaroo Rat Habitat Assessment Results and Trapping Data

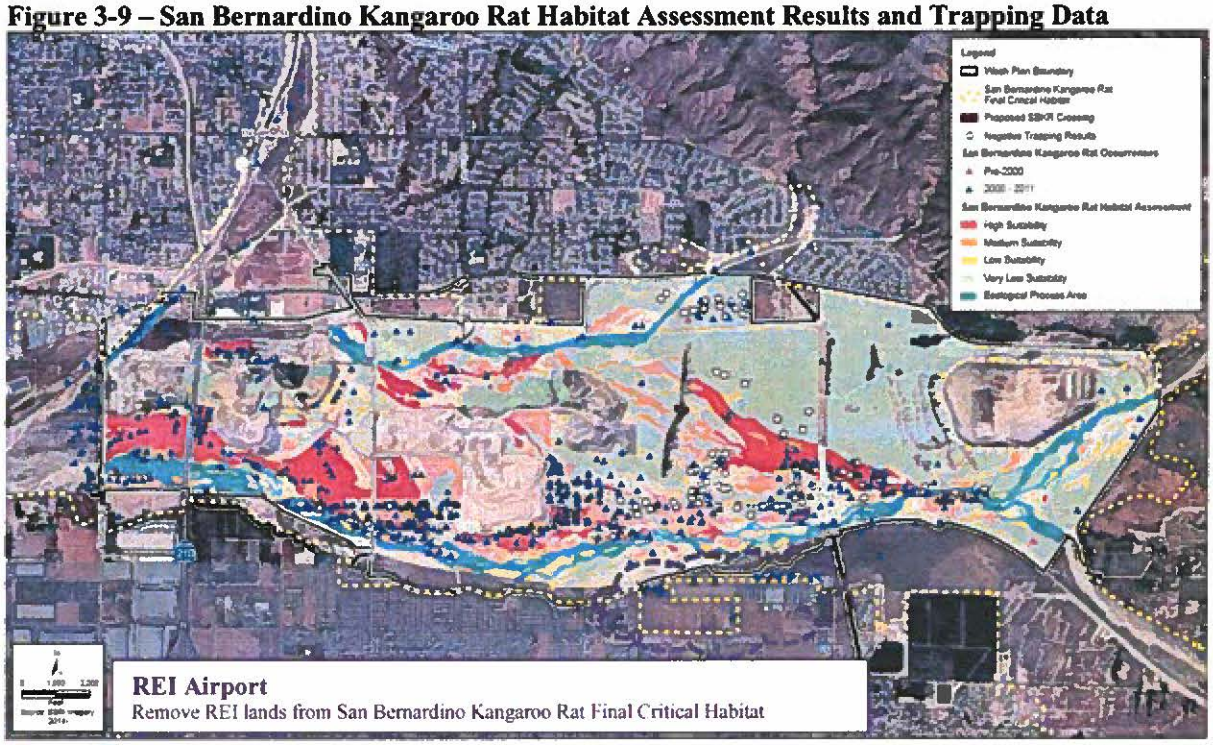


Figure 3-9
San Bernardino Kangaroo Rat Habitat Assessment Results and Trapping Data
Wash Plan HCP

City of HIGHLAND Inc. 1987

January 21, 2020

Mr. Daniel Cozad
General Manager
San Bernardino Valley Water Conservation District
1630 West Redlands Blvd., Suite A
Redlands, CA 92373

Dear Mr. Cozad:

The City of Highland would like to offer the following comments relative to the Upper Santa Ana River Wash Habitat Conservation Plan (Draft Final dated May 2019). The City's comments are intended to provide clarifications to the maps and languages used to describe City properties and facilities in various parts of the HCP, and will not in any way affect the technical analyses or conclusions of the associated EIS and Supplemental EIR.

A. City-owned Properties

Within the boundaries of the HCP, the City owns in fee two 10-acre parcels located south of Greenspot Road west of Plunge Creek. In addition, the City owns in fee a 1.3-acre parcel, which consist of a 57'-wide strip of land, on which the south half of the newly-realigned Greenspot Road was constructed by the City several years ago. The City acquired this 1.3-acre strip of land out of a larger parcel owned by East Valley Water District. (See attached Grant Deed for reference.) However, the entire larger parcel is erroneously shown to be owned by the City in the HCP.

Therefore, the City suggests that the following revisions be made:

1. Section 3.2.2 "Ownership and Easement" – Change the last sentence to read, "Highland owns a 57'-wide strip of land consisting of the south half of the re-aligned Greenspot Road in the northeast portion of the Plan Area (1.3 acres), as well as two parcels in the north-central portion of the Plan Area just west of Plunge Creek (19.9 acres)."
2. Figure 3-1 (Ownership Map) – Correct the map to reflect that the 57'-wide strip of land, being used as Greenspot Road right-of-way is under Highland ownership, and that the larger parcel is under East Valley Water District ownership. Change color of the larger parcel from brown to green.
3. Table 3-1 "Ownership in the Plan Area" – Correct "Acres in Plan Area" for City of Highland from 39.9 acres to 21.2 acres.

B. Highland Biological Mitigation Area

The City of Highland owes two 10-acre parcels located in the north-central portion of the Plan Area just west of Plunge Creek. As correctly stated under "Other Areas within the Plan Area Boundary" on Page 1-6 of the HCP, and under "Existing Conserved Lands" on Page 10-2 of the HCP, these two 10-acre parcels are available for Highland to mitigate impacts not associated with the HCP Covered Activities.

For internal consistence of the HCP document, the City suggests that the following revisions be made:

1. Section 5.6.2 "City of Highland Biological Mitigation Area" – Modify the paragraph to read, "The City of Highland owns two 10-acre mitigation parcels on the south side of Greenspot Road, with one parcel located on the east side of the BLM property and the other on the west side of the BLM property. These two 10-acre parcels are available for Highland to mitigate impacts not associated with the HCP Covered Activities.
2. Figure 1-2 (Plan Area Subcomponents Map) – Delineate the boundaries of the City of Highland's 10-acre parcel located on the east side of the BLM property and label it "Highland BMA".

C. Greenspot Road Improvements (High.03)

While Figure 2-1 (Covered Activities Map) correctly shows the location of the southeasterly extent of Greenspot Road Improvemetns (High.03), the southeasterly project limit of High.03 is not clearly described in the HCP.

Therefore, the City suggests the following revisions be made:

1. Section 2.2.4 "Transportation, City of Highland Activities", Page 2-18 "Greenspot Road Improvements (High.03)" – Revise the first sentence to read, "Greenspot Road will be widened on the south side between Weaver Street and Santa Paula Street and on both sides between Santa Paula Street and the southeasterly limit of the realigned portion of Greenspot located south of the new bridge at Santa Ana River."

D. General Road Maintenance

As stated under Section 2.2.4 "Transportation, General Road Maintenance", Page 2-18, "long-term road maintenance includes drainage facility management, which should take place at least once a year at the inlets and outlets of drainage facilities." In addition, Footnote 14 of this paragraph specifies that "All work will take place within the defined ROWs of the roads and as depicted and defined in the HCP."

It is common for general road maintenance to include cleanup of soil deposits and debris in culverts that carry drainage flows under and across a public road that requires the cleanup work be extended upstream and downstream of the culverts beyond the street ROWs. For example, there is an existing 12'-wide x 8'-tall concrete box culvert across Greenspot Road at the north-east portion of the Plan Area, and proper maintenance of this culvert involves clearing of dirt and vegetation both upstream and downstream of the culvert. Depending on the amount of buildup, it is possible that clearing of the flow path could extend beyond the street ROW in order to obtain the minimum grade needed for positive flow. Since Footnote 14 specifies that all work is to take place within street ROW, the City may not be able to properly perform all needed general road maintenance under this section of the HCP.

Therefore, the City requests that under Section 2.2.4 "Transportation, General Road Maintenance", Page 2-18, a new sentence be added as the 5th sentence of the paragraph, to read as follows:

"Maintenance of roadway drainage inlets and outlets includes clearing of the upstream and downstream drainage flow paths located within or outside of street ROW to the extent needed to achieve the minimum grade for positive drainage flow."

E. Greenspot Bridge and Road Realignment

Several years ago, the City of Highland constructed a new 4-lane bridge across the Santa Ana River approximately 250' downstream from the existing historic iron bridge, and realigned approximately 3,500' of Greenspot Road to match the location of the new bridge. While the new bridge was built to its ultimate width of 98', which is wide enough to provide for 4 future travel lanes, the realigned portion of Greenspot Road was only built to its interim configuration, with the pavement widened from 26' to 40' and remains to be a 2-lane road.

Since the scope of this project was not accurately described in the Wash Plan, the City suggests that the following changes be made:

1. Section 2.3.4 "Greenspot Bridge and Road Realignment" Page 2-28, change the first sentence to read, "The City of Highland recently realigned a portion of the Greenspot Road and upgraded the width of the realigned roadway from 26"'to 40', providing for 2 travel lanes and 2 striped bike lanes.

F. Greenspot Road Drain Outlets (High.11)

The City's roadway drainage systems currently outlet onto the east side of Plunge Creek south of Greenspot Road and onto the west side of Plunge Creek north of Greenspot Road. (See attached aerial photo.) While the attached enlarged Covered Activities Map clearly shows the Wash Plan boundary to include the north side of Greenspot Road at Plunge Creek covering the locations of all City drainage outlets at Plunge Creek located on both sides of Greenspot Road, the drainage outlet locations are not fully described in the HCP.

Therefore, the City request that the following revisions be made:

1. Section 2.2.5 "Flood Control, City of Highland Activities", Page 2-21 "Greenspot Road Drain Outlets (Highl.12) – Revise the first sentence to read, "Maintenance and operation of the existing outlets of two city storm drains in Greenspot Road would occur on the east side of Plunge Creek south of Greenspot Road and on the west side of Plunge Creek north of Greenspot Road, and would include the concrete headwalls, grouted riprap, and the dirt channel area near the outlets."

Sincerely,

Ernest Wong
Public Works Director/City Engineer
City of Highland
(909)864-8732 ext. 212

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CITY CLERK
CITY OF HIGHLAND
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HIGHLAND, CA 92356

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Space above this line for Recorder's Use

City of Highland Greenspot Road and
Bridge Replacement Project

APN: 0297-061-022 & 0297-061-023
Portion

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

EASTERN VALLEY WATER DISTRICT HEREBY GRANT(S) to the **CITY OF HIGHLAND, , a Municipal Corporation,** that real property in the City of Highland, County of San Bernardino, State of California, described as:

SEE EXHIBITS "A" ATTACHED HERETO AND MADE A PART HEREOF

GREENSPOT ROAD

LEGAL DESCRIPTION

That portion of the north one-half of the southeast one-quarter of the northwest one-quarter of the northeast one-quarter, and the southwest one-quarter of the southeast one-quarter of the northwest one-quarter of the northeast one-quarter, and the west one-half of the northwest one-quarter of the northeast one-quarter, and the south one-half of the northeast one-quarter of the northwest one-quarter of the northeast one-quarter, all of Section 8, Township 1 South, Range 2 West, San Bernardino Meridian, in the County of San Bernardino, State of California, according to the Official Plat thereof, described as follows:

PARCEL 1

A strip of land 57.00 feet wide lying 5.00 feet northeasterly and 52.00 feet southwesterly of the centerline of Greenspot Road described as follows:

BEGINNING at a point on the west line of said northeast one-quarter of Section 8 distant along said west line South 00° 43' 39" East, 459.46 feet from the North one-quarter corner of said Section 8; thence South 88° 57' 00" East, 194.70 feet to the beginning of a tangent curve concave southwesterly having a radius of 1625.00 feet; thence southeasterly 3441.38 feet along said curve through a central angle of 121° 20' 22" to a point on the existing centerline of Greenspot Road as shown on Record of Survey recorded in Book 87 of Records of Survey, Pages 25 through 31, inclusive , records of said County, said point being distant along said existing centerline South 32° 23' 21" West, 766.18 feet from the northeasterly terminus of the line shown on said Record of Survey as having a bearing and distance of North 33° 22' 07" East, 1836.30 feet, said point being the **POINT OF TERMINUS**.

Containing 49,782 square feet, more or less.

PARCEL 2

COMMENCING at the intersection of the northeasterly line of the above described Parcel 1 with the southerly line of that certain easement granted to the County of San Bernardino for highway purposes recorded April 4, 1935 in Book 1047, page 345, Official Records of said County, said point being the beginning of a curve concave southwesterly having a radius of 1630.00 feet, a radial line through said point bears North 17° 54' 09" East; thence southeasterly 198.77 feet along said northeasterly line and said curve through a central angle of 06° 59' 13" to the **POINT OF BEGINNING,** said point being the beginning of a tangent curve concave northeasterly having a radius

of 55.00 feet; thence northeasterly 84.43 feet along said curve through a central angle of 87° 57' 34"; thence North 26° 55' 48" East, 47.52 feet to said southerly line; thence South 88° 56' 49" East, 65.61 feet along said southerly line to a point on a non-tangent curve concave southeasterly having a radius of 95.00 feet, a radial line through said point bears North 30° 01' 29" West; thence southwesterly 52.92 feet along said curve through a central angle of 31° 55' 02"; thence South 28° 03' 30" West, 26.65 feet to the beginning of a tangent curve concave easterly having a radius of 55.00 feet; thence southeasterly 84.43 feet along said curve through a central angle of 87° 57' 34"; to a point on said northeasterly line, said point being the beginning of a non-tangent curve concave southwesterly and having a radius of 1630.00 feet; a radial through said point bears North 30° 05' 56" East; thence northwesterly 148.21 feet along said curve and along said northeasterly line through a central angle of 05° 12' 34" to the **POINT OF BEGINNING.**

Containing 6,259 square feet, more or less.

EXCEPTING therefrom all County and State Highways.

ALSO EXCEPTING all that portion of said land lying northerly of the centerline of Greenspot Road as shown on Record of Survey, recorded September 18, 1989 in Record of Survey Book 80, Page 41, Records of said County.

The bearings and distances used in the above description are based on the California Coordinate System of 1983, Zone 5. Divide distances shown by 0.99991131 to obtain ground level distances.

This real property has been described by me, or under my direction, in conformance with the Professional Land Surveyor's Act.

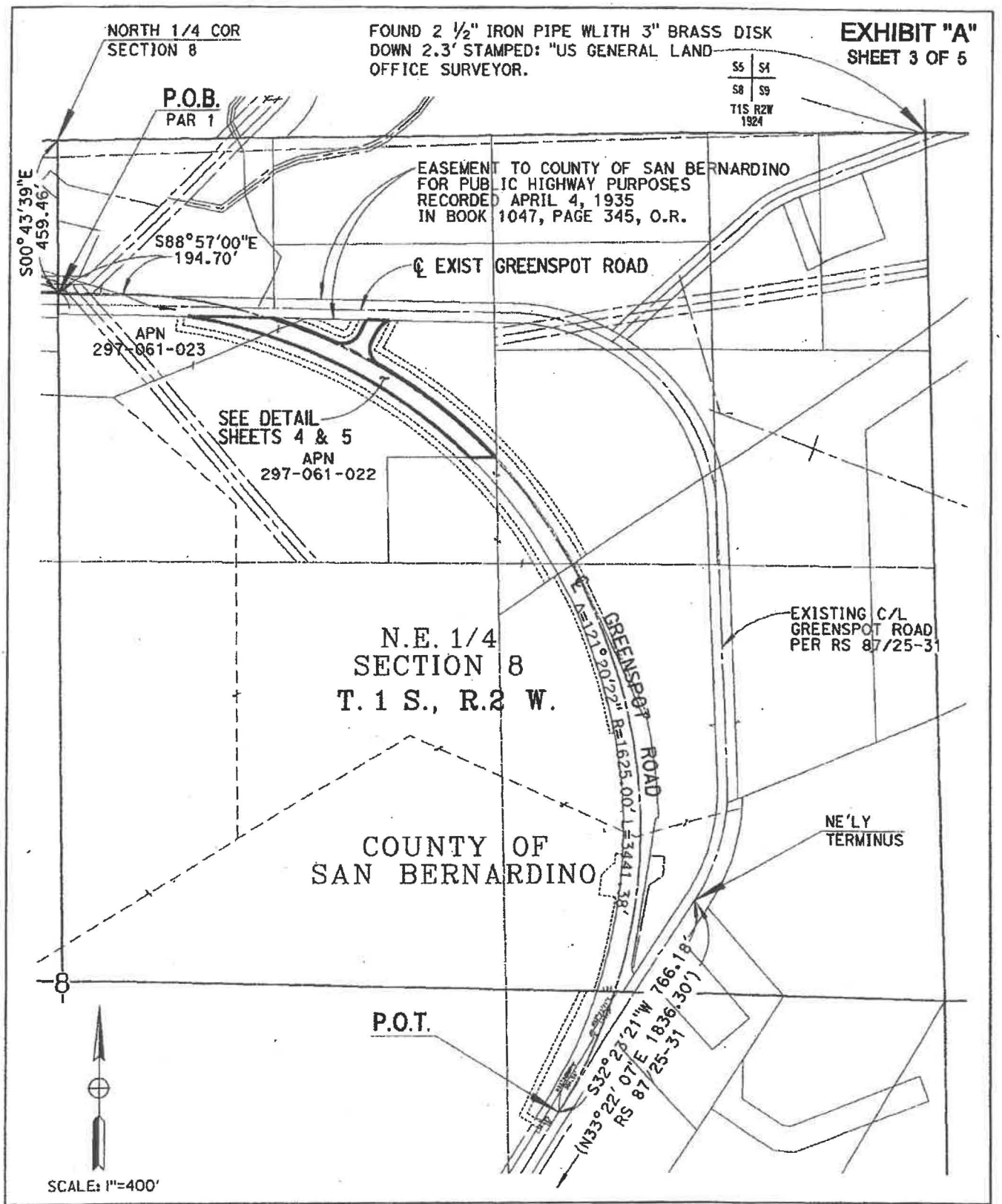
Signature Janeen Nedlik

JANEEN NEDLIK, L.S. 7563
License Expires 12/31/11

LICENSED LAND SURVEYOR
JANEEN NEDLIK
EXP. 12-31-11
No. 7563
STATE OF CALIFORNIA

Date Sept. 7, 2010

Affects APN 0297-061-22 & 23



Associated Engineers
3311 E. SHELBY ST. ONTARIO, CA 91764
Tel: 909.980.1982 Fax: 909.941.0891
A division of
PARSONS BRINCKERHOFF

GREENSPOT ROAD

GRANT DEED

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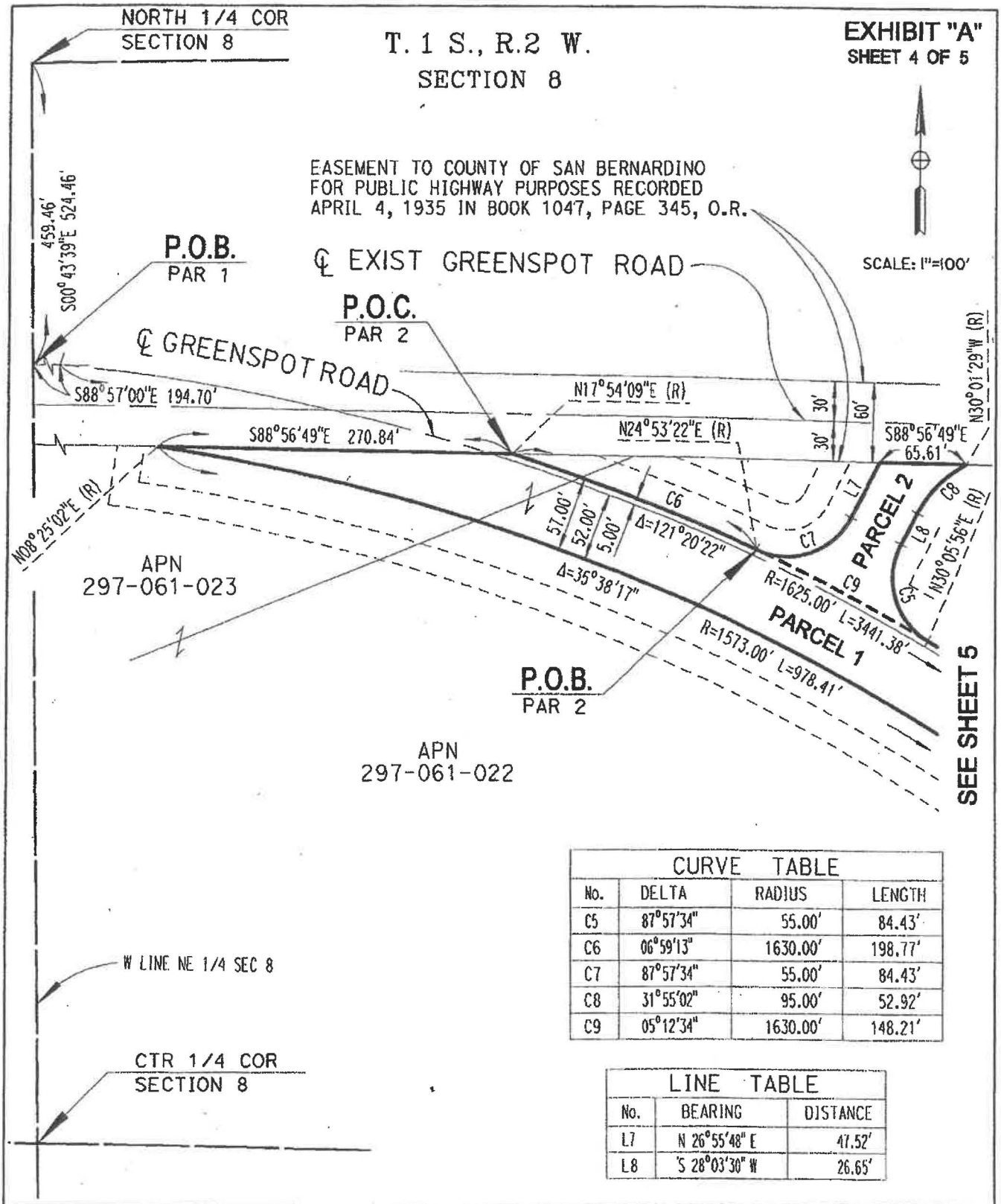

CURVE TABLE			
No.	DELTA	RADIUS	LENGTH
C5	87°57'34"	55.00'	84.43'
C6	06°59'13"	1630.00'	198.77'
C7	87°57'34"	55.00'	84.43'
C8	31°55'02"	95.00'	52.92'
C9	05°12'34"	1630.00'	148.21'

LINE TABLE		
No.	BEARING	DISTANCE
L7	N 26°55'48" E	47.52'
L8	S 28°03'30" W	26.65'

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GRANT DEED

general boundaries of the Plan Area. The Inland Fish and Game Club maintains an abandoned shooting range on approximately 20 acres of land in the northern part of the Plan Area on BLM land.

3.2.2 Ownership and Easements

The majority (1,906.9 acres) of the Plan Area is owned by the Conservation District, in large contiguous parcels throughout the Plan Area (Figure 3-1, Table 3-1). The County of San Bernardino, mostly Flood Control, owns the corridor along the Santa Ana River, and the parcels along Plunge Creek (1,034.6 acres). BLM owns large parcels through the center, north, and eastern portions of the Plan Area (972.3 acres), including within and adjacent to the Santa Ana River mainstem and Plunge Creek. Redlands owns parcels of land in the west and southern portions of the Plan Area (159.6 acres); the southern parcels are directly south and slightly overlapping the Santa Ana River mainstem. Highland owns one parcel south of Greenspot Road in the northeast portion of the Plan Area, as well as two parcels in the north-central portion of the Plan Area just west of Plunge Creek (39.9 acres).

Table 3-1. Ownership in the Plan Area

Ownership	Acres in Plan Area
Permittees and Participating Entities	
San Bernardino Valley Water Conservation District	1,906.9
San Bernardino County Flood Control District	1,034.6
BLM	972.3
Robertson's Ready-Mix	338.8
City of Redlands	159.6
City of Highland	39.9
East Valley Water District	25.0
San Bernardino Valley Municipal Water District	8.2
Others	
Private	198.7
Local Roadway Right of Way	149.8
Caltrans Ownership – Not a Part	37.6
Orange County Flood Control District	14.8
Metropolitan Water District	5.5
Total	**4,892.2**

Robertson's Ready-Mix Properties, a private landowner, owns land both in the center and on the northwest portions of the Plan Area (338.8 acres); the center property is approximately 250 feet north of the Santa Ana River mainstem, and the northwest parcel can be found on either side of Interstate 210 south of Plunge Creek. The Orange County Flood Control District owns land in the farthest southeast portion of the Plan Area (14.8 acres). The remaining acreages of ownership (198.7 acres) are owned by several different entities: roadway ROWs (149.8 acres), Caltrans (37.6), and MWD (5.5 acres). Conservation easements and existing mitigation areas in the Plan Area include a conservation easement established by the Conservation District as mitigation for an aggregate

change to EVWD ownership

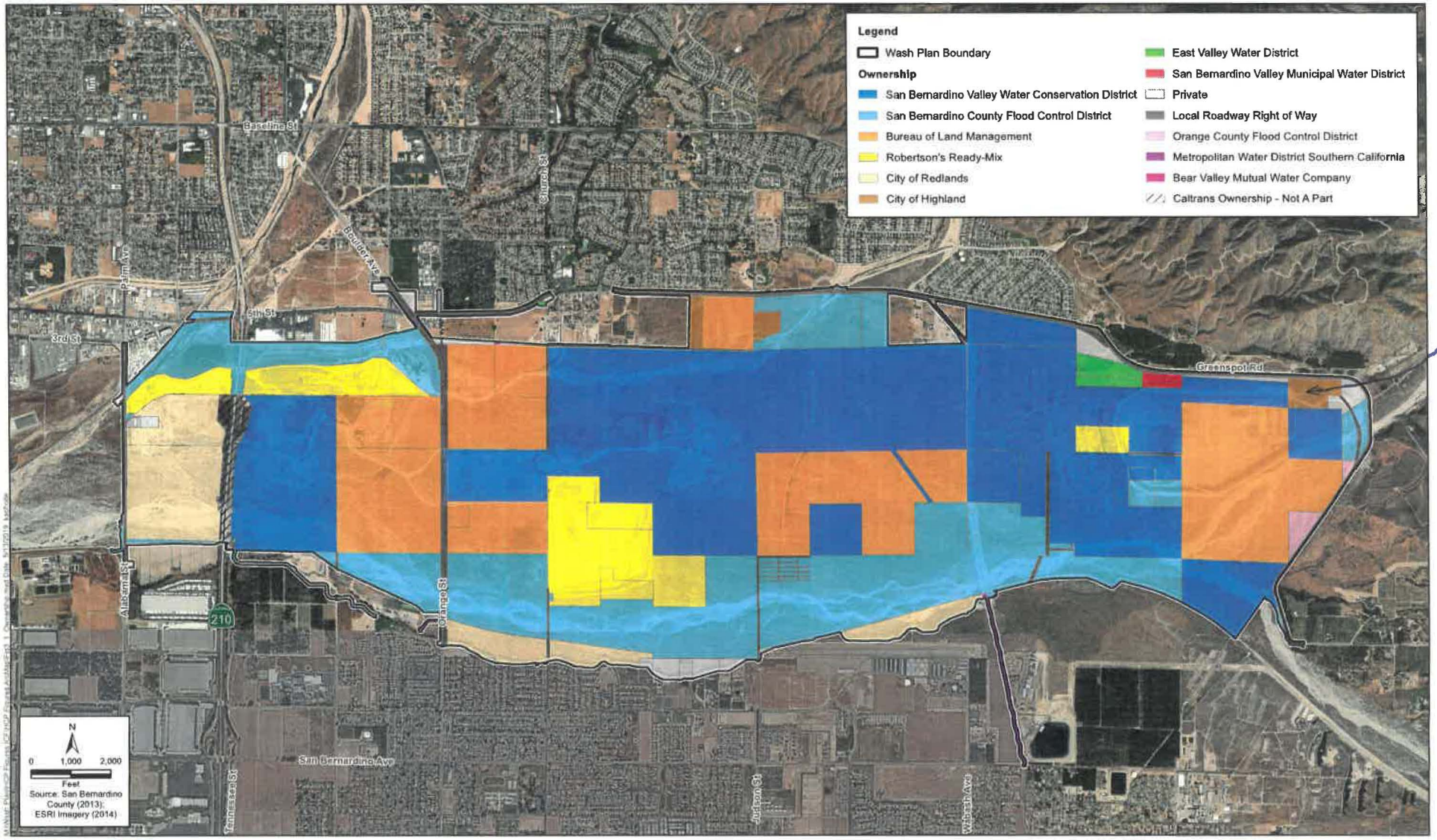


Figure 3-1
Ownership within the Plan Area
Wash Plan HCP

HCP Preserve

1. District Conserved Lands – lands that will be permanently conserved for the five species covered by the HCP. These areas include lands owned by Conservation District and Redlands, and lands included in the land exchange between BLM and the Conservation District.
2. SBCFCD (Flood Control) Conserved Lands – lands that will be permanently conserved for the five species covered by the HCP and under the Flood Control IA and ITP. These areas include lands owned by Flood Control.
3. District Managed Lands – certain BLM lands and 42.29 acres of Woolly-star Preserve Area (WSPA)[6] lands for which the HCP will provide additional management and monitoring for the benefit of the Covered Species. These areas will include lands retained by BLM after the land exchange.

Covered Activities

1. Existing Mining and Mining Impact Areas – the areas in which aggregate mining operations by Robertson's and Cemex will continue and expand as delineated in the HCP, its EIR, and the EIS for the land exchange between the Conservation District and BLM.
2. Other Covered Activities Areas – the areas where non-mining Covered Activities are planned, including operations and maintenance (O&M) of existing facilities and construction of new facilities (see Chapter 2, *Covered Activities*).

Other Areas within the Plan Area Boundary

1. Existing Conserved Lands – In addition to BLM lands, two other areas within the Plan Area have already been placed in conservation:
   a. Santa Ana River Woolly-star Preserve Area (WSPA)[7] – an existing 764-acre area preserve established as mitigation for impacts on SBKR, spineflower, and woolly-star resulting from the construction and operation of the Seven Oaks Dam.
   b. Highland Biological Mitigation Area – this mitigation area includes two 10-acre parcels available for Highland to mitigate impacts not associated with HCP Covered Activities.
2. Future SBCFCD (Flood Control) Mitigation Area – approximately 150.9 acres of alluvial habitat in the active channel of the Santa Ana River immediately south of the WSPA is identified as Future Flood Control Mitigation Area and is available for mitigation of future Flood Control infrastructure construction, and maintenance activities not covered by the HCP.
3. Neutral Lands – the areas that are within the Plan Area, but are not expected to be impacted by Covered Activities and are not designated as a conservation area (existing or proposed with the HCP). These lands will be monitored for highly invasive weeds such as mustard and pepperweed (*Lepidium latifolium*) (but not non-native grasses) to ensure they are not a source for infestation of conserved and managed lands. Management would occur when possible.

[6] The Conservation District will provide additional management of 43.5 acres of land that is being added to the Santa Ana River Woolly-star Preserve Area through a land exchange between Flood Control and Robertson's.

[7] As indicated above, the Conservation District will provide for Additional Management of 43.5 acres of land that is in the process of being added to the WSPA.

- Except on paved roads with posted speed limits and in aggregate mining operations areas with established speed limits per their mining plan, vehicle speeds will not exceed 15 miles per hour during travel associated with the Covered Activities. If work must take place at night, the speed limit will be 10 miles per hour.
- Covered Activities, 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 HCP Preserve should be avoided. If permanent lighting is determined to be unavoidable for a Covered Activity (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 HCP Preserve, the plan will include fixtures that shield the light away from the HCP Preserve, are mounted as low as possible, and use the least intrusive type of lighting available (e.g., LED or low sodium lighting).
- Covered Activities 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.
- If landscaping is included as part of any Covered Activity, the Preserve Manager will review and approve the proposed plant palette prior to planting. No non-native species will be used.

5.6 Existing Conserved Areas within the Plan Area

There are several existing conservation areas within the Plan Area. While the acreages of habitat within these areas are not considered to offset and mitigate for the impacts of the Covered Activities, these areas do contribute to the connectivity and total area of habitats conserved and managed for Covered Species. These existing conserved areas are shown in Figure 1-2 and discussed briefly below.

5.6.1 Santa Ana River Woolly-star Preserve Area (WSPA)

To protect significant populations of the woolly-star, habitat along the Santa Ana River and portions of the alluvial fan terraces were set aside and established as the WSPA. The WSPA is a 764-acre area west of the Greenspot Bridge that crosses the Santa Ana River. The WSPA was established as mitigation in the 1990s by the USACE to address impacts related to the construction and operation of Seven Oaks Dam.

5.6.2 City of Highland Biological Mitigation Area

The City of Highland owns two 10-acre mitigation parcels on the south side of Greenspot Road, with one parcel located on the east side of the BLM property and the other on the west side of the BLM property.

5.7 Future Flood Control Mitigation Area

Flood Control will place a conservation easement approved by the Wildlife Agencies over 321.6 acres of alluvial habitat in the active channel immediately south of the WSPA in the Santa Ana River

substrate, areas covered by a large amount of debris or other materials may also be considered developed.

District Conserved Lands – Lands that will be permanently conserved for the five species covered by the HCP. These areas include lands owned by Conservation District and Redlands, and lands included in the land exchange between BLM and the Conservation District.

District Managed Lands – Lands in the HCP Preserve that are conserved by another entity (e.g., BLM or WSPA lands) but managed by the Conservation District under the HCP. This includes certain BLM lands and 42.29 acres of WSPA lands for which the HCP will provide additional management and monitoring for the benefit of the Covered Species. These areas will include lands retained by BLM after the land exchange.

Disturbed Land – Land which has been significantly modified by previous legally authorized human activity, but continues to retain a soil substrate will be considered disturbed land (Holland Code 11300). This will include areas that have been graded, repeatedly cleared for fuel management purposes, and/or experienced recurring use resulting in compacted soils and minimal potential for natural revegetation (e.g., dirt parking lots, incised trails, etc.).

Emergency – An event or situation that poses considerable risk to human health and safety. This includes, but is not strictly limited to, loss of human life, property damage, or air and water contamination threatening human health and safety.

Endangered Species – A species listed as endangered under FESA or CESA.

Endangered Species Act – The Federal Endangered Species Act of 1973, as amended (16 USC 1531 et seq.), including all regulations promulgated pursuant to that Act.

Existing Conserved Lands – In addition to BLM lands, two other areas within the Plan Area have already been placed in conservation, including the Santa Ana River WSPA, an existing 764-acre area preserve established as mitigation for impacts on SBKR, spineflower, and woolly-star resulting from the construction and operation of the Seven Oaks Dam; and Highland Biological Mitigation Area, a mitigation area that includes two 10-acre parcels available for Highland to mitigate impacts not associated with HCP Covered Activities.

Existing Mining and Mining Impact Areas – The areas in which aggregate mining operations by Robertson's and Cemex will continue and expand as delineated in the HCP, its EIR, and the EIS for the land exchange between the Conservation District and BLM.

Fully Protected Species – Those species listed in Sections 3511 (Fully Protected Birds), 4700 (Fully Protected Mammals), 5050 (Fully Protected Reptiles and Amphibians), and 5515 (Fully Protected Fish) of the California Fish and Game Code that may not be taken or possessed at any time and for which no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock or as permitted under the Natural Community Conservation Planning Act (NCCPA) (California Fish and Game Code Section 2800 et seq.).

Future SBCFCD (Flood Control) Mitigation Area – This area includes approximately 150.9 acres of alluvial habitat in the active channel of the Santa Ana River immediately south of the WSPA that is identified as Future Flood Control Mitigation Area, and is available for mitigation of future Flood Control infrastructure construction and maintenance activities not covered by the HCP.

Highland BMA

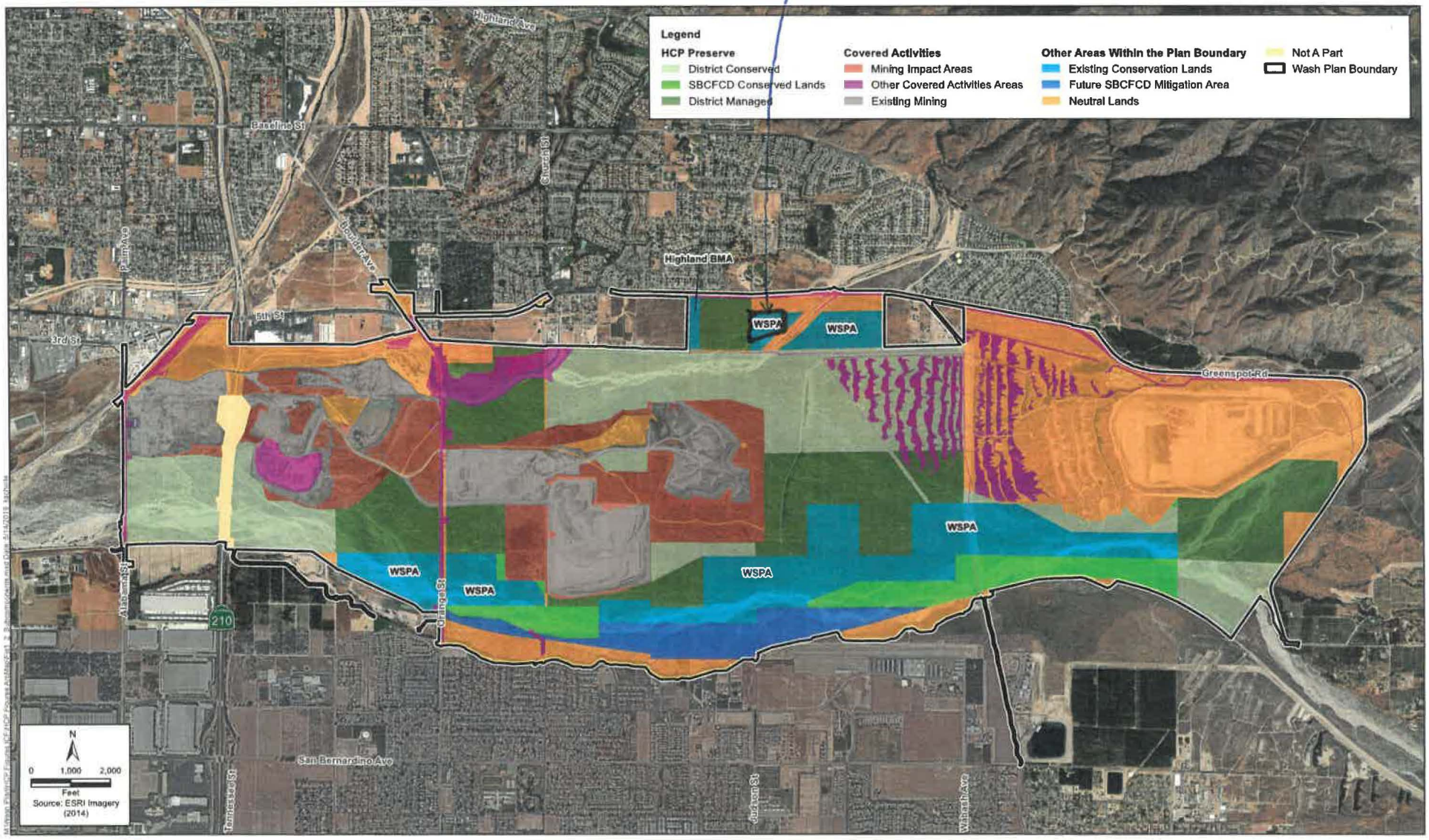


Figure 1-2
Plan Area Subcomponents
Wash Plan HCP

widened roadway will have six travel lanes, one center lane, and two bike lanes. This Covered Activity also includes operation and maintenance of the planned improvements. The road widening within Highland will result in up to 1.6 acre of permanent and 1.9 acres of temporary impacts.

Orange Street/Boulder Avenue Improvements (High.02)

Within the Cities of Highland and Redlands, Boulder Avenue/Orange Street from Greenspot Road to the south limit of the Plan Area will be widened along both sides to include four travel lanes, one center lane, and two bike lanes. It will be improved with standard street improvements such as curb, gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening within Highland will result in up to 3.9 acres of permanent and 5.5 acres of temporary impacts.

Greenspot Road Improvements (High.03)

Greenspot Road will be widened on the south side between Weaver Street and Santa Paula Street and on both sides between Santa Paula Street and the new Greenspot Road Bridge realignment. The widened road way will have four travel lanes, one center lane, and two bike lanes with standard street improvements such as curb. Gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening will result in 9.8 acres of permanent impact and 16.8 acres of temporary impacts.

City of Redlands Activities

Alabama Street Improvements (Redl.14)

Within Redlands beginning approximately 0.1 mile north of the intersection of River Bluff Avenue, Alabama Street will be widened and improved to the Highland city limits. The road widening within Redlands will result in up to 10.5 acres of permanent and 7.6 acres of temporary impacts.

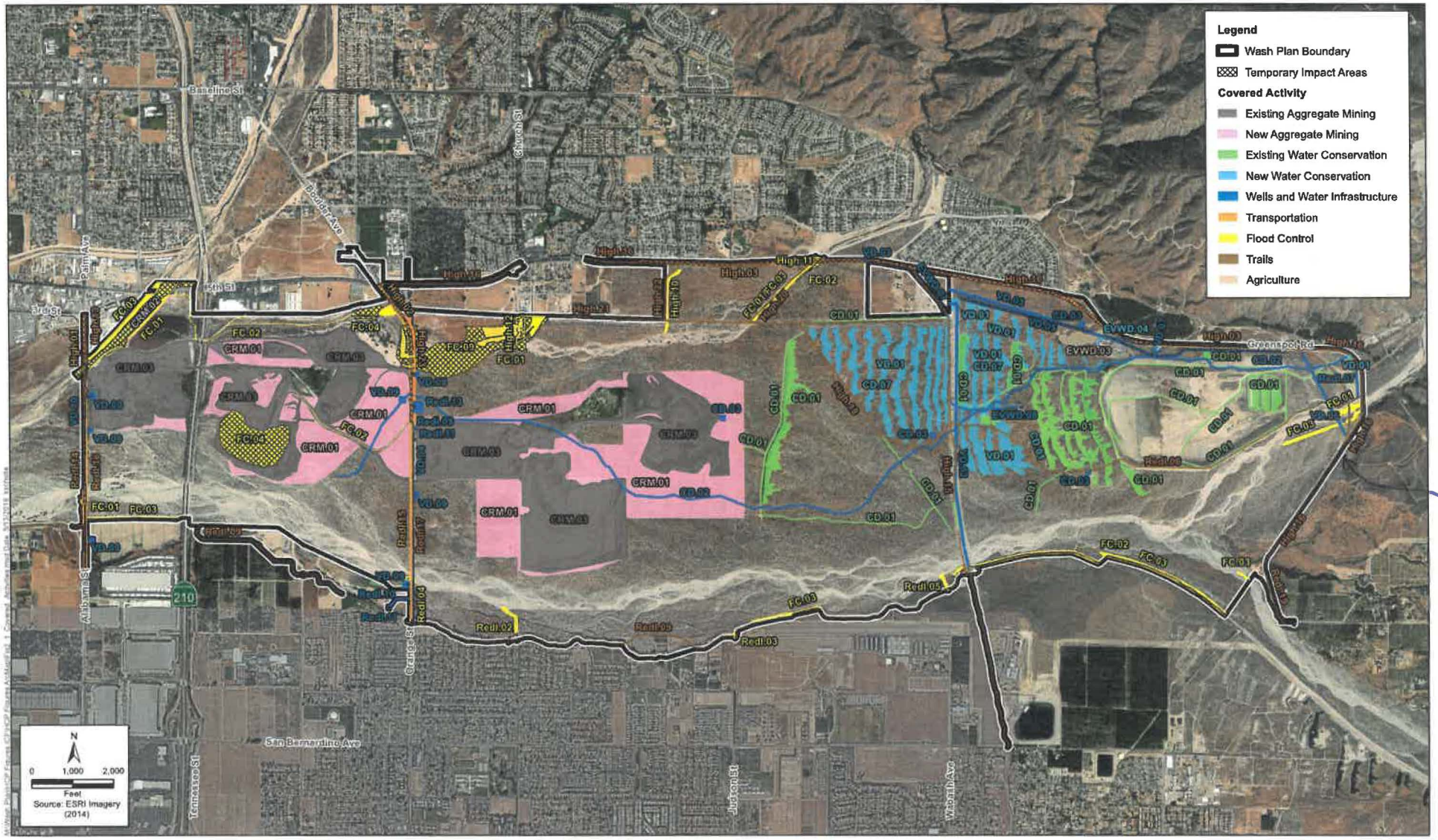
Orange Street Improvements (Redl.15)

Within Redlands beginning at Riverview Drive, Orange Street will be widened and improved to the Highland city limits. It will be widened along both sides to include four travel lanes, one center lane, and two bike lanes. It will be improved with standard street improvements such as curb, gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening within Redlands will result in up to 5.0 acres of permanent impacts and 7.3 acres of temporary impacts.

General Road Maintenance

Maintenance must also take place on other paved roads throughout the Plan Area. Maintenance on these roads includes shoulder grading and weed control, and sign and guardrail replacement. Street sweeping also occurs to make sure the roads are free of debris that could block vehicles from traveling. This more frequent road maintenance takes place whenever it is needed. Long-term road maintenance includes drainage facility management, striping, slurry sealing, overlay, and replacement. Drainage facility management should take place at least once a year at the inlets and outlets of drainage facilities. Striping should occur more frequently every 2 to 3 years. Paved roads should receive a slurry seal every 6 to 7 years and an overlay every 20 years. Lastly, roads should be replaced every 40 years.[14]

[14] All work will take place within the defined ROWs of the roads and as depicted and defined in the HCP.



Southeastaly limit of High.03

ICF

San Bernardino Valley Water Conservation District

Figure 2-1
Location of Covered Activities
Wash Plan HCP

WashPlan

widened roadway will have six travel lanes, one center lane, and two bike lanes. This Covered Activity also includes operation and maintenance of the planned improvements. The road widening within Highland will result in up to 1.6 acre of permanent and 1.9 acres of temporary impacts.

Orange Street/Boulder Avenue Improvements (High.02)

Within the Cities of Highland and Redlands, Boulder Avenue/Orange Street from Greenspot Road to the south limit of the Plan Area will be widened along both sides to include four travel lanes, one center lane, and two bike lanes. It will be improved with standard street improvements such as curb, gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening within Highland will result in up to 3.9 acres of permanent and 5.5 acres of temporary impacts.

Greenspot Road Improvements (High.03)

Greenspot Road will be widened on the south side between Weaver Street and Santa Paula Street and on both sides between Santa Paula Street and the new Greenspot Road Bridge realignment. The widened road way will have four travel lanes, one center lane, and two bike lanes with standard street improvements such as curb. Gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening will result in 9.8 acres of permanent impact and 16.8 acres of temporary impacts.

City of Redlands Activities

Alabama Street Improvements (Redl.14)

Within Redlands beginning approximately 0.1 mile north of the intersection of River Bluff Avenue, Alabama Street will be widened and improved to the Highland city limits. The road widening within Redlands will result in up to 10.5 acres of permanent and 7.6 acres of temporary impacts.

Orange Street Improvements (Redl.15)

Within Redlands beginning at Riverview Drive, Orange Street will be widened and improved to the Highland city limits. It will be widened along both sides to include four travel lanes, one center lane, and two bike lanes. It will be improved with standard street improvements such as curb, gutter, sidewalk, landscaped parkway, roadway drainage, and street lights. The road widening within Redlands will result in up to 5.0 acres of permanent impacts and 7.3 acres of temporary impacts.

General Road Maintenance

Maintenance must also take place on other paved roads throughout the Plan Area. Maintenance on these roads includes shoulder grading and weed control, and sign and guardrail replacement. Street sweeping also occurs to make sure the roads are free of debris that could block vehicles from traveling. This more frequent road maintenance takes place whenever it is needed. Long-term road maintenance includes drainage facility management, striping, slurry sealing, overlay, and replacement. Drainage facility management should take place at least once a year at the inlets and outlets of drainage facilities. Striping should occur more frequently every 2 to 3 years. Paved roads should receive a slurry seal every 6 to 7 years and an overlay every 20 years. Lastly, roads should be replaced every 40 years.[14]

[14] All work will take place within the defined ROWs of the roads and as depicted and defined in the HCP.

Google Maps

Imagery ©2020 County of San Bernardino, Maxar Technologies, U.S. Geological Survey, Map data ©2020 50 ft

Google Maps 31312 Greenspot Rd

Image capture: Mar 2019 © 2020 Google

Highland, California

Google

Street View

- Grading and earthwork to maintain the flow lines of the channels.

Weaver Street Channel (High.10)

Maintenance and operation of an existing city drainage channel would occur south of Greenspot Road along the southerly projection of Weaver Street. This channel connects to the natural water course of Plunge Creek. Drainage channel maintenance may result in up to 1.8 acres of temporary impacts, and 1.8 acres for operations and maintenance.

Greenspot Road Drain Outlets (High.11)

Maintenance and operation of the existing outlets of two city storm drains in Greenspot Road would occur on the east side of Plunge Creek south of Greenspot Road and would include the concrete headwalls, grouted riprap, and the dirt channel area near the outlets. Drain outlet maintenance may result in up to 0.1 acre of temporary impacts, and 0.1 acre for operations and maintenance.

Church Street Channel (High.12)

Maintenance and operation of an existing city drainage channel would be located along the southerly projection of Church Street south of Merris Street. This channel connects to the Elder Creek Channel that is owned and maintained by Flood Control. Drainage channel maintenance may result in up to 0.3 acre of temporary impacts, and 0.4 acre for operations and maintenance.

City of Redlands Activities

Church Street Drainage (Redl.02)

Redlands plans to construct a drainage pipe and a 30- by 30-foot energy dissipater at the terminus of Church Street. Currently runoff during storm events flows across the surface of the floodplain to the active channel of the Santa Ana River. The pipe will carry water that would otherwise be surface flow. The pipeline and dissipater are expected to reduce erosion. The project is expected to result in 2.0 acres of permanent impacts. Construction may result in up to 2.0 acres of temporary impacts and 0.1 acre for operations and maintenance.

Judson Street Drainage (Redl.03)

Redlands plans to construct a drainage pipe and a 30- by 30-foot energy dissipater at the terminus of Judson Street. Currently runoff from Orange Street during storm events flows across the surface of the floodplain to the active channel of the Santa Ana River. The pipe will carry water that would otherwise be surface flow. The pipeline and dissipater are expected to reduce erosion. The project is expected to result in 0.2 acre of permanent impacts, 0.2 acre of temporary impacts, and 0.1 acre for operations and maintenance.

Orange Street Drainage (Redl.04)

Redlands plans to construct a 30- by 30-foot energy dissipater at the terminus of Orange Street. The dissipater will connect to an existing pipe. Currently, runoff from Orange Street during storm events flows across the surface of the floodplain to the active channel of the Santa Ana River. The dissipater is expected to reduce erosion. The project is expected to result in 900 square feet of permanent impacts and 2.7 acres of temporary impacts, and 0.04 acre for operations and maintenance.

Google Maps

Drainage outlets on north and south sides of greenspot Road

Map data ©2020 , Map data ©2020 20 ft

Wash Plan boundaries include north side of Greenspot Road at Plunge Creek

part of an HCP Covered Activity and included as part of the Covered Activity design, those improvements are covered as part of that Covered Activity.

2.3.2 Freeway Operation and Maintenance

Freeway operation and maintenance activities that occur within the 210 Freeway ROW or any other areas within the Plan Area are not covered by the HCP.

2.3.3 Potential Trail Across the Woolly-star Preserve Area

As noted above a trail crossing of the Santa Ana River and the WSPA is envisioned by trail planners to connect to the Santa Ana River Trail in Redlands. This potential crossing is not covered by this HCP. The envisioned trail would cross the WSPA at Cone Camp Road and would be subject to relevant or applicable authorities and approvals. It is recognized here only to provide a full description of activities contemplated in the Plan Area.

2.3.4 Greenspot Bridge and Road Realignment

The City of Highland recently realigned a portion of Greenspot Road and upgraded the realigned area from a two- to a four-lane roadway. It also constructed a new four-lane bridge where Greenspot Road crosses the Santa Ana River. This was originally contemplated as a Covered Activity in the HCP but Highland constructed the project prior to HCP completion. It separately provided biological mitigation for 3.4 acres of temporary impacts and 4.4 acres of permanent impacts on SBKR critical habitat through a FESA Section 7 consultation with the USFWS. Highland has participated both financially and as a member of the Task Force in the development of the HCP. It continues to participate as a Task Force member. Because of Highland's participation and investment in the development of the HCP, the HCP has reserved the mitigation values for Highland's Greenspot Road for a project outside the Plan Area. The reserved mitigation value, 7 acres, can be used to offset impacts on SBKR unoccupied critical habitat.

2.3.5 General Urban Development

Any development projects such as commercial, industrial, residential development or other urban transportation infrastructure (e.g., roadways, railways, bicycle paths) are not covered unless specifically listed as a Covered Activity, above.

2.4 Take Authorization for Activities on Federal Lands

For activities associated with the HCP that occur on federal lands, such as groundwater recharge basin construction, aggregate mining, management and monitoring, and O&M activities on BLM lands, exemption for any associated incidental take will be provided through a formal Section 7 consultation on the proposed land exchange between the BLM and the Conservation District or through other future formal consultation. The HCP includes an analysis of HCP associated activities on Federal land in the Plan Area and provides mitigation for them in the form of permanent conservation and management and avoidance and minimization measures. The impacts analysis and mitigation provided in the HCP will be incorporated into the Section 7 consultation.

Dennis Barton
1418 Bella Vista Crest
Redlands, CA 92373

January 21, 2020

Mr. Daniel Cozad *via Email:* **dcozad@sbvwcd.org**
Santa Ana River Wash Project
San Bernardino Valley Water Conservation District
1630 W. Redlands Boulevard
Redlands, CA 92373

Ms. Karin Cleary-Rose *via Email:* **fw8psfwocomments@fws.gov.**
Santa Ana River Wash Project
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

Subject: Upper Santa Ana River Wash Habitat Conservation Plan

Mr. Cozad and Ms. Cleary-Rose:

If the Upper Santa Ana River Wash Habitat Conservation Plan had to be described with one word, that word would have to be "balance". It balances the need to protect sensitive and endangered species and their habitats with the needs to serve an ever-growing population with water, transportation, recreation, construction materials.

I am a father, a grandfather, and hopefully in 10 years or so, a great-grandfather. An observation I share when people lament the population growth and its impacts is, we have children, our children have children and we refuse to die! We have to provide housing, water, transportation and other infrastructure to support them. At the same time, we need to protect species and their habitat. The Upper Santa Ana River Wash Habitat Conservation Plan provides for both. Balance.

I commend the those who have developed the Upper Santa Ana River Wash Habitat Conservation Plan, and in particular the resource agencies such as the US Fish and Wildlife Service. Everyone has had to give a little to make this plan work; we cannot think only of ourselves and our specific needs or wants. Balance.

I trust that the Upper Santa Ana River Wash Habitat Conservation Plan will come to fruition for the benefit of all.

Sincerely,

Dennis Barton

CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law

submitted via Electronic Mail

1/21/2020

San Bernardino Valley Water Conservation District
c/o Daniel Cozad
1630 West Redlands Blvd., Suite A
Redlands, CA 92372
dcozad@sbvwcd.org

RE: Comments on the Draft Environmental Impact Statement/Supplemental Environmental Impact Report for the Upper Santa Ana River Wash Plan

Dear Mr. Cozad,

Please accept the following comments on the Draft Environmental Impact Statement/Supplemental Environmental Impact Report (DEIS/SEIR) for the Upper Santa Ana River Wash Plan (Wash Plan, Proposed Project) on behalf of the Center for Biological Diversity (the "Center").

The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats in the Western Hemisphere through science, policy, and environmental law. The Center has over 1.6 million members and supporters throughout California and the western United States, including members within San Bernardino County. The Center has been involved in Santa Ana River issues for years, including numerous scoping and comment letters on previous iterations of the Wash Plan and BLM land exchange including comments on the Draft Environmental Impact Report (DEIR) for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan SCH No. 2004051023 dated May 23, 2008, and comments on Draft South Coast Resource Management Plan Amendment And Draft Environmental Impact Statement (EIS) for the Santa Ana River Wash Land Exchange DOI-BLM-CA-D060-2009-0005-EIS - OPEC Control No. DES 09-12, BLM/CA/ES-2009-022+8300 dated October 22, 2009, and scoping comments on the Upper Santa Ana River Wash Project. (80 FR 11463) submitted on 5-4-15. We incorporate all of those comments herein.

The Center appreciates the tenacity of the project proponents for moving the Wash Plan forward to date, because the Center sees value in cooperative management of the Santa Ana River Wash that could benefit the numerous critically imperiled species that rely on the existing habitats in the Wash for their continued existence. Based on the confusion with the Federal Register notice, which was published with the wrong Habitat Conservation Plan named, and the poor timing during the end-of-year holidays, we retain the right to submit additional comments on the DEIS/SEIR and the Final Draft HCP. In the meantime, we submit the following comments on the DEIS/SEIR.

Arizona • California • Nevada • New Mexico • Oregon • Washington • Illinois • Minnesota • Vermont • Washington, DC

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I. THE HCP MUST ENSURE SURVIVAL AND CONTRIBUTE TO RECOVERY OF LISTED SPECIES

The HCP must not "appreciably reduce the likelihood of survival and recovery" of covered species in the wild. ESA § 10(a)(2)(B)(iv); *see also* Cal. Fish & Game Code § 2081 (providing equivalent protections under state law). In addition, the HCP must provide additional biological protections where feasible ("the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such a taking."). ESA § 10(a)(2)(b)(ii)); Cal. Fish & Game Code § 2081; *see also* Cal. Pub. Res. Code §§ 21002, 21002.1, 21801 (under CEQA, projects may not be approved where feasible alternatives and mitigation measures available to avoid or lessen environmental impacts). In ESA Section 10, the term "conservation plan" must be consistent with the term "conservation" as described in Section 3, meaning "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." Regulated taking should occur *only* "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved," ESA § 3(3). The HCP must abide by these principles to ensure the survival and contribute to the recovery of all the species covered by the plan. While this version of the HCP is an improvement over previous proposals, feasible alternatives and mitigation measures are available to ensure a more biologically robust conservation plan can be adopted. The San Bernardino Valley Water Conservation District has the opportunity – and the legal mandate under both state and federal law – to undertake such actions when feasible.

A. The HCP Must Not Appreciably Reduce the Likelihood of Survival and Recovery of Covered Species

The HCP must include measures that will bring federal and state-listed species to a point where ESA protections are no longer necessary. The foundation of the proposed Wash Plan is the Habitat Conservation Area that would provide habitat and management for covered species. The Plan Area is comprised of lands under both federal and private land ownership where important habitat areas will be set aside to contribute to the conservation of covered species. While the DEIS/SEIR appears to base its proposal on the best available data on species and habitat, we request a supplemental document address the following potential deficiencies in the proposed HCP.

1. The Actual Acreage of Conservation Lands Unclear

A variety of acres is attributed to the Conservation Lands both within the DEIS/SEIR and between the DEIS/SEIR and the Final Draft Upper Santa Ana River Wash Habitat Conservation Plan (HCP). For example, the DEIS/SEIR identifies a 2,302-acre Conservation Area (at pg. 1.0-3) yet in Section 4.4, it states "approximately 1,659.5 acres of habitat in the Plan Area that will be conserved and managed and make up the HCP Preserve" (at pg. 4.4-4). At pg. 4.4-5, the DEIS/SEIR states "implementation of the HCP conservation program, including the conservation and management of 1,529.8 acres of habitat in the Plan Area". The

Final Draft Upper Santa Ana River Wash Habitat Conservation Plan identifies that 1659.4 acres will be included in the Conservation area (at pg. ES-3, Table ES-1). These differing numbers add confusion to the environmental analysis and potentially the on-the-ground conservation in the future. We request that consistent acreages for conservation and impacts analysis be included, and that consistent number be used for analysis of impacts and mitigations.

2. Proposed "Take" Not Adequately Justified.

The proposed "take" of species/habitat is a net loss to the existing habitat in the Wash area as presented in the DEIS/SEIR. In some instances, no mitigation is proposed for the impacts to important habitats and species. For example, for Riversidean Sage Scrub (RSS), a rare plant community, and habitat for California gnatcatchers which is proposed as a covered species under the Wash Plan, is proposed to have permanent impacts to 7.8 acres (at 4.4-8, Table 4.4-1), yet no RSS is located on the proposed conservation lands in order to offset the impact. Similarly, riparian vegetation, another rare plant community particularly in southern California, is proposed to have permanent impacts to 0.2 acres and temporary impacts of 2.7 acres (at 4.4-8, Table 4.4-1), yet no riparian vegetation is included on the proposed conservation lands in order to offset the impact.

This troubling issue also occurs for covered species. For example, the 13.4 acres of permanent impact to cactus wrens' cactus patches for primary nesting habitat represents a 29% impact to the existing habitat with only 32.5 acres of existing habitat and 0.2 acres of temporary impacts (presuming the temporary impacts are temporary) occurring in the conservation area (at 4.4-9, Table 4.4-2). In general, for all of the habitats and species, the proposed action would decrease the habitat and population of the covered species. To date, we are not aware of successful rehabilitation of habitat or covered species that moves them away from the ongoing declines that caused the need for Endangered Species Act protections. These species need an increase in occupied habitat and population size.

The analysis for the critically endangered slender-horned spineflower is inadequate regarding the methodology used to evaluate the species occurrences. While we recognize the challenges intrinsic to evaluating annual plant species population numbers, the methodology used here does not adequately inform the reader as to the actual extent of the species' occurrence in the Wash Plan. What is a patch? How does that compare to a Historic Occurrence? Have the Historic Occurrences been extirpated due to disturbance or is the habitat still present? (at 4.4-9, Table 4.4-2) While we appreciate that "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" (at 4.4-10) is proposed, it is unclear why only 100 acres was chosen. To our knowledge, the pollination regime for the slender-horned spineflower is unknown, although other members of the Polygonaceae are insect pollinated. It is essential that adequate habitat for the spineflower's pollinator(s) be conserved, likely through adaptive management requirements. However, we believe that the DEIS/SEIR is premature to conclude that no

future mitigation will be required for this species, particularly as climate change advances (Memmett et al. 2007).

B. The HCP Must Minimize and Mitigate the Impact of Takings to the Maximum Extent Practicable

The proposed HCP Purpose and Need include:

> "The purpose of the USFWS action is to protect and conserve multiple Endangered Species Act (ESA) listed species and other native species; to conserve, enhance and restore the habitat and ecosystems upon which these species depend upon; and to ensure the long-term survival of these species, within the Santa Ana River Wash."
>
> "The need for the proposed action is to respond to the Conservation District's application for an ITP under the authority of section 10(a)(1)(B) of the ESA to take certain Covered Species as a result of their proposed aggregate mining, water conservation, wells and water infrastructure, transportation, flood control, trails, habitat enhancement, and agriculture."

At pg. 1.0-5

Unfortunately, the HCP does not provide adequate analysis that full mitigation under CEQA, ESA, and CESA for impacts to species and their habitats will be achieved. Because not all acres have the same habitat values for every species, adaptive management will be key. The HCP identified that:

> "Preparation of a detailed Adaptive Management and Monitoring Program (AMMP) for the protection and management of multiple habitats and species in the Wash, as indicated in the Mitigation Monitoring and Reporting Plan (MMRP) for the Wash Plan HCP EIR (anticipated to occur by the end of 2018)"

Final Draft HCP at pg. 1-4

However, we could not locate an AMMP. Absent this important plan, the DEIS/SEIR environmental review is incomplete.

1. Select a Reserve Configuration and Size that Minimizes and Mitigates Impacts to Listed Species to the Maximum Extent Practicable

In approving an incidental take permit for the plan, the Fish and Wildlife Service must find that the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking. 16 U.S.C. § 1539(a)(2)(B). Section 15021 of CEQA states that a public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant environmental effects of the project. The Council on Environmental Quality, which wrote the NEPA regulations, describes the alternatives requirement as the "heart" of the environmental impact statement. 40 C.F.R. § 1502.14. The purpose of this requirement is to insist that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including no action. "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Alaska Wilderness*

Recreation & Tourism v. Morrison, 67 F.3d 723, 729 (9th Cir. 1995). The DEIS/SEIR must "[r]igorously explore and objectively evaluate all reasonable alternatives" to a proposed action. 40 CFR § 1502.14(a) (emphasis added). *See City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990).

C. The DEIS/SEIR Must Specify All Harmful Effects of the Proposed Action

The DEIS/SEIR must specify any harmful effects of the proposed action in order to meet the requirements of the ESA (10(a)(2)(a)(i)), CESA, and CEQA. Without a full analysis of all effects of a proposed action, any choice among alternatives and mitigation measures is uninformed. The DEIS/SEIR must include comprehensive analyses of edge effects, such as urban versus agricultural matrix, domestic pets, roads and trails (currently within the proposed Conservation Area, and any new roads/trails anticipated in the Planning Area), and increased air pollution in the Plan Area, including cumulative effects. Such harmful effects will negatively affect the recovery and survival of covered species. The proposed DEIS/SEIR does not analyze in detail these harmful edge effects. More detailed edge analyses should be conducted on a species-specific basis.

The following concepts should be more thoroughly analyzed for each species.

1. Habitat Fragmentation

Habitat fragmentation affects numerous ecological process across multiple spatial and temporal scales, including changes in abiotic regimes, shifts in habitat use, altered population dynamics, and changes in species compositions (Schweiger et al. 2000). Patch size has been identified as a major feature influencing the plant and small mammal communities, and native rodent populations are vulnerable to collapse in habitat fragments. The composition, diversity, and spatial configuration of patch types, distances from sources, edge-to-area ratios, and ecotonal features may also structure the plant and small mammal communities. More detailed species-specific analyses on patch size is needed in the conservation analyses.

Habitat fragmentation can also increase impacts on rodent predators. Housecats, coyotes, striped skunks, opossums, great-horned owls, and red-tailed hawks are as abundant or more abundant in fragments than in unfragmented habitat (Bolger et al. 1997)

2. Edge Effects:

The same edge can evoke different kinds of effects with different species (Joppa et al. 2008). No species-specific analysis was offered in the proposed Wash Plan on the type of edge that each covered species might experience in the Conservation Area, and whether the matrix will provide some measure of permeability. The level of connectivity needed to maintain a population will vary with the demography of the population, including population size, survival and birth rates, and genetic factors such as the level of inbreeding and genetic variance (Rosenberg et al. 1997). These factors must be obtained to be able to conduct any reasonable analyses of the viability of populations of covered species in the proposed reserve.

3. *Air Quality*

The DEIS/SEIR relies on the 2008 air quality analysis and contends that new regulations will reduce various pollutants identified in the 2008 report. While new regulations will reduce pollutants, the DEIS/SEIR fails to evaluate the increase in pollution from the massive expansion of warehouse fleets in the proposed project area. While the air pollution from cleaner mining fleet haul trucks and processing equipment and limitations on idling of commercial/construction vehicles will reduce sourced emissions, the cumulative impact to air quality is likely to still be degraded beyond its already poor air quality. The DEIS/SEIR fails to adequately identify this cumulative impact.

4. *Global Climate Change*

The DEIS/SEIR discusses climate change in the context of production and reduction of greenhouse gas emissions. However, we did not find an analysis of the potential impacts on the Santa Ana River wash and its flora and fauna as the effects of climate change continue to manifest. An analysis of the interplay between global climate change and the impact to species and their habitats must be included and the analyses used as a basis for the AMMP.

II. THE WASH PLAN MUST ENSURE ADEQUATE FUNDING TO CARRY OUT THE HCP

The DEIS/SEIR has not demonstrated that "the applicant will ensure that adequate funding for the plan will be provided." 16 U.S.C. 1539(a)(2)(B)(iii) (emphasis added); *see also* Cal. Fish & Game Code § 2080. Assured funding is critical to the success of the conservation strategy and is a mandatory requirement of any HCP. *See, e.g., National Wildlife Federation v. Babbitt,* 128 F.Supp.2d 1274 (E.D.Cal. 2000).

As a preliminary matter, neither the DEIS/SEIR nor the HCP clearly delineates and specifies all funding needs for implementation of the plan, including but not limited to costs associated with adaptive management for the reserves and covered species, and scientific and compliance monitoring, law enforcement and other activities. Only with this baseline information can the DEIS/SEIR accurately calculate and assure the amount of funding necessary to carry out the necessary measures for the life of the permit. The DEIS/SEIR must ensure sufficient funding for all agencies (whether local, state, or federal) with implementation responsibilities related to the Conservation Area.

The HCP does identify some aspects of where the funding could come from, but the necessary assurances for funding are not clear. Funding without an identified source is an exercise in speculation.

The HCP states:

> "lands that will be placed into conservation are primarily owned by the Conservation District, with additional holdings by the BLM, Flood Control, and Redlands (see Table

3-1). Appropriate assurances of long-term conservation will be provided within the first two years of the plan implementation (and before any impacts on Covered Species are allowed by Covered Activities), either through conservation easements or other agreement acceptable to the Wildlife Agencies"

HCP at 7-1

Permanent conservation easements may work for the lands controlled by the Conservation District, Flood Control and Redlands, but, as the HCP recognizes, BLM does not allow for conservation easements on the public lands that they manage. The HCP then relies on a BLM land use designation of an Area of Critical Environmental Concern (ACEC). However, ACEC land use designations can be changed by a subsequent land use plan amendments, so reliance on this impermanent designation is not possible.

III. THE DEIS/SEIR MUST COMPLY WITH ALL REQUIREMENTS OF CEQA AND THEIR IMPLEMENTING REGULATIONS

The above comments highlight the failure of the DEIS/SEIR and HCP to adequately ensure protection of species and conservation of habitat. The above sections reveal not only the failure of the environmental review documents to comply with the federal and state ESA, but also the (1) lack of detailed analysis of significant direct, indirect, and cumulative impacts (and adequate explanation for why other impacts are considered insignificant); (2) lack of adequate analysis of irreversible significant environmental effects that cannot be avoided if the project is implemented; (3) and lack of analysis and adoption of sufficient mitigation measures to reduce the impacts to less than significant levels (or that mitigations and alternatives identified in the DEIS/SEIR are infeasible and the unmitigated effects are outweighed by the project's benefits).

The DEIS/SEIR is inadequate under CEQA a for the above-listed reasons and a host of additional environmental impacts, including but not limited to (1) air quality impacts; (2) loss of open space; and (3) cumulative impacts of past, present, and reasonably foreseeable activities.

IV. HABITAT CONSERVATION PLAN

The Final Draft HCP needs to be revised to clarify the final language regarding jurisdictional responsibilities, provide an updated Implementing Agreement, provide the AMMP and other required plans and recirculate the updated version for public comment.

V. CONCLUSION

Thank you for the opportunity to comment on this important DEIS/SEIR. We urge the Agencies to fully address our comments and incorporate the missing following changes to the proposed Wash Plan to ensure a biologically adequate plan that will meet the goals of the HCP. Please include us on all subsequent notices/documents on this project.

Sincerely,

Ileene Anderson
Senior Scientist

References

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

January 21, 2020

Ms. Karin Cleary-Rose
U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

Subject: EPA Comments on the Draft Environmental Impact Statement for the Upper Santa Ana River Wash Habitat Conservation Plan, San Bernardino County, California (EIS No. 20190285)

Dear Ms. Cleary-Rose:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The Draft Environmental Impact Statement evaluates the potential environmental consequences associated with the issuance of the Applicant's proposed incidental take permits under the Endangered Species Act for four federally-listed species (San Bernardino kangaroo rat, coastal California gnatcatcher, Santa Ana River woolly-star, slender-horned spineflower) and one unlisted species that has the potential to become listed during the term of the Habitat Conservation Plan (cactus wren). The HCP covers approximately 4,892.2 acres in southwestern San Bernardino County, California that would be affected by the covered activities, which include aggregate mining, water conservation, wells and water infrastructure, transportation, flood control, habitat enhancement and monitoring, and agriculture.

The EPA supports the overall goals of environmental stewardship of the HCP. We recognize multiple agencies have worked together for several years on this collaborative effort, and that it is inherently difficult to balance the competing needs of various parties and multiple land uses.

We have concerns about potential impacts from activities covered by the HCP to several resource areas, including: surface and groundwater quality and quantity, floodplain capacity, waters of the United States, air quality, and habitat for the Santa Ana sucker and San Bernardino kangaroo rat. Additional analysis may be required to better assess and quantify these impacts and design appropriate mitigation measures to minimize them. Please see the enclosed comments for a description of these and other concerns and our recommendations for the Final EIS.

Effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change and the EPA's continued roles and responsibilities in the review of federal actions can be found on our website at: https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act.

The EPA appreciates the opportunity to review this DEIS. When the FEIS is released for public review, please send one copy to the address above (mail code: TIP-2). If you have any questions, please contact me at 415-947-4167, or Sarah Samples, the lead reviewer for this project, at 415-972-3961/ samples.sarah@epa.gov.

Sincerely,

Jean Prijatel, Manager
Environmental Review Branch

Enclosure

Cc:
John Robles, U.S. Fish and Wildlife Service
Betsey Miller, San Bernardino Water Conservation District
Lijin Sun, South Coast Air Quality Management District
Steve Estes, U.S. Army Corps of Engineers

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE UPPER SANTA ANA RIVER WASH HABITAT CONSERVATION PLAN, SAN BERNARDINO COUNTY, CA – JANUARY 21, 2020

Water Resources

Water Quality

The Draft Environmental Impact Statement acknowledges that covered activities have the potential to affect surface and groundwater quality in the Plan Area by increasing sediment and other pollutants in stormwater runoff, but does not fully disclose impacts of each covered activity. Such information is necessary to assure compliance with state and federal water quality regulations, assess impacts to species of concern, and to support a determination of the potential impacts of such activities. For example, the DEIS does not disclose that the Enhanced Recharge Project, upon completion, would remove 500 cubic feet per second (cfs) from the Santa Ana River[1] and no potential impacts to the Santa Ana sucker are disclosed or analyzed.

As noted in the DEIS, Reach 4 of the Santa Ana River downstream of Plan Area is listed as impaired under Section 303(d) of the Clean Water Act (p. 3.3-4). Aggregate mining may worsen existing impairments and adversely affect beneficial uses throughout the watershed. Certain activities associated with the Habitat Conservation Plan, such as aggregate mining, require National Pollutant Discharge Elimination System permitting pursuant to CWA Section 402. The DEIS determines that implementing best management practices through regulatory requirements would prevent the degradation of water quality and that the potential to violate waste discharge requirements would be significantly reduced. (p. 4.13-12). However, more analysis and discussion are needed to support this determination.

Recommendations for the Final EIS:

- Identify all water quality impacts to the Santa Ana River and its tributaries. Discuss the monitoring protocols and the water quality thresholds to be used to ensure the Santa Ana River is not further impaired due to covered activities, specifically the mining expansion, Enhanced Recharge Project, and Elder/Plunge Creek Restoration Project.
- Provide additional detail specifying how covered activities would comply with state and federal industrial storm water regulations, including CWA Section 402 and requirements at 33 CFR 323.4. The EPA is available to provide technical assistance related to the CWA Section 402 program.
- Include the updated and finalized plan of operations and storm water pollution prevention plans for the Cemex and Robertson's Ready Mix mines.

Groundwater

In recent years, water usage in the Bunker Hill groundwater basin has led to decreases in groundwater storage levels.[2] The HCP would allow for eight to 14 new groundwater wells to be installed and used in conjunction with other wells for aggregate mining. These proposed wells are not anticipated to substantially deplete groundwater supplies or interfere with groundwater recharge (p.4.3-11), but the DEIS does not quantify any groundwater usage aside from aggregate mining. Therefore, when all wells are in use, it is unclear what the impacts would be to water resources.

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[1] San Bernardino Valley Water Conservation District. 2020. Enhanced Recharge Project. Available at: https://www.sbvmwd.com/about-us/projects/enhanced-recharge-project-phase-1a.

[2] San Bernardino Valley Water Conservation District. 2019. Engineering Investigations. Available at: https://www.sbvwcd.org/reports-and-data/engineering-investigation.html.

According to San Bernardino County's Community Indicators Report, the county is estimated to experience a 28 percent increase in population growth between 2020 and 2045.[3] The DEIS also lists multiple housing and commercial developments adjacent to the Plan Area that would contribute to increases in population during the HCP term (Section 4.13.2). This population growth and the adjudication of the groundwater basin could lead to cumulative impacts that are not discussed in the DEIS. Section 4.13.3.3 states that the HCP covered activities would include projects that would allow the water resource agencies to continue to provide and maintain a secure source of water for residents and businesses in the watershed, but does not provide details for these projects, such as the Enhanced Recharge Project. Implementation of these projects could result in further impacts.

Recommendations for the FEIS:

- Include a quantitative analysis of how implementation of new pumping wells and additional mining water may impact water resources in the project area. This may include a water balance approach that summarizes current water usage and projects future water usage that would result from increased groundwater pumping.
- Evaluate the cumulative impacts to the Bunker Hill groundwater basin. Include baseline hydrologic data, hydrogeologic characterization of the project area, and overall water usage to assess potential impacts from land-use changes and implementation of the HCP. Provide more detailed information about proposed water conservation activities.

Aggregate Mining

Expanded mining operations would result in 401.5 acres of permanent impacts to covered species' habitat (p. 2.0-4). The DEIS does not provide adequate information to fully assess the potential impacts from mine expansion, including impacts to surface and groundwater quality and hydrology. Also, the DEIS does not analyze impacts from the new haul road that would cross Plunge Creek and City Creek (HCP p. 2-7).

According to the DEIS, new mining operations would be located outside the low flow channels of the Santa Ana River, Plunge Creek, and City Creek, and would not include any earthmoving activities or structures that would alter the course of these drainages (p. 4.3-13). However, existing berms around quarries would be extended as the quarries expand to prevent stormwater from flowing into them (p. 4.3-4). The DEIS concludes that these actions would not alter the course of Santa Ana River, Plunge Creek, or City Creek and that potential impacts are less than significant (p. 4.3-13). Additional analysis is needed to support this conclusion.

The DEIS states "the mining activities are considered an irreversible commitment of resources as the riverine hydraulic functions and values for habitat are lost for an extremely long period of time" (p. 4.13-25). The Santa Ana River and its tributaries are complex systems that have developed in a climatic regime of wide precipitation fluctuation ranging from drought to flood. Given the scale of the proposed mining expansion (both spatial and temporal), the project would have long-term adverse effects on river geomorphology, and therefore, adverse effects on biological communities. The EPA would expect the amount and scope of the proposed mine expansion to impact the hydrologic and ecological functions of rivers/streams on and off-site. The DEIS does not discuss the loss of these functions.

Recommendations for the FEIS: Complete additional analysis to determine the direct, secondary and cumulative impacts from mine expansion. We recommend addressing: anticipated changes to vegetation communities and channel morphology both upstream and downstream of the project;

[3] San Bernardino County. 2018. Community Indicators Report. Available at: http://www.sbcounty.gov/Uploads/CAO /Feature/Content/SB_2018_REPORT_-3.pdf.

anticipated changes to stream substrate; and potential adverse effects to aquatic and terrestrial life dependent on the aquatic ecosystem. The potential secondary effects to be analyzed include: changes in hydrology and sediment transport capacity of waters; changes to water velocity; the potential for headward and downstream erosion; impacts from excavation proposed in the 100-year floodplain; increases in the volume and velocity of polluted stormwater; increase in discharge of pollutants associated with mining and transport activities; decreases in water quality from the impairment of floodplain and ecosystem services including water filtration, groundwater recharge, and flood attenuation; and disruption of hydrological and ecological connectivity.

Impacts to Waters of the U.S.

The scale of the covered activities within the Plan Area and the magnitude of potential impacts requires a detailed evaluation impacts to waters of the U.S. (WOTUS), including the Santa Ana River, Plunge Creek, and City Creek. These waters provide hydrologic connectivity, facilitating movement of water, sediment, nutrients, wildlife and plant propagules throughout the watershed. Other ecosystem processes include dissipation of energy as part of natural fluvial adjustment and the movement of sediment and debris. Currently, there is insufficient information in the DEIS to evaluate the effects of covered activities (e.g., aggregate mining, flood control, water conservation) on the Santa Ana River and its tributaries.

Several covered activities may require a permit under Section 404 of the Clean Water Act from the U.S. Army Corps of Engineers (USACE). A Section 404 permit can only be issued for the Least Environmentally Damaging Practicable Alternative. It is unclear from the information provided in the DEIS whether the covered activities, as proposed, would satisfy the requirements for such a permit.

The DEIS estimates that permanent impacts to WOTUS from covered activities is 7.8 acres (p. 4.4-26). The DEIS also indicates that implementation of covered activities would not affect the hydrology of Santa Ana River, Plunge Creek, or City Creek (p. 4.3-4), but does not support this determination with its impact analysis. A verified wetland delineation and jurisdictional determination would be needed before the CWA Section 404 permitting process can proceed, and an assessment of wetland conditions is needed to fully evaluate the potential impacts of the project, as well as to identify potential opportunities to mitigate such impacts.

Recommendations for the FEIS:

- Disclose the ecosystem functions provided by the specific wetland or WOTUS that could be impacted by the covered activities.
- Disclose steps taken to achieve compliance with the CWA Section 404(b)(1) Guidelines.
- Describe any efforts to work with the USACE to obtain a formal jurisdictional delineation of WOTUS in the Plan Area. If available, include a map of the delineated waters and the anticipated impacts to those waters to streamline future Section 404 compliance efforts.
- Conduct an assessment of the aquatic resources in the project footprint, using a scientific method such as the California Rapid Assessment Method, and include the results.
- Discuss avoidance of, minimization of, and mitigation for impacts separately to clarify how aquatic resources are preserved and avoided to the greatest extent feasible by selecting the least damaging project type, spatial location, and extent compatible with achieving the purpose of the covered activity.

Flood Control

Extensive flood control features are included in the HCP as covered activities (HCP p. 2-19 to 2-22). Disconnecting the active channels from their floodplains reduces a channel's capacity to dissipate flow volumes and energy on their floodplains and has a negative impact on a full spectrum of ecosystem

functions. The DEIS does not provide a complete description of these cumulative impacts and does not include an analysis of direct and secondary impacts to waters from anticipated flood control activities.

> ***Recommendations for the FEIS:*** Disclose all direct, secondary and cumulative impacts from flood control activities, including the Elder/Plunk Creek Restoration Project, to the floodplain within the Plan Area and downstream.

Air Quality

The EPA's regulations at 40 CFR 93.150-165 provide a method for federal agencies to demonstrate general conformity with the National Ambient Air Quality Standards (NAAQS). Estimated annual emissions from a federal action are compared to the de minimis thresholds through an applicability assessment. If the emissions exceed the de minimis threshold, general conformity is applicable to the federal action and the EPA's regulations offer methods to demonstrate conformity as well as other requirements for the conformity demonstration, such as public involvement.

The Plan Area is located within the South Coast Air Basin (SCAB), which the EPA currently designates as extreme nonattainment for ozone, serious nonattainment for particulate matter of less than 2.5 microns ($PM_{2.5}$), and maintenance for particulate matter of less than 10 microns (PM_{10}), carbon monoxide (CO), and nitrogen dioxide. The DEIS indicates there would be short-term degradation of air quality during the construction of several covered activities and long-term degradation of air quality during mining operations. It also appears that general conformity de minimus thresholds may be exceeded, thus requiring a demonstration of conformity.

Appendix B of the DEIS incorrectly states that "SCAQMD [South Coast Air Quality Management] is the authorized state agency to determine the General Conformity of the present project with de minimis requirements of the Clean Air Act (Rule 1901)" (p. B-12). Rule 1901 states that SCAQMD is "the 'State agency primarily responsible for the applicable implementation plan' as used in Part 51, Subchapter C, Chapter I, Title 40, of the CFR." Under Section 176(c)(1) of the Clean Air Act, each agency has an affirmative responsibility to assure compliance with the applicable implementation plan. The DEIS does not appear to address general conformity beyond this brief sentence and does not include a comparison of annual emissions to the de minimis thresholds.

Table 4.1-4 provides the change in daily emissions resulting from the expansion of aggregate mining, and notes that the emissions estimate is derived from the San Bernardino Water Conservation District's November 2008 Final Environmental Impact Report for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (p. 4.1-8). The daily nitrogen oxides (NO_X) emissions rate, 59 pounds per day, multiplied over a year would exceed the 10 ton per year de minimis threshold for the SCAB. This would trigger the need for a new emissions estimate, because a conformity determination is required to use the latest and most accurate emission estimation techniques (e.g., EMFAC 2017, California's EPA-approved mobile source model for estimating on-road emissions).

> ***Recommendations for the FEIS:***
>
> - Provide documentation of the emissions estimate from the Conservation District's November 2008 Final Environmental Impact Report for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan.
> - Include a draft conformity determination, if appropriate. If you have questions about general conformity, we encourage your staff to contact Tom Kelly with our Air Planning Office at (415) 972-3856 or kelly.thomasp@epa.gov.

Biological Resources

Santa Ana Sucker

According to the DEIS, designated critical habitat for the Santa Ana sucker includes 462.2 acres of the Santa Ana River and City Creek, or nine percent of the Plan Area (p. 4.4-16). The DEIS notes that "City Creek and the Santa Ana River provide stream and storm waters required to transport coarse sediments that are necessary to maintain preferred substrate conditions in portions of the Santa Ana River occupied by Santa Ana sucker" and concludes that these water bodies "were determined to be essential for the conservation of the species" (p. 4.4-16). The EPA is concerned that the DEIS does not address impacts to the Santa Ana sucker, including loss of flow due to the Enhanced Recharge Project, reduction in coarse sediment transport due to mining, or hydrological changes due to the Seven Oaks Dam.

The USFWS Recovery Plan for the Santa Ana Sucker lists aggregate mining as a threat to the recovery of the Santa Ana sucker due to the removal of necessary substrates from the watershed and discharge of fine residual sediment back into the watershed (Recovery Plan p. I-13).[4] The DEIS does not provide a hydrogeomorphic or sediment transport study to evaluate mining impacts to the downstream population of Santa Ana sucker (and critical habitat) on the Santa Ana River between South La Cadena Drive to Prado Dam. The USFWS states that "with the implementation of the proposed conservation measures, impacts to Santa Ana sucker and its critical habitat would be less than significant" and that "additional mitigation is not required," but does provide analysis to support this determination (p. 4.4-16).

The Recovery Plan states that hydrological modifications are major threat to the Santa Ana sucker and that the presence of water is vital to the species (I-24). According to the Conservation District's website,[5] the Enhanced Recharge Project, upon completion, would divert up to 500 cfs from the Santa Ana River. In addition, the USACE's approved mitigation for the Seven Oaks Dam required water releases "to mimic pre-dam hydrologic processes (scour and deposition) upon which the endangered species are dependent" (Seven Oaks Dam Water Control Manual[6] p. 7-8). It is unclear in the DEIS if these releases have occurred. If releases have not occurred, the EPA anticipates that hydrological and ecological processes that have historically maintained habitat for Santa Ana sucker have been reduced or eliminated. The DEIS does not disclose or discuss the impacts of these projects.

The USFWS provided comments pertaining to the Santa Ana sucker for a proposed project adjacent to the Plan Area in June 4, 2014.[7] The letter states that coarse sediment into the Santa Ana River has been substantially reduced by the presence of Seven Oaks Dam and modifications to Plunge Creek, and that any further reduction of coarse sediment is a potentially significant cumulative impact. At that time, the USFWS requested a sediment transport study to analyze hydrological and sediment transport changes, but the current DEIS does not discuss the need for such an analysis for the current proposal.

According to a call with the USFWS on January 3, 2020, impacts to the Santa Ana sucker will be considered as part of the Upper Santa Ana River Habitat Conservation Plan, which includes the entire Plan Area. However, the current HCP covers activities that may adversely affect the Santa Ana sucker and the DEIS does not include analysis of impacts from these activities.

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[4] U.S. Fish and Wildlife Service. February 2017. Recovery Plan for the Santa Ana Sucker. https://ecos.fws.gov/docs/recovery_plan/20170228_Final%20SAS%20RP%20Signed.pdf.

[5] San Bernardino Valley Water Conservation District. 2020. Enhanced Recharge Project Available at: https://www.sbvmwd.com/about-us/projects/enhanced-recharge-project-phase-1a.

[6] U.S. Army Corps of Engineers. 2003. Water Control Manual: Seven Oaks Dam & Reservoir, Santa Ana River, San Bernardino County, California. Available at: https://resreg.spl.usace.army.mil/pages/7oaks.php.

[7] This USFWS letter was regarding the Draft Environmental Impact Report for the Harmony Specific Plan Project in Highland, California, a project adjacent to the Plan Area.

Recommendations for the FEIS:

- Fully analyze impacts to the Santa Ana sucker from activities covered by the proposed HCP, including cumulative impacts of any past, present and future projects. Describe sediment transport conditions in City Creek, Plunge Creek and the Santa Ana River. Include projects adjacent to the Santa Ana River and its tributaries, including Lytle and Cajon Creeks, and Mill Creek as well as adjacent fluvial terraces and watersheds which provide or provided coarse sediments to the Santa Ana River and its major tributaries.
- Complete a hydrogeomorphic or sediment transport study to fully assess the impacts to the Santa Ana sucker due to the coarse sediment removal by the Seven Oaks Dam and proposed mine expansion as well as the Plunge Creek settling basin.
- Explain how the HCP and covered activities are consistent with the goals of the Recovery Plan.
- Include information from the Section 7 consultation and append the Biological Opinion.

San Bernardino Kangaroo Rat

The DEIS indicates that the Seven Oaks Dam dramatically reduced the downstream potential for flooding in the Plan Area, resulting in the loss of early successional Riversidean Alluvial Fan Sage Scrub habitat required by the San Bernardino kangaroo rat (p. 4.4-6). However, the DEIS further states that "the majority of the area which is still subject to the levels of intermittent flooding necessary to rejuvenate RAFSS would be conserved" (p. 4.4-6). This determination does not appear to be supported by analysis in the DEIS or any documents related to intermittent flooding, including planned releases from the dam.

The EPA requests clarification of critical habitat acreage within the Plan Area. The DEIS states that the entire Plan Area is included within designated critical habitat. Appendix B of the DEIS states that critical habitat designation includes approximately 561 acres (B-31). The HCP states that the entire Plan Area is designated critical habitat, except for the Seven Oaks Dam borrow pit area (HCP p. 4-13).

Recommendations for the FEIS:

- Provide analysis to support the efficacy of intermittent flooding resulting in early successional RAFSS. Describe the frequency of intermittent flooding.
- Correct the DEIS and its appendices to clarify the area of SBKR critical habitat. We recommend adding a table in the FEIS to list the critical habitat, as was done for the Santa Ana sucker on page 4.4-16 of the DEIS.
- Summarize and append any relevant documents associated with the Section 7 consultation, including the Biological Opinion, SBKR translocation plan, and SBKR long-term monitoring plan. Discuss additional mitigation and monitoring measures that may result from consultation. Include specific timeframes and metrics of success to evaluate successful translocation of SBKR.

<u>HCP Preserve</u>

The HCP notes that 1,095 acres of separate mitigation areas are located within the Plan Area: Woolly-Star Preserve Area (WSPA), City of Highland mitigation area, and future flood control mitigation (HCP p. 5-34, 35). As these properties are critical to the conservation of the covered species within the Plan Area, the EPA is concerned that the HCP does not address concomitant management with HCP Preserve lands.

It is unclear whether the D-Dike and adjacent groundwater recharge basins are included as mitigation lands. The EPA is also concerned that fragmented lands in between the proposed Enhanced Recharge Project's groundwater basins (VD.01) would be counted as part of the HCP Preserve.

Recommendations for the FEIS:

- Describe how the non-HCP mitigation areas would be managed concomitantly with HCP Preserve lands. We recommend that the FEIS and Record of Decision commit the USFWS to working with the USACE, Conservation District, and the City of Highland to ensure HCP requirements are incorporated into the management of these lands.
- Clarify the WSPA acreage. The HCP lists the WSPA as 764 acres (HCP p. 1-6) and the DEIS lists the WSPA as 544.5 acres (p. 1.0-4).
- Clarify if the D-Dike and adjacent groundwater recharge basins are counted as mitigation lands. Discuss how lands fragmented by the proposed Enhanced Recharge Project recharge basins (VD.01) can be counted as mitigation. Update the mitigation figures and ratio, as needed.

BLM Lands

The HCP proposes to mitigate the impacts of "take" partly through conservation of existing Bureau of Land Management lands, which would include the land exchange between the Conservation District and the BLM. Reliance of the BLM lands as mitigation assumes that a major management goal would provide for the conservation and protection of covered species and sensitive resources. However, the BLM manages its lands for multiple uses, such as mineral resources, water conservation, and recreation, which can have adverse effects on sensitive species and habitats. According to the 2015 Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed, the administration of valid existing rights supersedes the BLM's conservation abilities in the Santa Ana River Area of Critical Environmental Concern (p. 2-52).[8] As such, the Enhanced Recharge Project would fragment nearly half of the estimated 320 acres that the BLM would receive, which is already fragmented by the D-Dike and groundwater recharge basins (Figure 2.0-1).

It is unclear how many acres of BLM land would be part of the HCP Preserve, though Figures 1.0-3, 1.0-6, and 1.0-7 indicate that the majority of BLM land would be counted (p. A-4, 7, and 8). Given that these lands would provide an estimated half of the HCP Preserve, the EPA is concerned that the DEIS does not discuss the legal assurances or long-term management commitments beyond right-of-way avoidance (HCP p. 7-2). Additional land may need to be acquired to meet the HCP conservation requirements for covered species if assurances not cannot be provided in perpetuity.

The DEIS states that a separate Section 7 consultation would be completed for BLM lands (p. 1.0-2). However, it is unclear if mining would occur on BLM lands prior to the land exchange, potentially requiring two formal consultations over the term of the HCP.

Recommendations for the FEIS:

- Provide details about the legal instrument(s) that would ensure BLM lands would fulfill the goals and objectives of the HCP in perpetuity.
- Provide the total BLM acreage included as mitigation. Clarify the BLM land classifications within the Plan Area after the land exchange.
- Clarify the Section 7 timeline for the BLM Lands, both pre- and post-land exchange. Describe how the process for assuring Section 7 consultation(s) and HCP decisions would be consistent and complementary.

---

[8] San Bernardino Valley Water Conservation District. January 2015. Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed. Available at: https://www.sbvwcd.org/docman-projects/upper-santa-ana-integrated-regional-water-management-plan/3802-usarw-irwmp-2015-ch1-9-final/file.html.

Children's Environmental Health and Safety

Executive Order 13045 on Children's Health and Safety directs each federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. The DEIS does not describe the potential direct, indirect, and cumulative impacts of the project on children's health. For example, localized increases in $PM_{2.5}$ emissions could lead to an increase in $PM_{2.5}$ exposure at the four schools located within a mile of the Plan Area. We also note that Figure 4.1-1 Sensitive Receptors (p. A-34) does not identify sensitive receptor locations, including schools and daycare facilities, adjacent to the Plan Area.

Recommendations for the FEIS:

- Evaluate the potential direct, indirect, and cumulative health impacts of mining activities on children's health, including potential respiratory impacts, such as asthma, from air pollutant emissions and generation of fugitive dust.
- Identify mitigation measures to reduce impacts from the proposed project's construction and operation to schools and child care centers near the proposed project area. Measures may include those identified in the School Siting Guidelines (https://www.epa.gov/sites/production /files/2015-06/documents/school_siting_guidelines-2.pdf) and Development and Implementation of a School Environmental Health Program (https://www.epa.gov/schools/ read-state-school-environmental-health-guidelines). Commit to engaging local school districts, child care providers, and others to identify mitigation measures.
- Include Beattie Middle School, Highland Grove Elementary, Arroyo Verde Elementary, and Citrus Valley High School on Figure 4.1-1 Sensitive Receptor Map. Update sensitive receptor information in Chapter 4 (p. 4.1-17).

Consultation and Coordination with Tribal Governments

The DEIS states that the USFWS and the Conservation District separately consulted with tribes in 2015 and 2017, respectively. The Conservation District also established a Memorandum of Agreement between itself and the San Manuel Band of Serrano Mission Indians for traditional gathering and management of culturally important plants on the HCP Preserve (p. 1.0-13).

Recommendations for the FEIS:

- Provide an update on consultation between the USFWS and tribal governments. Discuss issues that were raised, how those issues were addressed, and how impacts to tribal or cultural resources would be avoided or mitigated, consistent with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments,* Section 106 of the National Historic Preservation Act, and Executive Order 13007, *Indian Sacred Sites.*
- Describe the difference between the Conservation District and the USFWS' consultations and how the tribes were identified for each.
- Include the tribes in the distribution list for the FEIS and Record of Decision.

1/22/2020

San Bernardino Valley Water Conservation District

We would like to comment on the Upper Santa Ana River Wash Plan. We have concerns about the exact usage for the acreage designated as "conserved". We are concerned about duplicative mitigation areas which are already preserved as part of the Seven Oaks Dam project.

According to the interview with Betsy Miller, the land resources manager with SBVWCD, in the January 17th Redlands Community Newspaper, and her presentation on the 9th at the SBVWCD office, she stated that the wash plan has a comprehensive preserve program. "There are 778 acres set aside in new conservation land and over 880 acres managed by 'public owner's? There are also an additional 600 acres owned by San Bernardino County Flood Control, for future 'preservation' and 750 acres of existing preserve" and we wonder who will be in control of this patch work of ownership. We are concerned that part of the expansion of the water recharge basin will destroy over 40 acres of intact Upland Woodland Holly-leafed Cherry that harbors California Legless Lizard, Coast Horned Lizard, and Coastal Cactus Wren. We also don't know what the "public owners" intentions are for their future management of the 880 acres.

The 600 acres for "future preservation" owned by the county flood control in the wash plan should be used as mitigation for the city of Yucaipa/SBC's flood control Wilson Creek project that contains the 2nd highest population of Parry's Spineflower and the largest intact Alluvial Fan Sage Scrub habitat through out the east valley. The Santa Ana River Wooly Star Mainstem habitat area, south of the river, east of Boulder needs to be restored where 75 acres was bulldozed by a Redlands land owner. SBCWCD already has a $10 million endowment for monitoring and management activities for the wash plan. . It should not be used as a mitigation bank.

We disagree with the label of "neutral land " on the borrow pit site because it is already classified as mitigation for the Seven Oaks dam construction and is not conserved in this wash plan

The local congressmen, Aguilar and Cook, arranged to 'transfer' BLM public land, without public comment, for aggregate mining use. This action did not include any mitigation for this change in land ownership. When asked about land swaps at the Jan. 17, we were told there had been no" land swaps", which was technically true but not done under the HCP plan so they could deny it. We would like to see additional mitigation land set aside for this to be honest about the congressional obfuscation.

We disagrees with SBVWC statement that the mining land use was reduced by 30% . Was it reduced by 30% from the time when their plan was to mine most of the wash? We think it looks like an expansion from what they are currently using, an expansion of 401.5 acres without mitigation. They used to have to mitigate for all expansions of mining, but under the HCP they don't have to because they are seeking a biological opinion and incidental take permit under the fish and wildlife service and signing a Record of Decision.

Your newsletter about the Upper Santa Ana River Wash Habitat Conservation Plan says it consists of relatively rare habitat called Riversidian Alluvial Fan Sage Scrub. In fact it is the rarest habitat in the USA, with over 99% of it being destroyed already. It is incumbent upon us all to save as much as possible and we expect the SBVWCD and partners to do better!

Better [illegible]
Alfred J. Kelly - TCC & Brad Mowler

San Bernardino Valley
Water Conservation District
Helping Nature Store Our Water

WASH PLAN PUBLIC COMMENT FORM

Name: Albert Kelley, Bettina MacCleod
Affiliation: _____
Address: _____
Email: _____
Phone No: _____

Clearly describe comments to be evaluated in the CEQA/NEPA process here:

COMMENTS MUST BE SUBMITTED BY JANUARY 23, 2020 VIA EMAIL TO DCOZAD@SBVWCD OR VIA U.S. MAIL/IN PERSON TO 1630 W. REDLANDS BLVD. SUITE A, REDLANDS, CA 92373

1630 W. Redlands Blvd, Suite A
Redlands, CA 92373
Phone: 909.793.2503
Fax: 909.793.0188
www.sbvwcd.org Email: info@sbvwcd.org

Jan. 22, 2020

Save Lytle Creek Wash

To the San Bernardino Valley Water Conservation District

"Without adequate mitigation and conservation lands set aside for SBKR in the HCP by SBVWCD and in Lytle Creek by FFWS, the species won't survive anywhere."
Early in 2010, on a walk through of the Lytle Creek Ranch Specific Plan project site under the DEIR comment period, ACOE representative Crystal Huerta took notes to record the major events and discussions that took place between the participants. One entry in Huerta's notes came from a Service representative stating that the project as proposed would trigger a Jeopardy Opinion. Under Karin Cleary-Rose that Jeopardy Opinion seems to have been removed. The developer has not changed the LCRSP project's intent to destroy nearly all of SBKR's habitat and refugia, so why no JO from Karin Cleary-Rose?

In fact Karin Ceary-Rose, a lead on the SBVWCD's HCP wasn't present to showcase the wash plan on January 9, 2020, and therefore couldn't address that question. Neither was Gary Hund, the USFWS consulting biologist.

Although, the HCP addresses SBKR's survival there, without adequate mitigation lands set aside in perpetuity in both areas of concern, SBKR's march toward eventual extinction continues. This is unacceptable.

NEPA and CEQA clearly demonstrate the need to study *cumulative impacts of any and all projects that could affect this Wash Plan.*

The approval of the East Gate project at the former Norton Air Force Base requires no mitigation, however does take 17 acres of critical habitat for California Gnatcatcher and Wooly Star. Up to 100 flights of cargo planes directly over the wash will impact species in the Wash Plan with high intensity sound and potentially bird-aircraft conflict. In addition to this was the proposal at the Wash Plan January 9th meeting by Redlands Airport official to open a helibase on site.

One of the Wash Plan maps illustrated a continuous line around Lytle Creek, Cajon Creek, and the Santa Ana River project area. In light of the California Department of Fish and Wildlife unanimous decision to accept petition for listing SBKR for state endangered listing in 2019 and the recent NJO issued by the USFWS, the approval of the SBVWCD Wash Plan should be postponed until all these issues are resolved.

Thank you for your consideration,

Jane Hunt
Lynn Bohn

San Bernardino Valley
Water Conservation District
Helping Nature Store Our Water

WASH PLAN PUBLIC COMMENT FORM

Name: SAVE LITTLE CREEK WASH
Affiliation:
Address:
Email:
Phone No:

Clearly describe comments to be evaluated in the CEQA/NEPA process here:

COMMENTS MUST BE SUBMITTED BY JANUARY 23, 2020 VIA EMAIL TO DCOZAD@SBVWCD OR VIA U.S. MAIL/IN PERSON TO 1630 W. REDLANDS BLVD. SUITE A, REDLANDS, CA 92373

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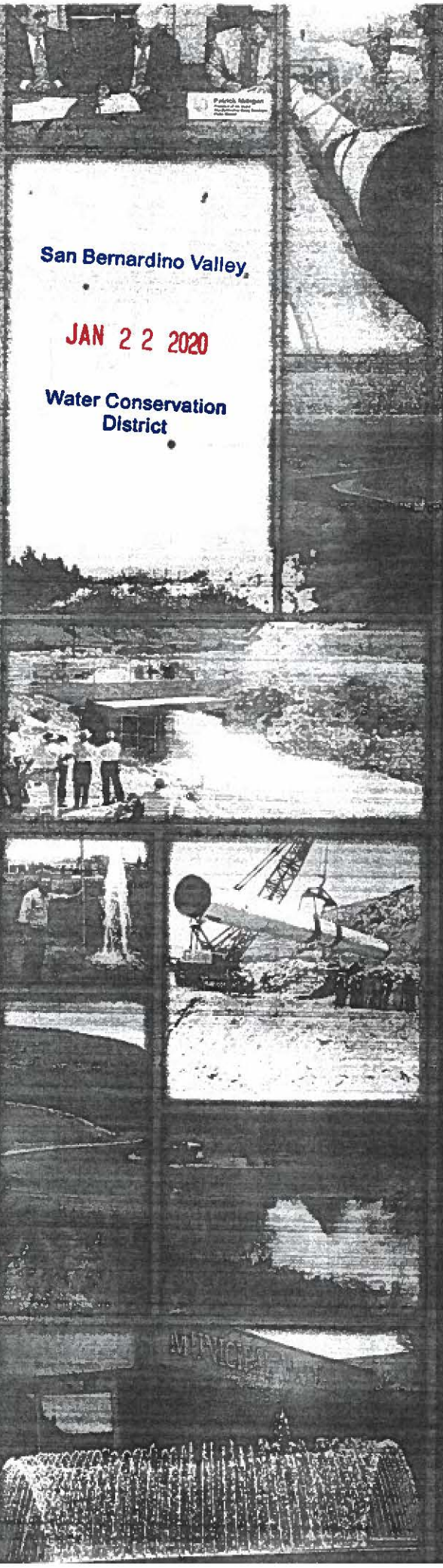


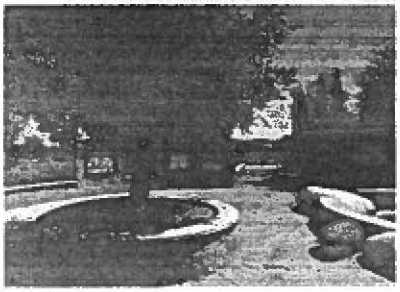
DELIVERING THE FUTURE

60 YEARS OF VISION AND INNOVATION AT SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

1954 - 2014

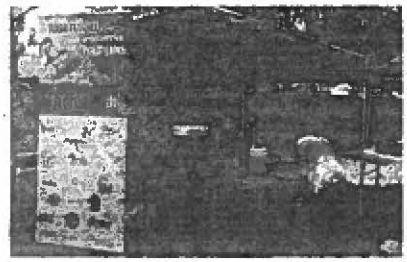
SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

JEFF GRIDER



Water conservation garden at California State University, San Bernardino.

Photo courtesy of San Bernardino Valley Municipal Water District



Water conservation education campaign.

Photo courtesy of Jeff Crider for San Bernardino Valley Municipal Water District

The survey also revealed other disturbing findings.

For example, practically no one had even heard of the Bay Delta Conservation Plan - which restores Delta ecosystems while diverting drinking water supplies through tunnels, restoring the reliability of imported supplies.

There is a willingness to conserve water, and thirst for information about how to do it. But little understanding of why such conservation efforts are needed beyond the obvious shortages people discern during periods of extended drought.

A NEW PARTNERSHIP AND A FRESH START WITH THE U.S. FISH AND WILDLIFE SERVICE

The U.S. Fish and Wildlife Service undermined the trust of water and flood control agencies across Riverside and San Bernardino counties in late 2009 when it violated the terms of the Riverside County Multi-Species Habitat Conservation Plan and expanded the critical habitat area for the Santa Ana sucker.

But despite this violation of trust, and the resulting lawsuit filed against the Service by Valley District and 11 other Inland Empire agencies, Valley District collaborated with its partners and developed a new partnership and a fresh start with the federal agency.

On Sept. 10, 2014, Valley District and its water agency partners announced an agreement with the U.S. Fish and Wildlife Service to develop a Habitat Conservation Plan for the Santa Ana River that mitigates water conservation, flood control and groundwater recharge projects in San Bernardino County.

The U.S. Fish and Wildlife Service also announced that it had approved $675,345 in grant funds for the Habitat Conservation Plan, which will protect the Santa Ana sucker and other threatened or endangered species. "This HCP is a very positive development because it provides a framework for federal, state and local agencies to work together in a cooperative way to proactively address environmental concerns involving water and flood control projects along the Santa Ana River," said Ken Corey, assistant field office supervisor of the U.S. Fish and Wildlife Service.

Corey added that the proposed HCP would not only provide conservation benefits for the Santa Ana sucker, but other native fish, such as the arroyo chub and the speckled dace; birds, such as the southwestern willow flycatcher and the Least Bell's vireo; the San Bernardino kangaroo rat; and various plants, including the slender horned spineflower and the Santa Ana woolly-star, a wild flowering plant with blue lavender flowers.

"We needed a new direction," said Douglas Headrick, Valley District's general manager and chief engineer.

"The reality," he said, "is that water supply projects needed to supply the growing demands of our customers need the approval of the U.S. Fish and Wildlife Service. We need their cooperation and support. Otherwise, we lose the ability to capture and store the water we need."

Headrick said the plan would identify the best ways to avoid, minimize and offset the impacts of current and proposed water conservation, flood control and

groundwater recharge projects along the Santa Ana River and its tributaries for both threatened and endangered species.

Conservation activities could involve everything from purchasing and setting aside land for habitat to funding studies and implementing restoration projects. If approved, the cooperatively developed plan would give water agencies a way to avoid future conflicts with the Service over endangered species issues, while still conducting water, groundwater recharge and flood control operations in the upper Santa Ana River watershed.

The plan would offset impacts of water capture, groundwater recharge and flood control projects, including the Lytle Creek Recharge Project; Mill Creek water diversions; the Clean Water Factory in San Bernardino; and other water recharge and storage projects.

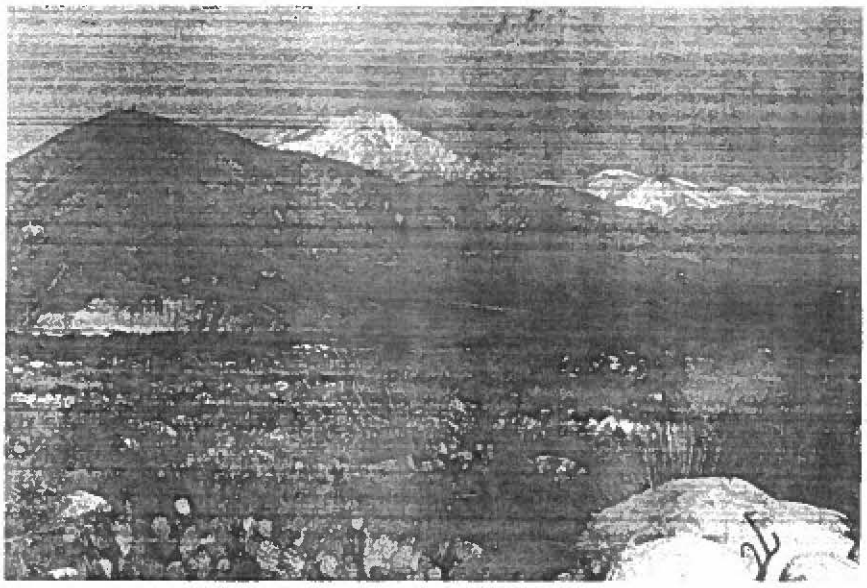
Nine other water agencies joined Valley District in committing to co-fund development of the HCP. The other agencies include the city of San Bernardino Municipal Water Department; city of Riverside Public Utilities; San Bernardino Valley Water Conservation District; the city of Rialto; East Valley Water District; West Valley Water District, Western Municipal Water District, Inland Empire Utility Agency, and the County of San Bernardino Department of Public Works.

As noted in Chapter 15, several water capture and recharge projects are needed to help Valley District and Western Municipal Water District take advantage of their new Santa Ana River water rights. Both water agencies are facing a timetable to get the new facilities in place. If significant progress is not made building the new water capture and recharge facilities by 2020, Valley District and Western could lose a portion of their new water rights, said Bob Tincher, Valley District's manager of water resources.

To move the permitting process along, Valley District, for the first time, has agreed to pay for the salary of a full-time U.S. Fish and Wildlife Service biologist — Dr. Kai Palenscar — who will serve as the key point person for the district and other San Bernardino and Riverside County water agencies as they work to develop a new Habitat Conservation Plan for the Santa Ana River in San Bernardino County.

San Bernardino Valley Municipal Water District General Manager and Chief Engineer Douglas Headrick.

Photo courtesy of San Bernardino Valley Municipal Water District



NOW, 12 2020, LESS SPECIES & HABITAT? WHA HAPPENED?

Sage scrub habitat in San Bernardino County will be preserved as part of a Habitat Conservation Plan that mitigates water conservation, flood control and groundwater recharge projects.

Photo courtesy of Heather Dyer, San Bernardino Valley Municipal Water District

U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Office of Airports
Los Angeles Airports District Office

777 S. Aviation Blvd., Suite 150
El Segundo, CA 90245

January 23, 2020

Ms. Karin Cleary-Rose
Santa Ana River Wash Project
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

Proposed Upper Santa Ana River Wash Habitat Conservation Plan and
Draft Environmental Impact Statement
San Bernardino County, California

Dear Ms. Cleary-Rose:

The Federal Aviation Administration (FAA) has reviewed the Proposed Upper Santa Ana River Wash Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement(EIS); San Bernardino County, California. The U.S. Fish and Wildlife Service (USFWS) is proposing issue incidental take permits for the federally endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*, SBKR), Santa Ana River woolly-star (*Eriastrum densifolium* ssp. *sanctorum*, woolly-star), slender-horned spineflower (*Dodecahema leptoceras*, spineflower); the threatened coastal California gnatcatcher (*Polioptila californica*, gnatcatcher); and the cactus wren *(Campylorhynchus brunneicappilis)* consistent with the HCP. The HCP covered activities include construction and/or operation and maintenance of land or facilities associated with the following: Aggregate mining; Water conservation; Wells and water infrastructure; Transportation; Flood Control; Trails; Habitat Enhancement; and Agriculture. These activities would include land adjacent to the boundaries of Redlands Municipal (REI) and San Bernardino International (SBD) Airports.

A significant part of the FAA mission is to ensure a safe and efficient national airport system. The FAA does this is by establishing standards and guidance including Advisory Circular (AC) 150/5200-33 *Hazardous Wildlife Attractants On or Near Airports*. This AC provides guidance on land uses that have the potential to attract hazardous wildlife on or near public-use airports like REI and SBD. These requirements are important for all airports, but the Federal government has a particular duty to help protect the safety of those airports that are available for public use. There are even more stringent requirements for airports that serve certain levels of scheduled commercial service. The FAA certificates these airports (including San Bernardino International) under 14 CFR Part 139.

Wildlife in or near the airport environment is a safety hazard to aircraft due to the possibility of wildlife/aircraft strikes. Striking even a single bird can cause aircraft or engine damage. Striking multiple birds, such as a flock, can cause major aircraft damage and risk to human life. Wildlife strikes can and do occur with great frequency, and have caused hundreds of millions of dollars in damage and have resulted in fatalities on more than one occasion.

The FAA (2019) *Wildlife Strikes to Civil Aircraft in the United States 1990-2018* report States that:

> *"Aircraft collisions with birds and other wildlife (wildlife strikes) have become an increasing concern for aviation safety in recent years. Factors that contribute to this increasing threat are increasing populations of large birds and increased air traffic by quieter, turbofan-powered aircraft. Globally, wildlife strikes killed more than 282 people and destroyed over 263 aircraft from 1988 - 2018. The number of strikes annually reported to the Federal Aviation Administration (FAA) increased 8.7-fold from 1,850 in 1990 to a record 16,020 in 2018. The 2018 total was an increase of 1,356 strikes (9 percent) compared to the 14,664 strikes reported in 2017. For 1990–2018, 214,048 strikes were reported (209,950 in USA and 4,098 strikes by U.S.-registered aircraft in foreign countries). In 2018, birds were involved in 94.7 percent of the reported strikes, bats in 3.2 percent, terrestrial mammals in 1.8 percent, and reptiles in 0.3 percent. For commercial and GA aircraft, 71 and 72 percent of bird strikes, respectively, occurred at or below 500 feet above ground level (AGL). Above 500 feet AGL, the number of strikes declined by 34 percent for each 1,000-foot gain in height for commercial aircraft, and by 44 percent for GA aircraft. Strikes occurring above 500 feet were more likely to cause damage than strikes at or below 500 feet."*

A full copy of this report can be found at https://www.faa.gov/airports/airport_safety/wildlife/media/Wildlife-Strike-Report-1990-2018.pdf. Other resources on wildlife strikes can be found on the FAA website https://www.faa.gov/airports/airport_safety/wildlife/resources

In 2003, a Memorandum of Agreement (MOA) was signed between the FAA and several federal agencies, including the USFWS (attached). In this agreement, the signatory agencies agreed to "diligently consider the siting criteria and land use practice recommendations stated in FAA Advisory Circular (AC) 150/5200-33, H*azardous Wildlife Attractants On or Near Airports* (attached).

Airport sponsors have made legal commitments ("assurances") to operate those airports in accordance with FAA standards, regulations and orders, by having accepted either Federal funding through the Airport Improvement Program (AIP) and/or by accepting land and property through the Surplus Property Act. These assurances are attached to and become part of the formal legally binding grant agreement that every airport sponsor signs when accepting AIP grants. FAA Order 5190.6B covers the grant assurances an airport sponsor shall comply with when receiving a grant from the FAA. The following grant assurances could be impacted for the City of Redlands (sponsor of REI) and City Highland (as a member of the San Bernardino Airport Authority, sponsor of SBD) with the implementation of this HCP.

Grant Assurance 20 (*Hazard Removal and Mitigation*) requires airport sponsors to "take appropriate action to assure that such terminal airspace as is required to protect instrument

and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards." This includes wildlife hazards. "Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes. As such, the airport sponsor must take appropriate action to mitigate those hazards."

Grant Assurance 21 (*Compatible Land*) requires airport sponsors "to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft." Per FAA Order 5190_6b, Section 21.6.f(6). Incompatible Land Uses include, "Introducing a wildlife attractant or failure to take adequate steps to mitigate hazardous wildlife at the airport can also result in an incompatible land use. Incompatible land uses can include wastewater ponds, municipal flood control channels and drainage basins, sanitary landfills, solid waste transfer stations, electrical power substations, water storage tanks, golf courses, and other bird attractants."

While certain threatened or endangered species may not pose a direct threat to aviation safety because of their small size, their presence on or near the airport frequently attracts larger predatory animals to the vicinity, the presence of these predators, such as coyotes or raptors, poses a strike risk to aircraft taking off or landing. Airport operators have a responsibility to deter wildlife from the airport environment, using bot passive (e.g. fencing) and active (e.g. hazing) measures to reduce wildlife attractants. In short, an airport environment is specifically designed to deter wildlife and will seldom be an appropriate refuge for threatened or endangered species.

Based on the information, references, and MOA provided above the USFWS should reevaluate the following sections:

- Land use – needs to consider FAA AC 150/5200-33B guidance on land uses and separation criteria for potential wildlife hazard attractants. Non-compatible land uses near the airport includes natural resources, natural areas and wetlands.
- Aviation hazards – need to include wildlife hazards to aviation. There is a potential to increase aviation hazards with the implementation of the HCP.

The FAA strongly supports efforts to protect threatened and endangered species, as a matter of principle and consistent with the Endangered Species Act of 1973. We appreciate your cooperation with the FAA on the protection of threatened and endangered species, and your consideration of these critical issues as we continue to work together to achieve these goals while also protecting the traveling public and our critical national transportation system.

Please provide a written response indicating how these comments and concerns are being addressed in the EIS and HCP. If you have questions or need more information concerning this matter, please contact me at the address above, by telephone at 424-405-7269, or by e-mail at gail.campos@faa.gov.

Sincerely,

Gail Campos

Gail Campos
Environmental Protection Specialist

Attachments:

- FAA AC 150/5200-33B
- Memorandum of Agreement

cc:
John Dalton, Planning and Environmental Coordinator, Bureau of Land Management
Daniel Cozad, San Bernardino Valley Water Conservation District
Carl Bruce Shaffer, Airport Supervisor, City of Redlands
Mark Gibbs, Director of Aviation, San Bernardino International Airport Authority

U.S. Department
of Transportation

Federal Aviation Administration

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS	**Date:** 8/28/2007	**AC No:** 150/5200-33B
	Initiated by: AAS-300	**Change:**

1. PURPOSE. This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICABILITY. The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.

3. CANCELLATION. This AC cancels AC 150/5200-33A, *Hazardous Wildlife Attractants on or near Airports*, dated July 27, 2004.

4. PRINCIPAL CHANGES. This AC contains the following major changes, which are marked with vertical bars in the margin:

a. Technical changes to paragraph references.

b. Wording on storm water detention ponds.

c. Deleted paragraph 4-3.b, *Additional Coordination.*

5. BACKGROUND. Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1

ranks the wildlife groups commonly involved in damaging strikes in the United States according to their relative hazard to aircraft. The ranking is based on the 47,212 records in the FAA National Wildlife Strike Database for the years 1990 through 2003. These hazard rankings, in conjunction with site-specific Wildlife Hazards Assessments (WHA), will help airport operators determine the relative abundance and use patterns of wildlife species and help focus hazardous wildlife management efforts on those species most likely to cause problems at an airport.

Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage wildlife to enter an airport's approach or departure airspace or air operations area (AOA). Constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, or wetlands—can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Even small facilities, such as fast food restaurants, taxicab staging areas, rental car facilities, aircraft viewing areas, and public parks, can produce substantial attractions for hazardous wildlife.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports.

6. MEMORANDUM OF AGREEMENT BETWEEN FEDERAL RESOURCE AGENCIES. The FAA, the U.S. Air Force, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture - Wildlife Services signed a Memorandum of Agreement (MOA) in July 2003 to acknowledge their respective missions in protecting aviation from wildlife hazards. Through the MOA, the agencies established procedures necessary to coordinate their missions to address more effectively existing and future environmental conditions contributing to collisions between wildlife and aircraft (wildlife strikes) throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety while protecting the Nation’s valuable environmental resources.

DAVID L. BENNETT
Director, Office of Airport Safety
and Standards

Table 1. Ranking of 25 species groups as to relative hazard to aircraft (1=most hazardous) based on three criteria (damage, major damage, and effect-on-flight), a composite ranking based on all three rankings, and a relative hazard score. Data were derived from the FAA National Wildlife Strike Database, January 1990–April 2003.[1]

Species group	Ranking by criteria			Composite ranking[2]	Relative hazard score[3]
	Damage[4]	Major damage[5]	Effect on flight[6]		
Deer	1	1	1	1	100
Vultures	2	2	2	2	64
Geese	3	3	6	3	55
Cormorants/pelicans	4	5	3	4	54
Cranes	7	6	4	5	47
Eagles	6	9	7	6	41
Ducks	5	8	10	7	39
Osprey	8	4	8	8	39
Turkey/pheasants	9	7	11	9	33
Herons	11	14	9	10	27
Hawks (buteos)	10	12	12	11	25
Gulls	12	11	13	12	24
Rock pigeon	13	10	14	13	23
Owls	14	13	20	14	23
H. lark/s. bunting	18	15	15	15	17
Crows/ravens	15	16	16	16	16
Coyote	16	19	5	17	14
Mourning dove	17	17	17	18	14
Shorebirds	19	21	18	19	10
Blackbirds/starling	20	22	19	20	10
American kestrel	21	18	21	21	9
Meadowlarks	22	20	22	22	7
Swallows	24	23	24	23	4
Sparrows	25	24	23	24	4
Nighthawks	23	25	25	25	1

[1] Excerpted from the *Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003".* Refer to this report for additional explanations of criteria and method of ranking.

[2] Relative rank of each species group was compared with every other group for the three variables, placing the species group with the greatest hazard rank for $\geq$ 2 of the 3 variables above the next highest ranked group, then proceeding down the list.

[3] Percentage values, from Tables 3 and 4 in Footnote 1 of the *Special Report*, for the three criteria were summed and scaled down from 100, with 100 as the score for the species group with the maximum summed values and the greatest potential hazard to aircraft.

[4] Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike.

[5] Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition.

[6] Aborted takeoff, engine shutdown, precautionary landing, or other.

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SECTION 1.

GENERAL SEPARATION CRITERIA FOR HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. INTRODUCTION. When considering proposed land uses, airport operators, local planners, and developers must take into account whether the proposed land uses, including new development projects, will increase wildlife hazards. Land-use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes.

The FAA recommends the minimum separation criteria outlined below for land-use practices that attract hazardous wildlife to the vicinity of airports. Please note that FAA criteria include land uses that cause movement of hazardous wildlife onto, into, or across the airport's approach or departure airspace or air operations area (AOA). (See the discussion of the synergistic effects of surrounding land uses in Section 2-8 of this AC.)

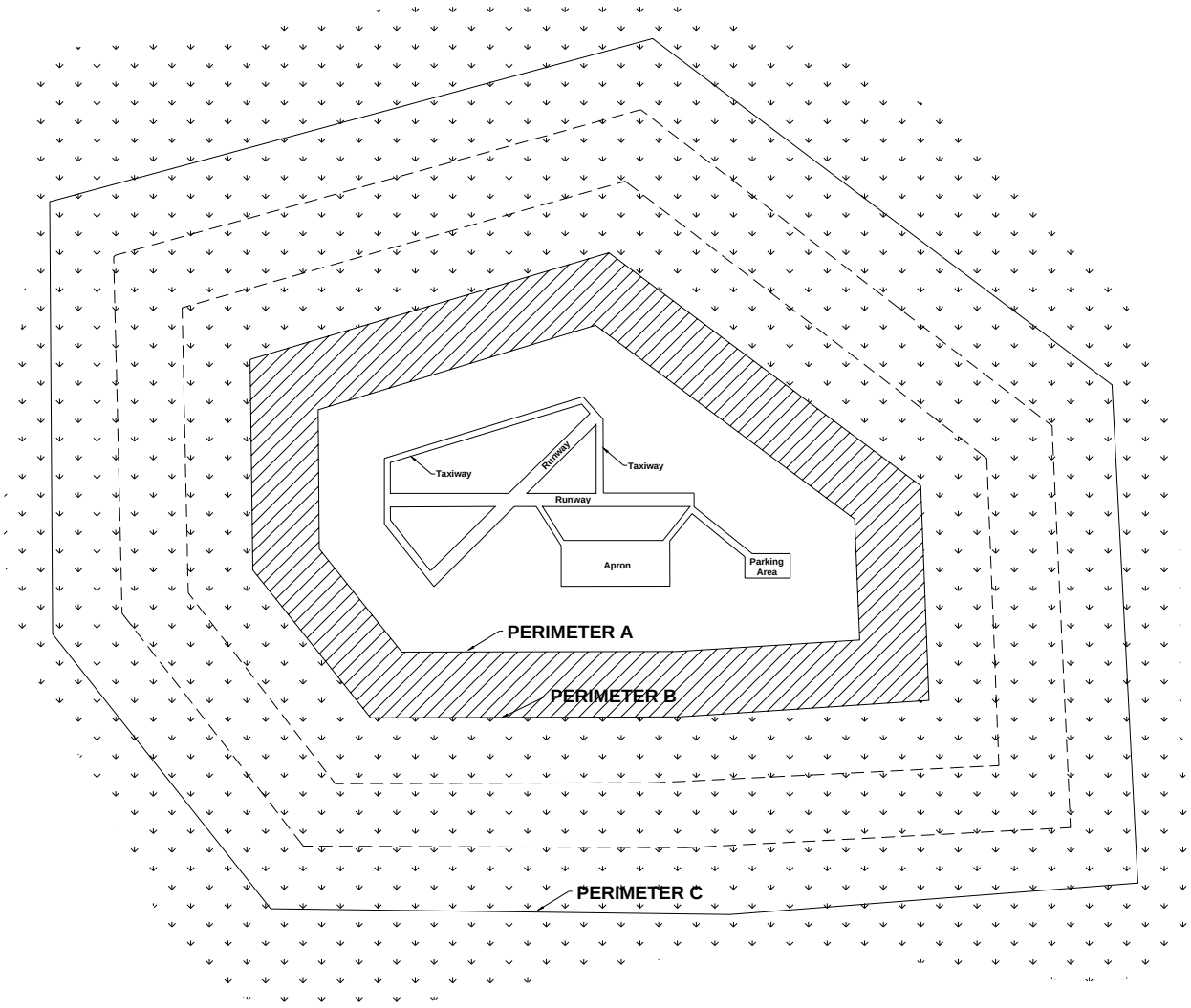
The basis for the separation criteria contained in this section can be found in existing FAA regulations. The separation distances are based on (1) flight patterns of piston-powered aircraft and turbine-powered aircraft, (2) the altitude at which most strikes happen (78 percent occur under 1,000 feet and 90 percent occur under 3,000 feet above ground level), and (3) National Transportation Safety Board (NTSB) recommendations.

1-2. AIRPORTS SERVING PISTON-POWERED AIRCRAFT. Airports that do not sell Jet-A fuel normally serve piston-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 5,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance measured from the nearest aircraft operations areas.

1-3. AIRPORTS SERVING TURBINE-POWERED AIRCRAFT. Airports selling Jet-A fuel normally serve turbine-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 10,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance from the nearest aircraft movement areas.

1-4. PROTECTION OF APPROACH, DEPARTURE, AND CIRCLING AIRSPACE. For all airports, the FAA recommends a distance of 5 statute miles between the farthest edge of the airport's AOA and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace.

Figure 1. Separation distances within which hazardous wildlife attractants should be avoided, eliminated, or mitigated.



PERIMETER A: For airports serving piston-powered aircraft, hazardous wildlife attractants must be 5,000 feet from the nearest air operations area.

PERIMETER B: For airports serving turbine-powered aircraft, hazardous wildlife attractants must be 10,000 feet from the nearest air operations area.

PERIMETER C: 5-mile range to protect approach, departure and circling airspace.

SECTION 2.

LAND-USE PRACTICES ON OR NEAR AIRPORTS THAT POTENTIALLY ATTRACT HAZARDOUS WILDLIFE.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment vary considerably, depending on several factors, including land-use practices on or near the airport. This section discusses land-use practices having the potential to attract hazardous wildlife and threaten aviation safety. In addition to the specific considerations outlined below, airport operators should refer to *Wildlife Hazard Management at Airports,* prepared by FAA and U.S. Department of Agriculture (USDA) staff. (This manual is available in English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.FAA.gov.). And, *Prevention and Control of Wildlife Damage,* compiled by the University of Nebraska Cooperative Extension Division. (This manual is available online in a periodically updated version at: ianrwww.unl.edu/wildlife/solutions/handbook/.)

2-2. WASTE DISPOSAL OPERATIONS. Municipal solid waste landfills (MSWLF) are known to attract large numbers of hazardous wildlife, particularly birds. Because of this, these operations, when located within the separations identified in the siting criteria in Sections 1-2 through 1-4, are considered incompatible with safe airport operations.

a. Siting for new municipal solid waste landfills subject to AIR 21. Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new MSWLF within 6 statute miles of certain public-use airports. Before these prohibitions apply, both the airport and the landfill must meet the very specific conditions described below. These restrictions do not apply to airports or landfills located within the state of Alaska.

The airport must (1) have received a Federal grant(s) under 49 U.S.C. § 47101, et. seq.; (2) be under control of a public agency; (3) serve some scheduled air carrier operations conducted in aircraft with less than 60 seats; and (4) have total annual enplanements consisting of at least 51 percent of scheduled air carrier enplanements conducted in aircraft with less than 60 passenger seats.

The proposed MSWLF must (1) be within 6 miles of the airport, as measured from airport property line to MSWLF property line, and (2) have started construction or establishment on or after April 5, 2001. Public Law 106-181 only limits the construction or establishment of some new MSWLF. It does not limit the expansion, either vertical or horizontal, of existing landfills.

NOTE: Consult the most recent version of AC 150/5200-34, *Construction or Establishment of Landfills Near Public Airports,* for a more detailed discussion of these restrictions.

b. Siting for new MSWLF not subject to AIR 21. If an airport and MSWLF do not meet the restrictions of Public Law 106-181, the FAA recommends against locating MSWLF within the separation distances identified in Sections 1-2 through 1-4. The separation distances should be measured from the closest point of the airport's AOA to the closest planned MSWLF cell.

c. Considerations for existing waste disposal facilities within the limits of separation criteria. The FAA recommends against airport development projects that would increase the number of aircraft operations or accommodate larger or faster aircraft near MSWLF operations located within the separations identified in Sections 1-2 through 1-4. In addition, in accordance with 40 CFR 258.10, owners or operators of existing MSWLF units that are located within the separations listed in Sections 1-2 through 1-4 must demonstrate that the unit is designed and operated so it does not pose a bird hazard to aircraft. (See Section 4-2(b) of this AC for a discussion of this demonstration requirement.)

d. Enclosed trash transfer stations. Enclosed waste-handling facilities that receive garbage behind closed doors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations, provided they are not located on airport property or within the Runway Protection Zone (RPZ). These facilities should not handle or store putrescible waste outside or in a partially enclosed structure accessible to hazardous wildlife. Trash transfer facilities that are open on one or more sides; that store uncovered quantities of municipal solid waste outside, even if only for a short time; that use semi-trailers that leak or have trash clinging to the outside; or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully enclosed trash transfer stations. The FAA considers these facilities incompatible with safe airport operations if they are located closer than the separation distances specified in Sections 1-2 through 1-4.

e. Composting operations on or near airport property. Composting operations that accept only yard waste (e.g., leaves, lawn clippings, or branches) generally do not attract hazardous wildlife. Sewage sludge, woodchips, and similar material are not municipal solid wastes and may be used as compost bulking agents. The compost, however, must never include food or other municipal solid waste. Composting operations should not be located on airport property. Off-airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any AOA or the distance called for by airport design requirements (see AC 150/5300-13, *Airport Design*). This spacing should prevent material, personnel, or equipment from penetrating any Object Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway. Airport operators should monitor composting operations located in proximity to the airport to ensure that steam or thermal rise does not adversely affect air traffic. On-airport disposal of compost by-products should not be conducted for the reasons stated in 2-3f.

f. Underwater waste discharges. The FAA recommends against the underwater discharge of any food waste (e.g., fish processing offal) within the separations identified in Sections 1-2 through 1-4 because it could attract scavenging hazardous wildlife.

g. Recycling centers. Recycling centers that accept previously sorted non-food items, such as glass, newspaper, cardboard, or aluminum, are, in most cases, not attractive to hazardous wildlife and are acceptable.

h. Construction and demolition (C&D) debris facilities. C&D landfills do not generally attract hazardous wildlife and are acceptable if maintained in an orderly manner, admit no putrescible waste, and are not co-located with other waste disposal operations. However, C&D landfills have similar visual and operational characteristics to putrescible waste disposal sites. When co-located with putrescible waste disposal operations, C&D landfills are more likely to attract hazardous wildlife because of the similarities between these disposal facilities. Therefore, a C&D landfill co-located with another waste disposal operation should be located outside of the separations identified in Sections 1-2 through 1-4.

i. Fly ash disposal. The incinerated residue from resource recovery power/heat-generating facilities that are fired by municipal solid waste, coal, or wood is generally not a wildlife attractant because it no longer contains putrescible matter. Landfills accepting only fly ash are generally not considered to be wildlife attractants and are acceptable as long as they are maintained in an orderly manner, admit no putrescible waste of any kind, and are not co-located with other disposal operations that attract hazardous wildlife.

Since varying degrees of waste consumption are associated with general incineration (not resource recovery power/heat-generating facilities), the FAA considers the ash from general incinerators a regular waste disposal by-product and, therefore, a hazardous wildlife attractant if disposed of within the separation criteria outlined in Sections 1-2 through 1-4.

2-3. WATER MANAGEMENT FACILITIES. Drinking water intake and treatment facilities, storm water and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. To prevent wildlife hazards, land-use developers and airport operators may need to develop management plans, in compliance with local and state regulations, to support the operation of storm water management facilities on or near all public-use airports to ensure a safe airport environment.

a. Existing storm water management facilities. On-airport storm water management facilities allow the quick removal of surface water, including discharges related to aircraft deicing, from impervious surfaces, such as pavement and terminal/hangar building roofs. Existing on-airport detention ponds collect storm water, protect water quality, and control runoff. Because they slowly release water

after storms, they create standing bodies of water that can attract hazardous wildlife. Where the airport has developed a Wildlife Hazard Management Plan (WHMP) in accordance with Part 139, the FAA requires immediate correction of any wildlife hazards arising from existing storm water facilities located on or near airports, using appropriate wildlife hazard mitigation techniques. Airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

Where possible, airport operators should modify storm water detention ponds to allow a maximum 48-hour detention period for the design storm. The FAA recommends that airport operators avoid or remove retention ponds and detention ponds featuring dead storage to eliminate standing water. Detention basins should remain totally dry between rainfalls. Where constant flow of water is anticipated through the basin, or where any portion of the basin bottom may remain wet, the detention facility should include a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide nesting habitat.

When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wires grids, pillows, or netting, to deter birds and other hazardous wildlife. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office.

The FAA recommends that airport operators encourage off-airport storm water treatment facility operators to incorporate appropriate wildlife hazard mitigation techniques into storm water treatment facility operating practices when their facility is located within the separation criteria specified in Sections 1-2 through 1-4.

b. New storm water management facilities. The FAA strongly recommends that off-airport storm water management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. Stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48–hour detention period after the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport's AOA, airport operators should use physical barriers, such as bird balls, wires grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages

the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

c. **Existing wastewater treatment facilities.** The FAA strongly recommends that airport operators immediately correct any wildlife hazards arising from existing wastewater treatment facilities located on or near the airport. Where required, a WHMP developed in accordance with Part 139 will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should encourage wastewater treatment facility operators to incorporate measures, developed in consultation with a wildlife damage management biologist, to minimize hazardous wildlife attractants. Airport operators should also encourage those wastewater treatment facility operators to incorporate these mitigation techniques into their standard operating practices. In addition, airport operators should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

d. **New wastewater treatment facilities.** The FAA strongly recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in Sections 1-2 through 1-4. Appendix 1 defines wastewater treatment facility as “any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes.” The definition includes any pretreatment involving the reduction of the amount of pollutants or the elimination of pollutants prior to introducing such pollutants into a publicly owned treatment works (wastewater treatment facility). During the site-location analysis for wastewater treatment facilities, developers should consider the potential to attract hazardous wildlife if an airport is in the vicinity of the proposed site, and airport operators should voice their opposition to such facilities if they are in proximity to the airport.

e. **Artificial marshes.** In warmer climates, wastewater treatment facilities sometimes employ artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. The FAA strongly recommends against establishing artificial marshes within the separations identified in Sections 1-2 through 1-4.

f. **Wastewater discharge and sludge disposal.** The FAA recommends against the discharge of wastewater or sludge on airport property because it may improve soil moisture and quality on unpaved areas and lead to improved turf growth that can be an attractive food source for many species of animals. Also, the turf requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw, both of which can attract hazardous wildlife. In addition, the improved turf may attract grazing wildlife, such as deer and geese. Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

2-4. WETLANDS. Wetlands provide a variety of functions and can be regulated by local, state, and Federal laws. Normally, wetlands are attractive to many types of wildlife, including many which rank high on the list of hazardous wildlife species (Table 1).

NOTE: If questions exist as to whether an area qualifies as a wetland, contact the local division of the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, or a wetland consultant qualified to delineate wetlands.

a. Existing wetlands on or near airport property. If wetlands are located on or near airport property, airport operators should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations. At public-use airports, the FAA recommends immediately correcting, in cooperation with local, state, and Federal regulatory agencies, any wildlife hazards arising from existing wetlands located on or near airports. Where required, a WHMP will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

b. New airport development. Whenever possible, the FAA recommends locating new airports using the separations from wetlands identified in Sections 1-2 through 1-4. Where alternative sites are not practicable, or when airport operators are expanding an existing airport into or near wetlands, a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the state wildlife management agency should evaluate the wildlife hazards and prepare a WHMP that indicates methods of minimizing the hazards.

c. Mitigation for wetland impacts from airport projects. Wetland mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects or projects required to correct wildlife hazards from wetlands. Wetland mitigation must be designed so it does not create a wildlife hazard. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4.

(1) Onsite mitigation of wetland functions. The FAA may consider exceptions to locating mitigation activities outside the separations identified in Sections 1-2 through 1-4 if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge, which cannot be replicated when moved to a different location. Using existing airport property is sometimes the only feasible way to achieve the mitigation ratios mandated in regulatory orders and/or settlement agreements with the resource agencies. Conservation easements are an additional means of providing mitigation for project impacts. Typically the airport operator continues to own the property, and an easement is created stipulating that the property will be maintained as habitat for state or Federally listed species.

Mitigation must not inhibit the airport operator's ability to effectively control hazardous wildlife on or near the mitigation site or effectively maintain other aspects of safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife must be avoided. The FAA will review any onsite mitigation proposals to determine compatibility with safe airport operations. A wildlife damage management biologist should evaluate any wetland mitigation projects that are needed to protect unique wetland functions and that must be located in the separation criteria in Sections 1-2 through 1-4 before the mitigation is implemented. A WHMP should be developed to reduce the wildlife hazards.

(2) Offsite mitigation of wetland functions. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4 unless they provide unique functions that must remain onsite (see 2-4c(1)). Agencies that regulate impacts to or around wetlands recognize that it may be necessary to split wetland functions in mitigation schemes. Therefore, regulatory agencies may, under certain circumstances, allow portions of mitigation to take place in different locations.

(3) Mitigation banking. Wetland mitigation banking is the creation or restoration of wetlands in order to provide mitigation credits that can be used to offset permitted wetland losses. Mitigation banking benefits wetland resources by providing advance replacement for permitted wetland losses; consolidating small projects into larger, better-designed and managed units; and encouraging integration of wetland mitigation projects with watershed planning. This last benefit is most helpful for airport projects, as wetland impacts mitigated outside of the separations identified in Sections 1-2 through 1-4 can still be located within the same watershed. Wetland mitigation banks meeting the separation criteria offer an ecologically sound approach to mitigation in these situations. Airport operators should work with local watershed management agencies or organizations to develop mitigation banking for wetland impacts on airport property.

2-5. DREDGE SPOIL CONTAINMENT AREAS. The FAA recommends against locating dredge spoil containment areas (also known as Confined Disposal Facilities) within the separations identified in Sections 1-2 through 1-4 if the containment area or the spoils contain material that would attract hazardous wildlife.

2-6. AGRICULTURAL ACTIVITIES. Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of production, the FAA recommends against the used of airport property for agricultural production, including hay crops, within the separations identified in Sections 1-2 through 1-4. . If the airport has no financial alternative to agricultural crops to produce income necessary to maintain the viability of the airport, then the airport shall follow the crop distance guidelines listed in the table titled "Minimum Distances between Certain Airport Features and Any On-Airport Agricultural Crops" found in AC 150/5300-13, *Airport Design*, Appendix 17. The cost of wildlife control and potential accidents should be weighed against the income produced by the on-airport crops when deciding whether to allow crops on the airport.

a. **Livestock production.** Confined livestock operations (i.e., feedlots, dairy operations, hog or chicken production facilities, or egg laying operations) often attract flocking birds, such as starlings, that pose a hazard to aviation. Therefore, The FAA recommends against such facilities within the separations identified in Sections 1-2 through 1-4. Any livestock operation within these separations should have a program developed to reduce the attractiveness of the site to species that are hazardous to aviation safety. Free-ranging livestock must not be grazed on airport property because the animals may wander onto the AOA. Furthermore, livestock feed, water, and manure may attract birds.

b. **Aquaculture.** Aquaculture activities (i.e. catfish or trout production) conducted outside of fully enclosed buildings are inherently attractive to a wide variety of birds. Existing aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4 must have a program developed to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should also oppose the establishment of new aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4.

c. **Alternative uses of agricultural land.** Some airports are surrounded by vast areas of farmed land within the distances specified in Sections 1-2 through 1-4. Seasonal uses of agricultural land for activities such as hunting can create a hazardous wildlife situation. In some areas, farmers will rent their land for hunting purposes. Rice farmers, for example, flood their land during waterfowl hunting season and obtain additional revenue by renting out duck blinds. The duck hunters then use decoys and call in hundreds, if not thousands, of birds, creating a tremendous threat to aircraft safety. A wildlife damage management biologist should review, in coordination with local farmers and producers, these types of seasonal land uses and incorporate them into the WHMP.

2-7. GOLF COURSES, LANDSCAPING AND OTHER LAND-USE CONSIDERATIONS.

a. **Golf courses.** The large grassy areas and open water found on most golf courses are attractive to hazardous wildlife, particularly Canada geese and some species of gulls. These species can pose a threat to aviation safety. The FAA recommends against construction of new golf courses within the separations identified in Sections 1-2 through 1-4. Existing golf courses located within these separations must develop a program to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should ensure these golf courses are monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

b. **Landscaping and landscape maintenance.** Depending on its geographic location, landscaping can attract hazardous wildlife. The FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. A wildlife damage management biologist should review all landscaping plans. Airport operators should also monitor all landscaped areas on a continuing basis for the presence of hazardous wildlife. If

hazardous wildlife is detected, corrective actions should be immediately implemented.

Turf grass areas can be highly attractive to a variety of hazardous wildlife species. Research conducted by the USDA Wildlife Services' National Wildlife Research Center has shown that no one grass management regime will deter all species of hazardous wildlife in all situations. In cooperation with wildlife damage management biologist, airport operators should develop airport turf grass management plans on a prescription basis, depending on the airport's geographic locations and the type of hazardous wildlife likely to frequent the airport

Airport operators should ensure that plant varieties attractive to hazardous wildlife are not used on the airport. Disturbed areas or areas in need of re-vegetating should not be planted with seed mixtures containing millet or any other large-seed producing grass. For airport property already planted with seed mixtures containing millet, rye grass, or other large-seed producing grasses, the FAA recommends disking, plowing, or another suitable agricultural practice to prevent plant maturation and seed head production. Plantings should follow the specific recommendations for grass management and seed and plant selection made by the State University Cooperative Extension Service, the local office of Wildlife Services, or a qualified wildlife damage management biologist. Airport operators should also consider developing and implementing a preferred/prohibited plant species list, reviewed by a wildlife damage management biologist, which has been designed for the geographic location to reduce the attractiveness to hazardous wildlife for landscaping airport property.

c. **Airports surrounded by wildlife habitat.** The FAA recommends that operators of airports surrounded by woodlands, water, or wetlands refer to Section 2.4 of this AC. Operators of such airports should provide for a Wildlife Hazard Assessment (WHA) conducted by a wildlife damage management biologist. This WHA is the first step in preparing a WHMP, where required.

d. **Other hazardous wildlife attractants.** Other specific land uses or activities (e.g., sport or commercial fishing, shellfish harvesting, etc.), perhaps unique to certain regions of the country, have the potential to attract hazardous wildlife. Regardless of the source of the attraction, when hazardous wildlife is noted on a public-use airport, airport operators must take prompt remedial action(s) to protect aviation safety.

2-8. SYNERGISTIC EFFECTS OF SURROUNDING LAND USES. There may be circumstances where two (or more) different land uses that would not, by themselves, be considered hazardous wildlife attractants or that are located outside of the separations identified in Sections 1-2 through 1-4 that are in such an alignment with the airport as to create a wildlife corridor directly through the airport and/or surrounding airspace. An example of this situation may involve a lake located outside of the separation criteria on the east side of an airport and a large hayfield on the west side of an airport, land uses that together could create a flyway for Canada geese directly across the airspace of the airport. There are numerous examples of such situations;

therefore, airport operators and the wildlife damage management biologist must consider the entire surrounding landscape and community when developing the WHMP.

SECTION 3.

PROCEDURES FOR WILDLIFE HAZARD MANAGEMENT BY OPERATORS OF PUBLIC-USE AIRPORTS.

3.1. INTRODUCTION. In recognition of the increased risk of serious aircraft damage or the loss of human life that can result from a wildlife strike, the FAA may require the development of a Wildlife Hazard Management Plan (WHMP) when specific triggering events occur on or near the airport. Part 139.337 discusses the specific events that trigger a Wildlife Hazard Assessment (WHA) and the specific issues that a WHMP must address for FAA approval and inclusion in an Airport Certification Manual.

3.2. COORDINATION WITH USDA WILDLIFE SERVICES OR OTHER QUALIFIED WILDLIFE DAMAGE MANAGEMENT BIOLOGISTS. The FAA will use the Wildlife Hazard Assessment (WHA) conducted in accordance with Part 139 to determine if the airport needs a WHMP. Therefore, persons having the education, training, and expertise necessary to assess wildlife hazards must conduct the WHA. The airport operator may look to Wildlife Services or to qualified private consultants to conduct the WHA. When the services of a wildlife damage management biologist are required, the FAA recommends that land-use developers or airport operators contact a consultant specializing in wildlife damage management or the appropriate state director of Wildlife Services.

NOTE: Telephone numbers for the respective USDA Wildlife Services state offices can be obtained by contacting USDA Wildlife Services Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157 *(http://www.aphis.usda.gov/ws/)*.

3-3. WILDLIFE HAZARD MANAGEMENT AT AIRPORTS: A MANUAL FOR AIRPORT PERSONNEL. This manual, prepared by FAA and USDA Wildlife Services staff, contains a compilation of information to assist airport personnel in the development, implementation, and evaluation of WHMPs at airports. The manual includes specific information on the nature of wildlife strikes, legal authority, regulations, wildlife management techniques, WHAs, WHMPs, and sources of help and information. The manual is available in three languages: English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.FAA.gov/. This manual only provides a starting point for addressing wildlife hazard issues at airports. Hazardous wildlife management is a complex discipline and conditions vary widely across the United States. Therefore, qualified wildlife damage management biologists must direct the development of a WHMP and the implementation of management actions by airport personnel.

There are many other resources complementary to this manual for use in developing and implementing WHMPs. Several are listed in the manual's bibliography.

3-4. WILDLIFE HAZARD ASSESSMENTS, TITLE 14, CODE OF FEDERAL REGULATIONS, PART 139. Part 139.337(b) requires airport operators to conduct a Wildlife Hazard Assessment (WHA) when certain events occur on or near the airport.

Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP). The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

3-6. LOCAL COORDINATION. The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

3-7 COORDINATION/NOTIFICATION OF AIRMEN OF WILDLIFE HAZARDS. If an existing land-use practice creates a wildlife hazard and the land-use practice or wildlife hazard cannot be immediately eliminated, airport operators must issue a Notice to Airmen (NOTAM) and encourage the land–owner or manager to take steps to control the wildlife hazard and minimize further attraction.

SECTION 4.

FAA NOTIFICATION AND REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS

4-1. FAA REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS.

a. The FAA discourages the development of waste disposal and other facilities, discussed in Section 2, located within the 5,000/10,000-foot criteria specified in Sections 1-2 through 1-4.

b. For projects that are located outside the 5,000/10,000-foot criteria but within 5 statute miles of the airport's AOA, the FAA may review development plans, proposed land-use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. The FAA considers sensitive airport areas as those that lie under or next to approach or departure airspace. This brief examination should indicate if further investigation is warranted.

c. Where a wildlife damage management biologist has conducted a further study to evaluate a site's compatibility with airport operations, the FAA may use the study results to make a determination.

4-2. WASTE MANAGEMENT FACILITIES.

a. Notification of new/expanded project proposal. Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) limits the construction or establishment of new MSWLF within 6 statute miles of certain public-use airports, when both the airport and the landfill meet very specific conditions. See Section 2-2 of this AC and AC 150/5200-34 for a more detailed discussion of these restrictions.

The Environmental Protection Agency (EPA) requires any MSWLF operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, Section 258.10, *Airport Safety*). The EPA also requires owners or operators of new MSWLF units, or lateral expansions of existing MSWLF units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft. (See 4-2.b below.)

When new or expanded MSWLF are being proposed near airports, MSWLF operators must notify the airport operator and the FAA of the proposal as early as possible pursuant to 40 CFR 258.

b. Waste handling facilities within separations identified in Sections 1-2 through 1-4. To claim successfully that a waste-handling facility sited within the separations identified in Sections 1-2 through 1-4 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 2-2.d. The FAA strongly recommends against any facility other than that as outlined in 2-2.d (enclosed transfer stations). The FAA will use this information to determine if the facility will be a hazard to aviation.

c. Putrescible-Waste Facilities. In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, no such facility has been able to demonstrate an ability to reduce and sustain hazardous wildlife to levels that existed before the putrescible-waste landfill began operating. For this reason, demonstrations of experimental wildlife control measures may not be conducted within the separation identified in Sections 1-2 through 1-4.

4-3. OTHER LAND-USE PRACTICE CHANGES. As a matter of policy, the FAA encourages operators of public-use airports who become aware of proposed land use practice changes that may attract hazardous wildlife within 5 statute miles of their airports to promptly notify the FAA. The FAA also encourages proponents of such land use changes to notify the FAA as early in the planning process as possible. Advanced notice affords the FAA an opportunity (1) to evaluate the effect of a particular land-use change on aviation safety and (2) to support efforts by the airport sponsor to restrict the use of land next to or near the airport to uses that are compatible with the airport.

The airport operator, project proponent, or land-use operator may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents similar to FAA Form 7460-1 to notify the appropriate FAA Regional Airports Division Office. Project proponents can contact the appropriate FAA Regional Airports Division Office for assistance with the notification process.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land-use operator or project proponent should also forward specific details of the proposed land-use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

a. Airports that have received Federal grant-in-aid assistance. Airports that have received Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. The FAA recommends that airport operators to the extent practicable oppose off-airport land-use changes or practices within the separations identified in Sections 1-2 through 1-4 that may attract hazardous wildlife. Failure to do so may lead to noncompliance with applicable grant assurances. The FAA will not approve the placement of airport

development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants without appropriate mitigating measures. Increasing the intensity of wildlife control efforts is not a substitute for eliminating or reducing a proposed wildlife hazard. Airport operators should identify hazardous wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

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APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. GENERAL. This appendix provides definitions of terms used throughout this AC.

1. **Air operations area.** Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

2. **Airport operator.** The operator (private or public) or sponsor of a public-use airport.

3. **Approach or departure airspace.** The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

4. **Bird balls.** High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

5. **Certificate holder.** The holder of an Airport Operating Certificate issued under Title 14, Code of Federal Regulations, Part 139.

6. **Construct a new MSWLF.** To begin to excavate, grade land, or raise structures to prepare a municipal solid waste landfill as permitted by the appropriate regulatory or permitting agency.

7. **Detention ponds.** Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

8. **Establish a new MSWLF.** When the first load of putrescible waste is received on-site for placement in a prepared municipal solid waste landfill.

9. **Fly ash.** The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

10. **General aviation aircraft.** Any civil aviation aircraft not operating under 14 CFR Part 119, Certification: Air Carriers and Commercial Operators.

11. **Hazardous wildlife.** Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard

12. **Municipal Solid Waste Landfill (MSWLF).** A publicly or privately owned discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR § 257.2. An MSWLF may receive

other types wastes, such as commercial solid waste, non-hazardous sludge, small-quantity generator waste, and industrial solid waste, as defined under 40 CFR § 258.2. An MSWLF can consist of either a stand alone unit or several cells that receive household waste.

13. **New MSWLF.** A municipal solid waste landfill that was established or constructed after April 5, 2001.

14. **Piston-powered aircraft.** Fixed-wing aircraft powered by piston engines.

15. **Piston-use airport.** Any airport that does not sell Jet-A fuel for fixed-wing turbine-powered aircraft, and primarily serves fixed-wing, piston-powered aircraft. Incidental use of the airport by turbine-powered, fixed-wing aircraft would not affect this designation. However, such aircraft should not be based at the airport.

16. **Public agency.** A State or political subdivision of a State, a tax-supported organization, or an Indian tribe or pueblo (49 U.S.C. § 47102(19)).

17. **Public airport.** An airport used or intended to be used for public purposes that is under the control of a public agency; and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft is publicly owned (49 U.S.C. § 47102(20)).

18. **Public-use airport.** An airport used or intended to be used for public purposes, and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft may be under the control of a public agency or privately owned and used for public purposes (49 U.S.C. § 47102(21)).

19. **Putrescible waste.** Solid waste that contains organic matter capable of being decomposed by micro-organisms and of such a character and proportion as to be capable of attracting or providing food for birds (40 CFR §257.3-8).

20. **Putrescible-waste disposal operation.** Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

21. **Retention ponds.** Storm water management ponds that hold water for several months.

22. **Runway protection zone (RPZ).** An area off the runway end to enhance the protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the airport design, aircraft, type of operation, and visibility minimum.

23. **Scheduled air carrier operation.** Any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial

operator for which the air carrier, commercial operator, or their representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is conducted as a supplemental operation under 14 CFR Part 119 or as a public charter operation under 14 CFR Part 380 (14 CFR § 119.3).

24. **Sewage sludge.** Any solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works. (40 CFR 257.2)

25. **Sludge.** Any solid, semi-solid, or liquid waste generated form a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. (40 CFR 257.2)

26. **Solid waste.** Any garbage, refuse, sludge, from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including, solid liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954, as amended, (68 Stat. 923). (40 CFR 257.2)

27. **Turbine-powered aircraft.** Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

28. **Turbine-use airport.** Any airport that sells Jet-A fuel for fixed-wing turbine-powered aircraft.

29. **Wastewater treatment facility.** Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 CFR Section 403.3 (q), (r), & (s)).

30. Wildlife. Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring thereof (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, wildlife includes feral animals and domestic animals out of the control of their owners (14 CFR Part 139, Certification of Airports).

31. Wildlife attractants. Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

32. Wildlife hazard. A potential for a damaging aircraft collision with wildlife on or near an airport.

33. Wildlife strike. A wildlife strike is deemed to have occurred when:

a. A pilot reports striking 1 or more birds or other wildlife;

b. Aircraft maintenance personnel identify aircraft damage as having been caused by a wildlife strike;

c. Personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;

d. Bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's death is identified;

e. The animal's presence on the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal) (Transport Canada, Airports Group, *Wildlife Control Procedures Manual*, Technical Publication 11500E, 1994).

2. RESERVED.

Memorandum of Agreement Between
the Federal Aviation Administration,
the U.S. Air Force,
the U.S. Army,
the U.S. Environmental Protection Agency,
the U.S. Fish and Wildlife Service, and
the U.S. Department of Agriculture
to Address Aircraft-Wildlife Strikes

PURPOSE

The signatory agencies know the risks that aircraft-wildlife strikes pose to safe aviation.

This Memorandum of Agreement (MOA) acknowledges each signatory agency's respective missions. Through this MOA, the agencies establish procedures necessary to coordinate their missions to more effectively address existing and future environmental conditions contributing to aircraft-wildlife strikes throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety, while protecting the Nation's valuable environmental resources.

BACKGROUND

Aircraft-wildlife strikes are the second leading causes of aviation-related fatalities. Globally, these strikes have killed over 400 people and destroyed more than 420 aircraft. While these extreme events are rare when compared to the millions of annual aircraft operations, the potential for catastrophic loss of human life resulting from one incident is substantial. The most recent accident demonstrating the grievous nature of these strikes occurred in September 1995, when a U.S. Air Force reconnaissance jet struck a flock of Canada geese during takeoff, killing all 24 people aboard.

The Federal Aviation Administration (FAA) and the United States Air Force (USAF) databases contain information on more than 54,000 United States civilian and military aircraft-wildlife strikes reported to them between 1990 and 1999[1]. During that decade, the FAA received reports indicating that aircraft-wildlife strikes, damaged 4,500 civilian U.S. aircraft (1,500 substantially), destroyed 19 aircraft, injured 91 people, and killed 6 people. Additionally, there were 216 incidents where birds struck two or more engines on civilian aircraft, with damage occurring to 26 percent of the 449 engines involved in these incidents. The FAA estimates that during the same decade, civilian U.S. aircraft sustained $4 billion worth of damages and associated losses and 4.7 million hours of aircraft downtime due to aircraft-wildlife strikes. For the same period,

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[1] FAA estimates that the 28,150 aircraft-wildlife strike reports it received represent less than 20% of the actual number of strikes that occurred during the decade.

USAF planes colliding with wildlife resulted in 10 Class A Mishaps[2], 26 airmen deaths, and over $217 million in damages.

Approximately 97 percent of the reported civilian aircraft-wildlife strikes involved common, large-bodied birds or large flocks of small birds. Almost 70 percent of these events involved gulls, waterfowl, and raptors (Table 1).

About 90 percent of aircraft-wildlife strikes occur on or near airports, when aircraft are below altitudes of 2,000 feet. Aircraft-wildlife strikes at these elevations are especially dangerous because aircraft are moving at high speeds and are close to or on the ground. Aircrews are intently focused on complex take-off or landing procedures and monitoring the movements of other aircraft in the airport vicinity. Aircrew attention to these activities while at low altitudes often compromises their ability to successfully recover from unexpected collisions with wildlife and to deal with rapidly changing flight procedures. As a result, crews have minimal time and space to recover from aircraft-wildlife strikes.

Increasing bird and wildlife populations in urban and suburban areas near airports contribute to escalating aircraft-wildlife strike rates. FAA, USAF, and Wildlife Services (WS) experts expect the risks, frequencies, and potential severities of aircraft-wildlife strikes to increase during the next decade as the numbers of civilian and military aircraft operations grow to meet expanding transportation and military demands.

SECTION I.

SCOPE OF COOPERATION AND COORDINATION

Based on the preceding information and to achieve this MOA's purpose, the signatory agencies:

A. Agree to strongly encourage their respective regional and local offices, as appropriate, to develop interagency coordination procedures necessary to effectively and efficiently implement this MOA. Local procedures should clarify time frames and other general coordination guidelines.

B. Agree that the term "airport" applies only to those facilities as defined in the attached glossary.

C. Agree that the three major activities of most concern include, but are not limited to:

1. airport siting and expansion;

[2] See glossary for the definition of a Class A Mishap and similar terms.

2. development of conservation/mitigation habitats or other land uses that could attract hazardous wildlife to airports or nearby areas; and

3. responses to known wildlife hazards or aircraft-wildlife strikes.

D. Agree that "hazardous wildlife" are those animals, identified to species and listed in FAA and USAF databases, that are most often involved in aircraft-wildlife strikes. Many of the species frequently inhabit areas on or near airports, cause structural damage to airport facilities, or attract other wildlife that pose an aircraft-wildlife strike hazard. Table 1 lists many of these species. It is included solely to provide information on identified wildlife species that have been involved in aircraft-wildlife strikes. It is not intended to represent the universe of species concerning the signatory agencies, since more than 50 percent of the aircraft-wildlife strikes reported to FAA or the USAF did not identify the species involved.

E. Agree to focus on habitats attractive to the species noted in Table 1, but the signatory agencies realize that it is imperative to recognize that wildlife hazard determinations discussed in Paragraph L of this section may involve other animals.

F. Agree that not all habitat types attract hazardous wildlife. The signatory agencies, during their consultative or decisionmaking activities, will inform regional and local land use authorities of this MOA's purpose. The signatory agencies will consider regional, local, and site-specific factors (e.g., geographic setting and/or ecological concerns) when conducting these activities and will work cooperatively with the authorities as they develop and implement local land use programs under their respective jurisdictions. The signatory agencies will encourage these stakeholders to develop land uses within the siting criteria noted in Section 1-3 of FAA Advisory Circular (AC) 150.5200-33 (Attachment A) that do not attract hazardous wildlife. Conversely, the agencies will promote the establishment of land uses attractive to hazardous wildlife outside those siting criteria. Exceptions to the above siting criteria, as described in Section 2.4.b of the AC, will be considered because they typically involve habitats that provide unique ecological functions or values (e.g., critical habitat for federally-listed endangered or threatened species, ground water recharge).

G. Agree that wetlands provide many important ecological functions and values, including fish and wildlife habitats; flood protection; shoreline erosion control; water quality improvement; and recreational, educational, and research opportunities. To protect jurisdictional wetlands, Section 404 of the Clean Water Act (CWA) establishes a program to regulate dredge and/or fill activities in these wetlands and navigable waters. In recognizing Section 404 requirements and the Clean Water Action Plan's goal to annually increase the Nation's net wetland acreage by 100,000 acres through 2005, the signatory agencies agree to resolve aircraft-wildlife conflicts. They will do so by

avoiding and minimizing wetland impacts to the maximum extent practicable, and will work to compensate for all associated unavoidable wetland impacts. The agencies agree to work with landowners and communities to encourage and support wetland restoration or enhancement efforts that do not increase aircraft-wildlife strike potentials.

H. Agree that the: U.S. Army Corps of Engineers (ACOE) has expertise in protecting and managing jurisdictional wetlands and their associated wildlife; U.S. Environmental Protection Agency (EPA) has expertise in protecting environmental resources; and the U.S. Fish and Wildlife Service (USFWS) has expertise in protecting and managing wildlife and their habitats, including migratory birds and wetlands. Appropriate signatory agencies will cooperatively review proposals to develop or expand wetland mitigation sites, or wildlife refuges that may attract hazardous wildlife. When planning these sites or refuges, the signatory agencies will diligently consider the siting criteria and land use practice recommendations stated in FAA AC 150/5200-33. The agencies will make every effort to undertake actions that are consistent with those criteria and recommendations, but recognize that exceptions to the siting criteria may be appropriate (see Paragraph F of this section).

I. Agree to consult with airport proponents during initial airport planning efforts. As appropriate, the FAA or USAF will initiate signatory agency participation in these efforts. When evaluating proposals to build new civilian or military aviation facilities or to expand existing ones, the FAA or the USAF, will work with appropriate signatory agencies to diligently evaluate alternatives that may avoid adverse effects on wetlands, other aquatic resources, and Federal wildlife refuges. If these or other habitats support hazardous wildlife, and there is no practicable alternative location for the proposed aviation project, the appropriate signatory agencies, consistent with applicable laws, regulations, and policies, will develop mutually acceptable measures, to protect aviation safety and mitigate any unavoidable wildlife impacts.

J. Agree that a variety of other land uses (e.g., storm water management facilities, wastewater treatment systems, landfills, golf courses, parks, agricultural or aquacultural facilities, and landscapes) attract hazardous wildlife and are, therefore, normally incompatible with airports. Accordingly, new, federally-funded airport construction or airport expansion projects near habitats or other land uses that may attract hazardous wildlife must conform to the siting criteria established in the FAA Advisory Circular (AC) 150/5200-33, Section 1-3.

K. Agree to encourage and advise owners and/or operators of non-airport facilities that are known hazardous wildlife attractants (See Paragraph J) to follow the siting criteria in Section 1-3 of AC 150/5200-33. As appropriate, each signatory agency will inform proponents of these or other land uses about the land use's potential to attract hazardous species to airport areas.

The signatory agencies will urge facility owners and/or operators about the critical need to consider the land uses' effects on aviation safety.

L. Agree that FAA, USAF, and WS personnel have the expertise necessary to determine the aircraft-wildlife strike potentials of various land uses. When there is disagreement among signatory agencies about a particular land use and its potential to attract hazardous wildlife, the FAA, USAF, or WS will prepare a wildlife hazard assessment. Then, the appropriate signatory agencies will meet at the local level to review the assessment. At a minimum, that assessment will:

1. identify each species causing the aviation hazard, its seasonal and daily populations, and the population's local movements;

2. discuss locations and features on and near the airport or land use attractive to hazardous wildlife; and

3. evaluate the extent of the wildlife hazard to aviation.

M. Agree to cooperate with the airport operator to develop a specific, wildlife hazard management plan for a given location, when a potential wildlife hazard is identified. The plan will meet applicable FAA, USAF, and other relevant requirements. In developing the plan, the appropriate agencies will use their expertise and attempt to integrate their respective programmatic responsibilities, while complying with existing laws, regulations, and policies. The plan should avoid adverse impacts to wildlife populations, wetlands, or other sensitive habitats to the maximum extent practical. Unavoidable impacts resulting from implementing the plan will be fully compensated pursuant to all applicable Federal laws, regulations, and policies.

N. Agree that whenever a significant aircraft-wildlife strike occurs or a potential for one is identified, any signatory agency may initiate actions with other appropriate signatory agencies to evaluate the situation and develop mutually acceptable solutions to reduce the identified strike probability. The agencies will work cooperatively, preferably at the local level, to determine the causes of the strike and what can and should be done at the airport or in its vicinity to reduce potential strikes involving that species.

O. Agree that information and analyses relating to mitigation that could cause or contribute to aircraft-wildlife strikes should, whenever possible, be included in documents prepared to satisfy the National Environmental Policy Act (NEPA). This should be done in coordination with appropriate signatory agencies to inform the public and Federal decision makers about important ecological factors that may affect aviation. This concurrent review of environmental issues will promote the streamlining of the NEPA review process.

P. Agree to cooperatively develop mutually acceptable and consistent guidance, manuals, or procedures addressing the management of habitats attractive to

hazardous wildlife, when those habitats are or will be within the siting criteria noted in Section 1-3 of FAA AC 5200-33. As appropriate, the signatory agencies will also consult each other when they propose revisions to any regulations or guidance relevant to the purpose of this MOA, and agree to modify this MOA accordingly.

SECTION II.
GENERAL RULES AND INFORMATION

A. Development of this MOA fulfills the National Transportation Safety Board's recommendation of November 19, 1999, to form an inter-departmental task force to address aircraft-wildlife strike issues.

B. This MOA does not nullify any obligations of the signatory agencies to enter into separate MOAs with the USFWS addressing the conservation of migratory birds, as outlined in Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, dated January 10, 2001 (66 *Federal Register*, No. 11, pg. 3853).

C. This MOA in no way restricts a signatory agency's participation in similar activities or arrangements with other public or private agencies, organizations, or individuals.

D. This MOA does not alter or modify compliance with any Federal law, regulation or guidance (e.g., Clean Water Act; Endangered Species Act; Migratory Bird Treaty Act; National Environmental Policy Act; North American Wetlands Conservation Act; Safe Drinking Water Act; or the "no-net loss" policy for wetland protection). The signatory agencies will employ this MOA in concert with the Federal guidance addressing wetland mitigation banking dated March 6, 1995 (60 *Federal Register*, No. 43, pg. 12286).

E. The statutory provisions and regulations mentioned above contain legally binding requirements. However, this MOA does not substitute for those provisions or regulations, nor is it a regulation itself. This MOA does not impose legally binding requirements on the signatory agencies or any other party, and may not apply to a particular situation in certain circumstances. The signatory agencies retain the discretion to adopt approaches on a case-by-case basis that differ from this MOA when they determine it is appropriate to do so. Such decisions will be based on the facts of a particular case and applicable legal requirements. Therefore, interested parties are free to raise questions and objections about the substance of this MOA and the appropriateness of its application to a particular situation.

F. This MOA is based on evolving information and may be revised periodically without public notice. The signatory agencies welcome public comments on this MOA at any time and will consider those comments in any future revision of this MOA.

G. This MOA is intended to improve the internal management of the Executive Branch to address conflicts between aviation safety and wildlife. This MOA does not create any right, benefit, or trust responsibility, either substantively or procedurally. No party, by law or equity, may enforce this MOA against the United States, its agencies, its officers, or any person.

H. This MOA does not obligate any signatory agency to allocate or spend appropriations or enter into any contract or other obligations.

I. This MOA does not reduce or affect the authority of Federal, State, or local agencies regarding land uses under their respective purviews. When requested, the signatory agencies will provide technical expertise to agencies making decisions regarding land uses within the siting criteria in Section 1-3 of FAA AC 150/5200-33 to minimize or prevent attracting hazardous wildlife to airport areas.

J. Any signatory agency may request changes to this MOA by submitting a written request to any other signatory agency and subsequently obtaining the written concurrence of all signatory agencies.

K. Any signatory agency may terminate its participation in this MOA within 60 days of providing written notice to the other agencies. This MOA will remain in effect until all signatory agencies terminate their participation in it.

SECTION III. PRINCIPAL SIGNATORY AGENCY CONTACTS

The following list identifies contact offices for each signatory agency.

Federal Aviation Administration
Office Airport Safety and Standards
Airport Safety and
Compliance Branch (AAS-310)
800 Independence Ave., S.W.
Washington, D.C. 20591
V: 202-267-1799
F: 202-267-7546

U.S. Air Force
HQ AFSC/SEFW
9700 Ave., G. SE, Bldg. 24499
Kirtland AFB, NM 87117
V: 505-846-5679
F: 505-846-0684

U.S. Army
Directorate of Civil Works
Regulatory Branch (CECW-OR)
441 G St., N.W.
Washington, D.C. 20314
V: 202-761-4750
F: 202-761-4150

U.S. Environmental Protection Agy.
Office of Water
Wetlands Division
Ariel Rios Building, MC 4502F
1200 Pennsylvania Ave., SW
Washington, D.C. 20460
V: 202-260-1799
F: 202-260-7546

U.S. Fish and Wildlife Service
Division of Migratory Bird Management
4401 North Fairfax Drive, Room 634
Arlington, VA 22203
V: 703-358-1714
F: 703-358-2272

U.S. Department of Agriculture
Animal and Plant Inspection Service
Wildlife Services
Operational Support Staff
4700 River Road, Unit 87
Riverdale, MD 20737
V: 301-734-7921
F: 301-734-5157

Signature Page

Associate Administrator for Airports,
Federal Aviation Administration

12/17/02
Date

Chief of Safety,
U. S. Air Force

27 May 2003
Date

Acting Assistant Secretary of the Army
(Civil Works)
Department of the Army

December 9, 2002
Date

Assistant Administrator, Office of Water,
U.S. Environmental Protection Agency

1/17/03

Assistant Director, Migratory Birds
and State Programs,
U.S. Fish and Wildlife Service

7/29/03
Date

Acting Deputy Administrator, Wildlife Services
U.S. Department of Agriculture

09 January 2003
Date

GLOSSARY

This glossary defines terms used in this MOA.

Airport. All USAF airfields or all public use airports in the FAA's National Plan of Integrated Airport Systems (NPIAS). Note: There are over 18,000 civil-use airports in the U.S., but only 3,344 of them are in the NPIAS and, therefore, under FAA's jurisdiction.

Aircraft-wildlife strike. An aircraft-wildlife strike is deemed to have occurred when:

1. a pilot reports that an aircraft struck 1 or more birds or other wildlife;
2. aircraft maintenance personnel identify aircraft damage as having been caused by an aircraft-wildlife strike;
3. personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;
4. bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's death is identified; or
5. the animal's presence on the airport had a significant, negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal)

(Source: *Wildlife Control Procedures Manual*, Technical Publication 11500E, 1994).

Aircraft-wildlife strike hazard. A potential for a damaging aircraft collision with wildlife on or near an airport (14 CFR 139.3).

Bird Sizes. Title 40, Code of Federal Regulations, Part 33.76 classifies birds according to weight:

small birds weigh less than 3 ounces (oz).
medium birds weigh more than 3 oz and less than 2.5 lbs.
large birds weigh greater than 2.5 lbs.

Civil aircraft damage classifications. The following damage descriptions are based on the *Manual on the International Civil Aviation Organization Bird Strike Information System*:

Minor: The aircraft is deemed airworthy upon completing simple repairs or replacing minor parts and an extensive inspection is not necessary.

Substantial: Damage or structural failure adversely affects an aircraft's structural integrity, performance, or flight characteristics. The damage normally requires major repairs or the replacement of the entire affected component. Bent fairings or cowlings; small dents; skin punctures; damage to wing tips, antenna, tires or brakes, or engine blade damage not requiring blade replacement are specifically excluded.

Destroyed: The damage sustained makes it inadvisable to restore the aircraft to an airworthy condition.

Significant Aircraft-Wildlife Strikes. A significant aircraft-wildlife strike is deemed to have occurred when any of the following applies:

1. a civilian, U.S. air carrier aircraft experiences a multiple aircraft-bird strike or engine ingestion;
2. a civilian, U.S. air carrier aircraft experiences a damaging collision with wildlife other than birds; or
3. a USAF aircraft experiences a Class A, B, or C mishap as described below:

    A. **Class A Mishap:** Occurs when at least one of the following applies:
        1. total mishap cost is $1,000,000 or more;
        2. a fatality or permanent total disability occurs; and/or
        3. an Air Force aircraft is destroyed.
    B. **Class B Mishap:** Occurs when at least one of the following applies:
        1. total mishap cost is $200,000 or more and less than $1,000,000; and/or
        2. a permanent partial disability occurs and/or 3 or more people are hospitalized;
    C. **Class C Mishap:** Occurs when at least one of the following applies:
        1. cost of reported damage is between $20,000 and $200,000;
        2. an injury causes a lost workday (i.e., duration of absence is at least 8 hours beyond the day or shift during which mishap occurred); and/or
        3. an occupational illness causing absence from work at any time.

Wetlands. An ecosystem requiring constant or recurrent, shallow inundation or saturation at or near the surface of the substrate. The minimum essential characteristics of a wetland are recurrent, sustained inundation or saturation at or

near the surface and the presence of physical, chemical, and biological features indicating recurrent, sustained inundation, or saturation. Common diagnostic wetland features are hydric soils and hydrophytic vegetation. These features will be present, except where specific physiochemical, biotic, or anthropogenic factors have removed them or prevented their development.

(Source the 1987 Delineation Manual; 40 CFR 230.3(t)).

Wildlife. Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring there of (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this MOA, "wildlife" includes feral animals and domestic animals while out of their owner's control (14 CFR 139.3, *Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters)*)

Table 1. Identified wildlife species, or groups, that were involved in two or more aircraft-wildlife strikes, that caused damage to one or more aircraft components, or that had an adverse effect on an aircraft's flight. Data are for 1990-1999 and involve only civilian, U.S. aircraft.

Birds	No. reported strikes
Gulls (all spp.)	874
Geese (primarily, Canada geese)	458
Hawks (primarily, Red-tailed hawks)	182
Ducks (primarily Mallards.)	166
Vultures (primarily, Turkey vulture)	142
Rock doves	122
Doves (primarily, mourning doves)	109
Blackbirds	81
European starlings	55
Sparrows	52
Egrets	41
Shore birds (primarily, Killdeer & Sandpipers)	40
Crows	31
Owls	24
Sandhill cranes	22
American kestrels	15
Great blue herons	15
Pelicans	14
Swallows	14
Eagles (Bald and Golden)	14
Ospreys	13
Ring-necked pheasants	11
Herons	11
Barn-owls	9
American robins	8
Meadowlarks	8
Buntings (snow)	7
Cormorants	6
Snow buntings	6
Brants	5
Terns (all spp.)	5
Great horned owls	5
Horned larks	4
Turkeys	4
Swans	3
Mockingbirds	3
Quails	3
Homing pigeons	3
Snowy owls	3
Anhingas	2

Ravens	2
Kites	2
Falcons	2
Peregrine falcons	2
Merlins	2
Grouse	2
Hungarian partridges	2
Spotted doves	2
Thrushes	2
Mynas	2
Finches	2
Total known birds	2,612

Mammals	**No. reported strikes**
Deer (primarily, White-tailed deer)	285
Coyotes	16
Dogs	10
Elk	6
Cattle	5
Bats	4
Horses	3
Pronghorn antelopes	3
Foxes	2
Raccoons	2
Rabbits	2
Moose	2
Total known mammals	340

Ring-billed gulls were the most commonly struck gulls. The U.S. ring-billed gull population increased steadily at about 6% annually from 1966-1988. Canada geese were involved in about 90% of the aircraft-goose strikes involving civilian, U.S. aircraft from 1990-1998. Resident (non-migratory) Canada goose populations increased annually at 13% from 1966-1998. Red-tailed hawks accounted for 90% of the identified aircraft-hawk strikes for the 10-year period. Red-tailed hawk populations increased annually at 3% from 1966 to 1998. Turkey vultures were involved in 93% of he identified aircraft-vulture strikes. The U.S. Turkey vulture populations increased at annually at 1% between 1966 and 1998. Deer, primarily white-tailed deer, have also adapted to urban and airport areas and their populations have increased dramatically. In the early 1900's, there were about 100,000 white-tailed deer in the U.S. Current estimates are that the U.S. population is about 24 million.

U.S. Department
of Transportation

**Federal Aviation
Administration**

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS

Date: 5/1/97
Initiated by:
AAS-310 and APP-600

AC No: 150/5200-33
Change:

1. PURPOSE. This advisory circular (AC) provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity of public-use airports. It also provides guidance concerning the placement of new airport development projects (including airport construction, expansion, and renovation) pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICATION. The standards, practices, and suggestions contained in this AC are recommended by the Federal Aviation Administration (FAA) for use by the operators and sponsors of all public-use airports. In addition, the standards, practices, and suggestions contained in this AC are recommended by the FAA as guidance for land use planners, operators, and developers of projects, facilities, and activities on or near airports.

3. BACKGROUND. Populations of many species of wildlife have increased markedly in the last few years. Some of these species are able to adapt to human-made environments, such as exist on and around airports. The increase in wildlife populations, the use of larger turbine engines, the increased use of twin-engine aircraft, and the increase in air-traffic, all combine to increase the risk, frequency, and potential severity of wildlife-aircraft collisions.

Most public-use airports have large tracts of open, unimproved land that are desirable for added margins of safety and noise mitigation. These areas can present potential hazards to aviation because they often attract hazardous wildlife. During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives world-wide, as well as billions of dollars worth of aircraft damage. Hazardous wildlife attractants near airports could jeopardize future airport expansion because of safety considerations.

DAVID L. BENNETT
Director, Office of Airport Safety and Standards

SECTION 1. HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. TYPES OF HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS. Human-made or natural areas, such as poorly-drained areas, retention ponds, roosting habitats on buildings, landscaping, putrescible-waste disposal operations, wastewater treatment plants, agricultural or aquacultural activities, surface mining, or wetlands, may be used by wildlife for escape, feeding, loafing, or reproduction. Wildlife use of areas within an airport's approach or departure airspace, aircraft movement areas, loading ramps, or aircraft parking areas may cause conditions hazardous to aircraft safety.

All species of wildlife can pose a threat to aircraft safety. However, some species are more commonly involved in aircraft strikes than others. Table 1 lists the wildlife groups commonly reported as being involved in damaging strikes to U.S. aircraft from 1993 to 1995.

Table 1. Wildlife Groups Involved in Damaging Strikes to Civilian Aircraft, USA, 1993-1995.

Wildlife Groups	Percent involvement in reported damaging strikes
Gulls	28
Waterfowl	28
Raptors	11
Doves	6
Vultures	5
Blackbirds-Starlings	5
Corvids	3
Wading birds	3
Deer	11
Canids	1

1-2. LAND USE PRACTICES. Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife-aircraft collisions. FAA recommends against land use practices, within the siting criteria stated in 1-3, that attract or sustain populations of hazardous wildlife within the vicinity of airports or cause movement of hazardous wildlife onto, into, or across the approach or departure airspace, aircraft movement area, loading ramps, or aircraft parking area of airports.

Airport operators, sponsors, planners, and land use developers should consider whether proposed land uses, including new airport development projects, would increase the wildlife hazard. Caution should be exercised to ensure that land use practices on or near airports do not enhance the attractiveness of the area to hazardous wildlife.

1-3. SITING CRITERIA. FAA recommends separations when siting any of the wildlife attractants mentioned in Section 2 or when planning new airport development projects to accommodate aircraft movement. The distance between an airport's aircraft movement areas, loading ramps, or aircraft parking areas and the wildlife attractant should be as follows:

a. Airports serving piston-powered aircraft. A distance of 5,000 feet is recommended.

b. Airports serving turbine-powered aircraft. A distance of 10,000 feet is recommended.

c. Approach or Departure airspace. A distance of 5 statute miles is recommended, if the wildlife attractant may cause hazardous wildlife movement into or across the approach or departure airspace.

SECTION 2. LAND USES THAT ARE INCOMPATIBLE WITH SAFE AIRPORT OPERATIONS.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment are highly variable and may depend on several factors, including land-use practices on or near the airport. It is important to identify those land use practices in the airport area that attract hazardous wildlife. This section discusses land use practices known to threaten aviation safety.

2-2. PUTRESCIBLE-WASTE DISPOSAL OPERATIONS. Putrescible-waste disposal operations are known to attract large numbers of wildlife that are hazardous to aircraft. Because of this, these operations, when located within the separations identified in the sitting criteria in 1-3 are considered incompatible with safe airport operations.

FAA recommends against locating putrescible-waste disposal operations inside the separations identified in the siting criteria mentioned above. FAA also recommends against new airport development projects that would increase the number of aircraft operations or that would accommodate larger or faster aircraft, near putrescible-waste disposal operations located within the separations identified in the siting criteria in 1-3.

2-3. WASTEWATER TREATMENT FACILITIES. Wastewater treatment facilities and associated settling ponds often attract large numbers of wildlife that can pose a threat to aircraft safety when they are located on or near an airport.

a. New wastewater treatment facilities. FAA recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in the siting criteria in 1-3. During the siting analysis for wastewater treatment facilities, the potential to attract hazardous wildlife should be considered if an airport is in the vicinity of a proposed site. Airport operators should voice their opposition to such sitings. In addition, they should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

b. Existing wastewater treatment facilities. FAA recommends correcting any wildlife hazards arising from existing wastewater treatment facilities located on or near airports without delay, using appropriate wildlife hazard mitigation techniques. Accordingly, measures to minimize hazardous wildlife attraction should be developed in consultation with a wildlife damage management biologist. FAA recommends that wastewater treatment facility operators incorporate appropriate wildlife hazard mitigation techniques into their operating practices. Airport operators also should encourage those operators to incorporate these mitigation techniques in their operating practices.

c. Artificial marshes. Waste-water treatment facilities may create artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. FAA recommends against establishing artificial marshes within the separations identified in the siting criteria stated in 1-3.

d. Wastewater discharge and sludge disposal. FAA recommends against the discharge of wastewater or sludge on airport property. Regular spraying of wastewater or sludge disposal on unpaved areas may improve soil moisture and quality. The resultant turf growth requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw. The maimed or flushed organisms and the straw can attract hazardous wildlife and jeopardize aviation safety. In addition, the improved turf may attract grazing wildlife such as deer and geese.

Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

e. Underwater waste discharges. The underwater discharge of any food waste, e.g., fish processing offal, that could attract scavenging wildlife is not recommended within the separations identified in the siting criteria in 1-3.

2-4. WETLANDS.

a. Wetlands on or near Airports.

(1) Existing Airports. Normally, wetlands are attractive to many wildlife species. Airport operators with wetlands located on or nearby airport property should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations.

(2) Airport Development. When practicable, the FAA recommends siting new airports using the separations identified in the siting criteria in 1-3. Where alternative sites are not practicable or when expanding existing airports in or near wetlands, the wildlife hazards should be evaluated and minimized through a wildlife management plan prepared by a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (COE).

NOTE: If questions exist as to whether or not an area would qualify as a wetland, contact the U.S. Army COE, the Natural Resource Conservation Service, or a wetland consultant certified to delineate wetlands.

b. Wetland mitigation. Mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects. Wetland mitigation should be designed so it does not create a wildlife hazard.

(1) FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in the siting criteria in 1-3. Wetland mitigation banks meeting these siting criteria offer an ecologically sound approach to mitigation in these situations.

(2) Exceptions to locating mitigation activities outside the separations identified in the siting criteria in 1-3 may be considered if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge. Such mitigation must be compatible with safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife should be avoided. On-site mitigation plans may be reviewed by the FAA to determine compatibility with safe airport operations.

(3) Wetland mitigation projects that are needed to protect unique wetland functions (see 2-4.b.(2)), and that must be located in the siting criteria in 1-3 should be identified and evaluated by a wildlife damage management biologist before implementing the mitigation. A wildlife damage management plan should be developed to reduce the wildlife hazards.

NOTE: AC 150/5000-3, *Address List for Regional Airports Division and Airports District/Field Offices*, provides information on the location of these offices.

2-5. DREDGE SPOIL CONTAINMENT AREAS. FAA recommends against locating dredge spoil containment areas within the separations identified in the siting criteria in 1-3, if the spoil contains material that would attract hazardous wildlife.

SECTION 3. LAND USES THAT MAY BE COMPATIBLE WITH SAFE AIRPORT OPERATIONS.

3-1. GENERAL. Even though they may, under certain circumstances, attract hazardous wildlife, the land use practices discussed in this section have flexibility regarding their location or operation and may even be under the airport operator's or sponsor's control. In general, the FAA does not consider the activities discussed below as hazardous to aviation if there is no apparent attraction to hazardous wildlife, or wildlife hazard mitigation techniques are implemented to deal effectively with any wildlife hazard that may arise.

3-2. ENCLOSED WASTE FACILITIES. Enclosed trash transfer stations or enclosed waste handling facilities that receive garbage indoors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles, generally would be compatible, from a wildlife perspective, with safe airport operations, provided they are not located on airport property or within the runway protection zone (RPZ). No putrescible-waste should be handled or stored outside at any time, for any reason, or in a partially enclosed structure accessible to hazardous wildlife.

Partially enclosed operations that accept putrescible-waste are considered to be incompatible with safe airport operations. FAA recommends these operations occur outside the separations identified in the siting criteria in 1-3.

3-3. RECYCLING CENTERS. Recycling centers that accept previously sorted, non-food items such as glass, newspaper, cardboard, or aluminum are, in most cases, not attractive to hazardous wildlife.

3-4. COMPOSTING OPERATIONS ON AIRPORTS. FAA recommends against locating composting operations on airports. However, when they are located on an airport, composting operations should not be located closer than the greater of the following distances: 1,200 feet from any aircraft movement area, loading ramp, or aircraft parking space; or the distance called for by airport design requirements. This spacing is intended to prevent material, personnel, or equipment from penetrating any Obstacle Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway (see AC 150/5300-13, *Airport Design*). On-airport disposal of compost by-products is not recommended for the reasons stated in 2-3.d.

a. Composition of material handled. Components of the compost should never include any municipal solid waste. Non-food waste such as leaves, lawn clippings, branches, and twigs generally are not considered a wildlife attractant. Sewage sludge, wood-chips, and similar material are not municipal solid wastes and may be used as compost bulking agents.

b. Monitoring on-airport composting operations. If composting operations are to be located on airport property, FAA recommends that the airport operator monitor composting operations to ensure that steam or thermal rise does not affect air traffic in any way. Discarded leaf disposal bags or other debris must not be allowed to blow onto any active airport area. Also, the airport operator should reserve the right to stop any operation that creates unsafe, undesirable, or incompatible conditions at the airport.

3-5. ASH DISPOSAL. Fly ash from resource recovery facilities that are fired by municipal solid waste, coal, or wood, is generally considered not to be a wildlife attractant because it contains no putrescible matter. FAA generally does not consider landfills accepting only fly ash to be wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

Since varying degrees of waste consumption are associated with general incineration, FAA classifies the ash from general incinerators as a regular waste disposal by-product and, therefore, a hazardous wildlife attractant.

3-6. CONSTRUCTION AND DEMOLITION (C&D) DEBRIS LANDFILLS. C&D debris (Class IV) landfills have visual and operational characteristics similar to putrescible-waste disposal sites. When co-located with putrescible-waste disposal operations, the probability of hazardous wildlife attraction to C&D landfills increases because of the similarities between these disposal activities.

FAA generally does not consider C&D landfills to be hazardous wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

3-7. WATER DETENTION OR RETENTION PONDS. The movement of storm water away from runways, taxiways, and aprons is a normal function on most airports and is necessary for safe aircraft operations. Detention ponds hold storm water for short periods, while retention ponds hold water indefinitely. Both types of ponds control runoff, protect water quality, and can attract hazardous wildlife. Retention ponds are more attractive to hazardous wildlife than detention ponds because they provide a more reliable water source.

To facilitate hazardous wildlife control, FAA recommends using steep-sided, narrow, linearly-shaped, rip-rap lined, water detention basins rather than retention basins. When possible, these ponds should be placed away from aircraft movement areas to minimize aircraft-wildlife interactions. All vegetation in or around detention or retention basins that provide food or cover for hazardous wildlife should be eliminated.

If soil conditions and other requirements allow, FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

3-8. LANDSCAPING. Wildlife attraction to landscaping may vary by geographic location. FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. All landscaping plans should be reviewed by a wildlife damage management biologist. Landscaped areas should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-9. GOLF COURSES. Golf courses may be beneficial to airports because they provide open space that can be used for noise mitigation or by aircraft during an emergency. On-airport golf courses may also be a concurrent use that provides income to the airport.

Because of operational and monetary benefits, golf courses are often deemed compatible land uses on or near airports. However, waterfowl (especially Canada geese) and some species of gulls are attracted to the large, grassy areas and open water found on most golf courses. Because waterfowl and gulls occur throughout the U.S., FAA recommends that airport operators exercise caution and consult with a wildlife damage management biologist when considering proposals for golf course construction or expansion on or near airports. Golf courses should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-10. AGRICULTURAL CROPS. As noted above, airport operators often promote revenue-generating activities to supplement an airport's financial viability. A common concurrent use is agricultural crop production. Such use may create potential hazards to aircraft by attracting wildlife. Any proposed on-airport agricultural operations should be reviewed by a wildlife damage management biologist. FAA generally does not object to agricultural crop production on airports when: wildlife hazards are not predicted; the guidelines for the airport areas specified in 3-10.a-f. are observed; and the agricultural operation is closely monitored by the airport operator or sponsor to ensure that hazardous wildlife are not attracted.

NOTE: If wildlife becomes a problem due to on-airport agricultural operations, FAA recommends undertaking the remedial actions described in 3-10.f.

a. Agricultural activities adjacent to runways. To ensure safe, efficient aircraft operations, FAA recommends that no agricultural activities be conducted in the Runway Safety Area (RSA), OFA, and the OFZ (see AC 150/5300-13).

b. Agricultural activities in areas requiring minimum object clearances. Restricting agricultural operations to areas outside the RSA, OFA, OFZ, and Runway Visibility Zone (RVZ) (see AC 150/5300-13) will normally provide the minimum object clearances required by FAA's airport design standards. FAA recommends that farming operations not be permitted within areas critical to the proper operation of localizers, glide slope indicators, or other visual or electronic navigational aids. Determinations of minimal areas that must be kept free of farming operations should be made on a case-by-case basis. If navigational aids are present, farm leases for on-airport agricultural activities should be coordinated with FAA's Airway Facilities Division, in accordance with FAA Order 6750.16, *Siting Criteria for Instrument Landing Systems*.

NOTE: Crop restriction lines conforming to the dimensions set forth in Table 2 will normally provide the minimum object clearance required by

FAA airport design standards. The presence of navigational aids may require expansion of the restricted area.

c. Agricultural activities within an airport's approach areas. The RSA, OFA, and OFZ all extend beyond the runway shoulder and into the approach area by varying distances. The OFA normally extends the farthest and is usually the controlling surface. However, for some runways, the TSS (see AC 150/5300-13, Appendix 2) may be more controlling than the OFA. The TSS may not be penetrated by any object. The minimum distances shown in Table 2 are intended to prevent penetration of the OFA, OFZ, or TSS by crops or farm machinery.

NOTE: Threshold Siting standards should not be confused with the approach areas described in Title 14, Code of Federal Regulations, Part 77, (14 CFR 77), *Objects Affecting Navigable Airspace.*

d. Agricultural activities between intersecting runways. FAA recommends that no agricultural activities be permitted within the RVZ. If the terrain is sufficiently below the runway elevation, some types of crops and equipment may be acceptable. Specific determinations of what is permissible in this area requires topographical data. For example, if the terrain within the RVZ is level with the runway ends, farm machinery or crops may interfere with a pilot’s line-of-sight in the RVZ.

e. Agricultural activities in areas adjacent to taxiways and aprons. Farming activities should not be permitted within a taxiway's OFA. The outer portions of aprons are frequently used as a taxilane and farming operations should not be permitted within the OFA. Farming operations should not be permitted between runways and parallel taxiways.

f. Remedial actions for problematic agricultural activities. If a problem with hazardous wildlife develops, FAA recommends that a professional wildlife damage management biologist be contacted and an on-site inspection be conducted. The biologist should be requested to determine the source of the hazardous wildlife attraction and suggest remedial action. Regardless of the source of the attraction, prompt remedial actions to protect aviation safety are recommended. The remedial actions may range from choosing another crop or farming technique to complete termination of the agricultural operation.

Whenever on-airport agricultural operations are stopped due to wildlife hazards or annual harvest, FAA recommends plowing under all crop residue and harrowing the surface area smooth. This will reduce or eliminate the area's attractiveness to foraging wildlife. FAA recommends that this requirement be written into all on-airport farm use contracts and clearly understood by the lessee.

Table 2. Minimum Distances Between Certain Airport Features And Any On-Airport Agriculture Crops.

Aircraft Approach Category And Design Group [1]	Distance In Feet From Runway Centerline To Crop		Distance In Feet From Runway End To Crop		Distance In Feet From Centerline Of Taxiway To Crop	Distance In Feet From Edge Of Apron To Crop
	Visual & ≥ ¾ mile	< ¾ mile	Visual & ≥ ¾ mile	< ¾ mile		
Category A & B Aircraft						
Group I	200 [2]	400	300[3]	600	45	40
Group II	250	400	400[3]	600	66	58
Group III	400	400	600	800	93	81
Group IV	400	400	1,000	1,000	130	113
Category C, D & E Aircraft						
Group I	530[3]	575[3]	1,000	1,000	45	40
Group II	530[3]	575[3]	1,000	1,000	66	58
Group III	530[3]	575[3]	1,000	1,000	93	81
Group IV	530[3]	575[3]	1,000	1,000	130	113
Group V	530[3]	575[3]	1,000	1,000	160	138
Group VI	530[3]	575[3]	1,000	1,000	193	167

1. Design Groups are based on wing span, and Category depends on approach speed of the aircraft.

Group I:	Wing span up to 49 ft.	Category A:	Speed less than 91 knots
Group II:	Wing span 49ft. up to 78 ft.	Category B:	Speed 91 knots up to 120 knots
Group III:	Wing span 79 ft. up to 117 ft.	Category C:	Speed 121 knots up to 140 knots
Group IV:	Wing span 118 ft. up to 170 ft.	Category D:	Speed 141 knots up to 165 knots
Group V:	Wing span 171 ft. up to 213 ft.	Category E:	Speed 166 knots or more
Group VI:	Wing span 214 ft. up to 261 ft.		

2. If the runway will only serve small airplanes (12,500 lb. And under) in Design Group I, this dimension may be reduced to 125 feet; however, this dimension should be increased where necessary to accommodate visual navigational aids that may be installed. For example farming operations should not be allowed within 25 feet of a Precision Approach Path Indicator (PAPI) light box.

3. These dimensions reflect the TSS as defined in AC 150/5300-13, Appendix 2. The TSS cannot be penetrated by any object. Under these conditions, the TSS is more restrictive than the OFA, and the dimensions shown here are to prevent penetration of the TSS by crops and farm machinery.

SECTION 4. NOTIFICATION OF FAA ABOUT HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AN AIRPORT.

4-1. GENERAL. Airport operators, land developers, and owners should notify the FAA in writing of known or reasonably foreseeable land use practices on or near airports that either attract or may attract hazardous wildlife. This section discusses those notification procedures.

4-2. NOTIFICATION REQUIREMENTS FOR WASTE DISPOSAL SITE OPERATIONS. The Environmental Protection Agency (EPA) requires any operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, section 258.10, *Airport Safety*). The EPA also requires owners or operators of new municipal solid waste landfill (MSWLF) units, or lateral expansions of existing MSWLF units that are located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft.

a. Timing of Notification. When new or expanded MSWLFs are being proposed near airports, MSWLF operators should notify the airport operator and the FAA of this as early as possible pursuant to 40 CFR Part 258. Airport operators should encourage the MSWLF operators to provide notification as early as possible.

NOTE: AC 150/5000-3 provides information on these FAA offices.

b. Putrescible-Waste Facilities. In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, the ability to sustain a reduction in the numbers of hazardous wildlife to levels that existed before a putrescible-waste landfill began operating has not been successfully demonstrated. For this reason, demonstrations of experimental wildlife control measures should not be conducted in active aircraft operations areas.

c. Other Waste Facilities. To claim successfully that a waste handling facility sited within the separations identified in the siting criteria in 1-3 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 3-2. FAA requests that waste site developers provide a copy of an official permit request verifying that the facility will not handle putrescible material other than that as outlined in 3-2. FAA will use this information to determine if the facility will be a hazard to aviation.

4-3. NOTIFYING FAA ABOUT OTHER WILDLIFE ATTRACTANTS. While U. S. EPA regulations require landfill owners to provide notification, no similar regulations require notifying FAA about changes in other land use practices that can create hazardous wildlife attractants. Although it is not required by regulation, FAA requests those proposing land use changes such as those discussed in 2-3, 2-4, and 2-5 to provide similar notice to the FAA as early in the development process as possible. Airport operators that become aware of such proposed development in the vicinity of their airports should also notify the FAA. The notification process gives the FAA an opportunity to evaluate the effect of a particular land use change on aviation safety.

The land use operator or project proponent may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents to notify the appropriate FAA Regional Airports Division Office.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land use operator or project proponent should also forward specific details of the proposed land use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

4-5. FAA REVIEW OF PROPOSED LAND USE CHANGES.

a. The FAA discourages the development of facilities discussed in section 2 that will be located within the 5,000/10,000-foot criteria in 1-3.

b. For projects which are located outside the 5,000/10,000-foot criteria, but within 5 statute miles of the airport's aircraft movement areas, loading ramps, or aircraft parking areas, FAA may review development plans, proposed land use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. Sensitive airport areas will be identified as those that lie under or next to approach or departure airspace. This brief examination should be sufficient to determine if further investigation is warranted.

c. Where further study has been conducted by a wildlife damage management biologist to evaluate a site's compatibility with airport operations, the FAA will use the study results to make its determination.

d. FAA will discourage the development of any excepted sites (see Section 3) within the criteria specified in 1-3 if a study shows that the area supports hazardous wildlife species.

4-6. AIRPORT OPERATORS. Airport operators should be aware of proposed land use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in the siting criteria in 1-3. Particular attention should be given to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas.

a. AIP-funded airports. FAA recommends that operators of AIP-funded airports, to the extent practicable, oppose off-airport land use changes or practices (within the separations identified in the siting criteria in 1-3) that may attract hazardous wildlife. Failure to do so could place the airport operator or sponsor in noncompliance with applicable grant assurances. FAA recommends against the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Airport operators, sponsors, and planners should identify wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

b. Additional coordination. If, after the initial review by FAA, questions remain about the existence of a wildlife hazard near an airport, the airport operator or sponsor should consult a wildlife damage management biologist. Such questions may be triggered by a history of wildlife strikes at the airport or the proximity of the airport to a wildlife refuge, body of water, or similar feature known to attract wildlife.

c. Specialized assistance. If the services of a wildlife damage management biologist are required, FAA recommends that land use developers or the airport operator contact the appropriate state director of the United States Department of Agriculture/Animal Damage Control (USDA/ADC), or a consultant specializing in wildlife damage management. Telephone numbers for the respective USDA/ADC state offices may be obtained by contacting USDA/ADC's Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157. The ADC biologist or consultant should be requested to identify and quantify wildlife common to the area and evaluate the potential wildlife hazards.

d. Notifying airmen. If an existing land use practice creates a wildlife hazard, and the land use practice or wildlife hazard cannot be immediately eliminated, the airport operator should issue a Notice to Airmen (NOTAM) and encourage the land owner or manager to take steps to control the wildlife hazard and minimize further attraction.

APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. GENERAL. This appendix provides definitions of terms used throughout this AC.

a. Aircraft movement area. The runways, taxiways, and other areas of an airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft exclusive of loading ramps and aircraft parking areas.

b. Airport operator. The operator (private or public) or sponsor of a public use airport.

c. Approach or departure airspace. The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

d. Concurrent use. Aeronautical property used for compatible non-aviation purposes while at the same time serving the primary purpose for which it was acquired; and the use is clearly beneficial to the airport. The concurrent use should generate revenue to be used for airport purposes (see Order 5190.6A, *Airport Compliance Requirements*, sect. 5h).

e. Fly ash. The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

f. Hazardous wildlife. Wildlife species that are commonly associated with wildlife-aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a wildlife-aircraft strike hazard.

g. Piston-use airport. Any airport that would primarily serve FIXED-WING, piston-powered aircraft. Incidental use of the airport by turbine-powered, FIXED-WING aircraft would not affect this designation. However, such aircraft should not be based at the airport.

h. Public-use airport. Any publicly owned airport or a privately-owned airport used or intended to be used for public purposes.

i. Putrescible material. Rotting organic material.

j. Putrescible-waste disposal operation. Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

k. Runway protection zone (RPZ). An area off the runway end to enhance the protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the design aircraft, type of operation, and visibility minimum.

l. Sewage sludge. The de-watered effluent resulting from secondary or tertiary treatment of municipal sewage and/or industrial wastes, including sewage sludge as referenced in U.S. EPA's *Effluent Guidelines and Standards*, 40 C.F.R. Part 401.

m. Shoulder. An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface, support for aircraft running off the pavement, enhanced drainage, and blast protection (see AC 150/5300-13).

n. Turbine-powered aircraft. Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

o. Turbine-use airport. Any airport that ROUTINELY serves FIXED-WING turbine-powered aircraft.

p. Wastewater treatment facility. Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 C.F. R. Section 403.3 (o), (p), & (q)).

q. Wildlife. Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring there of (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, WILDLIFE includes feral animals and domestic animals while out of the control of their owners (14 CFR 139.3, *Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters)*).

r. Wildlife attractants. Any human-made structure, land use practice, or human-made or natural geographic feature, that can attract or sustain hazardous wildlife within the landing or departure airspace, aircraft movement area, loading ramps, or aircraft parking areas of an airport. These attractants can include but are not limited to architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquacultural activities, surface mining, or wetlands.

s. Wildlife hazard. A potential for a damaging aircraft collision with wildlife on or near an airport (14 CFR 139.3).

2. RESERVED.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 17, 2020

Karin Cleary-Rose
United States Fish and Wildlife Service
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan (Project) SCH# 2015031022

Dear Ms. Cleary-Rose,

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Statement/Supplemental Environmental Impact Report from United States Fish and Wildlife Service (USFWS) and San Bernardino Valley Water Conservation District (Conservation District) for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The USFWS is proposing to issue incidental take permits for 30 years consistent with the Upper Santa Ana River Wash Plan Habitat Conservation Plan (HCP) for the following species: federally endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*, SBKR), Santa Ana River woolly-star (*Eriastrum densifolium* ssp. *sanctorum*, woolly-star), slender-horned spineflower (*Dodecahema leptoceras*, spineflower); federally threatened coastal California gnatcatcher (*Polioptila californica californica*); and cactus wren (*Campylorhynchus brunneicappilis*).

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations below to assist the USFWS and the Conservation District in adequately identifying and mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

California Endangered Species Act (CESA)

The Upper Santa Ana River Wash Habitat Conservation Plan (HCP) is a federal document that will support the USFWS's issuance of take coverage for federally listed threatened or endangered species. The HCP does not provide authorization for the take of CESA listed threatened or endangered species. There are several State of California listed endangered species known to occupy areas within the HCP boundaries, including Santa Ana River woollystar (*Eriastrum densifolium*) and slender horned spineflower (*Dodecahema leptoceras*). Additionally, a petition (Petition) was submitted to the Fish and Game Commission (Commission) to list San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR) as endangered pursuant to the CESA, Fish and Game Code Section 2050 et seq. On August 7, 2019, the Commission accepted the Petition for consideration and SBKR was designated as a candidate species. On August 23, 2019, publication of the Commission's acceptance of the Petition for consideration and designation of the SBKR as a candidate species was posted; therefore, take of SBKR will be prohibited unless authorization pursuant to CESA is obtained.

The Conservation District has not applied for an Incidental Take Permit (ITP) for covered activities listed under the HCP and does not have authorization to "take" CESA-listed species. CESA authorizes CDFW to issue ITPs only when the impacts of the authorized take associated with the activity will be minimized and fully mitigated, and

when the project permittee has ensured adequate funding to carry out all mitigation, compliance, and effectiveness monitoring. Additionally, CDFW is prohibited from issuing an ITP if in doing so, the activities would jeopardize the continued existence of the species. Documentation for an ITP application and required measures in an ITP may differ from federal documentation and authorizations. CDFW encourages the Conservation District to apply for an ITP to ensure coverage and compliance with the CESA.

Slender-horned Spineflower

Page 4.4-10 discusses the contingency parcel, "an island of habitat (for slender-horned spineflower) surrounded by existing and future aggregate mining operations." The footnote at the bottom of page 4.4-10 states "The contingency parcel, while initially conserved, could be mined in the future contingent upon the successful establishment of spineflower elsewhere in the HCP Preserve." Though CDFW appreciates the Conservation District's attempts to preserve the spineflower population while, and until, new populations of spineflower can be established, the Conservation District should consider the isolation of the population on the "island of habitat" as an impact, itself. Were attempts to establish new populations of spineflower unsuccessful, the isolation of the existing population could be detrimental to the continued existence of the species, and should therefore be considered an impact, and mitigated appropriately.

Additional Comments

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the Draft Environmental Impact Statement/Supplemental Environmental Impact Report to assist United States Fish and Wildlife Service and San Bernardino Valley Water Conservation District in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Brandy Wood, Environmental Scientist at 909-483-6319 or Brandy.Wood@wildlife.ca.gov.

Sincerely,

Scott Wilson
Environmental Program Manager

cc: Office of Planning and Research, State Clearinghouse, Sacramento

Daniel Cozad, General Manager, San Bernardino Valley Water Conservation District

ec: HCPB CEQA Coordinator

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January 23, 2020

Emailed to fw8psfwocomments@fws.gov
Ms. Karin Cleary-Rose
Santa Ana River Wash Project
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

Re: Comments on the draft Environmental Impact Statement/Supplement Environmental Impact Report for the Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan

Dear Ms. Cleary-Rose:
On behalf of Vulcan Materials Company – Western Division (Vulcan), I have reviewed the draft Environmental Impact Statement/Supplement Environmental Impact Report for the Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan, San Bernardino County, California and have the several comments for your consideration. The comments largely center about the potential impacts to the species covered by the draft HCP – the federal endangered San Bernardino kangaroo rat (SBKR), Santa Ana River woolly star (SARWS), and slender-horned spineflower (SHSF) as well as the threatened coastal California gnatcatcher (CAGN) and State Species of Concern Cactus wren(CAWREN).

As you are aware, I have been aiding Vulcan with management of Riversidian alluvial fan sage scrub (RAAFSS) habitat on their Cajon Creek properties since the early 1990s. This effort culminated in the establishment of the Cajon Creek Habitat Conservation Management Area (Conservation Area) in 1996 through a Memorandum of Understanding (MOU). It is acknowledged by the three signatory agencies (i.e., the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers) that the Conservation Area does or has the high potential to provide habitat for the five species covered by the proposed Wash Plan.

During the first 20 years of managing the Conservation Area, Vulcan successfully restored over 200 acres of the RAFSS community and continues to undertake RAFSS enhancement/restoration projects on-site. On the twentieth anniversary of the establishment of the Conservation Area, Vulcan undertook a major revision of the management plan that is part of the MOU based on their management experience. The revisions were adopted in the 2017 amendment to the MOU. The amendment added significant new management and monitoring measures to ensure the maintenance of habitat suitable for SBKR and the other forty-four special status species that have been recognized as being present or having a high potential to be present.

Because of Vulcan's interest in protecting RAFSS habitat and the species that use it, Vulcan also is sponsoring academic studies on habitat maintenance methodologies and has provided other researchers access to the Conservation Area to aid in undertaking their studies. These efforts has lead to the new information being published regarding RAFSS habitat and management needs for SBKR.

The following comments are provided for your consideration.

Issues with the Project Description

It would be helpful if consistent numbers regarding the amount of impacts and conservation were used throughout the document or the differences explained. Based on the initial description in the document, it appears that the seven project proponents would be allowed to permanently impact approximately 1,050 acres of habitat used by the covered species for proposed aggregate mining, water conservation, water infrastructure, transportation, flood control, and trail projects within the 4,892.2-acre Plan Area. Table 1 has been prepared based on the information on pages 2.0-3 to 2.0-6 of the document.

Table 1: Proposed Impacts Associated with the Proposed Project

Type	SBKR acres	SARWS acres	SHSF In patches	CAGN acres	CAWREN acres
Aggregate Mining	380.8	29.7	13	289.9	8.8
Water Conservation	161.9	2	0	126	4.6
Water Infrastructure	3.5	1.7	13	1.8	0
Transportation	13	0.6	1	0.4	0
Flood Control	13.2	0.4	0	4.6	0
Trails	5.1	0	0	1.5	0
Agriculture	0	0	0	0	0
SubTOTAL	577.5	34.4	27	424.2	13.4
TOTAL Impacts	*1049.5 – without including SHSF patches*				

However, in Section 4.0, the numbers associated with permanent impacts are much smaller. Table 4.4-1 provides that the permanent impacts total 615.7 acres and the temporary impacts total 216.6 acres in the Plan Area. Table 4.4.-2 where there is an analysis of impacts on the covered species also provides different numbers than that based on the project description in Section 2. Based on the two tables, it can be assumed that the impacts by species may have been caused by the double counting of some lands because the five species can be found in similar habitats. Nevertheless, it would be helpful if numbers in the document were either consistent or an explanation provided.

This problem is again present in the discussions describing the proposed offsets for these losses. In the description of alternatives, the document states that to offset this loss, the project proponents would implement both avoidance and minimization measures as well as conserve and manage approximately 1,569.1 acres. Table 2.0-2 in the document provides a summary of conserved natural communities. However, the text in the document states that an "additional 156.3 acres of non-native grasslands" (NNG) will be conserved. The table from the document is provided below, however NNG is not included as a community in this table. It is unclear if the NNG being conserved is a component of one or more natural communities and if it is included in this table.

Table 2: Summary of Conserved Natural Communities

Conserved Natural Community	**District Conserved Lands**	**SBCFCD Conserved Lands**	**District Managed Lands**	**HCP Preserve Total**
RAFSS– Pioneer	119.9	87	35.9	*242.7*
RAFSS– Intermediate	230.6	74.9	236.8	*542.3*
RAFSS– Intermediate/Mature	160	7.9	316.5	*484.4*
RAFSS– Mature	127	9	57.3	*232.6*
RAFSS– Mature/Non-Native Grassland	27.8	0	0	*27.8*
Subtotal:	665.3	178.8	646.5	*1529.8*
Chamise Chaparral	39.3	0	0	*39.3*
Total Acreage:	*704.6*	*178.8*	*646.5*	*1,569.1*[1]

This is further complicated because in the Section 4 of the document (page 4.4-4), the document states that the proponents would provide for the permanent conservation of 963.3 acres along with 696.2 acres of District Managed Lands. These two numbers add

[1] The document also notes that there will be approximately 2,302 acres of land in conservation within the Plan Area. However, approximately 544.4 acres were conserved previously to offset impacts associated with the construction of Seven Oaks Dam and 20 acres for roadway mitigation.

up to the 1,659.5 acres which is different from either the 1569.1 or the 1,735.4, if the NNG is added to the numbers in the above table.

Issues on Management Activities

The primary management approach defined in the document is as follows:

- 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.

The proposed management activities are said to include the following:

- Habitat enhancement, restoration, and creation.
- Operational changes to enhance in-stream habitat.
- Control of invasive plant species (e.g., mowing, grazing, herbicide application, prescribed fire and hand clearing).
- Relocation of Covered Species from impact sites to the HCP Preserve (e.g., in cases where impacts are unavoidable and relocation has a high likelihood of success).
- Vegetation thinning using livestock grazing, manual labor, herbicide application, or prescribed burning.
- Monitoring activities in the Plan Area and mitigation areas.
- Species surveys and research.
- Fire management including prescribed burning, mowing, and establishment of temporary fuel breaks.

It would have been helpful if more information regarding management from the Habitat Conservation Plan had been included because there appears to be inconsistencies between the habitat requirements on the species and the management plan. In the petition to the California Fish and Wildlife Commission to list SBKR as a endangered, the following was stated:

> "The Wash Plan HCP, which also incorporates some BLM properties, is expected to be completed in late 2019. As proposed by the draft Wash Plan HCP, 570.9 acres of permanent impacts and 109.1 acres of temporary impacts to SBKR would be offset by conservation of 1,622.5 acres of conserved and managed lands. However, over half (54%) of the total Wash Plan HCP Preserve SBKR conservation lands are considered low or very low suitability for SBKR, and only 18% of the conservation lands are considered high suitability for SBKR (ICF 2018). While the plan impacts relatively little highly suitable habitat, and seeks to balance interests, it

> nevertheless would permit the continued loss of SBKR habitat and relies on unproven management measures." From Petition at page 34.

One of the biggest problems appears to be the lack of hydrology to maintain habitat for three of the covered species (i.e., SHSF, SARWS, and SBKR) and how this will be addressed. For example, the section on SHSF states that the approximately 100 acres of the site would be managed for SHSF. The document also mentions that sheet flows of water during storm events is important to maintaining SHSF habitat. However, hasn't this entire area been shut-off from such flows with the construction of Seven Oaks Dam, even though the approval for that project required that such releases be made? In addition, one of the major parcels to be managed for this species appears to be further isolated from potential scour flows because it is located between on-going and future mining operations. Further explanation regarding how this area will be preserved and managed is needed. Similar issues arise with the management of the SARWS and SBKR.

Another problem is the document may be overly optimistic in the amount of habitat that can be managed for each of the species. For example, the document states that the plan would impact approximately 424 acres of CAGN habitat and conserve/manage approximately 1,292 acres of habitat for the benefit of this species. The only way that this is feasible is if habitat for SARWS and SBKR is included in the CAGN conservation total. Since these three species can be found using the same plant community, this may appear to be reasonable. However, this could be considered misleading because CAGN tends to prefer habitat that is much denser than that preferred by SBKR and SARWS.

As to the management of SBKR, the proposed plan does not appear to reflect the latest recommendations for managing this species. Recent studies has refined the preferred habitat structure for this species. A recent habitat use model developed by the San Diego Zoo Institute for Conservation Research (ICR) indicates that the SBKR generally is confined to areas with low shrub cover (less than 20 percent), low annual grass cover (less than 30 percent), appropriate soil openness and texture (greater than 50 percent bare ground with exposed sand with a gravel component greater than 25 percent), and low cover of woody debris (6-13 percent) (Shier *et al.* 2019). These numbers have been further refined by Chock et al (2020)[2].

In addition, recent SBKR genetic studies have found that the three remaining SBKR populations (i.e., the Santa Ana River, Lytle-Cajon Creek, and San Jacinto River) exhibit low effective population size and are well below the level at which a long-term loss of genetic diversity is expected. This indicates that a genetic management plan that includes translocation and likely captive breeding will be necessary to conserve and recover SBKR. While recent reports also mention that there is little information on

[2] Chock, R.Y., Hennessy, S.M., Wang, T.B., Gray, E., and Shier D.M. 2020. A multi-model approach to guide habitat conservation and restoration for the endangered Can Bernardino kangaroo rat. Global Ecology and Conservation, Vol. 21 (e00881)

translocation success, this could be corrected by adequate monitoring studies. For example, in the previously cited petition to State list SBKR, it was noted that in 2015 and 2016, 366 SBKR were relocated from a site within the Santa Ana River floodplain to the Cajon Conservation Area. The petition notes that "Only 59 SBKR were captured at the receiver site in 2018" and assesses this as a low success rate for the translocation.

However, the petition fails to note that the monitoring requirement was only for the translocation site and there was nothing preventing the animals from leaving the site. Debra Shier, who was working on a range-wide genetics study of SBKR, indicated that one of the SBKR ear snip samples that was provided her from the 2017 Cajon Wash trapping survey showed genetic characteristics of animals from the Santa Ana River population of SBKR. This animal was trapped approximately 4,000 feet upstream of the relocation area. At the time of this trapping effort, it was noted that because this individual SBKR was trapped at a randomly placed trapping plot suggested that other animals from the relocation effort may have also moved out of the original site. Therefore, the relocation monitoring study may have been insufficient in geographical scope to adequately monitor the relocation results of the project. Nevertheless, the goal of the two populations interbreeding would have been achieved.

It appears that based on these study results, any mitigation for impacts to SBKR should have a twofold approach. The first is to ensure that the size of the population being impacted is retained or increased. The second is that individuals impacted be moved or relocated in one of the other two population centers for this species. The 2020 study by Chock et al explains the importance of the use of these two strategies.

Thank you for this opportunity to comment on this planning effort. Should you have any questions concerning my comments, please contact me at your convenience.

Sincerely yours,

Sharon H. Lockhart

Sharon H. Lockhart
Lockhart & Associates, Inc.

Cc: Mike Linton - Vulcan Materials
Kimberly Romich - CDFW

Chapter of California Pilots Association
1745 Sessums Dr. Ste. 1
Redlands CA. 92374-1907

1/22/20

Karin Cleary-Rose
Santa Ana River Wash Project
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208,
Palm Springs, CA 92262

Subject: Redlands Airport Association (RAA) Comments Regarding the Proposed Upper Santa Ana River Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (EIS) San Bernardino County, CA FWS-R8-ES-2019-N111; FXES11140000-189-FF08E00000

Dear Karin Cleary-Rose:

We have reviewed the Draft EIS associated with the Proposed Upper Santa Ana River HCP. We are concerned regarding its impact on Redlands Municipal Airport (REI) and offer the following comments.

The HCP boundaries appear to include property within REI. This property belongs to the City of Redlands. We are also aware the City of Redlands does not want this property included in the HCP.

The RAA shares the same concerns as the City of Redlands about the proposed HCP as it relates to the airport. We do not believe the property associated with Redlands Municipal Airport should be included in the HCP. **We are requesting the northern boundary of the HCP be changed to the northern boundary of Redlands Municipal Airport for the following reasons.**

- The REI Airport Master Plan and Airport Layout Plan include future improvements on the north side of REI's runway. They also include plans for a runway extension. These proposed plans are well documented with Caltrans Division of Aeronautics and the Federal Aviation Administration. The costs and challenges associated with developing these improvements inside of the proposed HCP area may make them impractical to construct.

- The future improvements identified in the REI airport master plan will contribute economic benefit to the airport enterprise fund. Any development limitations created by the proposed HCP boundaries within the airport could reduce potential development related revenue. This could make the cost of operating the airport an economic burden for the City of Redlands.

REI users have coexisted with the Santa Ana River environment since the airport was founded in 1947. We believe the Santa Ana Wash area to the north of the airport is a great buffer for aircraft noise and overflight. REI users have also had to deal with the wildlife impacts associated with the Santa Ana wash area. **We do believe that the creation of the HCP should include the development of an FAA approved Wildlife Hazard Mitigation Plan to mitigate any associated wildlife hazard impacts on aircraft operating at REI.**

Chapter of California Pilots Association
1745 Sessums Dr. Ste. 1
Redlands CA. 92374-1907

The City of Redlands purchased REI in 1962 from private owners. Since that time, it has grown responsibly to serve the aviation needs of Redlands and the surrounding communities. There are approximately 220 aircraft based at REI. The airport facilitates about 60,000 annual operations from visitors, business and personal travel, recreational flights, flight training activities, air ambulance operations and firefighting activities.

The flight training activities at the airport are significant and provide valuable training to the next generation of pilots. The airport is also part of US National Plan of Integrated Airport Systems and will be used to facilitate emergency air support to the community during civil emergencies.

The airport generates about $5 million a year in revenue. There are approximately 50 people employed at the airport and is estimated to support another 1500 jobs. REI's net worth to the community (Land Buildings and Revenue) were recently estimated to be $80,000,000. **The RAA believes the economic and societal impacts of the proposed HCP to REI should be thoroughly considered before implementation.**

The RAA represents users and friends of Redlands Airport. We are a Chapter of the California Pilots Association, and many of our members are members of the Aircraft Owners and Pilots Association. If you have questions or need more details relating to our concerns about protecting our airport, please contact me at 909-557-5292

Sincerely,

Theodore J. Gablin
President, Redlands Airport Association
Chapter of California Pilots Association
Redlands.airport.association@gmail.com
909-557-5292

CC.
Carol Ford, President, California Pilots Association
Melissa McCaffrey, Aircraft Owners and Pilots Association
Carl Bruce Shaffer, City of Redlands

January 20, 2020
Karin Cleary-Rose
Santa Ana River Wash Project
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way, Suite 208,
Palm Springs, CA 92262

Subject: California Pilots Association (CalPilots) Comments Regarding the Proposed Upper Santa Ana River Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (EIS) San Bernardino County, CA FWS-R8-ES-2019-N111; FXES11140000-189-FF08E00000

Dear Ms. Cleary- Rose,

The California Pilots Association mission is to Preserve, Protect and Promote and the state's airports. As a statewide volunteer organization, we work tirelessly to maintain the State's airports in the best possible condition.

The **California Pilots Association and the San Carlos Airport Pilots Association** share the same concerns as the City of Redlands and the Redlands Airport Association (RAA) about the proposed HCP as it relates to the airport. We do not believe the property associated with Redlands Municipal Airport (REI) should be included in the HCP. **We are requesting the northern boundary of the HCP be changed to the northern boundary of Redlands Municipal Airport for the same following reasons:**

- The REI Airport Master Plan and Airport Layout Plan include future improvements on the north side of REI's runway. They also include plans for a runway extension. These proposed plans are well documented with Caltrans Division of Aeronautics and the Federal Aviation Administration. The costs and challenges associated with developing these improvements inside of the proposed HCP area may make them impractical to construct.

- The future improvements identified in the REI airport master plan will contribute economic benefit to the airport enterprise fund. Any development limitations created by the proposed HCP boundaries within the airport could reduce any potential development related revenue. This could make the cost of operating the airport an economic burden for the City of Redlands.

We also believe that the creation of the HCP should include the development of an FAA approved Wildlife Hazard Mitigation Plan to mitigate any associated wildlife hazard impacts on aircraft operating at REI.

Thank you.
Respectfully submitted,

Carol Ford

Carol Ford
President - California Pilots Association
President-San Carlos Airport Pilots Association
carol_ford@sbcglobal.net
650 591 8308

G. 0 MITIGATION, MONITORING AND REPORTING PROGRAM

G.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.
- The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.
- A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft environmental impact report (EIR) or mitigated negative declaration (MND), a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

G.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the San Bernardino Valley Water Conservation District (District) to ensure that all mitigation measures adopted as part of the proposed Upper Santa Ana River Wash Habitat Conservation Plan (proposed Project) will be carried out as described in this EIS/SEIR.

Table G.1 lists each of the mitigation measures specified in this EIS/SEIR and identifies the party or parties responsible for implementation and monitoring of each measure.

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.1 Air Quality		
MM AQ-1 The mining operators, Cemex and Robertson's, shall comply with Article 4.8 *In-Use Off- Road Diesel-Fueled Fleets*, Section 2449 *Emission Standards for In-Use Off-Road Diesel- Fueled Fleets* and any other applicable, subsequent rules, regulations, and requirements to the extent that is technologically feasible.	Cemex, Robertson's	Prior to issuance of any construction permits and ongoing during construction
MM AQ-2 The mining operators, Cemex and Robertson's, shall comply with CARB idling restriction requirements for diesel-fueled vehicles to idle for more than 5 minutes.	Cemex, Robertson's	Prior to issuance of any construction permits and ongoing during construction
MM AQ-3 Notify area schools when production reaches 6 MTY and mining entities will assist them in implementing maintenance and limiting increase in exposure.	Cemex, Robertson's	When production reaches 6 MTY
MM AQ-4 The two operators, Cemex and Robertson's, shall schedule transportation of material such that both operators are not transporting material on the same day from the south half of the southeast quarter of Section 11, which is the area farthest from both processing plants.	Cemex, Robertson's	Prior to issuance of any construction permits and ongoing during construction
4.2 Geology and Mineral Resources		
The proposed Project would not result in any potentially significant impacts to geology and mineral resources. No mitigation is required.		
4.3 Hydrology and Water Quality		
HYD MM-1: Minimization of Construction Activity in Waters	Permittees and Participating	Prior to issuance of any construction permits and

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Construction activity and access roads will be minimized to the extent practicable in all drainages, streams, pools, or other features that could be under the jurisdiction of the USACE, State Water Board, and/or CDFW. If impacts on these features are identified, a formal jurisdictional delineation and permit applications to the regulatory agencies may be required.	Entities	ongoing during construction and operation
HYD MM-2: Reduction of Runoff and Siltation and Pollution Prevention When stream flows must be diverted, the diversions will be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing of other sediment trapping materials will be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected will be cleaned out in a manner that prevents the sediment from reentering the stream. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream. Erodible fill material will not be deposited into water courses. Brush, loose soils, or other similar debris material will not be stockpiled within the stream channel or on its banks. Covered Activities near to or within the HCP Preserve or other natural areas will incorporate plans to ensure that runoff discharged is not altered in an adverse way when compared with existing conditions, which includes landscape irrigation. Stormwater systems will be designed to prevent the release of sediments, toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within the HCP Preserve.	Permittees and Participating Entities	Prior to issuance of any construction permits and ongoing during construction and operation
HYD MM-3: Prevention of Water Pollution from Toxic Materials Covered Activities within or adjacent to the HCP Preserve or other natural areas that use chemicals (herbicides, rodenticides, insecticides) or generate byproducts that are potentially toxic or	Permittees and Participating Entities	Prior to issuance of any construction permits and ongoing during construction and operation

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
may adversely affect wildlife and plant species, habitat, or water quality will incorporate measures to ensure that application of such chemicals does not result in any discharge to the HCP Preserve or other natural areas. Equipment storage, fueling, and staging areas will be located on upland sites with minimal risks of direct drainage into the HCP Preserve or other natural areas. These designated areas will be located in such a manner as to prevent any runoff from entering sensitive habitat including riparian areas. Precautions will be taken to prevent the release of toxic substance into surface waters. Project-related spills of hazardous materials will be reported to appropriate entities—including but not limited to the applicable jurisdictional city or county, USFWS, CDFW, and RWQCB—and will be cleaned up immediately and contaminated soils removed to approved disposal areas.		
4.4 Biological Resources		
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	Permittees and Participating Entities	Prior to issuance of any construction permits and ongoing during construction and operation, as appropriate

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
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.	Permittees and Participating Entities	Prior to issuance of any construction permits, as appropriate
4.5 Land Use		
The proposed Project would not result in any potentially significant impacts to land use. No mitigation is required.		
4.6 Socioeconomics, Population and Housing, and Environmental Justice		
The proposed Project would not result in any potentially significant impacts to socioeconomics, population and housing, or environmental justice. No mitigation is required.		
4.7 Transportation Systems and Traffic		
MM TRAFFIC-1 Robertson's aggregate processing plant shall control the distribution of commercial haul trucks on local streets to ensure that no new peak hour vehicle trips are generated. Peak hours are 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.	Robertson's	Prior to issuance of any construction permits and ongoing during construction and operation
MM TRAFFIC-2 Within one year of the issuance of a Conditional Use Permit	Cemex and/or Robertson's per CUP	Within one year of the issuance of a Conditional

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
(CUP) for the new mining areas or as otherwise specified in the CUP, the following improvements shall be constructed by the permit proponent: Third Street: Widen and extend 3rd Street from Palm Avenue to connect to 5th Street at the intersection of Church Avenue/5th Street. Convert 3rd Street to a one-way street traveling east consistent with the City of Highland's planned roadway network and conceptual drawings of 5th Street provided by the City. Church Avenue/5th Street: Add a northbound free right-turn lane corresponding to the 3rd Street connection. Restripe the east leg of the intersection to a six- lane roadway. The restriping to six lanes can be accommodated within the existing right-of-way and is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5th Street provided by the City. Add a southbound leg to the intersection corresponding to the 3rd Street connection. Truck Traffic and 5th Street Access Road: Truck traffic shall conform to Access Alternative D. This truck traffic pattern shall be maintained in order to ensure the safe operation of traffic on 5th Street and enforced by the City of Highland.		Use Permit (CUP) for the new mining areas or as otherwise specified in the CUP
MM TRAFFIC-3 Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as specified in the CUP, the permit applicant shall pay all applicable City development impact fees for regional and local circulation and CMP fair-share fees based on current construction costs estimated at time of payment. Based on the year 2030 analysis prepared for this FEIS/SEIR, year 2030 intersection impacts can be mitigated with implementation of the following specific improvement measures, which shall be in place by year 2030: Palm Avenue/5th Street: Add a westbound left-turn lane. Palm Avenue/3rd Street: Add a northbound right-turn lane.	Cemex and/or Robertson's per CUP	Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as otherwise specified in the CUP, or by the year 2030 as appropriate

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Restripe the rightmost northbound through lane as a shared through/right-turn lane. Widen the east leg of the intersection to accommodate two departure lanes. Boulder Avenue/Greenspot Road: Restripe the southbound right-turn lane as a shared through/right-turn lane. Add a northbound left-turn lane. Orange Street-Boulder Avenue/Cemex Access: Add a northbound through lane and a southbound though lane. Alabama Street-Robertson's Access-Cemex Access: Install a traffic signal and add a northbound through lane and a southbound through lane.		
MM TRAFFIC-4 Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as specified in the CUP, the permit applicant shall pay all applicable City development impact fees for regional and local circulation and CMP fair-share fees based on current construction costs estimated at time of payment. Based on the year 2030 analysis prepared for this FEIS/SEIR, year 2030 impacts can be mitigated with implementation of the following specific improvement measures, which shall be in place by year 2030: SR-210 (SR-30) Southbound Ramps/5th Street. Widen 5th Street to two eastbound through lanes, an eastbound shared through/right-turn lane, a dedicated eastbound right-turn lane, three westbound through lanes, and two westbound left-turn lanes. Provide storage length for turn lanes per the traffic study. This improvement is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5th Street provided by the City. This improvement would require widening of Greenspot Road under the SR-210 (SR-30) bridge from 80 feet to 110 feet or more. SR-210 (SR-30) Northbound Ramps/5th Street. Widen 5th Street to three eastbound through lanes, an eastbound left-turn lane,	Cemex and/or Robertson's per CUP	Within one year of the issuance of a Conditional Use Permit (CUP) for the new mining areas or as otherwise specified in the CUP, or by the year 2030 as appropriate

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
two westbound through lanes, and a westbound shared through-right-turn lane (wide enough for *de facto* right-turn lane). Add a northbound left-turn lane to the off-ramp. Widening of 5th Street to six lanes is consistent both with the City of Highland's General Plan roadway network and conceptual drawings of 5th Street provided by the City. Provide storage length for turn lanes per the traffic study. These improvements would require widening of Greenspot Road under the SR-210 (SR-30) bridge from 80 feet to 110 feet or more. Approximately 12 feet of additional right-of-way would also be required on the south leg of the intersection unless Caltrans approval to re-stripe the off-ramp is obtained.		
4.8 Visual Resources		
MM VIS-1 Prior to initiating grading for expanding mining pits/quarries east and west of Boulder Avenue and Orange Street, a berm shall be constructed and maintained by the mining operator closest to these roadways. The berm shall be planted with vegetation consistent with the natural community throughout the Plan Area (Riversidean Alluvial Fan Sage Scrub "RAFSS") and approved by the Conservation District. Berm and landscaping plans shall be submitted to the Conservation District and the City of Highland for review and approval.	Cemex and/or Robertson's per CUP	Prior to initiating grading for expanding mining pits/quarries east and west of Boulder Avenue and Orange Street
MM VIS-2 Trees at least 15 gallons in size and of a species native to the Plan Area shall be planted by the mining operator along the western edge of the SR-210 freeway Right-of-Way on Conservation District owned property within six months following the issuance of mining permits. These trees shall be placed 15 feet apart to allow for unrestricted growth but ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior	Cemex and/or Robertson's per CUP	Within six months of issuance of the mining permits

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the miningoperator.		
MM VIS-3 Trees of a species native to the Plan Area shall be planted along the eastern edge of the Alabama Street Quarry, where space is available that parallels SR-210. These trees shall be 15 feet apart to ensure unrestricted growth while ensuring that views of the quarry are blocked from passing motorists on SR-210. The mining operator shall draw plans for such trees and plantings and submit landscaping plans to the City of Highland and the City of Redlands for review and approval prior to quarry expansion. The trees shall be maintained for the life of the quarry and replaced, if necessary, by the miningoperator.	Cemex and/or Robertson's as appropriate	Landscaping plans shall be submitted prior to quarry expansion
MM VIS-4 The slopes of the quarries shall be reclaimed upon the completion of mining activities and re-vegetated per the approved Reclamation Plans by the mining operators. This shall be done with species common to the RAFSS and approved by the Conservation District and the Cities of Highland and Redlands.	Cemex and/or Robertson's per Reclamation Plan	Upon the completion of mining activities
4.9 Cultural Resources		
MM CR-1 To reduce potential adverse impacts from construction of Proposed Projects/Covered Activities on cultural resources (P-36-5526 recommended as a historic property under Section 106 of the NHPA and P-36-6062 recommended potentially eligible for National Register listing and potentially a historic property) one of the following options shall be implemented: • Avoidance and Preservation in place. • If avoidance and preservation in place is not feasible, then a Phase III data recovery plan, which provides for adequately	Permittees and Participating Entities	Prior to issuance of any construction permits and ongoing during construction and operation, as appropriate

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
recovering scientifically consequential information from and about the historic property/historical resource, shall be prepared and adopted prior to any undertaking or project-related excavation.		
MM CR-2 An archaeological monitor shall be present during any proposed earthmoving activities for Proposed Projects. The monitor should work under the direct supervision of a cultural resources professional who meets the Secretary of the Interior's Professional Qualification Standards for archaeology (the project archaeologist). Prior to commencement of any earthmoving activities, the project archaeologist should attend a pre-construction meeting in order to: • Discuss safety procedures; • Become acquainted with essential project personnel; • Inform construction personnel of field methods; and • Confirm avoidance of any National Register or (as necessary) California Register eligible or potentially eligible resources. The monitor should be empowered to divert construction work from any resources set aside for avoidance. The monitor should also be empowered to temporarily halt or redirect construction work in the vicinity of any new find until the project archaeologist can evaluate it. In the event of a new find, salvage excavation and reporting may be required.	Permittees and Participating Entities	Ongoing during earthmoving activities
MM CR-3 If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are prehistoric, the Coroner will notify the Native American Heritage	Permittees and Participating Entities	Ongoing during earthmoving activities

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Commission (NAHC), which will determine/notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.		
4.10 Noise		
MM NOI-1 If construction activities are located within 600 feet from sensitive receptors, a noise and vibration analysis shall be prepared to confirm that construction noise or vibration generated would not exceed standards at the property line of the nearby sensitive receptors. If the noise analysis indicates construction noise generated would exceed ambient standards then is shall identify the design features (such as noise barriers), their location and height, that are required to reduce construction noise to appropriate standards at the property line of nearby sensitive receptors.	Permittees and Participating Entities	Prior to issuance of any construction permits and ongoing during construction and operation, as appropriate
4.11 Hazards		
MM HAZ-1 A lead remediation plan shall be prepared prior to any construction activities for the Elder/ Plunge Creek Restoration-Reasonably Foreseeable Project in accordance with DTSC requirements. The plan shall be acceptable to the resources agencies and further consultation with the USFWS and the CDFW in the development of final design drawings to further minimize species and habitat impacts shall occur.	San Bernardino County Flood Control District	Prior to any construction activities for the Elder/Plunge Restoration Reasonably Forseeable Project
4.12 Recreation		
The proposed Project would not result in any potentially significant impacts to geology and mineral resources. No mitigation is required.		

May 2020