

Heatherglenn Planned Development Draft Environmental Impact Report

City of Highland, California

State Clearinghouse Number: 2019079098

Tentative Tract Map No. 17604 (TTM-15-001)

Conditional Use Permit (CUP-15-006)

June 2020

Lead Agency:



City of Highland

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- Appendix A – Initial Study and Notice of Preparation
- Appendix B – Comment Letters Received on NOP
- Appendix C – Biological Report
- Appendix D – Traffic Report

1.0 Executive Summary

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Heatherglen Planned Development DEIR. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public and local and state governmental agency decision makers with an analysis of potential environmental consequences to support informed decision making. This document focuses on those impacts determined to be potentially significant as discussed in the Initial Study completed for this project (Appendix A).

This DEIR has been prepared pursuant to the requirements of CEQA and the City of Highland's CEQA procedures. The City of Highland, as the Lead Agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR was obtained from on-site field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (biological resources, recreation, and transportation).

1.1 Environmental Procedures

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are:

1. To disclose to decision makers and the public the significant environmental effects of proposed activities.
2. To identify ways to avoid or reduce environmental damage.
3. To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. To disclose to the public reasons for agency approval of projects with significant environmental effects.
5. To foster interagency coordination in the review of projects.
6. To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and must adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

1.1.1 Lead and Responsible Agencies

This DEIR has been prepared by the City of Highland (City) as "lead agency" and "in accordance with the Guidelines for the Implementation of the California Environmental Quality Act (State *CEQA Guidelines*), (Sections 15000–15387 of the California Code of Regulations), and the City's *CEQA Guidelines*. The City's address is:

City of Highland
Community Development Department
Planning Division
27215 Base Line
Highland, CA 92346
Planning Division
Contact: Ms. Kim Stater, Assistant Community Development Director

1.1.2 Environmental Process

The EIR process typically consists of three parts—the Notice of Preparation (NOP), DEIR, and Final EIR. The City has determined that a full scope EIR is required for the Project; therefore, pursuant to State CEQA Guidelines Section 15060(d) the City proceeded directly to preparation of the NOP. The NOP was distributed to the State Clearinghouse, responsible agencies, and other interested parties, in February 2020. Pursuant to Section 15082 of the State CEQA Guidelines, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP. Copies of the NOP and copies of the comment letters regarding the NOP are located in Appendices A and B.

An EIR is an informational document intended to inform decision makers and the general public of potentially significant environmental impacts of a project. An EIR also identifies possible ways to minimize these potentially significant impacts (referred to as mitigation) and describes alternatives to a project that may also reduce its significant impacts. Having the authority to take action on the proposed Project, the City Planning Commission and City Council will consider the information in this EIR in their evaluations of the proposal. The findings and conclusions presented in the EIR regarding environmental impacts do not control the City's discretion to approve, deny, or modify the Project, but instead are presented as information to aid the decision-making process.

As set forth in Section 15021 of the State CEQA Guidelines, as lead agency, the City has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) of the State CEQA Guidelines states that, "CEQA recognizes that in determining whether and

how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors, and in particular the goal of providing a decent home and satisfying living environment for every Californian.” Other public agencies (i.e., Responsible and Trustee Agencies) that may use this DEIR in their decision-making or permit processes, will consider the information in this DEIR along with other information that may be presented during the CEQA process. In accordance with CEQA, the public agencies will be required to make findings for each significant environmental impact of the proposed Project. If the agency determines that significant impacts cannot be reduced to less than significant; the Lead Agency must assess whether the benefits of the proposed Project outweigh unmitigated significant environmental effects, and the Agency will be required to adopt a statement of overriding considerations stating the reasons supporting their action notwithstanding the proposed Project’s significant environmental effects.

1.2 Project Information

1.2.1 Project Applicant

Greenspot Partners 1, Inc.,
2011 E. Financial Way,
Glendora, CA 91741

1.2.2 Project Location

The Heatherglen Planned Development site is approximately 59.03 (gross) acres in the City of Highland (Figure 3-1 Regional Location). The Project is located east of Merris Street/Club View Drive, west of Alta Vista, south of Greenspot Road, and north of Abbey Way and Plunge Creek (Figure 3-2 Local Vicinity, Figure 3-3 Aerial Photograph, Figure 3-4 USGS Topography). The Project is situated within Section 2 of Township 1 South, Range 3 West of the United States Geological Survey (USGS) Redlands 7.5-minute series quadrangle map. The Project consists of seven existing Assessor’s Parcel Numbers:

- 1210-281-01
- 1210-281-02
- 1210-281-03
- 1210-281-04
- 1210-211-18
- 1210-211-21
- 1210-211-23

1.2.3 Existing Site Description

The Project site is undeveloped and vacant. The Project site can be characterized as primarily flat and exhibits low relief topography. Elevation ranges from about 1,350 feet to 1,385 feet above mean sea level. The Project site exhibits a mix of disturbed and native habitats. The

western half of the site contains Eucalyptus groves and a jojoba field. The eastern half of the site is relatively undisturbed alluvial fan sage scrub.

1.3 Project Description

The Proposed proposes the construction of a low density, single-family residential development Project on approximately 59 acres that will include 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat preservation, and East Valley Water District facilities) as shown in Figure 3-5 Site Plan.

The minimum lot area of interior lots is 5,000 square feet (lots are to be a minimum of 50 feet in width and 100 feet in depth). Of the 203 lots, six are at the minimum 5,000 square feet. The average lot area for the development of single-family homes is 7,250+ square feet with 13 lots being over 10,000 square feet. All the corner lots are a minimum of 60 feet wide (6,000 square feet in lot area), with some lots being 75 feet wide. The purpose of the wider, corner lots is to accommodate single-story units per the City's design/development policies.

The lettered lots (A through M) total 12.44 acres of the Project site. A public park is planned and is located at the southwest corner of Gold Buckle Road and Street "B." The park (Lot C) is ½ acre and will be improved with a small tot-lot containing a low maintenance multi-faceted play structure with a soft fall zone area, benches, and shade structure. The balance of the park will be a passive play area with water efficient landscaping. The park will be maintained by a Homeowners Association (HOA) or assessment district, as will all of the letter lots. The Project will include a community trail (12 feet wide) along the western boundary of the site from Greenspot Road to the southern boundary of the site. The Project will include construction of the Pole Line Trail (12 feet wide) along southern portion of the Project site. Lot L is 6.53 acres and will not be graded and developed but set aside and preserved as open space as designated on the Tract 17604 Comprehensive Site Plan.

1.3.1 Phasing Plan

The Project will be constructed in 3 phases. Phase 1 of the Subject Property is generally in the northwest area of the Project and is comprised of 63 residential lots (Lots 1 through 56 and Lots 168 through 174). Access to Phase 1 will be via Old Greenspot Road at the northwest corner of the Project and the extension of Gold Buckle Road at Greenspot Road in the center of the Project. Phase 1 will also include construction of the neighborhood park (Letter Lot C), the entry features at Old Greenspot Road (Letters Lots A and B), a portion of the Greenspot Road improvements (Letter Lot I) and a portion of the community trail on the Project's westerly boundary (Letter Lot H). The Phase will also necessitate the construction of the Infiltration Basin (Letter Lot E) and Lift Station (Letter Lot F), both are proposed along the southerly border of the Project outside of the Phase 1 area.

Phase 2 is the southerly area of the Project and consists of 67 residential lots (Lots 57 through 94 and Lots 174 through 203). Included in Phase 2 will be the construction and/or preservation

of the 6-plus acres of SBKR habitat area (Letter Lot L) and the completion of the community trail on the westerly boundary of the Project (Letter Lot H).

Phase 3 is the easterly area of the Project and consists of 73 residential lots (Lots 95 through 167). The Phase will have direct access to Greenspot Road with the completion of the proposed traffic circle at Gold Buckle Road. Street P located on the Project's easterly boundary will also have access to Greenspot Road. The remainder of the internal streets-Streets M, N, O, and P and portions of Streets B and C- will be constructed in Phase 3. Greenspot Road Improvements (Letter Lots J and K) will be completed and the open space lot for water runoff (Letter Lot D) will be fully improved per plan and conditions. A community trail along the southerly boundary of the Project (Letter Lot M) will also be improved.

1.3.2 Infrastructure Improvements

The Project will include network of local public streets which will provide internal circulation and access to Greenspot Road, an existing four-lane divided major highway will be constructed along the northern boundary of the site. Potable water and sewer service would be provided by East Valley Water District (EVWD). EVWD has an existing water main and a sewer pipeline in Greenspot Road. Service to the new residences will require a new connection to these lines and will be extended into the Project site. Stormwater and non-stormwater runoff from the majority of the site (western) will be conveyed within the site (storm drains within the network of streets) to an infiltration basin located in the southern portion of the Project site. Stormwater and non-stormwater runoff from a small area from the eastern portion of the site will be conveyed through a swale in Lot D to the open space habitat preservation area in Lot L. No off-site stormwater facilities are required or proposed. Electricity and natural gas service will be provided by Southern California Edison and Southern California Gas Company, respectively. A 12-foot-wide easement and/or irrevocable offer of dedication for utilities and other purposes exists on the northerly property line (Greenspot Road) for utility lines and conduits for Southern California Edison and/or Southern California Gas Company services. It is anticipated that the new residential use will be served by extensions of the existing systems from Greenspot Road.

1.4 Project Objectives

Objectives of the proposed Project are:

- Increase the amount of detached single-family housing available consistent with the goals of the City's General Plan Housing Element;
- To provide high quality housing that will attract a broad spectrum of buyers, including attractive, modern, housing that will provide "move-up" opportunities for local residents within the project and the City of Highland;
- Establish a distinctive residential neighborhood, with safe and convenient pedestrian access to nearby open space areas and commercial/ shopping opportunities;

- To create a visually attractive development through consistent application of architectural and landscape standards/guidelines that will provide a unique residential experience;
- Implement the City of Highland's General Plan goals and objectives for the project site; and
- Use land resources efficiently by providing a well-planned, infill development on a vacant site served by a fully improved public street system with utilities.

1.5 Discretionary Actions and Approvals

The following public officials and agencies will use this DEIR when considering the following actions, as well as any other discretionary actions necessary or desirable to implement the Project identified through consultation with the appropriate public agencies:

California Department of Fish and Wildlife Service

- California Endangered Species Act (CESA) Incidental Take Permit (ITP) for impacts to listed or candidate species

US Fish and Wildlife Service

- Federal Endangered Species Act (ESA) Section 10 Incidental Take Authorization/ Permit for impacts to listed or candidate species

State Water Resources Control Board

- General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ) for construction site one acre in size or greater.

1.6 Areas of Potential Controversy

By the close of the 30-day public review period, six (6) responses to the NOP were received:

- California Department of Fish and Wildlife
- California Native Plant Society
- Gabrieleño Band of Mission Indians
- Native American Heritage Commission
- San Bernardino Department of Public Works
- San Bernardino International Airport Authority

Section 5 of the DEIR addresses each environmental effect that was determined to be potentially significant during the Project's NOP (Appendix A). Each effect is organized into an issue area; those that will be analyzed (and the section of the DEIR in which the analysis is contained) are listed below:

- Biological Resources (Section 5.1)
- Recreation (Section 5.2)
- Transportation (Section 5.3)

State *CEQA Guidelines* Section 15123(b)(3) requires that an EIR identify issues to be resolved; this includes the choice among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved for the proposed Project include decisions by the City as to whether:

- the Draft EIR adequately describes the potential environmental impacts of the proposed Project;
- the recommended mitigation measures should be adopted or modified;
- additional mitigation measures need to be applied;
- the Project should or should not be approved as proposed; or
- the Project should be modified based on the alternatives considered in the DEIR.

1.7 Environmental Analysis

The following table, **Table 1-A, DEIR Impact Summary Matrix**, provides a summary of impacts related to the proposed Project. The table identifies significant environmental impacts resulting from the Project along with applicable mitigation, pursuant to State *CEQA Guidelines* Section 15123(b)(1).

Table 1-A, DEIR Impact Summary Matrix

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
Biological Resources	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	MM BIO-1: The Project disturbance areas shall be clearly fenced prior to vegetation clearing or grading to prevent incursion into the avoidance area or offsite habitat. No construction activities, equipment, materials, debris, or spoils shall be allowed in the avoidance area or offsite native habitat. Personnel shall be instructed to restrict activities to the disturbance area. Fencing shall remain in place and shall be maintained until replaced by permanent fencing/walls or until Project construction is complete.	All less than significant except for impacts to San Bernardino kangaroo rat which is potentially significant.
		MM BIO-2: A biological monitor shall be present during all initial site clearing activities (vegetation clearing and ground disturbance) and any other construction activities (fence installation, scalebroom eradication) that could result in take of listed or special status species and at least once per week throughout the duration of construction to ensure compliance with mitigation measures and incidental take permit conditions. Monitors shall be responsible for ensuring that impacts are avoided to the extent possible. The biological monitor shall have the authority to halt/suspend all activities until appropriate corrective measures have been implemented.	
		MM BIO-3: Biological monitors shall conduct Workers Environmental Awareness Program (WEAP) training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. Training will include information about listed and special status species and	

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>sensitive habitat on the Project site and adjacent areas, responsibilities of the biological monitor, mitigation measures and permit conditions, restrictions on activities, and contact information.</p> <p>MM BIO-4: Biologist shall conduct clearance surveys for listed and special status plant and wildlife resources within or adjacent to the Project disturbance area within seven (7) calendar days prior to initial vegetation clearing and ground disturbance, including fence installation and scalebroom removal. Prior to construction each day, biological monitors shall conduct a 'clearance sweep' of all areas scheduled for construction to confirm that listed and special status species are not present. If any listed or special status plants or wildlife are found, the biological monitor shall take appropriate action as defined in mitigation measures, permit conditions, and regulations. If needed, an appropriate avoidance buffer with a radius of no less than 100 feet will be established to protect the resource until required actions have been completed. If any common wildlife species are present in work areas, the biological monitor shall move the animal to nearby suitable habitat or encourage it to move out of harm's way, if safe and feasible to do so.</p> <p>MM BIO-5: A preconstruction clearance survey for burrowing owl shall be conducted by a qualified biologist within no more than 30 calendar days prior to any site disturbance, including vegetation removal or mowing, ground disturbance, fence installation, etc. The survey will be conducted as close to the actual initiation of site disturbance as possible. If burrowing owls are found on the site during their nesting season (February 1 to August 31), an avoidance buffer shall be established in coordination with CDFW.</p>	

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>The buffer shall be no less than 300 feet, or as required by CDFW. If burrowing owls are found on the site outside of nesting season, passive relocation efforts shall be conducted in coordination with CDFW.</p> <p>MM BIO-6: Prior to the start of construction, a survey for California gnatcatcher shall be conducted by a qualified biologist. The survey shall be conducted in accordance with USFWS protocol and may be conducted during either the breeding season or the non-breeding season. If the survey finds California gnatcatcher within the Project disturbance area, California gnatcatcher shall be included in the application for federal take authorization along with San Bernardino kangaroo rat. No impacts shall occur on the Project site until federal incidental take authorization is obtained. A 500-foot buffer shall be mapped. The nest shall be monitored at least once per week by the permitted biologist to determine if the buffer is sufficient to prevent construction-related disturbance to the nesting gnatcatchers. If the buffer is insufficient, additional measures shall be implemented and may include a larger buffer, suspending or redirecting construction activities, or other appropriate measures as determined by the biologist.</p> <p>MM BIO-7: Initial site disturbance shall be scheduled outside of the nesting season, if feasible. If initial site disturbance cannot be scheduled outside the nesting season, a preconstruction survey for nesting birds shall be conducted by a qualified biologist or biological monitor within three (3) days prior to any site disturbance during the nesting season. If active nest(s) are present, an avoidance buffer of 500 feet for raptors and special status birds and 300 feet for all other birds (or as recommended by the Project biologist) shall be established</p> <p>MM BIO-8: The Project proponent shall obtain federal incidental take authorization for San Bernardino kangaroo rat (SBKR)</p>	

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>through Section 7 of the federal Endangered Species Act (if there is a federal nexus) or through Section 10 of the ESA (if there is no federal nexus). Project-related impacts to occupied SBKR habitat shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of critical habitat that will be impacted on the site (or as required by the incidental take permit). The Project shall avoid impacts to the ±6.59 acres of occupied habitat in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity by an agency-approved conservation entity. The Project proponent shall prepare a Habitat Enhancement Plan for the ±6.59 acres for SBKR. The Project proponent shall prepare and utilize a San Bernardino Kangaroo Rat Relocation Plan.</p> <p>MM BIO-9: All potential wildlife pitfalls shall be backfilled or securely covered at the end of each workday. If backfilling or covering is not feasible, wildlife escape ramps shall be installed, in consultation with the biological monitor, with a minimum 3:1 slope and sufficient to allow trapped wildlife to escape. Project workers or the biological monitor will inspect all excavations for trapped wildlife daily. All construction pipes, culverts, or other hollow materials shall be securely covered or capped while stored on the Project site to prevent wildlife access. All such materials shall be inspected for wildlife before being moved, buried, or capped. If wildlife become trapped, the biological monitor shall remove the animal (if feasible and safe to do so) and place it in nearby suitable habitat outside of the impact area. Trash brought onsite by workers, especially food items or packaging that could attract wild or domestic predators, will be kept inside vehicles or in</p>	

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>securely closed containers and removed from work areas daily.</p> <p>MM BIO-10: Project-related impacts to the Riversidean Alluvial Fan Sage Scrub (RAFSS) shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of RAFSS that will be impacted on the site. The Project proponent shall purchase mitigation credits at an agency-approved mitigation bank or equivalent mitigation at a ratio of no less than 0.5:1. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes RAFSS. The Project shall avoid impacts to the ±6.59 acres of RAFSS in the southeastern corner of the site.</p> <p>MM BIO-11: Prior to the start of construction, a focused survey for slender-horned spineflower and Santa Ana woollystar shall be conducted by a qualified botanist. A 100-foot buffer shall be established if present and an incidental take permit shall be submitted to CDFW including authorization for San Bernardino kangaroo rat. For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas occupied by slender-horned spineflower and/or Santa Ana woollystar plants plus a 100-foot radius area around each occurrence. Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for slender-horned spineflower or Santa Ana woollystar. Focus studies should also include special status plants.</p> <p>MM BIO-12: All heritage trees (as defined by City of Highland Municipal Code), excluding the eucalyptus groves, shall be replaced at a 2:1 ratio or as required by the City of Highland.</p>	

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>Trees that will not be removed shall be protected from damage or disturbance during construction in compliance with the City of Highland Municipal Code.</p> <p>MM BIO-13: Appropriate best management practices (BMPs) shall be employed during Project construction to control fugitive dust, toxic emissions, noise, runoff, and erosion/sedimentation to ensure that adjacent offsite habitat and waterways are not impacted.</p>	
Biological Resources (Continued)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	<p>MM BIO-1, 2, 3, 10, 13: Mentioned above.</p> <p>MM BIO-14: To prevent the spread of invasive plants, all heavy equipment used onsite shall be washed at a commercial truck wash or other appropriate offsite location prior to bringing it onto the Project site. All soil and debris that may contain seeds or propagules of invasive plants shall be removed from the equipment.</p>	Less than significant with mitigation
Biological Resources (Continued)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	MM BIO-13 and 14: Mentioned above.	Less than significant with mitigation
Biological Resources (Continued)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or	MM BIO-1, 2, 3, 13, and 14: Mentioned above.	Less than significant with mitigation

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
	migratory wildlife corridors or impede the use of native wildlife nursery sites.		
Biological Resources (Continued)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance.	MM BIO-1 through MM BIO-14: Mentioned above.	Less than significant
Biological Resources (Continued)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	MM BIO-1, 2, 3, 13, 14: Mentioned above.	Less than significant
Recreation	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	No mitigation required.	Less than significant
Recreation (Continued)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	MM BIO-1 through MM BIO-13: Mentioned above. Although not a mitigation measure, incorporation of the Trails Master Plan can potentially minimize indirect impacts from trails users.	Less than significant except for impacts to San Bernardino kangaroo rat which is potentially significant.

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
Transportation	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	<p>MM TRANS-1: <u>SR-210 EB Ramps at 5th Street (TIA Intersection no. 1)</u> – Widen and/or re-stripe the southbound off-ramp to provide a second exclusive left-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.</p> <p>MM TRANS-2: <u>Orange Street at Greenspot Road (TIA Intersection no. 6)</u> – Re-stripe the southbound through lane on Orange Street to a shared through-right-turn lane; re-stripe the westbound right-turn lane on Greenspot Road to a shared through-right-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.</p> <p>MM TRANS-3: <u>Church Street at Greenspot Road (TIA Intersection no. 7)</u> – Re-stripe the southbound through lane on Church Street to a shared through-right-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.</p> <p>MM TRANS-4: <u>Club View Drive/Merris Street at Greenspot Road (TIA Intersection no. 8)</u> – Install a traffic signal and design for a five-phase operation with protected left-turn phasing on Greenspot Road; pay the Project's fair share contribution for these improvements.</p> <p>MM TRANS-5: <u>Gold Buckle Road at Greenspot Road (TIA Intersection no. 9)</u> – Install crosswalks on all four legs; install a traffic signal and design for a two-phase operation; pay the Project's fair share contribution for these improvements.</p>	Significant and unavoidable

Impact Category	Impact	Mitigation Measure	Impact After Mitigation
		<p>MM TRANS-6: <u>Project Driveway 2 at Greenspot Road (TIA Intersection 10)</u> – The intersection is proposed to be a one-way stop-controlled three-legged intersection with no north leg; the northbound movement will consist of a right-turn only lane; the westbound movement will consist of an exclusive left-turn lane and two through lanes.</p> <p>MM TRANS-7: <u>SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road</u> – Add one off-ramp lane; the Project's fair share contribution to offset all Year 2040 With Project freeway diverge impacts is 6.75 percent or an estimated \$23,625.50.</p>	
Transportation (Continued)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	No mitigation measures are required.	Less than significant

1.8 Other CEQA Topics

The State *CEQA Guidelines* set forth several general content requirements for a DEIR, including certain potential impacts which must be addressed. Those impact areas applicable to this Project include the potential for the Project to cause significant irreversible environmental changes caused by a project (Section 15126.2(c)) and growth inducing impacts (Section 15126(d)). Section 15125(d) of the State *CEQA Guidelines* also requires an EIR to discuss any inconsistencies between the proposed Project and applicable general and regional plans, which was analyzed in the Initial Study (Appendix A). These topics are summarized below and discussed in Section 6 of the DEIR.

1.8.1 Significant Irreversible Environmental Changes

This topic is intended to address any significant impacts that cannot be mitigated to below a level of significance (State *CEQA Guidelines* Section 15126.2). As discussed in detail throughout Section 5.0 Environmental Impact Analysis of this DEIR, the proposed Project will result in Project-specific or cumulatively significant unavoidable impacts to biological resources and recreation (San Bernardino kangaroo rat) and transportation (Caltrans facilities).

1.8.2 Growth Inducing Impacts

According to State *CEQA Guidelines* Section 15126.2 (d), a project may foster economic or population growth, or additional housing, either indirectly or directly, in a geographical area if it meets any one of the following criteria:

- A project would remove obstacles to population growth;
- Increases in the population may tax existing community service facilities, causing significant environmental effects; or
- A project would encourage and facilitate other activities that could significantly affect the environment.

As discussed in Section 3.0 Project Description of this DEIR, the Project will involve the construction of a low density, single-family residential development located on approximately 59 acres that includes 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat preservation, and East Valley Water District facilities). Hydrology and Water Quality, drainage improvements proposed as part of the Project would only serve the Project site and would not remove obstacles to growth in the vicinity of the Project site. The proposed Project is not forecast to cause or contribute to significant new demand for fire protection. The Project will add incrementally to the existing demand for law enforcement services, but the City recently installed a new Department station and does not anticipate the need for new facilities in the immediate future. During project construction, a number of design, engineering and construction-related jobs would be created. This would be a temporary condition, lasting for an estimated 4 years, until construction is completed.

The proposed Project is consistent with the existing General Plan land use designation and the allowable intensity of dwelling units for the site. The proposed Project would not result in population growth that exceeds the parameters of the General Plan and its EIR. And, as the proposed Project would not remove obstacles to population growth, would not result in a substantial increase in the population such that existing community service facilities would be taxed, and would not encourage and facilitate other activities that could significantly affect the environment, it would not result in significant growth inducing impacts.

2.0 Introduction

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy CEQA, as set forth in Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, 14 California Code of Regulations, Section 15000 et seq. The EIR is the public document designed to provide decisions makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of past, present, and reasonably foreseeable future projects.

2.1 Purpose and Scope

The purpose of this DEIR is to evaluate and disclose potential environmental impacts resulting from the implementation of the proposed Heatherglenn Planned Development Project on approximately 59 acres. The Project is a low density, single-family residential project that includes 203 residential lots and 13 lettered lots for various open space uses (entry points, public park, infiltration basin, open space habitat preservation, and East Valley Water District facilities). Development of the tract is expected to occur over an approximate 4-year period and will include grove removal, grubbing, grading, development of internal roadways, and off-site improvements (roadway improvements and utility connections).

2.2 Authorization

This DEIR has been prepared by the City of Highland (City) as “Lead Agency” in accordance with the Guidelines for the Implementation of CEQA (State *CEQA Guidelines*), (Sections 15000–15387 of the California Code of Regulations), and the City’s *CEQA Guidelines*. The proposed Project considered in this DEIR is a “project,” as defined by Section 15378 of the State *CEQA Guidelines*, which state that an EIR must be prepared for any project that may have a significant impact on the environment. The City, as Lead Agency, has determined that the Project may have a significant adverse impact on the environment; therefore, preparation of an EIR was required.

2.3 Lead and Responsible Agencies

CEQA defines a “Lead Agency” as the public agency that has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment. Other agencies, e.g., California Department of Fish and Wildlife (CDFW), the California State Water Resources Control Board (Water Board), which also have some authority or responsibility to issue permits for project implementation, are designated as “responsible agencies.” Both the

Lead Agency and responsible agencies must consider the information contained in the EIR prior to acting upon or approving a permit for the project.

The City is the Lead Agency for the Project.

The City's address is:

City of Highland
Community Development Department
27215 Base Line
Highland, CA 92346
Contact: Ms. Kim Stater, Assistant Community Development Director

Responsible agencies for the Project include:

- **California State Water Resources Control Board:** Issue coverage under the General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ) regulating storm water runoff from construction sites 1 acre in size or greater under the Program.
- **California Department of Fish and Wildlife:** Issuance of take authorization for "take" of any species protected under the California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et seq.) as provided by the Fish and Game Code.

2.4 Project Applicant

The Project Applicant is:

Greenspot Partners 1, Inc.
2011 E. Financial Way, Suite 203
Glendora, CA 91741
Contact: Stan Stringfellow

2.5 Compliance with CEQA

The basic purposes of CEQA are to:

1. inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. identify the ways that environmental damage can be avoided or significantly reduced;
3. prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved. (State CEQA Guidelines, Section 15002)

2.5.1 Environmental Procedures

The EIR process typically consists of three parts: The Notice of Preparation (NOP), DEIR, and Final EIR. Pursuant to Section 15060(d) of the State CEQA Guidelines, the City initiated the environmental process with preparation of an initial study and NOP. The NOP process is used to help determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the Project, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in this DEIR. Issues identified as Less Than Significant or No Impact are not addressed beyond the discussion contained in the Initial Study. Refer to the Initial Study in Appendix A for the analysis and how these initial determinations have been made.

The City of Highland determined that an EIR would be required for this Project and issued an Initial Study and NOP on February 28, 2020 that was distributed to the State Clearinghouse, responsible agencies, and other interested parties. Pursuant to Section 15082 of the State *CEQA Guidelines*, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP.

Agencies and interested parties that submitted written comments in response to the NOP are identified in **Table 2-A – Summary of Written Comments Received in Response to the Notice of Preparation** and copies of the letters received are included in Appendix B of this DEIR.

**Table 2-A-Summary of Written Comments Received
in Response to the Notice of Preparation**

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020	Biological Resources	<p>Assessment of Biological Resources</p> <p>CDFW recommends the DEIR specifically include:</p> <ul style="list-style-type: none"> An assessment of various habitat types located within the Project footprint, and a map that identifies the location of each habitat type. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. A complete, recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species. 	Section 5.1, <i>Biological Resources</i>

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		<ul style="list-style-type: none"> • Include a robust SBKR avoidance plan and a detailed mitigation measures that condition specific land acquisition and habitat enhancement requirements within the Santa Ana River to offset Project-related impacts to SBKR. Additionally, CDFW recommends that a California Endangered Species Act (CESA) Incidental Take Permit (ITP) be obtained prior to the commencement of Project activities. • Conduct surveys for Santa Ana woolly star (<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>) and slender-horned spineflower (<i>Dodecahema leptoceras</i>) to determine presence/absence, areas occupied, and number of individuals that could be affected by the Project. If present, DEIR should include appropriate avoidance, minimization, and /or mitigation measures and that a CESA ITP would be obtained prior to commencement of Project activities. • The DEIR should determine absence/presence and use of the site by small mammals and reptiles of special concern (northwestern San Diego pocket mouse, San Diego desert woodrat, California glossy snake, two-striped gartersnake, southern California legless lizard, coastal whiptail, and red-diamond rattlesnake. Project impacts should be identified, and if present, the DEIR should include appropriate avoidance, minimization, and/or mitigation measures. • Protocol surveys for coastal California gnatcatcher (<i>Polioptila californica californica</i>), and if present, the DEIR should include appropriate avoidance, minimization, and/or mitigation measures to address impacts. • Thorough, recent, floristic-based assessment of special status plants and natural communities. • Information on the regional setting with emphasis on resources that are rare or unique to the region. • A full accounting of all open space and mitigation/conservation lands within and 	

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		adjacent to the Project.	
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020, <i>continued</i>	Biological Resources	<p>Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources</p> <p>The following information should be included in the EIR:</p> <ul style="list-style-type: none"> • A discussion of potential impacts from lighting, noise, human activity, defensible space, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. • A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands. • An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs. • A cumulative effects analysis 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. 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. 	Section 5.1, <i>Biological Resources</i>
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020, <i>continued</i>	Biological Resources	<p>Alternative Analysis</p> <ul style="list-style-type: none"> • Recommends the DEIR describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would “feasibly attain most of the basic objectives of the Project,” and would avoid or substantially lessen any of the Project’s 	Section 5.1, <i>Biological Resources</i>

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis should also evaluate a “no project” alternative (CEQA Guidelines § 15126.6[e]).	
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020, <i>continued</i>	Biological Resources	<p>Mitigation Measures for Project Impacts to Biological Resources</p> <p>When proposing measures to avoid, minimize, or mitigate impacts, the Department recommends consideration of the following:</p> <ul style="list-style-type: none"> Fully Protected Species –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. CDFW 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. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species. Sensitive Plant Communities – The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts. California Species of Special Concern (CSSC) – CSSCs should be considered during the environmental review process. CSSCs that have the potential or have been documented to occur within or adjacent to the project area, including, but not limited to: coastal California gnatcatcher (<i>Poliophtila californica californica</i>), northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>), San Diego desert woodrat (<i>Neotoma lepida intermedia</i>), western yellow bat (<i>Lasiurus xanthinus</i>), red-diamond rattlesnake (<i>Crotalus ruber</i>), coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>), two-striped gartersnake (<i>Thamnophis hammondi</i>), California glossy snake 	Section 5.1, <i>Biological Resources</i>

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		<p>(<i>Arizona elegans occidentalis</i>), and southern California legless lizard (<i>Anniella stebbinsi</i>).</p> <ul style="list-style-type: none"> • Mitigation – The DEIR should include mitigation measures for adverse project-related impacts to both local and regional ecosystems. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail. • Habitat Revegetation/Restoration Plans – Plans should include, at a minimum: <ul style="list-style-type: none"> 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; j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. • Nesting Birds and Migratory Bird Treaty Act – 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. • Moving out of Harm's Way – CDFW recommends that the Lead Agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to 	

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		<p>move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities.</p> <ul style="list-style-type: none"> Translocation of Species – CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful. 	
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020, continued	Biological	<p>California Endangered Species Act</p> <p>The Department recommends that a CESA Incidental Take Permit (ITP) be obtained if the project has the potential to result in "take" of State-listed CESA species, either through construction or over the life of the project</p> <ul style="list-style-type: none"> CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. CDFW recommends the DEIR addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of CESA. 	Section 5.1 <i>Biological Resources</i> pg. 5-34 to 5-51
California Department of Fish and Wildlife (CDFW) Scott Wilson 3/30/2020, continued	Biological Resources	<p>Environmental Data</p> <p>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).</p>	Section 5.1, <i>Biological Resources</i>
California Native Plant Society (CNPS) Nick Jensen 3/30/2020	Biological Resources	<p>The CNPS advises the Project Proponent the following;</p> <ul style="list-style-type: none"> Sensitive Vegetation – 30 acres of the Project site is occupied by Juniper Woodland which is a vegetation type that is extremely rare, in that it exists only 	Section 5.1, <i>Biological Resources</i>

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
		sparsely in the historic floodplains of the Upper Santa Ana River. This vegetation type is also listed by the state as a sensitive natural community. If avoidance of this vegetation type is not feasible, a mitigation at a ratio of at least 3:1 would be required to adequately compensate for its loss.	
California Native Plant Society (CNPS) Nick Jensen 3/30/2020, <i>continued</i>	Biological Resources	<p>A review of the CNDDB indicates that San Bernardino kangaroo rat, Coastal California gnatcatcher, California glossy snake, and two-striped gartersnake have been documented on the property. The Santa Ana River woollystar, Slender-horned spineflower, and Parry's spineflower have a high likelihood of occurring. Development of the property may be inconsistent with the recovery goals set forth by the California and Federal Endangered Species Act.</p> <p>Given the extremely high biological value of the Project, we strongly recommend that the City reevaluate the scope of this Project prior to the development of an EIR and encourage the City and the Project proponent to contact the Inland Empire Resource Conservation District (IERCD) and/or the San Bernardino Valley Water Conservation District to initiate discussions on the potential purchase of these parcels for conservation purposes.</p>	Section 5.1, <i>Biological Resources</i>
Gabrieleeño Band of Mission Indians Andrew Salas 3/16/2020	Cultural Resources and Tribal Cultural Resources	Would like to schedule a consultation to discuss the Project and the surrounding area as the Project location is within their Ancestral Tribal Territory.	Appendix A, Initial Study, Section 5. Cultural Resources, pp. 24-27, Section 18. Tribal Cultural Resources, pp. 53-54
Native American Heritage Commission (NAHC) Andrew Green 3/2/2020	Cultural Resources and Tribal Cultural Resources	Recommend consultation with CA Native American tribes traditionally and culturally affiliated with the Project's geographic area as early as possible to avoid inadvertent discoveries of Native American human remains and to best protect tribal cultural resources	Appendix A, Initial Study, Section 5. Cultural Resources, pp. 24-27, Section 18. Tribal Cultural

Commenting Agency/Person (Date of Letter/email)	Comment Topic	Summary of Comments	Addressed in Section(s) of the EIR
			Resources, pp. 53-54
San Bernardino Department of Public Works Michael Perry, Supervising Planner 3/25/2020	Hydrology and Drainage	<p>General The Project is subject to the District's Comprehensive Storm Drain Plan (CSDP) No. 6 to be used as guidance for drainage in the area. Should construction of new, or alterations to existing storm drains be necessary as part of the proposed Project, their impacts and any required mitigation should be discussed within the EIR.</p> <p>Water Resources Division It appears the Project is located in FEMA Zone A (100- yr. flood/1% chance of flooding in any given year/ No Base Flood Elevations) and recommend that the City of Highland enforce, at a minimum, the most current FEMA regulations for construction within a Special Flood Hazard Area and coordinate with the US Army Corps of Engineers for development within the Santa Ana River Inundation area. They suggest these recommendations and any impacts related to revisions be evaluated and mitigated in the EIR.</p> <p>Permits/Operations Support Division Please be advised that any future encroachments (including street improvement, discharge from outlets, grading, utility crossings, fencing, etc.) on San Bernardino County Flood Control District's (SBCFCD's) right-of-way or impacts to facilities will require a permit from the SBCFCD. The necessity for this permit, and any impacts associated with it, should be addressed in the EIR.</p>	Section 5.1, <i>Biological Resources</i> , Appendix A, Initial Study, Section 10. Hydrology and Water Quality, pp. 38-42, Section 19. Utilities and Service Systems, p. 55
San Bernardino International Airport Authority Jim Harris 3/2/2020	Hazards and Transportation	The proposed Project is outside of the San Bernardino International Airport influence area. Airport has no comment on the Project.	Not applicable.

An EIR is an informational document intended to inform decision makers and the general public of potentially significant environmental impacts of a project. An EIR also identifies possible ways to minimize these potentially significant impacts (referred to as mitigation) and describes alternatives to a project that may also reduce its significant impacts. Having the authority to take action on the proposed Project, the City Planning Commission and City Council will consider the information in this EIR in their evaluations of the proposal. The findings and conclusions presented in the EIR regarding environmental impacts do not control the City's discretion to

approve, deny, or modify the Project, but instead are presented as information to aid the decision-making process.

As set forth in Section 15021 of the State *CEQA Guidelines*, as Lead Agency, the City has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) of the State *CEQA Guidelines* states that, “CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors, and in particular the goal of providing a decent home and satisfying living environment for every Californian.” Other public agencies (i.e., Responsible and Trustee Agencies) that may use this DEIR in their decision-making or permit processes will consider the information in this DEIR along with other information that may be presented during the CEQA process. In accordance with CEQA, the public agencies will be required to make findings for each environmental impact of the proposed Project that cannot be mitigated to below a level of significance. If the Lead Agency determines that the benefits of the proposed Project outweigh unmitigated significant environmental effects, the Lead Agency will be required to adopt a Statement of Overriding Considerations stating the reasons supporting its action notwithstanding the proposed Project’s significant environmental effects.

2.5.2 Potentially Significant Environmental Effects

CEQA requires consideration and discussion of significant environmental effects. Sections 15126 of the State *CEQA Guidelines* state that, “All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation.” Section 5 of the Draft EIR will address each environmental effect that was determined to be potentially significant during preparation of the Project’s NOP (Appendix A). Each effect is organized into an issue area; those that will be analyzed (and the section of the Draft EIR in which the analysis is contained) are listed below:

- Biological Resources (Section 5.1)
- Recreation (Section 5.2)
- Transportation/Traffic (Section 5.3)

2.5.3 Format

This Draft EIR has been organized in several sections as follows:

Table of Contents to assist readers in locating the analysis of different subjects and issues as required by Section 15122 of the State *CEQA Guidelines*. A list of acronyms used in the Draft EIR is included in the table of contents.

Section 1 – Executive Summary covers the summary requirements of CEQA as required by Section 15123 of the State *CEQA Guidelines* and includes: the proposed Project location, a brief Project description, a matrix containing a summary of environmental impacts and mitigation measures, Project objectives, approvals related to the proposed Project, areas of controversy, and a brief description of the Project alternatives.

Section 2 – Introduction describes the scope and purpose of the Draft EIR, identifies the Project applicant and lead agency, provides a brief summary of the CEQA process to date, identifies the lead agency and Project applicant, summarizes and identifies the documents incorporated by reference in the Draft EIR.

Section 3 – Project Description contains the information required by Section 15124 of the State *CEQA Guidelines* including: a detailed description of the proposed Project, the Project objectives, a general description of the Project's environmental setting, the approvals needed to implement the Project, and a list of agencies expected to use the Draft EIR.

Section 4 – Effects Found Not Significant identifies those environmental effects found not to be significant during preparation of the NOP and discusses why the effects were found not to be significant and therefore not addressed in detail in this EIR.

Section 5 – Environmental Impact Analysis satisfies the requirements of Sections 15125, 15126, 15126.2, and 15126.4 of the State *CEQA Guidelines* by including an analysis of each environmental issue area determined to have potentially significant impacts during preparation of the NOP or as a result of comments received in response to the NOP. For each issue area analyzed, this section includes a discussion of the setting to which each issue area is analyzed against, defines the related regulations affecting the proposed Project, identifies the thresholds used to determine significance, describes any Project design features that would reduce impacts, analyzes the proposed Project's impacts, provides a description of the mitigation measures used to reduce or lessen potential impacts, discusses the Project's impacts after implementation of mitigation, and includes the Project's cumulative impact analysis.

Section 6 – Other CEQA Topics includes the Project's unavoidable and irreversible adverse impacts of the proposed Project, and growth inducing impact discussion.

Section 7 – Alternatives satisfies the requirements of Section 15126.6 of the State *CEQA Guidelines* by identifying and discussing the no project alternative in addition to alternatives to the proposed Project that lessen the severity of significant impacts and identifying the environmentally superior alternative.

Section 8 – Organizations and Persons Consulted includes a listing of all the organizations and persons contacted in preparing the Draft EIR, and a list of preparers as required by Section 15129 of the State *CEQA Guidelines*.

2.6 Documents Incorporated by Reference

Section 15150 of the State *CEQA Guidelines* permits and encourages an environmental document to incorporate, by reference, other documents that provide relevant data. The documents listed below are incorporated by reference, and the pertinent material is summarized throughout this DEIR, where that information is relevant to the analysis of potential impacts of the Project.

- City of Highland General Plan and Environmental Impact Report (adopted March 2006)
- City of Highland Municipal Code (adopted January 11, 2005)

All documents incorporated by reference are available for review at, or can be obtained through, the City of Highland Planning Division of the Community & Economic Development Department. Technical studies cited below were specifically developed in conjunction with the Project. Where noted as appendices, the reports are included in their entirety as part of the DEIR.

3.0 Project Description

This Draft Environmental Impact Report (DEIR) analyzes the potential environmental effects associated with the construction of the Heatherglenn Planned Development and all associated on- and off-site supporting improvements, which are herein collectively referred to as the "Project."

3.1 Project Location and Setting

3.1.1 Project Location

The Heatherglenn Planned Development site is approximately 59.03 (gross) acres in the City of Highland (Exhibit 3-1 Regional Location). The Project is located east of Merris Street/Club View Drive, west of Alta Vista, south of Greenspot Road, and north of Abbey Way and Plunge Creek (Exhibit 3-2 Local Vicinity, Exhibit 3-3 Aerial Photograph, Exhibit 3-4 USGS Topography). The Project is situated within Section 2 of Township 1 South, Range 3 West of the United States Geological Survey (USGS) Redlands 7.5-minute series quadrangle map. The Project consists of seven existing Assessor's Parcel Numbers:

- 1210-281-01
- 1210-281-02
- 1210-281-03
- 1210-281-04
- 1210-211-18
- 1210-211-21
- 1210-211-23

3.1.2 Project Site-Existing Conditions

The Project site is undeveloped and vacant. The Project site can be characterized as primarily flat and exhibits low relief topography. Elevation ranges from about 1,350 feet to 1,385 feet above mean sea level. The Project site exhibits a mix of disturbed and native habitats. The western half of the site contains Eucalyptus groves and a jojoba field. The eastern half of the site is relatively undisturbed alluvial fan sage scrub.

3.1.3 Land Use Designation and Zoning

The existing General Plan land use designation for the site is Planned Development/ Low Density Residential (PD/LDR). The existing zoning for the site is PD/R-1 Single-Family Residential. The land use designation of PD/LDR limits uses to single-family detached residential, and mobile homes with a maximum intensity of six dwelling units per 1.0 acre. The PD/R-1 zoning allows for small lot single-family detached and mobile homes parks and subdivisions at a maximum allowable density of six dwelling units per gross acre. The proposed

Project Description

Heatherglen Planned Development DEIR

Project of 203 single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres is within the allowable intensity and is consistent with the existing General Plan land use designation and zoning for the site.

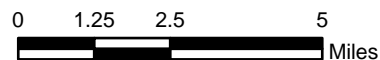
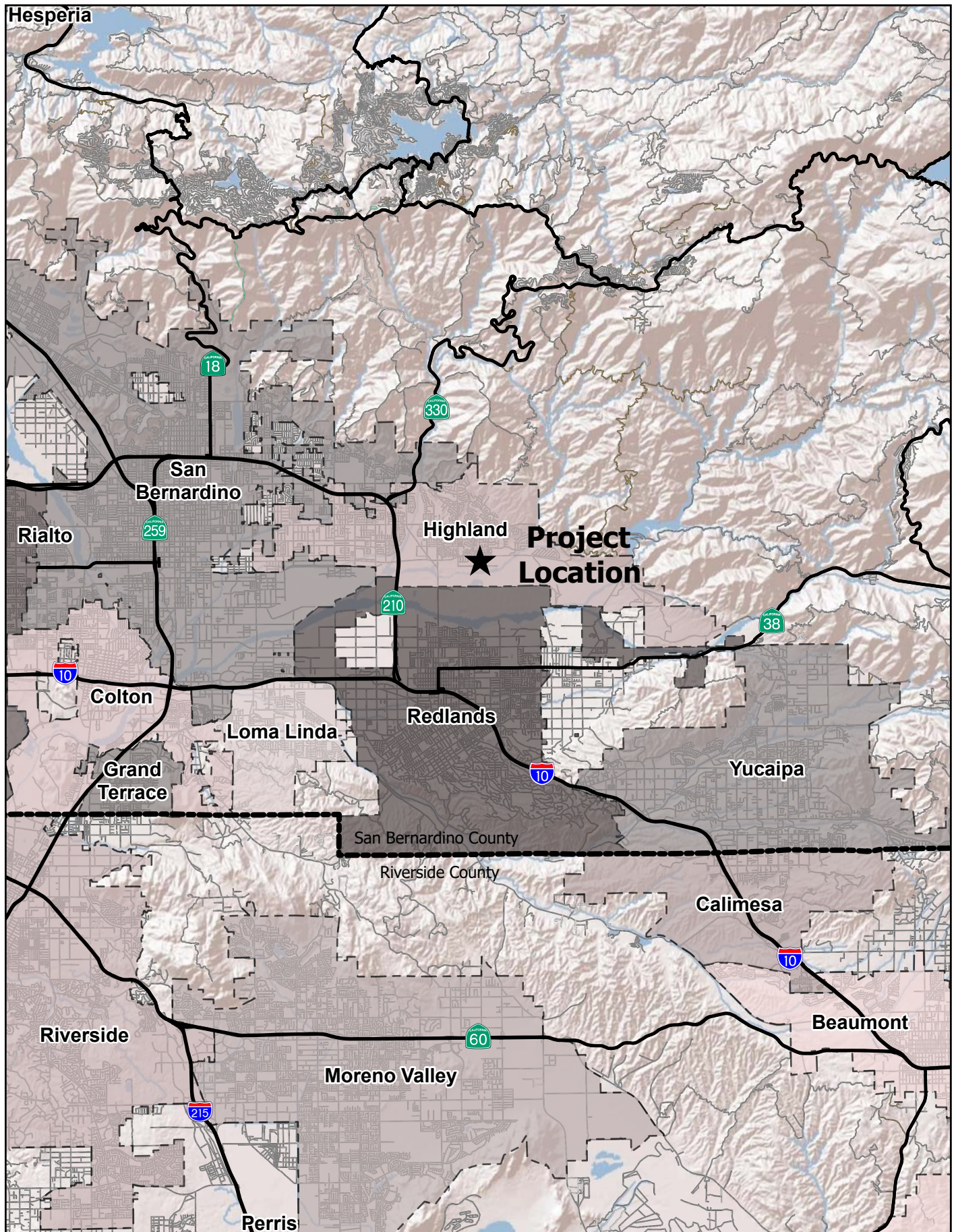
For the purposes of background, on June 26, 2018, the City Council adopted Resolution No. 2018-033 to amend the General Plan Designation of this site and others within 316 acres of the Greenspot Road Corridor. The General Plan Land Use Designation, adopted in 2006, was changed from of Agricultural/Equestrian (AG/EQ) to Planned Development/Low Density Residential (PD/LDR). The City Council also adopted Ordinance No. 425 approving a Zone Change from Agricultural/Equestrian (AG/EQ) to Planned Development/R-1 Single Family (PD/R-1). This action was taken to allow LDR consistent with what was envisioned under the General Plan and designate Open Space consistent with the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan ("Wash Plan"). The Wash Plan includes an integrated approach to permit and mitigate construction and maintenance activities within the Wash area, including water conservation, wells and water infrastructure, aggregate mining, transportation, flood control, agriculture, trails, and habitat enhancement. Implementation of the Wash Plan would result in permanent conservation and management of approximately 1,660 acres of native habitats, generally south of the Project site. The rezoning and land use designation, in general, allowed for a transfer of the density that was lost from conversion to Open Space to the newly designated PD/LDR use areas.

Planned Development (PD) is meant to provide superior development by allowing a greater degree of design and land use flexibility within the framework of a site-specific development plan. These provisions permit a clustering of units, mixing of land use and building types and the formulation of specific development standards and design criteria that respond to the particular features or conditions of a site. The R-1 Single Family Residential (R-1) designation is meant to provide for and protect the atmosphere and lifestyle associated with the detached, single family residential neighborhood and allow a maximum density of six dwelling units per acre. When the City re-designated and rezoned this Greenspot Road Corridor area it was determined that the maximum number of dwelling units within the 316-acre corridor would be 543, which was allowed under the previous General Plan and EIR. The CEQA document for the 2018 GPA/ZC was based on a unit count of 2.1 to 6.0 units per acre for the PD/R1 proposed Land Use & zoning, which included the proposed Heatherglen property. Thus, the 59-acre Project site could yield between 124 and 354 units and may average 239. The Heatherglen Planned Development is for 203 residential units and is well within this range.

3.1.4 Surrounding Land Uses

As shown on Exhibit 3-2 Local Vicinity, to the west of the Project site is vacant/disturbed land, and further west is East Highland Village, a Historic District/Neighborhood, which includes single-family detached residential. To the north is the East Highlands Ranch Planned Unit Development (PUD), with contemporary suburban residential development that began in the 1980s. It comprises 1,655 acres with housing units of various sizes and densities. Directly east of the Project site is the Weaver Street Channel, a flood control channel that runs in a southerly

direction, and Plunge Creek and associated levees are located further east. Properties to the east, beyond the flood control channel are vacant and have General Plan land use designation and zoning of Open Space (OS) and is located in the Wash Plan area. The property to the south of the Project site is in the historic floodplain of the Santa Ana River and its tributaries, including Plunge Creek and is also in the Wash Plan area.



Source: ESRI, San Bernardino County, Caltrans

HEATHERGLEN PLANNED DEVELOPMENT Regional Location



Legend

 Project Site

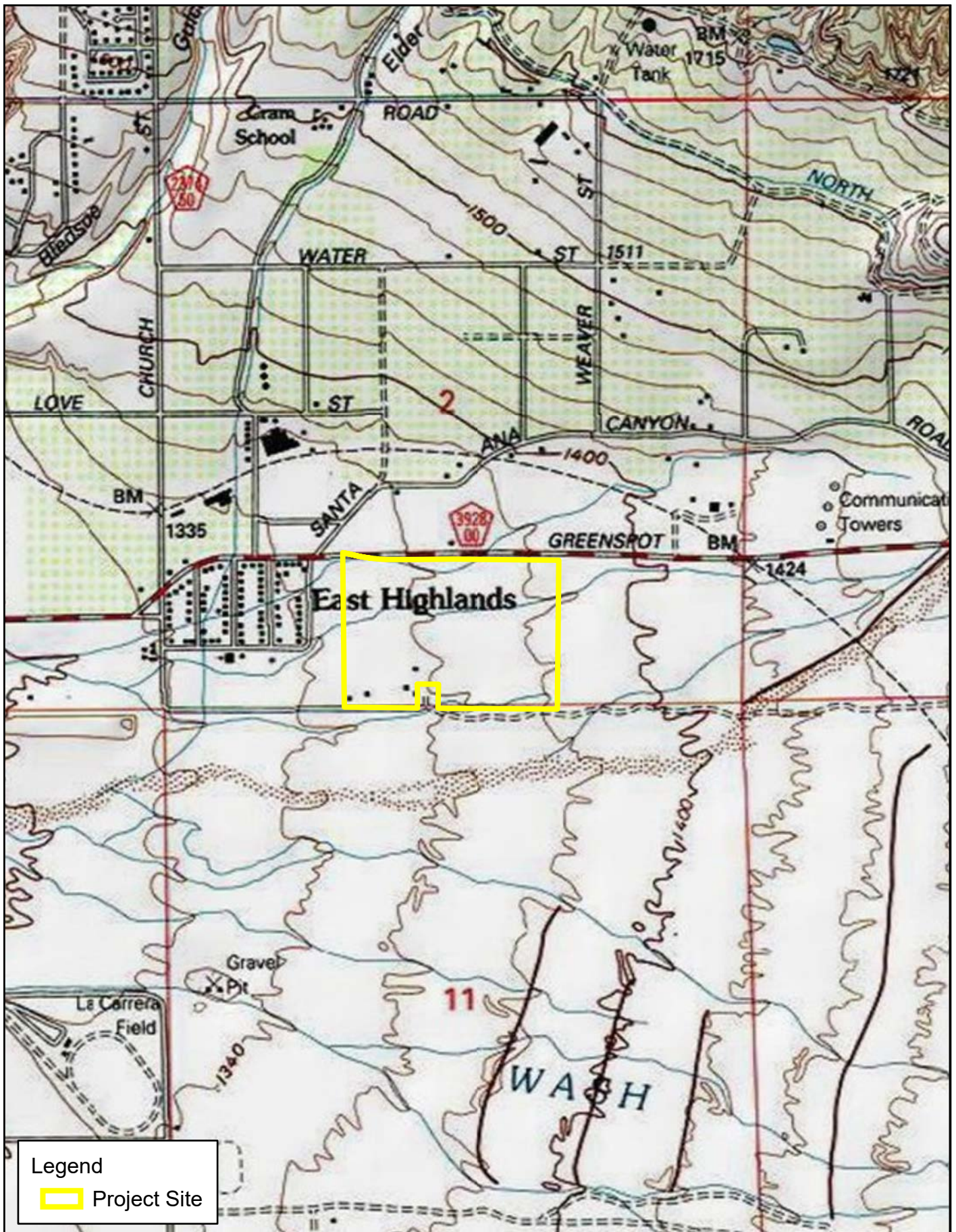


0 125 250 500
Feet

Source: ESRI, San Bernardino County

HEATHERGLEN PLANNED DEVELOPMENT
Aerial Photograph

Exhibit 3-3



0 125 250 500
Feet

Source: ESRI, San Bernardino County, USGS

HEATHERGLEN PLANNED DEVELOPMENT
USGS Topography

Exhibit 3-4

3.2 Project Characteristics

“Project,” as defined by the CEQA Guidelines, means “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.” (CEQA Guidelines Section 15378[a][1])

3.2.1 Proposed Project

Tentative Tract Map (TTM) 17604, shown in Exhibit 3-5 Site Plan, is a low density, single-family residential development Project located on approximately 59 acres that includes 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat preservation, and East Valley Water District facilities).

The minimum lot area of interior lots is 5,000 square feet (lots are to be a minimum of 50 feet in width and 100 feet in depth). Of the 203 lots, six are at the minimum 5,000 square feet. The average lot area for the development of single-family homes is 7,250+ square feet with 13 lots being over 10,000 square feet. All the corner lots are a minimum of 60 feet wide (6,000 square feet in lot area), with some lots being 75 feet wide. The purpose of the wider, corner lots is to accommodate single-story units per the City's design/development policies.

The lettered lots (A through M) total 12.44 acres of the Project site. A public park is planned and is located at the southwest corner of Gold Buckle Road and Street “B.” The park (Lot C) is ½ acre and will be improved with a small tot-lot containing a low maintenance multi-faceted play structure with a soft fall zone area, benches, and shade structure. The balance of the park will be a passive play area with water efficient landscaping. The park will be maintained by a Homeowners Association (HOA) or assessment district, as will all of the letter lots. The Project will include a community trail (12 feet wide) along the western boundary of the site from Greenspot Road to the southern boundary of the site. The Project will include construction of the Pole Line Trail (12 feet wide) along southern portion of the Project site. Lot L is 6.53 acres and will not be graded and developed but set aside and preserved as open space as designated on the Tract 17604 Comprehensive Site Plan.

3.2.2 Phasing Plan

Phase 1. Phase 1 of the Subject Property is generally in the northwest area of the Project and is comprised of 63 residential lots (Lots 1 through 56 and Lots 168 through 174). Access to Phase 1 will be via Old Greenspot Road at the northwest corner of the Project and the extension of Gold Buckle Road at Greenspot Road in the center of the Project. Streets to be constructed in Phase 1 will be the Old Greenspot Road extension, Streets B, H, K, and L and portions of

Streets C, F, and Gold Buckle Road. The proposed traffic circle or roundabout will be constructed but stubbed or blocked to prohibit traffic traveling east of the traffic circle.

Phase 1 will also include the construction of the neighborhood park (Letter Lot C), the entry features at Old Greenspot Road (Letters Lots A and B), a portion of the Greenspot Road improvements (Letter Lot I) and a portion of the community trail on the Project's westerly boundary (Letter Lot H). The Phase will also necessitate the construction of the Infiltration Basin (Letter Lot E) and Lift Station (Letter Lot F), both are proposed along the southerly border of the Project outside of the Phase 1 area.

Phase 2. Phase 2 is the southerly area of the Project and consists of 67 residential lots (Lots 57 through 94 and Lots 174 through 203). Included in Phase 2 will be the construction and/or preservation of the 6-plus acres of SBKR habitat area (Letter Lot L) and the completion of the community trail on the westerly boundary of the Project (Letter Lot H). As stated above, the Infiltration Basin and Lift Station (Letter Lots E and F respectively) are within the Phase 2 area but will be constructed with Phase 1 improvements. The construction of Streets D, E, and J and portions of Streets F and Gold Buckle Road are within Phase 2. Common landscaping area (Letter Lot G) and the community trail along Abbey Way (Letter Lot M) will be improved.

Phase 3. Phase 3 is the easterly area of the Project and consists of 73 residential lots (Lots 95 through 167). The Phase will have direct access to Greenspot Road with the completion of the proposed traffic circle at Gold Buckle Road. Street P located on the Project's easterly boundary will also have access to Greenspot Road. The remainder of the internal streets- Streets M, N, O, and P and portions of Streets B and C- will be constructed in Phase 3. Greenspot Road Improvements (Letter Lots J and K) will be completed and the open space lot for water runoff (Letter Lot D) will be fully improved per plan and conditions. A community trail along the southerly boundary of the Project (Letter Lot M) will also be improved.

3.2.3 Infrastructure Improvements

Circulation

A network of local public streets which will provide internal circulation and access to Greenspot Road, an existing four-lane divided major highway will be constructed along the northern boundary of the site. There will be three access points from Greenspot Road to the Project site. The first access point to Greenspot Road will be via Old Greenspot Road at Club View Drive at the westerly edge of the Project's site. The second is a new street (Gold Buckle Road) generally located in the center of the Project site. The third access point to Greenspot Road will be on the Project site's most easterly edge as Street "P."

Water and Sewer

Potable water and sewer service would be provided by East Valley Water District (EVWD). EVWD has an existing water main and a sewer pipeline in Greenspot Road. Service to the new residences will require a new connection to these lines and will be extended into the Project site.

Drainage

Stormwater and non-stormwater runoff from the majority of the site (western) will be conveyed within the site (storm drains within the network of streets) to an infiltration basin located in the southern portion of the Project site. Stormwater and non-stormwater runoff from a small area from the eastern portion of the site will be conveyed through a swale in Lot D to the open space habitat preservation area in Lot L. No off-site stormwater facilities are required or proposed.

Utilities

Electricity and natural gas service will be provided by Southern California Edison and Southern California Gas Company, respectively. A 12-foot-wide easement and/or irrevocable offer of dedication for utilities and other purposes exists on the northerly property line (Greenspot Road) for utility lines and conduits for Southern California Edison and/or Southern California Gas Company services. It is anticipated that the new residential use will be served by extensions of the existing systems from Greenspot Road.

3.2.4 Construction

Development of the tract will include grove removal, grubbing, grading, development of internal roadways, and off-site improvements. Grading of the site is estimated to require 107,121 cubic yards of cut and 126,140 cubic yards of fill. A net import of 19,019 cubic yards of fill will be required from an off-site location. Construction is anticipated to take approximately 4 years with the following sequential phases: 1) site preparation (clearing and grubbing) approximately 1.5 months; 2) grading approximately 3.5 months; 3) building construction approximately 3 years; 4) paving and architectural coatings approximately 2.5 months.

CITY OF HIGHLAND - TRACT NO. 17604



OWNER/DEVELOPER

GREENVIEW PARTNERS, INC.
2011 E. FINANCIAL WAY, STE. 203
SUNLAND, CA 91781
PH: (909) 814-7200
ATTN: JOHN R. BREWSTER

ENGINEER

ALBERT A. WEBB ASSOCIATES
3708 WAGNER STREET
SUNLAND, CA 91781
ATTN: SARAH KOWALSKI
TEL: (909) 388-1000
FAX: (909) 388-1256

SOILS ENGINEER

JOHN R. BREWSTER
2207 SOUTH CLARK AVE.
BLOOMINGTON, CA 92316
ATTN: JOHN R. BREWSTER
TEL: (909) 783-1910

TOPOGRAPHY SOURCE

TOPOGRAPHY FROM BY LAND AERIAL SURVEYS
ON 5/3/74

ASSESSOR'S PARCEL NO.

1210-281-01-0000
1210-281-02-0000
1210-281-03-0000
1210-281-04-0000
1210-281-05-0000
1210-281-06-0000

LAND USE

EXISTING LAND USE:
AGRICULTURAL/CREOSOTERMAN
PROPOSED LAND USE: PD
EXISTING ZONING: A-10
PROPOSED ZONING: PD

ACREAGE

56.03 NET ACRES
59.03 GROSS ACRES

LOTS

NUMBERED LOTS: 133
LETTERED LOTS: 23
LOT 1-103: RESIDENTIAL LOTS
LOT A: OPEN SPACE PARK
LOT B: OPEN SPACE PARK
LOT C: OPEN SPACE PARK
LOT D: OPEN SPACE PARK
LOT E: OPEN SPACE PARK
LOT F: OPEN SPACE PARK
LOT G: OPEN SPACE PARK
LOT H: OPEN SPACE PARK
LOT I: OPEN SPACE PARK
LOT J: OPEN SPACE PARK
LOT K: OPEN SPACE PARK
LOT L: OPEN SPACE PARK
LOT M: OPEN SPACE PARK
LOT N: OPEN SPACE PARK
LOT O: OPEN SPACE PARK

EARTHWORK

RAW VOL: 103,121 CY
RAW FILL: 126,140 CY

THE ABOVE QUANTITIES DO NOT REFLECT ANY
UNDERMINING, SWELLING, SUBSIDENCE, OR
EXCAVATION OR ANY SPECIAL CONDITIONS THAT
MAY BE ENCOUNTERED IN THE PRELIMINARY SOILS
REPORT AND ARE FOR REFERENCE AND FEE
PURPOSES ONLY.

NOTES

1. 2013 THOMAS BROS. MAP BOOK, RANGE
53N, GRID 07
2. THIS MAP INCLUDES THE DEFINITIVE
CONTIGUOUS OWNERSHIP OF THE LAND
SHOWN.
3. PROJECT IS NOT WITHIN A SPECIFIC PLAIN
4. EASEMENTS OF RECORD ARE SHOWN.
5. TOPOGRAPHY FROM BY LAND AERIAL
SURVEYS ON 5/3/74.
6. SETBACKS OF LOTS TO PROPERTY
LINES SHALL CONFORM TO ORDINANCE
REQUIREMENTS.
7. ALL SLOPES ARE 2:1 UNLESS
OTHERWISE NOTED.
8. CIRCUMSCRIBED PRELIMINARY ROAD
ELEVATION, 1200' IS SUBMITTED FOR
THE ELEVATION.
9. DISPOSITION OF EXISTING SUBSURFACE SEPTIC
SERVICE WILL BE REQUIRED.
10. THERE ARE NO OPEN CHANNELS ON SITE.
11. THERE ARE NO EXISTING STRUCTURES OR
OBSTACLES ON SITE.
12. THE PROJECT WILL COMPLY WITH NPDES
REQUIREMENT AS REQUIRED BY NPDES
SUPPLEMENT "C".
13. PROPOSED LOTS WILL ONLY HAVE ACCESS
FROM THE INTERIOR STREETS. ACCESS WILL
BE RESTRICTED FROM OUTSIDE STREETS
BY 8' BAY.
14. THE TOTAL LENGTH OF PROPOSED STREETS
IS 8,975'.

BENCHMARK DATA

NCS DESIGNATION: NF 33
NCS PD: EX-9339

RECORDED BY METERS WATER DISTRICT ON
CALIFORNIA 1983. EAST HIGHLAND, NEAR THE
INTERSECTION OF GREENSPOT RD. AND HIGHWAY
ST. 68 FEET (21 M) NORTH OF THE CENTERLINE
OF GREENSPOT RD. AND 22 FEET (6.7 M) EAST
OF THE CENTERLINE OF HIGHWAY ST. 68. THE
REMARKED CORNER BEING 17 FEET (5.1 M) LONG
CONCRETE CATCH BASIN IN THE TOP OF THE
SOUTHWEST CORNER OF LOT 134 AND 1
FOOT (0.3 M) BACK OF CURB FACE.

ELEVATION= 1395.56 (NGVD 88)

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF HIGHLAND, COUNTY OF SAN BERNARDINO, STATE OF
CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
PARCELS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 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3.2.5 Project Objectives

Objectives of the proposed Project are:

- Increase, to the greatest extent feasible, the amount of detached single-family housing available consistent with the goals of the City's General Plan Housing Element;
- To provide high quality housing that will attract a broad spectrum of buyers, including attractive, modern, housing that will provide "move-up" opportunities for local residents within the project and the City of Highland;
- Establish a distinctive residential neighborhood, with safe and convenient pedestrian access to nearby open space areas and commercial/ shopping opportunities;
- To create a visually attractive development through consistent application of architectural and landscape standards/guidelines that will provide a unique residential experience;
- Implement the City of Highland's General Plan goals and objectives for the project site; and
- Use land resources efficiently by providing a well-planned, infill development on a vacant site served by a fully improved public street system with utilities.

3.3 Discretionary Actions and Approvals

The DEIR has been prepared to evaluate potential impacts as well as address various actions by the City and others to implement the proposed Project. It is the intent of the DEIR to enable the City of Highland, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed Project, thereby enabling them to make informed decisions with respect to the requested entitlements. The anticipated required agency approvals and/or permits for this Project are:

California Department of Fish and Wildlife Service

- California Endangered Species Act (CESA) Incidental Take Permit (ITP) for impacts to listed or candidate species

US Fish and Wildlife Service

- Federal Endangered Species Act (ESA) Section 10 Incidental Take Authorization/ Permit for impacts to listed or candidate species

State Water Resources Control Board

- General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ) for construction site one acre in size or greater.

4.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

The California Environmental Quality Act (CEQA) provides that a DEIR shall focus on all potentially significant effects that the Project may have on the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence. Effects that are determined in an Initial Study to be insignificant and unlikely to occur need not be discussed further in the DEIR unless information inconsistent with the finding in the Initial Study is subsequently received.

4.1 EFFECTS FOUND NOT TO BE SIGNIFICANT DURING PREPARATION OF THE NOP

Section 21100(c) of the Public Resources Code states that an EIR shall contain a statement briefly indicating the reasons that various possible effects of a project were determined not to be significant and were therefore, not discussed in detail in the EIR. Section 15128 of the *CEQA Guidelines* adds, "Such a statement may be contained in an attached copy of an Initial Study." The following summarizes those effects that were found to be less than significant as part of the analysis in the Initial Study. The Initial Study is contained in Appendix A.

4.1.1 Aesthetics

4.1.1.1 **Threshold A:** *Would the Project have a substantial adverse effect on a scenic vista?*

The San Bernardino mountains are a prominent scenic vista for the City and are visible to the north from the Project site. North of the Project site is Greenspot Road and residential development. West of the Project site is vacant/disturbed land and the East Highland Village residential development. East of the Project site is Plunge Creek and open space. South of the Project site is open space. The San Bernardino mountains to the north consists of background views for most of the surrounding community. As discussed in the initial study, residential homes to the north of Greenspot Road would be at a higher elevation than the Project's homes to the south. Similar to the existing residential homes to the north, the Project's new homes would have a maximum structure height (highest ridge cap/non-architectural projection) of 30 feet for the 2-story homes and a maximum height of 20 feet for the 1-story homes. The Project would not substantially impact views of the San Bernardino mountains from Greenspot Road. From Greenspot Road, the views to the open space south of the Project site would be partially obscured with the new residential development, but not at a considerable level due to the southward sloping topography of the open space land and its vegetation. Additionally, other portions of Greenspot Road to the west and east of the Project site would still allow for views of the open space from Greenspot Road. Therefore, the Project's residential development would not have a significant effect on a scenic vista. No mitigation measures are required.

4.1.1.2 **Threshold B:** *Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The Project site is not located along a designated state scenic highway and the nearest officially designated State Scenic Highway is Route 38, more than ten miles to the east of the Project

site. Therefore, the Project does not have the potential to damage trees, rock outcroppings, or historic buildings within state scenic highways. No mitigation measures are required.

4.1.1.3 Threshold C: *In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The Project site located in a mostly urbanized area with open space to the south. As outlined in the Heatherglen Planned Development document for this project (Section 4.4, *Heatherglen PD Land Use and Development Standards*) the intention of the Architectural Design Guidelines is to provide guidance to design an interesting, livable community with variation of housing types, architectural relief and function, and aesthetics. The Design Guidelines encourage to utilize new materials to convey forms and features of: American Craftsman Style, Spanish Revival Style, Cape Cod Style, and Tuscan Style. Community landscaping will contribute to the overall aesthetics of the Heatherglen PD and where appropriate, be functional for a vibrant and active community. Plant palettes shall be planned to encourage water-wise material but emphasize the need for color and diversity of form and shape. Landscape palettes for individual lots shall pay particular attention to the architectural style of the home, avoiding conflicting architectural styles with landscaping. The size and scale of the proposed development would be consistent with surrounding properties to the north. Therefore, no significant impacts to the existing visual character or quality of public views of the Project's surroundings would occur as a result of the proposed Project. The proposed Project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant. No mitigation measures are required.

4.1.1.4 Threshold D: *Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?*

The proposed Project, once developed, will not be a substantial source of light and glare. According to the City's General Plan and Development Code; night standards require that the Project control light and glare from new lighting so that it is directed to remain within the Project site, except for streetlights adjacent to Greenspot Road. As outlined in the Heatherglen Planned Development document for this project (Section 4.4, *Heatherglen PD Land Use and Development Standards, Subsection H, Lighting Standards*), exterior lighting fixtures shall be shielded so that illumination is fully confined within the Heatherglen PD boundaries, street light standards and fixtures shall not exceed 25 feet (25') in height, exterior-mounted security lighting fixtures shall not project above fascia or roofline of any residential building or accessory structure, and rear lights of a residence abutting open space/habitat areas shall be shielded to minimize glare spilling onto any open spaces/habitat areas. All required lighting will be in compliance with City standards, as required by City Conditions of Approval and any light increase would be similar to that in the neighboring residential developments. Impacts would be less than significant. No mitigation measures are required.

4.1.2 Agriculture and Forestry

4.1.2.1 Threshold A: *Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The Project Site is not mapped as Prime, Unique, or Farmland of Statewide Importance. Therefore, Project implementation would not convert Prime, Unique, or Farmland of Statewide Importance. No impacts would occur. No mitigation measures are required.

4.1.2.2 Threshold B: *Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The proposed Project Site is zoned for Planned Development, Single-Family Residential (PD/R-1) and is consistent with the City's General Plan. The proposed Project is not under a Williamson Act contract. No impacts would occur. No mitigation measures are required.

4.1.2.3 Threshold C: *Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

There are no mapped areas of Farmland surrounding the Project site and there are no off-site improvements required by the proposed development that would result in indirect conversion of Farmland. The Project site does not include forest land or timberland and there are no off-site improvements required that would result in the indirect conversion of forest land or timberland. Implementation of the proposed Project would not result in any other conversion of Farmland to non-agricultural production on the Site, as the property is vacant. No impacts would occur. No mitigation measures are required.

4.1.2.4 Threshold D: *Would the Project result in the loss of forest land or conversion of forest land to non-forest use?*

There are no mapped areas of Farmland surrounding the Project site and there are no off-site improvements required by the proposed development that would result in indirect conversion of Farmland. The Project site does not include forest land or timberland and there are no off-site improvements required that would result in the indirect conversion of forest land or timberland. Implementation of the proposed Project would not result in any other conversion of Farmland to non-agricultural production on the Site, as the property is vacant. No impacts would occur. No mitigation measures are required.

4.1.2.5 Threshold E: *Would the Project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion to forest land to non-forest use?*

There are no mapped areas of Farmland surrounding the Project site and there are no off-site improvements required by the proposed development that would result in indirect conversion of Farmland. The Project site does not include forest land or timberland and there are no off-site improvements required that would result in the indirect conversion of forest land or timberland. Implementation of the proposed Project would not result in any other conversion of Farmland to non-agricultural production on the Site, as the property is vacant. No impacts would occur. No mitigation measures are required.

4.1.3 Air Quality

4.1.3.1 Threshold A: *Would the Project conflict with or obstruct implementation of the applicable air quality plan?*

An Air Quality and Greenhouse Gas Study (AQ/GHG Study) was prepared for the proposed Project. The Air Quality Management Plan (AQMP) details goals, policies, and programs for improving air quality in multiple air basins in California, including the South Coast Air Basin (SCAB) in which the Project is located. In preparation of the AQMP, South Coast Air Quality Management District (SCAQMD) and Southern California Association of Governments (SCAG) use land use designation contained in the General Plan documents to forecast, inventory, and allocate regional emissions from land use and development-related sources. For purposes of analyzing consistency with the AQMP, if a proposed Project would have a development density and vehicle trip generation that is substantially greater than what was anticipated in the General Plan, then the proposed project would conflict with the AQMP. However, if the development density and vehicle trip generation is at or below the anticipated density of the General Plan, project's emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD attainment plans. SCAQMD's CEQA Handbook suggests an evaluation of the following two criteria to determine whether a project involving a legislative land use action would be consistent with or in conflict with the AQMP: 1) The project would not generate population and employment growth that would be inconsistent with SCAG's growth forecasts, and 2) The project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

A summary of SCAB's current attainment status for criteria air pollutants under federal and state standards is shown below in Table 1 (page 26, Table 3 of the Air Quality and Greenhouse Gas Study). The purpose of these designations is to identify the areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In

addition, the California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment.

Table 1 South Coast Air Basin Attainment Status

Pollutant	Attainment Status	
	Federal Standards	State Standards
Ozone (1-hour)	Non-attainment/Extreme	Non-attainment
Ozone (8-hour)	Non-attainment/Extreme	Non-attainment
PM ₁₀	Attainment/Maintenance	Non-attainment
PM _{2.5}	Non-attainment	Non-attainment
Carbon Monoxide	Attainment/Maintenance	Attainment
Nitrogen Dioxide	Attainment/Maintenance	Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	N/A	Attainment
Lead	Non-attainment	Non-attainment
Hydrogen Sulfide	N/A	Attainment
Visibility Reducing Particles	N/A	Attainment
Vinyl	N/A	Attainment

At the time the Air Quality Analysis was prepared (March 2017), the land use designation for the Project site was Agricultural/Equestrian (AG/EQ). Subsequently, on June 26, 2018, the City Council adopted Resolution No. 2018-033 to amend the General Plan Designation of the Project site and others within 316 acres of the Greenspot Road Corridor to Planned Development/Low Density Residential (PD/LDR). The City Council also adopted Ordinance No. 425 approving a Zone Change from Agricultural/Equestrian (AG/EQ) to Planned Development/R-1 Single Family (PD/R-1). As outlined in the City of Highland General Plan Land Use Amendment & Zoning Amendment General Plan Amendment (GPA) 017-002 and Zone Change (ZC) 017-002 (Greenspot Road/Pole Line Road) Initial Study Negative Declaration, the maximum number of dwelling units previously allowed under the prior land use categories (based on total acreage of each category) was 543. The number of dwelling units allowed under the redesignated land use categories of OS (no dwelling units allowed) and PD/R1 (2.1-6.0 dwelling units/acre) is 262-748. Future development in the redesignated areas, including the Project site would not be allowed to exceed the 543 maximum dwelling units allowed under the previous General Plan and EIR without a separate CEQA analysis. Therefore, the potential future development following the GPA and ZC is consistent with the population projections set forth by SCAG for the City based on the General Plan land use categories. The proposed Project would not result in residential development beyond the land use designation in the 2006 General Plan and therefore the AQMP.

In addition, the 2016 SCAG Regional Transportation Growth Projections anticipate a 1.5 percent growth rate within the City of Highland through the year 2020. The U.S. Census FactFinder estimated that in 2015 the City of Highland had 16,554 housing units and a very low homeowner

vacancy rate of 0.7 percent, which indicates that additional homeowner housing is needed to meet the needs of the City's residents. The 203 single-family residences that would be developed by the proposed Project would equate to a 1.3 percent increase in total residential units within the City, which is below the SCAG anticipated 1.5 percent annual increase in housing and would assist in providing units to fill the City's homeowner housing needs. Thus, the Project would comply with Consistency Criterion No. 1 of the SCAQMD's CEQA Handbook.

In regard to Consistency Criterion No. 2 the AQ/GHG Study indicates that the Project would not result in impacts related to an increase in air quality violation, and no significant adverse impacts are anticipated. Therefore, the proposed Project is consistent with Consistency Criterion No. 2, and impacts related to conflict with or obstruction with an applicable air quality plan would be less than significant.

Overall, implementation of the proposed Project would not conflict with or obstruct the AQMP and there would be no impacts.

4.1.3.2 Threshold B: *Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Construction activities could generate substantial amounts of dust (including particulate matter less than ten and 2.5 micrometers in diameter, PM₁₀ and PM_{2.5}, respectively) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) and other criteria air pollutants primarily from the operation of heavy equipment construction machinery (primarily diesel operated) and construction worker automobile trips (primarily gasoline operated).

Fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the prevailing weather. Sources of fugitive dust during construction could include vehicle movement over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces.

Construction activities would also result in the emission of other criteria pollutants from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of reactive organic gases (ROG) and oxides of nitrogen (NOx) from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction.

Mobile source emissions, primarily NOx, would result from the use of construction equipment such as graders, backhoes, and cranes. During the finishing phase, paving operations and the application of architectural coatings (i.e., paints) and other building materials would release ROG. The assessment of construction air quality impacts considers each of these potential sources.

All development projects are subject to SCAQMD rules and regulations in effect at the

time of construction. Specific rules applicable to the construction anticipated under the proposed project would include Rule 401, Rule 403, Rule 402, Rule 445, Rule 481, Rule 1108, Rule 1113, Rule 1143, Rule 1186, Rule 1303, and Rule 1401.

Construction scheduling was based on CalEEMod defaults and typical construction scheduling, and CalEEMod default equipment was used. As shown in Table 2, the proposed Project would not result in a significant impact to air quality during construction activities. The calculated emission results from CalEEMod demonstrate that the construction of this Project would not exceed the SCAQMD thresholds, and that construction related impacts on regional air quality would be less than significant.

Table 2 Peak-Day Unmitigated Construction Emissions (lbs/day)

Construction Season	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer	30.8	68.0	39.9	0.06	21.1	12.6
Winter	30.8	68.0	39.8	0.06	21.1	12.6
SCAQMD Significance Threshold	75	100	550	150	150	55
Exceed Significance?	No	No	No	No	No	No

However, to reduce potential impacts related to Local Significance Thresholds (LSTs, as described below), mitigation measures (AQ-1) would be implemented during construction, which would reduce emissions further below thresholds, as shown in Table 3.

Table 3 Peak-Day Mitigated Construction Emissions (lbs/day)

Construction Season	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer	30.6	5.4	34.1	0.06	2.8	1.5
Winter	30.6	5.4	34.0	0.06	2.8	1.6
SCAQMD Significance Threshold	75	100	550	150	150	55
Exceed Significance?	No	No	No	No	No	No

Implementation of the proposed Project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, in addition to operational mobile emissions. Development of the proposed Project would result in 2,047 weekday daily trips.

Operations emissions associated with the proposed Project were modeled using CalEEMod. Model defaults were adjusted to reflect project-specific data, including the size and type of the proposed land use and project specific trip rates. The highest modeled operations emissions are presented in Table 4. Using the highest modeled operations emissions in the CalEEMod produces conservative results; the actual operations emissions are likely to be lower. Significance is determined based on the total project contribution to regional criteria pollutant emissions.

Table 4 Operational Emissions (lbs/day)

Source	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	14.2	3.9	67.8	0.2	8.4	8.4
Energy	0.2	1.9	0.8	0.01	0.2	0.2

Environmental Effects Found Not Significant

Heatherglen Planned Development DEIR

Mobile	4.5	22.2	60.7	0.2	15.1	4.2
Total Emissions	18.9	28.0	129.3	0.4	23.67	12.8
SCAQMD Significance Threshold	55	55	550	150	150	55
Exceed Significance?	No	No	No	No	No	No

As shown in Table 4, the operational emissions of criteria pollutants that would be generated by the Project would be below the SCAQMD's applicable thresholds. Therefore, the Project's operational emissions would not substantially contribute to emissions concentrations that exceed the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

The CEQA Guidelines require that projects be evaluated with respect to their contribution to the cumulative baseline conditions for criteria pollutants. The SCAB is considered the cumulative study area for air quality. Because the SCAB is currently classified as a state nonattainment area for ozone, PM₁₀, and PM_{2.5}, cumulative development consisting of the proposed Project along with other reasonably foreseeable future projects in the Basin could violate an air quality standard or contribute to an existing or projected air quality violation. However, based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (ROG, CO, NO_x, SO_x, PM₁₀, or PM_{2.5}) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.

As shown in Tables 3 and 4, the Project's construction emissions would not exceed SCAQMD's daily thresholds. Thus, because the proposed project's construction-period impact would be less than significant, the proposed project would not result in a significant cumulative impact, when considered with other past, present and reasonably foreseeable projects. Operational emissions associated with the proposed project, as shown in Table 4 would not exceed the SCAQMD's thresholds of significance for any criteria pollutants. Per SCAQMD's cumulative air quality impact methodology and because the proposed project's operational daily emissions impacts would be less than significant, the proposed Project would not result in a cumulatively considerable net increase in any nonattainment pollutants, and impacts would be less than significant.

4.1.3.3 Threshold C: *Would the Project expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors are populations that are more susceptible to the effects of air pollution than are the population at large. The SCAQMD identifies the following as sensitive receptors: residences, long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, churches, schools, playgrounds, childcare centers, and athletic facilities.

In an urbanized environment, air pollutant concentrations are usually most prominent along busy streets and at busy intersections. The primary source of potential air toxics associated with

construction of the proposed Project includes diesel particulates from trucks use and idling on the Project site.

Construction activities would be short-term and sensitive receptors would be exposed to air pollutants from construction emissions for short-term limited time during construction activities. Health risk is evaluated assuming a constant exposure to emissions of a 70-year lifetime, 24 hours a day, seven days a week. As the exposure to receptors would be short-term and limited during development activities, impacts from construction activities would be less than significant.

The proposed Project would result in new single-family residential land uses that may utilize the use of solvents, cleaners, and generate motor vehicle emissions, which are not anticipated to emit Toxic Air Contaminants (TAC) emissions in appreciable quantities.

Carbon monoxide (CO) concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions), particularly during peak commute hours and certain meteorological conditions. CO concentrations may reach unhealthy levels because of “hot spots” typically due to high traffic volume intersections.

The proposed Project would result in 2,047 vehicles trips per day. To minimize CO “hot spot” emissions 161 of these trips would occur during the a.m. peak hours and 215 would occur in the p.m. peak hours. The Traffic Impact Analysis (TIA) contained in Appendix D approximates 44,000 vehicles per hour at an intersection, which is the volume of peak hour traffic required to generate or contribute to a CO hotspot. In addition, the project would not result in an impact to a Congestion Management Plan location. Therefore, CO hotspots would not result from the proposed Project.

Daily-on site construction emissions for the Project were evaluated against SCAQMD's Localized Significance Threshold (LST) for a 5-acre site to determine whether the emissions would cause or contribute to adverse localized air quality impacts. The nearest sensitive receptor is approximately 100 feet from the Project site under construction; thus, the mass rate look-up table receptor distance of 82 feet is used to evaluate the potential localized air quality impacts associated with the peak day construction emissions from the project.

Table 5 identifies the daily unmitigated, localized on-site emissions that are estimated to occur during the project construction. As shown, the daily unmitigated emissions would exceed the applicable SCAQMD LST thresholds for PM₁₀ and PM_{2.5}.

Table 5 Unmitigated Localized Daily Construction Emissions (lbs/day)

Construction Season	NOx	CO	PM ₁₀	PM _{2.5}
Summer	52.3	23.5	20.9	12.6
Winter	52.3	23.5	20.9	12.6
SCAQMD Significance Threshold	270	1,746	14	8
Exceed Significance?	No	No	Yes	Yes

Mitigation Measure AQ-1 & AQ-2 will be implemented to provide additional requirements beyond Rule 403, which requires watering active sites at three times daily and implementation of Tier IV diesel engine standards. Mitigation Measure AQ-1 requires active areas to be watered

three times per day to keep soil moist enough so visible dust plumes (PM₁₀) are eliminated, covering disturbed areas, and requirements for vehicles to travel at a maximum of 25 mph on the Project site during construction activities. Mitigation Measure AQ-2 requires use of Tier IV diesel engine standards for construction operations, which reduces diesel emissions, a source of PM_{2.5}.

Table 6 Mitigated Localized Daily Construction Emissions (lbs/day)

Construction Season	NOx	CO	PM ₁₀	PM _{2.5}
Summer	2.0	20.9	2.8	1.6
Winter	2.0	20.9	2.8	1.6
SCAQMD Significance Threshold	270	1,746	14	8
Exceed Significance?	No	No	No	No

Mitigation Measure AQ-1

The construction plans and specifications shall state that in addition to standard Rule 403 requirements, the following measures shall be incorporated into project construction activities:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three times daily during dry weather; preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds within the Project site areas are reduced to 15 miles per hour or less.

Mitigation Measure AQ-2

Implementation of Tier IV Diesel Engine Standards shall be required for construction activities.

With implementation of Mitigation Measures AQ-1 and AQ-2, PM₁₀ and PM_{2.5} construction emissions would be reduced below the LST thresholds, as shown in Table 6. Impacts would thus be less than significant with mitigation.

4.1.3.4 Threshold D: *Would the Project result in other emissions (such as those leading to odors affecting a substantial number of people?)*

The proposed Project would develop single-family residential uses that do not involve the types of uses that would emit emissions including those leading to objectionable odors affecting a substantial number of people.

In addition, odors generated that could be generated by construction activities. However, such activities would be required to follow SCAQMD Rule 402, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort,

repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

During construction of the proposed project, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary and localized to the construction site; and therefore, they are not expected to affect a substantial number of people. Thus, impacts relating to both operational and construction activity odors would be less than significant.

4.1.4 Cultural Resources

4.1.4.1 Threshold A: *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

A Phase I Cultural Resource Assessment was conducted for the proposed Project. Records found at the South Central Coastal Information Center (SCCIC) in California State University, Fullerton identified five resources that have been mapped within or partially in the site. Two other reports demonstrated that 100 percent of the Project site has been previously inventoried along with 16 additional studies that covered areas within one mile of the proposed Project. These studies have addressed approximately 30 percent of the land within the search radius and have recorded 39 cultural resources.

Studies from 2017 noted two of the five historical resources could not be found and were considered destroyed. Therefore, these two resources would not be impacted by the Project. The remaining three historical resources do not appear to retain sufficient integrity to be considered eligible for inclusion in the California Register of Historical Resources (CRHR) and no evidence was detected to indicate that any of these resources have the potential to yield additional information important to history (Criterion 4). These areas are recommended in the Phase I Cultural Resources Assessment conducted by L&L as not eligible for the CRHR and not significant pursuant to CEQA. Additionally, the Phase I Cultural Resources Assessment conducted by L&L recommended these areas as not eligible as cultural resources under Section 16.32.060 of the City of Highland Municipal Code. The proposed Project will not lead to substantial adverse change to documented historic sites and no mitigation is required for these sites. However, mitigation is required to reduce the potential adverse impacts to historic age resources that may be encountered during ground-disturbing construction activities.

Mitigation Measure CR-1

The Project site has a high sensitivity for historic age resources and a moderate to low sensitivity for prehistoric resources. This is based on the intensive historic era use of the Project site and surrounding lands. To address this sensitivity, an archaeological monitor with at least 3 years of regional experience in archaeology shall be present for all ground-disturbing activities that occur within the proposed Project site (which includes, but is not limited to, tree/shrub removal and planting, clearing/ grubbing, grading, excavation, compaction, fence/gate removal and installation, drainage and irrigation removal and

installation, hardscape installation [benches, signage, boulders, walls seat walls, fountains, etc.], and archaeological work.) A sufficient number of archaeological monitors shall be present each workday to ensure that simultaneously occurring ground-disturbing activities receive thorough levels of monitoring coverage. A monitoring and treatment plan that is reflective of the Project mitigation ("Cultural Resources" and "Tribal Cultural Resources") shall be completed by the archaeologist and submitted to the Lead Agency for dissemination to the San Manuel Band of Mission Indians (SMBMI) Cultural Resources Department. Once the City and SMBMI review and agree to the plan, it shall be adopted by the Lead Agency – the plans must be adopted prior to issuance of a grading permits for the Project. Any and all findings will be subject to the protocol detailed within the monitoring and treatment plan.

Mitigation Measure CR-2

Per CR-1, an archaeologist will be present for any and all ground-disturbing activity. If a pre-contact or post-contact cultural resource is discovered during project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s) and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed. Representatives from the San Manuel Band of Mission Indians (SMBMI) Cultural Resources Department, the Archaeological Monitor/applicant, and the Lead Agency shall confer regarding treatment of the discovered resource, as detailed within the monitoring and treatment plan. A research design shall be developed and will include a plan to evaluate the resource for significance under CEQA criteria. The research design shall also acknowledge that, regardless of significance under CEQA, all pre-contact discoveries, as well as post-contact resources associated with the citrus industry shall be subject, if feasible, to avoidance and preservation in place as treatment.

Should any resources not be a candidate for avoidance or preservation in place, and full data recovery is necessary, the research design shall include a comprehensive discussion of resource processing, analysis, curation, and reporting protocols and obligations. All analysis shall be conducted in conference with the SMBMI Cultural Resources Department. All removed material shall be temporarily curated on site and a fully executed reburial agreement shall be developed with the SMBMI Cultural Resources Department. This agreement shall include measures and provisions to protect the future reburial area from any future impacts (vis a vis project plans, conservation/preservation easements, deed riders, etc.). Reburial shall not occur until all ground-disturbing activities associated with the Project have been completed, all monitoring has ceased, all cataloguing and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to Lead Agency, CHRIS, and the SMBMI Cultural Resources Department.

Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with the SMBMI Cultural Resources Department to identify an American Association of Museums (AAM)-accredited facility within San Bernardino County that can

accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the Project developer/applicant to pay for those fees.

All draft reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the Lead Agency and the SMBMI Cultural Resources Department for their review and comment. After approval from the City and SMBMI, the final reports are to be submitted to the local CHRIS Information Center, the Lead Agency, and the SMBMI Cultural Resources Department.

With implementation of Mitigation Measure (MM) CR-1 and MM CR-2, potential impacts would be less than significant.

4.1.4.2 Threshold B: *Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

No known archaeological resources pursuant to CEQA are located within the Project site. However, archaeological monitoring is recommended during Project construction because the Project site appears to have a high sensitivity for historic age resources and moderate to low sensitivity for prehistoric resources. With implementation of Mitigation Measure (MM) CR-1 and MM CR-2 mentioned previously, impacts would be less than significant.

4.1.4.3 Threshold C: *Would the Project disturb any human remains, including those interred outside of formal cemeteries?*

No human remains are known to exist within the Project site. However, should any human remains be uncovered during construction activities, implementation of the following MM CR-3 would reduce this potential impact to below a level of significance.

Mitigation Measure CR-3

The Lead Agency and the applicant/developer shall immediately contact the County Coroner and the San Manuel Band of Mission Indians (SMBMI) Cultural Resources Department in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the Native American Heritage Commission (NAHC) within 24 hours of the determination, as required by California Health and Safety Code § 7050.5 (c). The NAHC-identified Most Likely Descendant (MLD), shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and funerary objects shall be treated and disposed of with appropriate dignity. The MLD, Lead Agency, and landowner agree to discuss in good faith what constitutes "appropriate

dignity" as that term is used in the applicable statutes. The MLD shall complete its inspection and make recommendations within 48 hours of receiving notification from either the Developer or the NAHC, as required by California Public Resources Code § 5097.98.

Reburial of human remains and/or funerary objects (those artifacts associated with any human remains or funerary rites) shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The MLD in consultation with the landowner, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains and funerary objects. All parties are aware that the MLD may wish to rebury the human remains and associated funerary objects on or near the site of their discovery, in an area that shall not be subject to future subsurface disturbances. The applicant/developer/landowner should accommodate on-site reburial in a location mutually agreed upon by the Parties.

It is understood by the City and SMBMI that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r).

Therefore, no significant impacts related to human remains will be a result from the proposed Project with implementation of Mitigation Measure CR-3.

4.1.5 Energy

4.1.5.1 Threshold A: *Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

An Energy Analysis was prepared for the proposed Project. The California Emissions Estimator Model (CalEEMod) was used to generate a list of fuel consumption of construction equipment. Fuel rates were used according to the OFFROAD 2011 statewide data sets as well as the horsepower, usage hours, and load factors from CalEEMod as part of the proposed Project's air quality analysis.

Although the Project would result in the consumption of an estimated 272,397 gallons of diesel and 344,421 gallons of gasoline during construction, the Project is designed to balance the grading on site. This would substantially reduce the amount of potential haul trips associated with the import and export of soil for construction of the proposed Project, which in turn would reduce the amount of fuel required by the Project. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with local, state and federal regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during the Project's construction. Considering these reductions in transportation fuel use, the proposed

Project would not result in the wasteful and inefficient use of energy resources during construction and impacts would be less than significant.

During operations the proposed Project would consume natural gas for space heating, water heating, and cooking associated with the proposed residential land use. The natural gas consumption was estimated using CalEEMod default values to consume approximately 7,536,660 thousand British thermal units of natural gas per year.

During operations the proposed Project would use electricity for lighting, appliances, and other uses. Annual electricity demand was estimated using CalEEMod default values to be 1,901,510 kilowatt-hours (kWh) of electricity.

The proposed Project would result in a long-term increase in demand for electricity and natural gas. However, the Project would be designed according to the most recent standards of the California Code of Regulations. These measures would reduce inefficient, wasteful and unnecessary use of electricity or natural gas during operation of the Project and impacts would be less than significant.

Water used for both indoor and outdoor requires electricity for water treatment, conveyance, and distribution. The proposed Project is estimated to use approximately 13.22 million gallons of indoor water per year as well as 8.33 million gallons of outdoor water per year. This would result in a total of approximately 299,085 kWh per year of electricity for indoor and outdoor water treatment, conveyance, and distribution. All water fixtures would be required to be compliant with the California Green Building Standards Code, which would reduce the amount of water used by the Project. Energy demand related to wastewater treatment is accounted for in the energy consumption associated with the Project's water demand above. The proposed Project is not expected to result in wasteful or inefficient use of electricity for water or wastewater treatment or conveyance and impacts would be less than significant.

During operation of the proposed Project, vehicle trips would be generated. The proposed Project's specific land uses were modeled in CalEEMod using default vehicle trip generation rates with vehicle trips generated at approximately 6,830,784 Vehicle Miles Traveled (VMT). Based on a countywide average fuel consumption of 20.43 mpg, the Project would result in consumption of an estimated 334,351 gallons of fuel for transportation. Various federal and state regulations including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program would serve to reduce the Project's transportation fuel consumption progressively into the future. Therefore, the Project would be designed to avoid the wasteful and inefficient use of transportation fuel during operations and impacts would be less than significant.

4.1.5.2 Threshold B: *Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Same as threshold A above (4.1.5.1).

4.1.6 Geology and Soils

4.1.6.1 **Threshold A:** *Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) *rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;*

According to the Engineering Geology Investigation conducted for the Project site, the site does not lie within or immediately adjacent to an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. The closest Alquist-Priolo Earthquake Fault Zone is located approximately 3/4-mile northeast of the site associated with the San Andreas Fault. Due to the proximity of the site to the San Andreas Fault, strong ground motion associated with a large earthquake along this fault may occur at the site. In 1963 Fault "K" was mapped traversing in a northwest portion of the site. However, during the Engineering Geology Investigation no evidence of active faulting was observed associated to Fault "K". Due to the potential of tensional ground surface fracturing on the site as a result of differential response of geological materials across the suspected traces of Fault "K" in the event of a large nearby earthquake, subsidence, differential compaction, or seismic settlement, Mitigation Measure GEO-1 shall be implemented which requires the foundations and slabs of the proposed residences to be reinforced to resist tensional ground cracking. Additionally, the Project must follow the California Building Code (CBC) and to be designed and constructed to resist the effects of strong ground motion.

Mitigation Measure GEO-1

Due to the potential hazard of tensional ground surface fracturing on the site as a result of differential response of geological materials across the suspected traces of Fault "K" in the event of a large, nearby earthquake, subsidence, differential compaction, or seismic settlement, the foundations and slabs of the proposed residences shall be reinforced to resist tensional ground cracking.

Less than significant impacts would occur with implementation of Mitigation Measure GEO-1.

- ii) *strong seismic ground shaking;*

The Project site is located in a seismically active area of Southern California and will likely be subjected to very strong seismically related ground shaking over the anticipated life span of the Project. As previously stated above the Project must follow the California Building Code and design the structure to be resistant of effects of strong ground motion. This is due to Fault "K" mention above which will require Mitigation Measure GEO-1 to be implemented. Less than significant impacts would occur with implementation of Mitigation Measure GEO-1.

iii) *seismic-related ground failure, including liquefaction;*

Figure 6.3 of the City of Highland General Plan shows that the Proposed site is located within the High Liquefaction Susceptibility Area, which includes the southern portion. No evidence for spring activity or perched ground-water conditions was observed on or in the immediate vicinity of the site during the geologic field reconnaissance or on the aerial photographs reviewed.

Sediments on the site however were still considered a high potential for liquefaction based on 1) high groundwater, 2) sandy sedimentary deposits, 3) recent age of material, and 4) close proximity to an active fault. Damage from earthquake-induced ground failure associated with liquefaction could be high in buildings constructed on improperly engineered fills or saturated alluvial sediments that have not received adequate compaction or treatment in accordance with current building code requirements. Therefore, as previously stated, all structures on the Project site must follow recent California Building Code requirements, standard industry practices, and all recommendations for site preparation (including compaction and treatment) made by the Geotechnical Engineer shall be implemented according to Mitigation Measure GEO-2.

Mitigation Measure GEO-2

Due to the potential for liquefaction at the site the additional parameters of soil density, grain size distribution and exact depth to groundwater, a geotechnical engineer shall ascertain the final susceptibility of the site to liquefaction. A depth to groundwater of 10 feet from the ground surface shall be used for calculating the liquefaction potential of the site. The Geotechnical/Soils evaluation shall be submitted to the City with building plans for review and approval and all site preparation recommendations shall be implemented by the grading contractor. The final grading plan for the site shall be reviewed and approved by an engineering geologist prior to grading of the site and grading of the site should be evaluated by the engineering geologist by in-grading inspections.

With implementation of Mitigation Measure GEO-2, less than significant impacts would occur.

iv) *landslides?*

According to Figure 6.3 of the City of the Highland General Plan, a portion of the proposed site is susceptible to landslide. Per the Engineering Geology Investigation, no evidence for land sliding was observed on or in the immediate vicinity of the site, in the field or on the aerial photographs reviewed. The proposed site is relatively flat and gently sloping with no substantial hills, slopes nor drop offs. Due to the lack of significant topography, land sliding is not expected on the site. No mitigation measures are required.

4.1.6.2 Threshold B: *Would the Project result in substantial soil erosion or the loss of topsoil?*

This Project's future development of the property may result in minor soil erosion or loss of topsoil during construction activities from wind and water erosion. The City will condition the Project to submit grading plans and a Storm Water Pollution and Prevention Plan (SWPPP), as well as, be in conformity with the Water Quality Management Plan (WQMP) for post-

construction drainage. Less than significant impacts would occur, and no mitigation measures are required.

4.1.6.3 Threshold C: *Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

As outlined in Threshold A, due to the potential of tensional ground surface fracturing on the site as a result of differential response of geological materials across the suspected traces of Fault “K” in the event of a large nearby earthquake, subsidence, differential compaction, or seismic settlement, Mitigation Measure GEO-1 shall be implemented. The Project would also follow recent California Building Codes and to be designed and constructed to resist the effects of strong ground motion. Less than significant impacts would occur with implementation of Mitigation Measure GEO-1. As outlined in above in threshold A, due to the site’s potential for liquefaction implementation of Mitigation Measure GEO-2 is required to reduce potential impacts to less than significant.

4.1.6.4 Threshold D: *Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2001), creating substantial direct or indirect risks to life or property?*

The Project site is not located on known or mapped expansive soil. Structures within the site are required to be designed and constructed to in accordance with the most recent California Building Code requirements and standard industry practices. No mitigation measures are required.

4.1.6.5 Threshold E: *Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The proposed Project will connect to the local water and sewer delivery system; therefore, no impacts are expected. No mitigation measures are required.

4.1.6.6 Threshold F: *Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No paleontological resources or unique geologic features were identified within the Project Site. While no paleontological resources have currently been identified within the Project Site, there is still potential for the presence of paleontological resources to be uncovered during grading activities. With the monitoring of ground-disturbing activities from implementation of MM CR -1 and CR-2 mentioned in the Cultural Resource section, impacts would be less than significant.

4.1.7 Greenhouse Gas Emissions

4.1.7.1 Threshold A: *Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

An Air Quality and Greenhouse Gas Study was prepared for the proposed Project. Construction activities would be temporary but could contribute to global climate change

impacts. Construction activities would result in the emission of greenhouse gases (GHGs) from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers.

In 2008, the SCAQM identified greenhouse gas emissions thresholds for land use projects. The current interim SCAQMD thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
 - Residential and Commercial land use: 3,000 MTCO₂e per year
 - Industrial land use: 10,000 MTCO₂e per year
 - Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; or mixed use: 3,000 MTCO₂e per year
- Tier 4 has the following options:
 - Option 1: Reduce BAU emissions by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans
 - Option 4: 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SL/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The Tier 3 screening threshold uses the Executive Order S-3-05 year 2050 goal as its basis. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 ppm, thus stabilizing global climate.

Total estimated construction related GHG emissions for the proposed Project are shown in Table 7 below (page 48, Table 11 of the Air Quality and Greenhouse Gas Study). As shown, the total estimated unmitigated and mitigated GHG emissions during construction would equal approximately 460 MTCO₂e. This would equal approximately 15.3 MTCO₂e per year after amortization over 30 years per SCAQMD methodology.

Table 7 Estimated Total Construction-Related GHG Emissions

Emission Source	Estimated CO ₂ e Emissions
Total Construction Emissions	460
Annual Construction (Amortized over 30 years)	15.3

Notes: CO₂e = carbon dioxide equivalent; MT =metric tons; MT/yr = metric tons per year.

Area and indirect sources of GHG emissions associated with the proposed Project would primarily result from electricity and natural gas consumption, water transport (the energy used to pump water), and solid waste generation. GHG emissions from electricity consumed within the Project site would be generated off site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. In addition, the Project would generate GHG emissions from motor vehicle trips.

As shown in Table 8 below (page 49, Table 12 of the Air Quality and Greenhouse Gas Study), the proposed Project's annual GHG emission generation would be approximately 4,326.3 MTCO₂e per year, which would exceed SCAQMD's Tier 3 threshold of 3,500 MTCO₂e per year for residential land uses. Vehicular emissions related to operations would consists of 70.4 percent of these emissions; and energy consumption from heating, cooling, lighting, and appliance usage would generate 23.4 percent of these emissions.

Table 8 Estimated Construction and Operations-Related GHG Emissions

Emission Source	Estimated Emissions CO₂e (MT/yr)
Construction	15.3
Annual Mitigated Construction (Amortized over 30 years)	
Project Operations	
Area Sources	45.19
Energy Consumption	1,012.6
Mobile Sources	3,046.0
Solid Waste	119.8
Water Consumption	102.7
Total (Construction and Operational Emissions)	4,326.3
Threshold	3,500
Exceed Threshold?	Yes
Notes: CO ₂ e= carbon dioxide equivalent; MT/yr = metric tons per year; %=percent.	

Although the Project would exceed SCAQMD's Tier 3 threshold of 3,500 MTCO₂e per year for residential land uses, because the proposed Project would be consistent with the Regional Greenhouse Gas Reduction Plan and would meet the Tier 2 threshold, as outlined in more detail below, impacts would be less than significant. The proposed Project would meet the Tier 2 threshold of being consistent with the applicable greenhouse gas reduction plan. The following project design features of the proposed Project are consistent with the Regional Greenhouse Gas Reduction Plan and include: incorporation of passive solar design techniques including building orientation, energy-saving materials, roof overhangs, and window and door placement; participate in incentive programs for incorporation of solar and photovoltaic panels (active solar); provision of secure space for bicycle storage; use of native and drought-tolerant landscaping (xeriscaping) and drip irrigation to conserve water resources.

In addition, the Project includes design features that are consistent with the Regional Greenhouse Gas Reduction Plan, and the City of Highland would require the Project to meet the performance standard of 29 percent reduction below projected Business as Usual (BAU) emissions for new projects. The Regional Greenhouse Gas Reduction Plan anticipates these measures to include energy-efficient appliances and alternative energy sources, water conservation, landscaping, and site design, which are included in the proposed Project, as described above. Implementation of the performance standards for new development is ensured during the City's approval and development permitting process. Thus, the proposed Project would be consistent with the Regional Greenhouse Gas Reduction Plan and would meet the Tier 2 threshold. Therefore, impacts related to the generation of GHGs would be less than significant.

The City of Highland is a participant in the SANBAG Regional Greenhouse Gas Reduction Plan. The specific goals and actions included in the SANBAG Regional Greenhouse Gas Reduction Plan that are applicable to the proposed Project include those pertaining to energy and water use reduction, promotion of green building measures, waste reduction, and reduction in vehicle miles traveled. The proposed Project would be required to include all mandatory green building measures for new developments under the CALGreen Code, as required by the City's Municipal Code Chapter 15.38, which requires that the new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant emitting finish materials. In addition, the code requires that all landscaping comply with water efficient landscaping requirements. Furthermore, implementation of CALGreen compliant building and appliance standards would result in water, energy, and construction waste reductions for the proposed Project.

The Project includes design features that are consistent with the Regional Greenhouse Gas Reduction Plan, and the City of Highland would require the Project to meet the performance standard of 29 percent reduction below projected BAU emissions for new projects. Thus, the proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for reducing the emissions of greenhouse gases, and impacts would be less than significant.

4.1.7.2 Threshold B: *Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Same as Threshold A above (4.1.7.1).

4.1.8 Hazards and Hazardous Materials

4.1.8.1 Threshold A: *Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

While grading and construction activities of the proposed Project may involve the limited transport, storage, use or disposal of hazardous materials, such as demolition and removal of material on site, and in the fueling/servicing of construction equipment on site, these activities would be short-term or one-time in nature and would be subject to Federal, State, and local

health and safety requirements. Long-term use of the project consists of residential use and would not involve the routine transport, use, and disposal of hazardous materials. Therefore, impacts would be less than significant. No mitigation measures are required.

4.1.8.2 Threshold B: *Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

No significant quantities of hazardous materials are known to be located on the site. Future development on the site of single-family homes is not an activity or use typically associated with hazardous materials and therefore none are expected to be released. No mitigation measures are required.

4.1.8.3 Threshold C: *Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The proposed project would permit future development of single-family residences beyond a quarter mile of a school. Therefore, the proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials in the proximity of a school. Any hazardous materials on site would be those typically associated with residential developments including household cleaners, lawn care chemicals, and automotive care products. None of these hazardous materials would pose a hazard to a school. No mitigation measures are required.

4.1.8.4 Threshold D: *Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The Site is not known to have been listed as a Site with Hazardous Materials. No mitigation measures are required.

4.1.8.5 Threshold E: *For a plan located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or private use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The southern portion of the proposed Project site is located approximately 1.5 miles away from the western extent of the Redlands Municipal Airport runway (the closest to the Project site) and approximately 2.8 miles from the eastern extent of the San Bernardino International runway. There are no private airports near the project site. Per the General Plan Figure 6-7, *San Bernardino International Airport Influence Area (AIA)/Redlands Municipal Airport Compatibility Map*, the Project site is located just outside of the San Bernardino International Airport Influence Area and outside of the Redlands Municipal Airport Influence Area while the southern portion of the Project site is located within the Redlands Municipal Airport Area of Special Compatibility Concern. The San Bernardino International Airport does not have an adopted Airport Land Use Compatibility Plan (ALUCP).

Policy 2.2.4 of the Redlands Municipal ALUCP states:

Areas of Special Compatibility Concern – The purpose of this designation is to take note of the 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 airport activity.

(a) Notation of areas of special compatibility concern is limited 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.

The Redlands ALUCP, Section 1.8 *Relationship to Other Local Agencies*, Paragraph 1.8.4 indicates:

Actions Requiring Notification by City of Highland – The City of Highland shall notify the City of Redlands regarding any of the following types of actions which have the potential to affect or be affected by Redlands Municipal Airport operations:

- a. Any proposal for construction or alteration of an object which would be located within 20,000 feet of the Redlands Municipal Airport runway and which would require notice to the Federal Aviation Administration in accordance with Federal Aviation Regulations Part 77, Paragraph 77.13.*
- b. Any proposal for construction of a public-use or special-use heliport or airport which would be located within 20,000 feet of the Redlands Municipal Airport runway and which would require a permit from the California Department of Transportation.*

The notification requirements in Paragraph 1.8.4 above are for any proposal for construction located within 20,000 feet (approximately 3.8 miles) of the runway. The proposed Project involves construction of single-family residences within 20,000 feet of the runway; therefore, with notification from the City of Highland to the City of Redlands regarding this Project, the Project is in compliance with the Redlands Municipal ALUCP. It is the City's policy to have notices & disclosures included on the map and provided to all potential homebuyers (Mitigation Measure HAZ-1).

Mitigation Measure HAZ-1

The City will condition the Project to provide notices & disclosures on the map that the southern portion of the site is located in the Redlands Municipal Airport Area of Special Compatibility Concern, and notice shall be given to all potential home buyers that the property is in Area of Special Compatibility Concern that is routinely overflown by aircraft approaching and/or departing the Redlands Municipal Airport.

Less than significant impacts would occur with implementation of Mitigation Measure HAZ-1.

4.1.8.6 Threshold F: *Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The primary access to the Project site is from Greenspot Rd. and is within Fire Severity Zone II. Internally the roadways connected to the site are looped together and a total of three ingress/egress points can be taken out of the neighborhood. Development of the site would not involve street closures during construction nor operations and would not impair implementation or interfere with an adopted emergency response plan within the City. No mitigation measures are required.

4.1.8.7 Threshold G: *Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

The proposed Project is located within the limits of Fire Severity Zone II and adjacent to existing undeveloped land and natural vegetation. When a residential development plan is submitted, design and construction methods will be required to be in compliance with all current building and fire codes and regulations designed for safe development in Fire Severity Zones. With development in compliance with these building and fire code standards, no persons or structures will be placed at significant risk of loss, injury or death involving wildland fires. Therefore, no mitigation measures are required.

4.1.9 Hydrology and Water Quality

4.1.9.1 Threshold A: *Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

This Project would not violate water or waste discharge requirements. Development on the Project site will be required, as City Conditions of Approval to comply with Storm Water Regulations for new developments. Construction related impacts are regulated by a Storm Water Pollution Prevention Plan (SWPPP), while long-term impacts generated by development are regulated through the project-specific Water Quality Management Plan (WQMP) for City compliance. Compliance with existing regulations and standard conditions reduce the opportunity for violations. No mitigation measures are required.

4.1.9.2 Threshold B: *Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Water service would be provided to the Project by East Valley Water District (EVWD), which provides water to an approximately 30 square mile area in San Bernardino County. The EVWD derives its water sources from local groundwater and surface sources and supplements these sources with imported water from the San Bernardino Valley Municipal Water District (SBVMWD). The Urban Water Management Planning (UWMP) Act of 1983 requires urban water suppliers servicing 3,000 or more connections or supplying more than 3,000 acre-feet (AF) of water annually, to prepare an UWMP. For wholesale water agencies (like SBVMWD), without retail connections, the requirement is triggered by the annual delivery of 3,000 AF or

more. The 2015 San Bernardino Valley Regional Urban Water Management Plan (RUWMP) is intended to function as a planning tool to guide broad-perspective decision making by the management of water suppliers. SBVMWD and the retail water purveyors wish to deliver a sufficient, reliable, and high-quality water supply for their customers, even during dry periods. Based on conservative water supply and demand assumptions over the next 25 years, in combination with conservation of non-essential demand during certain dry years, the RUWMP successfully achieves this goal.

The groundwater basins utilized by the RUWMP agencies includes the San Bernardino Basin Area (SBBA), which encompasses several basins, including the Bunker Hill and Lytle Creek Basins. The proposed Project would not result in residential development beyond the land use designation in the 2006 General Plan and therefore would not exceed planned or anticipated growth in the region. With implementation of the 2015 RUWMP by EVWD, the proposed Project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the SBBA. Also, San Bernardino Valley Water Conservation District recharges groundwater in spreading basins located to the east of the Project site; none are located on site. The Project site does not currently serve as a significant location for groundwater recharge. Development of the Project site will increase the extent of impervious surfaces however, it will not substantially interfere with groundwater recharge. Therefore, significant impacts would not occur from the implementation of the Project. No mitigation measures are required.

4.1.9.3 Threshold C: *Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner, which would;*

There are no streams or rivers located within the Project site. Although, the site will be graded and improved the proposed Project would not significantly alter drainage patterns currently developed on or off the Site. As outlined in the Water Quality Management Plan (WQMP), stormwater is generally conveyed through storm drainpipes into a proposed water quality infiltration basin located in the southwest portion of the Project site. Impacts would be less than significant. No mitigation measures are required.

i) result in substantial erosion or siltation on- or off-site?

With the Implementation of the WQMP, the proposed development will not increase off-site runoff or result in substantial erosion or siltation on or off site or substantially increase the rate or amount of surface runoff in a manner which would cause flooding on site or off site. This is due to stormwater being conveyed through storm drainpipes. The area to the south of the Project site is not developed and is designated as open space. Stormwater runoff from the site generally sheet flows in a north to south direction. The area to the south is in the historic floodplain of the Santa Ana River and its tributaries, including Plunge Creek. There are no planned stormwater channels or underground storm drains for the area south of the Project site and therefore the project would not exceed the capacity of existing or planned stormwater drainage systems. With implementation of the WQMP, the Project would not provide substantial

additional sources of polluted runoff. Impacts would be less than significant. No mitigation measures are required.

- ii) *substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?*

Same as Threshold C i).

- iii) *create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Same as Threshold C ii).

4.1.9.4 Threshold D: *Is the Project in flood hazard, tsunami, or seiche zones? Does it risk release of pollutants due to project inundation?*

The Project site is within the 100-year flood hazard area and is located in Zone AE of the Flood Insurance Rate Map (FIRM) Panel 8706H OF 9400, dated August 28, 2008. Zone AE Areas are determined to be within the 1 percent annual chance floodplains. The Project includes a proposed floodwall that runs along a portion of the southeastern boundary adjacent to lots 85-89 and the Plunge Creek Channel, and along a portion of the southern boundary, along lots 79-85, the East Valley Water District property (APN 1210-211-24 that is not a part of TTM 17604), and lot E with the proposed infiltration basin. The proposed flood wall would vary in height, but based on the design included in the WQMP, would typically be 9 feet tall above the existing ground level and the height would be at a minimum of 3 inches above the 100-year water surface elevation. The Project's developer is currently in the process of processing a CLOMR (Conditional Letter of Map Revision) with FEMA (Federal Emergency Management Agency). A CLOMR is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map, it indicates whether the project, if built as proposed, would be recognized by FEMA. Building permits cannot be issued based on a CLOMR, because a CLOMR does not change the National Flood Insurance Program (NFIP) map. Once a project is completed, the community must request a revision to the Flood Insurance Rate Map (FIRM) to reflect the project. Potential impacts from flooding are less than significant with implementation of Mitigation Measure HYDRO-1.

The Project site is located within the Seven Oaks Dam inundation area. The Dam was constructed to resist an earthquake measuring 9.0 on the Richter scale with any point able to sustain a displacement of four feet without causing any overall structural damage; therefore, impacts from flooding as a result of failure of the dam is remote and considered less than significant. No seiche can occur due to no such water storage facilities in or near the site. No tsunamis are anticipated due to the distance from ocean waves. Therefore, the proposed Project is not anticipated to release pollutants due to inundation from tsunami or seiche.

Mitigation Measure HYDRO-1

The City will condition the Project to provide notices & disclosures to all potential home buyers that the property is within the 100-year flood hazard area, in Zone AE of the Flood Insurance Rate Map (FIRM), and the purchase of flood insurance is required. Mandatory flood insurance purchase requirements and floodplain management standards apply until the National Insurance Program (NFIP) map for the project area is revised and it is no longer in the 100-year flood hazard area.

With compliance with the WQMP and Mitigation Measure HYDRO-1 potential impacts from flooding and release of pollutants is reduced to less than significant levels.

4.1.9.5 Threshold E: *Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As outlined in Threshold A and B above, the proposed Project is not anticipated to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No mitigation measures are required.

4.1.10 Land Use and Planning**4.1.10.1 Threshold A:** *Does the Project Physically divide an established community?*

The proposed Project would result in the conversion of vacant land to residential uses. There are no existing residences or established community at the Project site. This Project would include the development of residential units and associated infrastructure consistent with the City's Development Code and General Plan. The proposed Project will not physically divide an established community. No mitigation measures are required.

4.1.10.2 Threshold B: *Will the Project cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

This Project would result in the conversion of vacant land to residential uses. The General Plan Land Use Designation for the site is Planned Development/ Low Density Residential (PD/LDR) which limits uses to single-family detached residential, and mobile homes with a maximum intensity of six dwelling units per 1.0 acre. The existing zoning for the site is PD/R-1 Single-Family Residential which allows for small lot single-family detached and mobile homes parks and subdivisions at a maximum allowable density of six dwelling units per gross acre. The proposed development proposes 203 single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres that is within the allowable intensity. Therefore, the proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. No mitigation measures are required.

4.1.11 Mineral Resources

4.1.11.1 Threshold A: *Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

The proposed Project is located within a Mineral Resource Zone 2 (MRZ 2). Category 2 indicates that significant deposits are likely to be present. More than half of the City is underlain by MRZ-2 rated mineral resources. The General Plan provides for areas south of the Project site within the Santa Ana River Wash as Open Space which allows for mining of sand and gravel in MRZ 1. Development of the Project site would not result in a less than significant loss of land with potential sand and gravel resources. There are no other known mineral resource or important mineral resource recovery site within the Project site. No mitigation measures are required.

4.1.11.2 Threshold B: *Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Same as Threshold A above (4.1.11.1).

4.1.12 Noise

4.1.12.1 Threshold A: *Would the Project cause a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The loudest construction noise would occur during the excavation and grading activities. Use of grading equipment generates noise levels of approximately 85 dBA at a distance of 50 feet; at a distance of 100 feet the noise would attenuate to approximately 79 dBA. A Noise Study was completed for the Project; the closest sensitive receptors to the Project site and used in the analysis would be the adjacent single-family residences approximately 100 feet to the north and west. The loudest construction related exterior noise would be approximately 79 dBA Leq at this receptor (100 feet from the site) when the loudest equipment is used.

However, per the City's Municipal Code, because the Project site is not adjacent to residential uses, construction noise is exempt as long as construction activities do not commence prior to 7:00 a.m. and end no later than 7:00 p.m. Monday through Saturday with no construction activities performed during city or federal observed holidays. The proposed Project would not involve the need for construction during these hours, and the construction activities related to the Project would be consistent with the City's Municipal Code. Thus, the proposed Project would be in compliance with the City's construction related noise standards, and impacts would be less than significant.

With respect to operational noise levels, the City has established exterior noise standards. The exterior noise standards are 60 dBA Community Noise Equivalent Level (CNEL) during the daytime and 55 dBA during the nighttime for residential land uses. The Project would also cause

an increase in vehicle traffic resulting from the 2,047 daily trips to the Project site. To evaluate the future traffic noise environment in the Project area, the future traffic noise levels were estimated based on future traffic volumes provided in the Project's traffic study using the FHWA's TNM 2.5 model. As described in the Noise Study, Section 3.1, Noise Criteria, a significant impact related to a substantial increase in noise would occur if the Project results in an increase of 5 dBA, which would be readily noticeable.

Existing noise levels at sensitive receptors in the Project area range from 48.9 dBA to 68.3 dBA. Traffic resulting from the proposed Project would increase noise levels to a maximum of 0.5 dBA. Because the project-related increase in noise is less than the 5 dBA threshold, noise impacts would be less than significant.

Once the proposed residences are operational, noise levels generated at the Project site would occur from new stationary equipment such as heating, ventilation, and air conditioning (HVAC) units that would be installed for the building. Although the operation of this equipment would generate noise, the design of these on-site HVAC units and exhaust fans would be required to comply with the noise limit regulations of the City's Noise Element that does not allow exterior noise to exceed 55 dBA CNEL between 10:00 p.m. and 7:00 a.m., and 60 dBA CNEL between 7:00 a.m. and 10:00 p.m. Meeting these exterior standards would also meet the City's interior noise standards with implementation of standard construction, which would be required by the City. Therefore, impacts related to generation of noise in excess of standards would not occur from operation of the proposed Project.

Per the Wash Plan DEIS/SEIR (Executive Summary page ES-7), "Construction noise and ground borne vibration from aggregate mining would not exceed standards at nearby sensitive receptors. Aggregate mining operations would not generate noise from mobile or stationary sources that would exceed standards and impacts on sensitive receptors are less than significant."

4.1.12.2 Threshold B: *Would the Project cause a Generation of excessive ground borne vibration or ground borne noise levels?*

Construction activities for the Project would include excavation and grading activities, which has the potential to generate ground borne vibration. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Site ground vibrations from construction activities very rarely reach the levels that can damage structures, but they can be perceived in the audible range and be felt in buildings very close to a construction site.

Vibration velocities could range from approximately 0.003 to 0.089 inch-per-second PPV at 25 feet from the source activity, depending on the type of construction equipment in use. For the purpose of this analysis, the vibration level for a large bulldozer provided in Table 9 was used to evaluate vibration source levels at the nearest sensitive receptor from construction activity. In

comparison to the Caltrans vibration criteria, vibration impacts from construction activities would not exceed the criteria.

Table 9 Vibration Source Levels for Construction Equipment at 25 Feet

Equipment	PPV (in/sec) at 25 Feet	PPV (in/sec) at 50 Feet	PPV (in/sec) at 100 Feet
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Jackhammer	0.035	0.012	0.004
Small Bulldozer	0.003	0.001	<0.000
SOURCE: FTA, 2006			

As described above in Threshold A, the closest sensitive uses to the Project site are the residences, which are modern structures that are located 100 feet away. At this distance, the maximum vibration of 0.011 in/sec PPV is estimated to occur during construction. Table 9 shows that the vibration levels generated would be below levels that could create structural damage to modern buildings (0.5 in/sec PPV), and below the strongly perceptible level for human response (0.9 in/sec PPV). Thus, vibration at 100 feet away from construction activity would be less than significant, and construction of the Project would not generate excessive generation of ground-borne vibration.

The proposed residential uses do not involve activities or operation of stationary or mobile equipment that would result in high vibration levels, which are more typical for large industrial projects that employ heavy machinery. No sources of “excessive” ground borne vibration or noise levels are anticipated during project operations. Less than significant impacts would occur. No mitigation measures are required.

4.1.12.3 Threshold C: *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

There are no private airports or airstrips in the vicinity of this Project site. Per the City of Highland General Plan Figure 6-7, *San Bernardino International Airport Influence Area (AIA)/Redlands Municipal Airport Compatibility Map*, the Project site is located just outside of the San Bernardino International Airport Influence Area and outside of the Redlands Municipal Airport Influence Area while the southern portion of the Project site is located within the Redlands Municipal Airport Area of Special Compatibility Concern. The San Bernardino International Airport does not have an adopted Airport Land Use Compatibility Plan (ALUCP) and the Project site is not within 2 miles of the San Bernardino International Airport. As outlined above in Hazards and Hazardous Materials, the proposed Project involves construction of single-family residences within 20,000 feet of the Redlands Municipal Airport runway; therefore, with notification from the City of Highland to the City of Redlands regarding this Project, the Project is in compliance with the noticing requirements of the Redlands Municipal ALUCP. It is the City’s policy to have notices & disclosures included on the map and provided to all potential

homebuyers. Less than significant impacts would occur with implementation of Mitigation Measure HAZ-1 mentioned in the Hazards and Hazardous Materials Section (4.1.8).

4.1.13 Population and Housing

4.1.13.1 Threshold A: *Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The proposed development proposes 203 lots for single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres that is within the allowable intensity. Therefore, the proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. Thus, development potential is limited to these parameters and the proposed Project's population projection will be within those planned for within the City's General Plan and is not considered significant. No mitigation measures are required.

4.1.13.2 Threshold B: *Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed Project site is currently vacant thus the proposed Project does not have the potential to displace people or existing housing. No impacts to housing would occur. No mitigation measures are required.

4.1.14 Public Services

4.1.14.1 Threshold A: *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

i. Fire protection?

Fire suppression, prevention, and medical services are critical to the protection of people, property, and the natural environment. CalFire provides fire protection and emergency medical services to the City of Highland through a cooperative agreement. The City has three fire stations: Station 541 located at 26974 Base Line; Station 542 located at 29507 Base Line; and Station 543 located at 7469 Sterling Avenue. The proposed project will be served by CalFire, specifically Station 2 at 29507 Baseline Street, Highland, CA 92346. Project related fire protection demand impacts are mitigated through the mandatory payment of Development Impact Fees (DIF), and construction of the new residences in accordance with current Uniform Building and Fire Code requirements. Based on these findings and requirements, the proposed project is not forecast to cause or contribute to significant new demand for fire protection services. The Project will have less than significant impacts on Fire protection. No mitigation measures are required.

ii. Police protection?

The protection of City's residents, visitors, businesses, and property from crime depends on the adequate provisions of law enforcement services, supporting facilities, and prevention strategies. The City of Highland contracts with the San Bernardino County Sheriff's Department for its law enforcement and police services. The project will add incrementally to the existing demand for law enforcement services, but the City recently installed a new Department station and does not anticipate the need for new facilities in the immediate future. Also, this incremental demand is offset through the mandatory payment of DIF for law enforcement protection services. Impacts from development of the Project on Police protection is less than significant. No mitigation measures are required.

iii. Schools?

The proposed Project is located within the service boundaries of the Redlands Unified School District. School mitigation fees are required to be paid to the Redlands Unified School District for every unit constructed in the Project. Through payment of the mandatory School Mitigation Fee, implementation of the proposed Project would have a less than significant impact to schools. No mitigation measures are required.

iv. Parks?

The City's Community Center and Park is located to the west on Central Avenue just north of 5th Street. Both of the facilities were constructed within the past 10 years. The YMCA of the East Valley currently provides recreation programs to residents. It is not anticipated that the residents of the Project Site would affect the YMCA services.

A second park, Aurantia Park, is located on Greenspot Road, approximately one-half mile to the east of the Project site. This ten-acre Park has a combination of natural habitat, orange grove, tot lot, and a dog park.

The City has a Joint Use Agreement with the Redlands Unified School District to utilize the sports fields and recreation amenities at the combined facilities of Highland Grove Elementary and Beattie Middle Schools. These fields include open grass areas, baseball fields, basketball courts, swings, slides, picnic benches and water fountains. It is located in proximity to the project on the west of Orange Street and north of Greenspot Road.

These parks will serve as an amenities to the proposed future residents of the proposed Project. The project itself will construct a pocket park with lawn area, shade structure, picnic benches, tot lot and shade. Park impacts from the project would be less than significant. No mitigation measures are required.

v. Other public facilities?

The Sam J. Racadio Library and Environmental Learning Center is located to the west on Central Avenue just north of 5th Street. The facility was constructed in 2008 and is the only such facility in the City. The County of San Bernardino currently operates the facility and is part of the County library system. The facility was planned to accommodate the future growth of the City's east end and therefore, the proposed Project would not affect the City's ability to provide library

services to its residents. Impacts would be less than significant, and no mitigation measures are required.

4.1.15 Transportation

4.1.15.1 *Threshold C: Would the Project Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The proposed Project would include the development of single-family homes on property adjacent to an existing and improved street system designed in accordance with City standards. Access to the Project site is provided from Greenspot Road, designated a Major Highway in the General Plan Circulation Element (Figure 3-2 Roadway Network), a four-lane 80-foot roadway curb-to-curb (including a 12-foot median). The proposed Project does not include any geometric changes to Greenspot Road. A new signal and crosswalks will be installed at the Project's main entrance at Gold Buckle Road on Greenspot Road for safe ingress and egress from the site. There will be no impact thus no mitigation measures are required.

4.1.15.2 *Threshold D: Would the Project result in inadequate emergency access?*

The proposed Project site is adjacent to an existing roadway with full emergency ingress and egress off of Greenspot Road, a major highway, that are considered acceptable for emergency access. No mitigation measures are required.

4.1.16 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

4.1.16.1 *Threshold A: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

Consultation was initiated by the City of Highland as lead agency with a letter dated February 23, 2016 to the following tribes: San Manuel Band of Mission Indians (SMBMI), Soboba Band of Luiseño Indians, and Gabrieleño Band of Mission Indians – Kizh Nation.

The City provided the Phase I Cultural Resources Assessment, dated December 11, 2017 to SMBMI via email on September 27, 2018. SMBMI responded via email on October 1, 2018 indicating "In reviewing the cultural resources report, SMBMI noted that there are historic resources that exist within the project area that overlap with SMBMI's historic presence in the area. The San Manuel Reservation was established in 1891, though Serrano men were working in the citrus industry in the area both before and after that date. Highland in particular contained a great deal of Serrano labor, given its proximity to the reservation, and consequently this project area is quite sensitive. Should there be any feasibility in avoiding the resources on the surface of the site, SMBMI would prefer that option. However, if avoidance is not feasible, the

next option would be collection of artifacts and reburial in a place that will be protected from future disturbance. Additionally, SMBMI requests an archaeologist be on site during all ground-disturbing activity to ensure any additional resources are treated in the same way. Please see the attached MM language for the Cultural Resources and Tribal Resources sections for the City's use..."

The Mitigation Measure language that was provided in the attachment from SMBMI were incorporated as mitigation measures CR-1, CR-2, and CR-3 mentioned in the Cultural Resources. Implementation of mitigation measures CR-1, CR-2, and CR-3 would reduce potential impacts to Tribal Cultural Resources to less than significant levels.

The Soboba Band of Luiseño Indians provided a response letter dated March 22, 2016 indicating "The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project(s) has been assessed through our Cultural Resources Department. At this time the Soboba Band does not have any specific concerns regarding known cultural resources in the specified areas that the project encompasses but does request that the appropriate consultation continue to take place between concerned tribes, project proponents, and local agencies." "Also, working in and around traditional use areas intensifies the possibility of encountering cultural resources during any future construction/excavation phases that may take place. For this reason, the Soboba Band of Luiseño Indians requests that approved Native American Monitor(s) be present during any future ground-disturbing proceedings, including surveys and archaeological testing, associated with the project. The Soboba Band wishes to defer to the San Manuel Band of Mission Indians, who are in closer proximity to the Project."

The Gabrieleño Band of Mission Indians – Kizh Nation provided a response letter dated March 7, 2016 indicating "Due to the project location and the high sensitivity of the area location, we would like to request one of our certified Native American Monitors to be on the site during any and all ground disturbances to protect any cultural resources which may be effected during construction development." "While the property may be located in an area that has been previously developed, numerous examples can be shared to show that there still is a possibility that unknown, yet significant, cultural resources will be encountered during ground disturbance activities. Please note, if they haven't been listed with the NAHC [Native American Heritage Commission], it doesn't mean that they aren't there. Not everyone reports what they know."

4.1.16.2 Threshold B: *Is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Same a Threshold A above.

4.1.17 Utilities

4.1.17.1 Threshold A: *Will the Project require or result in the relocation or construction of new or expanded water, wastewater, or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The proposed Project is located directly adjacent to Greenspot Road. There are existing water, wastewater, electric power, natural gas, and telecommunication facilities in the Greenspot Road public right-of-way. The proposed Project will include the construction of connections to these existing utilities along Greenspot Road and will not require or result in the relocation or construction of any other new or expanded facilities which would cause significant environmental effects. As outlined above in Section 10 Hydrology and Water Quality, the site will be graded and improved the proposed Project would not significantly alter drainage patterns currently developed on or off the Site. As outlined in the WQMP, stormwater is generally conveyed through storm drainpipes into a proposed water quality infiltration basin located in the southwest portion of the Project site. No new off-site stormwater drainage facilities are required to be constructed or upgraded. Potential impacts are less than significant. No mitigation measures are required.

4.1.17.2 Threshold B: *Will the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

East Valley Water District (EVWD) will provide water and wastewater (sewer) collection services to the Project for domestic, fire protection, and sanitary sewer purposed, as outlined in a Will Serve Letter dated January 29, 2019. According to EVWD, the wastewater service provider (SBMWD) has adequate capacity to serve the development. As previously mentioned the EVWD devise its water sources from local groundwater and surface sources and supplements these sources with imported water from the San Bernardino Valley Municipal Water District (SBVMWD). The Urban Water Management Planning Act of 1983 requires urban water suppliers servicing 3,000 or more connections or supplying more than 3,000 acre-feet (AF) of water annually, to prepare an UWMP. For wholesale water agencies (like SBVMWD), without retail connections, the requirement is triggered by the annual delivery of 3,000 AF or more. The RUWMP is intended to function as a planning tool to guide broad-perspective decision making by the management of water suppliers. SBVMWD and the retail water purveyors wish to deliver a sufficient, reliable, and high-quality water supply for their customers, even during dry periods. Based on conservative water supply and demand assumptions over the next 25 years, in combination with conservation of non-essential demand during certain dry years, the San Bernardino Valley Regional Urban Water Management Plan (RUWMP) successfully achieves this goal. (2015 RUWMP)

The sewerage system would have adequate capacity to serve the proposed residential development. EVWD's Sewer System Management Plan (SSMP) outlines the standards for operation and maintenance of the sewer collection system, improvements for reliable service

capacity now and in the future, and compliance with the State Water Resources Control Board (SWRCB) adopted *Order No. 2006-0003, Statewide General Waste Discharge Requirements (WERs) for Sanitary Sewer Systems*. EVWD has existing water and sewer lines within the Greenspot Road right-of-way to adequately provide services to the proposed Project. EVWD is currently constructing a waste water treatment plant, Sterling Natural Resources Center, that will provide additional sewer capacity to its operations in the area. No additional facilities would be required to serve water to or handle the wastewater flows from the proposed development. No mitigation measures are required.

4.1.17.3 Threshold C: *Will the Project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Same as Threshold B above.

4.1.17.4 Threshold D: *Will the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

The proposed Project is served by the San Timoteo Sanitary Landfill in Redlands, California. According to the California Department of Resources Recycling and Recovery (CalRecycle), over 66 percent of the San Timoteo Sanitary Landfill's 20,400,000 cubic yard capacity has been used. With an estimated waste generation rate of approximately 12.23 pounds of waste per day per household, in accordance with the California Integrated Waste Management Board, the proposed Project is forecast to generate approximately 2,483 pounds (lbs) of waste per day, or approximately 453 tons per year. Thus, the San Timoteo Sanitary Landfill has the capacity to accept waste from the proposed Project.

The proposed Project is subject to Assembly Bill 1327, Chapter 18, Solid Waste Reuse and Recycling Access Act of 1991 (Act). This Act requires that adequate areas be provided for collecting and loading recyclable materials such as paper products, glass, and other recyclables. The Project must conform to the City's requirements to ensure compliance with this Act. Based on these factors, it is anticipated that the proposed Project would have a less than significant impact related to solid waste. No mitigation measures are required.

4.1.17.5 Threshold E: *Will the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The proposed Project is subject to Assembly Bill 1327, Chapter 18, Solid Waste Reuse and Recycling Access Act of 1991 (Act). This Act requires that adequate areas be provided for collecting and loading recyclable materials such as paper products, glass, and other recyclables. The project must conform to the City's requirements to ensure compliance with this Act. Based on these factors, it is anticipated that the proposed Project would have a less than significant impact from solid waste resources. No mitigation measures are required.

4.1.18 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

4.1.18.1 Threshold A: *Will the Project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The primary access to the Project site is from Greenspot Rd. The Project site is located within Fire Severity Zone II (General Plan Safety Element Figure 6-6, Fire Hazards and Safety Overlay Areas). Internally the roadways connected to the site are looped together and a total of three ingress/egress points can be taken out of the development. Development of the site would not involve street closures during construction or operations and would not impair implementation or interfere with an adopted emergency response plan within the City. Potential impacts are less than significant, and no mitigation measures are required.

4.1.18.2 Threshold B: *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The proposed Project is located adjacent to existing residential development to the west, north and northeast. The Project site is not located on steep slopes or immediately adjacent to the foothills of the San Bernardino Mountains. When a residential development plan is submitted, design and construction methods must be in compliance with all current building and fire codes and regulations designed for safe development in Fire Severity Zones. Due to the Project's location and with development in compliance with these building and fire code standards, the Project would not be expected to significantly exacerbate wildfire risks. Therefore, potential impacts are less than significant, and no mitigation measures are required.

4.1.18.3 Threshold C: *Will the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The primary access to the Project site is from Greenspot Rd. Internally the roadways connected to the site are looped together and a total of three ingress/egress points can be taken out of the development. The proposed Project does not require the installation of infrastructure (roads, power lines, etc.) in undeveloped natural areas that are susceptible to fire. Therefore, the proposed Project would not be expected to exacerbate fire risk and potential impacts are less than significant. No mitigation measures are required.

4.1.18.4 Threshold D: *Will the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The proposed Project is located adjacent to existing residential development to the west, north and northeast. The Project site is not located on steep slopes or immediately adjacent to the

foothills of the San Bernardino Mountains. The proposed site is relatively flat and gently sloping with no substantial hills, slopes nor drop offs. Due to the lack of significant topography, land sliding is not expected on the site. With the Implementation of the Water Quality Management Plan (WQMP), the proposed development will not increase off-site runoff or result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner which would cause flooding on site or off site. Therefore, the proposed Project is not expected to result in downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Potential impacts are less than significant, and no mitigation measures are required.

4.2 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE EIR ANALYSIS

The following summarizes those topics that were found to be less than significant, without the need for mitigation, as part of the EIR analysis as discussed in Section 5 of this document.

4.2.1 Recreation

4.2.1.1 Threshold A: *Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The project entails 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat preservation, and East Valley Water District facilities). These lettered lots (A through M) total 12.44 acres of the Project site. A public park is planned and is located at the southwest corner of Gold Buckle Road and Street "B." The park (Lot C) is ½ acre and will be improved with a small tot-lot containing a low maintenance multi-faceted play structure with a soft fall zone area, benches, and shade structure. The balance of the park will be a passive play area with water efficient landscaping. The park will be maintained by a Homeowners Association (HOA) or assessment district, as will all of the letter lots. The Project will include a community trail (12 feet wide) along the western boundary of the site from Greenspot Road to the southern boundary of the site. The Project will include construction of the Pole Line Trail (12 feet wide) along southern portion of the Project site.

Since the proposed development proposes 203 lots for single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres that is within the allowable intensity. Therefore, the proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. Thus, the proposed Project's population will not exceed the City's General Plan projection, or projected increase in use of existing neighborhood and regional parks or other recreational facilities.

Since the Project will be developing a public park to serve its new residents, as well as an internal network of sidewalks and connections to nearby existing trails and parks, impacts would be less than significant without mitigation. The proposed Project is not expected to substantially increase the use of existing neighborhood and regional parks or other recreational facilities such

that substantial physical deterioration of the facility would occur or be accelerated, and potential impacts are less than significant.

4.2.2 Transportation

4.2.2.1 Threshold B: *Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The Project Specific Traffic Impact Analysis was completed in June 2019 (an update of the February 2019 report). At the time that the Traffic Impact Analysis was prepared the City of Highland did not have existing models or methods available for estimating Vehicle Miles Traveled (VMT) for the Project. Because this Draft EIR was released for public review before July 1, 2020, a Project specific VMT analysis is not required and was not prepared. Nonetheless, the Project's potential impacts related to VMT are evaluated qualitatively herein for informational purposes, even though such analysis is not required by law.

The proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. The General Plan Land Use Designation for the site is Planned Development/ Low Density Residential (PD/LDR) which limits uses to single-family detached residential and mobile homes with a maximum intensity of six dwelling units per 1.0 acre. The existing zoning for the site is PD/R-1 Single-Family Residential, which allows for small lot single-family detached and mobile homes parks and subdivisions at a maximum allowable density of six dwelling units per gross acre. The proposed development proposes 203 single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres that is within the allowable intensity. Therefore, the proposed Project's population projection will be within those planned for in the City's General Plan and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals.

As the proposed Project is consistent with the City's General Plan; is located along Greenspot Road, which is considered a high-quality transit corridor; is located within 1/3 mile of a retail center and an improved bus stop; and is within 2 miles of additional retail, schools, a park and a U.S. Post office, it is not anticipated to result in significant impacts related to VMT. Thus, potential impacts would be less than significant, and no mitigation measures are required.

4.3 EFFECTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION AS PART OF EIR ANALYSIS

The following summarizes those topics that were found to be less than significant, with the need for mitigation, as part of the EIR analysis as discussed in Section 5 of this document.

4.3.1 Biological Resources

4.3.1.1 Threshold B: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Riversidean Alluvial Fan Sage Scrub (RAFSS)

A Biological Assessment was conducted for the proposed Project. Riversidean Alluvial Fan Sage Scrub (RAFSS) was the largest vegetation community present consisting of 38.8 acres followed by Agriculture and disturbed/ruderal/ornamental communities making up 20.1 acres. RAFSS is the only native sensitive vegetation community found on site. On the eastern portion, ± 32.01 acres of RAFSS will be permanently removed. An area of RAFSS in the southeast corner, totaling ± 6.59 acres, will be avoided and conserved. (BRA pp. 83-84)

Table 5.1-B. Vegetation Communities Impacted

Vegetation Community	Area (Acres)		
	Total Present	Impacted by Project	Avoided and Conserved
Agriculture – Jojoba	5.1	5.1	--
Agriculture – Eucalyptus Groves	5.6	5.6	--
Disturbed/Ruderal/Ornamental	9.4	9.4	--
Agriculture/Disturbed Subtotal	20.1	20.1	--
Riversidean Alluvial Fan Sage Scrub	38.6	32.01	6.59
Total	58.7	52.11	6.59

RAFSS habitat has the potential for direct impacts/loss of ± 32.01 acres. Mitigation Measure BIO-10 would require offsite compensation for loss of the ± 32.01 acres of degraded RAFSS habitat on the site via purchase of mitigation credits at an agency-approved mitigation bank or equivalent mitigation. Due to the habitat degradation from offsite development unrelated to the Project and previous mitigation associated with that development, a ratio of no less than 0.5:1 is proposed. This measure also requires the previously stated ± 6.59 acres of RAFSS in the southeast corner of the site to be avoided and conserved in perpetuity. (BRA p. 84)

Impacts to sensitive vegetation communities (RAFSS) outside of the Project site could occur if construction activities exceed the Project boundary. With implementation of Mitigation Measures BIO-1 (Disturbance Area Fencing) and BIO-2 (Biological Monitoring), no impacts to sensitive vegetation communities outside the Project boundary are expected to occur.

BIO-1: Disturbance Area Fencing

The Project disturbance areas shall be clearly fenced prior to vegetation clearing or grading to prevent incursion into the avoidance area or offsite habitat. No construction activities, equipment, materials, debris, or spoils shall be allowed in the avoidance area or offsite native habitat. Personnel shall be instructed to restrict activities to the disturbance area. Fencing shall remain in place and shall be maintained until replaced by permanent fencing/walls or until Project construction is complete.

BIO-2: Biological Monitoring

One or more qualified biological monitors shall be assigned to the Project to monitor construction activities. At least 15 calendar days prior to initiating Project activities, the resumes of biological monitors shall be submitted to CDFW and USFWS for review.

A biological monitor shall be present during all initial site clearing activities (vegetation clearing and ground disturbance) and any other construction activities (fence installation, scalebroom eradication) that could result in take of listed or special status species and at least once per week throughout the duration of construction to ensure compliance with mitigation measures and incidental take permit conditions.

Monitors shall be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, and sensitive biological resources are avoided to the extent possible. The biological monitor shall have the authority to halt/suspend all activities until appropriate corrective measures have been implemented.

BIO-10: Riversidean Alluvial Fan Sage Scrub

Project-related impacts to the Riversidean Alluvial Fan Sage Scrub (RAFSS) shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of RAFSS that will be impacted on the site. The Project proponent shall purchase mitigation credits at an agency-approved mitigation bank or equivalent mitigation at a ratio of no less than 0.5:1. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes RAFSS.

The Project shall avoid impacts to the ±6.59 acres of RAFSS in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other entity acceptable to CDFW and USFWS.

With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-10, direct and indirect impacts to RAFSS would be less than significant.

Wash Plan

The Project is immediately adjacent to sensitive vegetation communities and conservation lands within the Wash Plan. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan. Potential Project impacts include damage to habitat,

plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust, toxic emissions, noise, runoff, erosion/sedimentation, lighting, noise, fire ignition, introduction and spread of invasive plants, predator subsidies, domestic predators, and human disturbance. (BRA p. 89)

Mitigation Measure BIO-3 (WEAP Training) requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance.

Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of invasive plants.

BIO-3: WEAP Training

Biological monitors shall conduct Workers Environmental Awareness Program (WEAP) training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. All onsite personnel must attend WEAP training prior to the start of any ground-disturbing activities. Attendance at training will be documented and workers provided with a hardhat sticker.

Training will include information about listed and special status species and sensitive habitat on the Project site and adjacent areas, responsibilities of the biological monitor, mitigation measures and permit conditions, restrictions on activities, and contact information for the biological monitor. Supporting materials such as images and descriptions of species and instructions on what to do and who to contact (includes contact information) if any of the identified species are encountered, will be provided to all personnel during the training program. Informal or formal refresher training shall be conducted as needed to maintain compliance.

BIO-13: Adjacent Habitat

The Project shall incorporate measures to ensure that runoff is not altered in an adverse way as compared to existing conditions, which includes landscape irrigation. Stormwater systems shall 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 in adjacent habitat.

Best management practices (BMPs) as outlined in the project-specific Water Quality Management Plan (WQMP) shall be employed during Project construction to control fugitive dust, toxic emissions, noise, runoff, and erosion/sedimentation to ensure that adjacent offsite habitat and waterways are not impacted. BMPs include regular street sweeping, drainage facility maintenance and litter control as well as efficient irrigation and infiltration basins.

Any permanent lighting shall be directed away from adjacent habitat. Construction activities shall be limited to daylight hours.

Construction activities that generate noise in excess of 60 dBA Leq hourly, as measured at the nearest boundary of the Project site with adjacent habitat, shall incorporate noise-reducing features, as appropriate, to minimize the effects of noise on the adjacent habitat.

A permanent block wall shall be installed by the project proponent between the Project and the avoidance area and adjacent native habitat to limit access by residents and domestic animals. The Project proponent shall provide educational materials to homeowners, prior to occupation of residences, regarding the plants and animals present in the adjacent habitat and their conservation value.

In coordination with the San Bernardino Valley Water Conservation District (SBVWCD), the Project proponent shall place educational signage at any access point(s) to the adjacent native habitat to explain the value and sensitivity of the habitat and encourage stewardship. The Project proponent shall also work with SBVWCD to develop appropriate signage for the community trail and integrate it into existing or proposed trails in the Wash Plan area. The community trail shall be restricted to non-motorized use. Appropriate fencing or barriers will be installed to prevent access by motorized vehicles, as needed.

Adequate fire suppression capability shall be maintained in active construction areas, including having a water tender on site during periods of high fire danger. Appropriate fire prevention measures shall be employed during grinding, welding, and other spark-inducing activities near vegetated areas.

Dust control measures shall be employed to control fugitive dust and minimize impacts on adjacent vegetation. If watering is used to control dust, pooling of water will be minimized to the extent feasible to avoid attracting predators. Vehicles moving within the Project site shall be limited to a speed of 15 miles per hour.

Equipment and material storage, fueling, and staging areas shall be located within the Project disturbance area at least 100 feet from adjacent habitat and necessary precautions shall be taken to prevent any runoff from entering adjacent habitat. Project-related spills of hazardous materials shall be cleaned up immediately and contaminated soils removed from the site for proper disposal.

BIO-14. Invasive Plants

To prevent the spread of invasive plants, all heavy equipment used onsite shall be washed at a commercial truck wash or other appropriate offsite location prior to bringing it onto the Project site. All soil and debris that may contain seeds or propagules of invasive plants shall be removed from the equipment. Particular attention shall be paid to removing soil and debris from the wheels, undercarriage, outriggers, and other parts that come in contact with vegetation or soil.

Any straw, mulch, or similar products used on the Project site shall be certified weed-free. Any erosion control planting or seeding shall consist of appropriate native

species, native seed mix, or other ecologically appropriate, non-invasive plants. Imported fill material shall be obtained from weed-free sources.

Invasive plant species on the California Invasive Plant Council Inventory (<https://www.cal-ipc.org/plants/inventory/>) shall not be installed in landscaping. The Project proponent shall prepare educational materials for homeowners regarding invasive plants and the CC&Rs for the development shall include restrictions on planting of invasives.

With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, Project related impacts to sensitive vegetation communities in the adjacent Wash Plan area is expected to be less than significant.

4.3.1.2 Threshold C: *Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The three historic ephemeral drainages that cross the site have been cut off from their upstream sources by previous offsite flood control projects and road development and no longer convey water onto or across the site. A jurisdictional delineation found that there are no state or federal jurisdictional water or wetlands present on the site. Therefore, no Project-related impacts to state or federal jurisdictional water or wetlands on the Project site would occur and no mitigation is proposed. (BRA p. 86)

The site is located within the Santa Ana wash (floodplain); Weaver Channel is adjacent to the site on the east and Plunge Creek is located just to the south. Weaver Street Channel directs flows from Cram Creek into Plunge Creek and the Santa Ana Wash system. The Project will not encroach on either Plunge Creek or Weaver Street Channel. However, impacts such as dust, sedimentation, release of toxic chemicals, human disturbance, and invasive plants could affect these areas during construction and operation of the Project. (BRA p. 86) Mitigation Measure (MM) BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project related impacts to the adjacent habitat, including jurisdictional waters and any wetlands associated with Weaver Channel, Plunge Creek, and the Santa Ana Wash system, and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of invasive plants. Mitigation Measure BIO-13 addresses fugitive dust, toxic emissions, runoff, erosion/sedimentation, fire ignition, and human disturbance. With implementation of Mitigation Measures BIO-13 and BIO-14, Project-related impacts to offsite jurisdictional waters and any wetlands are expected to be less than significant.

4.3.1.3 Threshold D: *Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The functions and values of wildlife corridors, including the Santa Ana River wash, could be affected by Project related introduction and spread of invasive plants, dust, noise and vibration, lighting, domestic predators, and other anthropogenic disturbances. The Project is immediately adjacent to the covered area for the Wash Plan and associated conservation lands. Any Project-

related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash plan, including wildlife movement through the Plan area. Potential impacts include damage to habitat, plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust, toxic emissions, noise, runoff, erosion/sedimentation, domestic predators, and human disturbance. (BRA pp. 87, 89)

Mitigation Measure BIO-1 (Disturbance Area Fencing) requires fencing of Project disturbance areas to prevent incursion into offsite habitat. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring to ensure compliance with mitigation measures. Mitigation Measure BIO-3 (WEAP Training) requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of invasive plants. Within implementation of Mitigation Measure BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, Project related impacts to wildlife corridors are expected to be less than significant.

4.3.1.4 *Threshold E:* *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance?*

The City of Highland General Plan Conservation and Open Space Element includes goals and policies for the protection of biological resources. These policies include preservation of habitat and wildlife corridors, preservation of biologically sensitive habitats, conservation of rare plants and animals, and protection or replacement of heritage trees. (BRA p. 88)

The Project will avoid approximately 30 of the total 114 heritage trees on site as they are located in the open space/conservation area of ±6.59 acres in the southeastern corner of the site. The avoided trees are mainly California juniper within the area proposed for permanent conservation in the southeast corner of the site. The remaining 84 trees, of which 11 are non-natives would be impacted.

These issues are addressed through Mitigation Measure BIO-1 to avoid and minimize impact to habitat adjacent to the Project site; Mitigation Measure BIO-2 to ensure that Project construction is in complete with compliance with mitigation measure; Mitigation Measure BIO-3 to inform onsite personnel of the sensitive resources that may be present and the restrictions that must be observed; Mitigation Measures BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-11 to avoid, minimize, and compensate for impacts to special status plants and animals on the Project site; BIO-10 to compensate for impacts to a sensitive vegetation community on the Project site; BIO-13 and BIO-14 to avoid and minimize impact to adjacent native habitat including conservation lands and a wildlife corridor; and BIO-12 to replace heritage trees that will be removed by the Project and protect remaining trees from construction-related impacts.

BIO-4: Preconstruction Clearance Surveys

A qualified biologist shall conduct clearance surveys for listed and special status plant and wildlife resources within or adjacent to the Project disturbance area within three (3)

calendar days prior to initial vegetation clearing and ground disturbance, including fence installation and scalebroom removal. The biologist shall inspect debris piles, pipes, burrows, vegetation, and other potential refugia prior to initiation of clearing, grubbing, grading, or any other project activity that may injure listed or special status wildlife species. The biologist shall also survey any trees, structures, rock piles, etc. that may provide roosting habitat for bats. The survey will be done on the area(s) scheduled for work within the next (3) calendar days and repeated as needed until initial vegetation clearing and ground disturbance has been completed on the entire Project disturbance area.

Prior to construction each day, biological monitors shall conduct a 'clearance sweep' of all areas scheduled for construction to confirm that listed and special status species are not present.

If any listed or special status plants or wildlife are found, the biological monitor shall take appropriate action as defined in mitigation measures BIO-5, BIO-6, BIO-7, BIO-9, and BIO-11), permit conditions, and regulations. Federal, state, and local agencies will be consulted as needed and appropriate. If the biological monitor determines it to be necessary, an appropriate avoidance buffer with a radius of no less than 100 feet will be established to protect the resource until required actions have been completed.

If any common wildlife species are present in work areas, the biological monitor shall move the animal to nearby suitable habitat or encourage it to move out of harm's way, if safe and feasible to do so.

Monitoring and survey activities shall be documented through daily monitoring reports, survey reports, and monthly summary reports. A final compliance report will be prepared at the conclusion of Project construction activities. All reports will be submitted to the lead agency, CDFW, and USFWS.

BIO-5: Burrowing Owl

A preconstruction clearance survey for burrowing owl shall be conducted by a qualified biologist within no more than 30 calendar days prior to any site disturbance, including vegetation removal or mowing, ground disturbance, fence installation, etc. The survey will be conducted as close to the actual initiation of site disturbance as possible. The survey is valid for 30 calendar days. If work does not commence within the 30 days, the survey shall be repeated. If work starts and is suspended for 30 or more calendar days, the survey shall be repeated.

If burrowing owls are found on the site during their nesting season (February 1 to August 31), an avoidance buffer shall be established in coordination with CDFW. The buffer shall be no less than 300 feet, or as required by CDFW. If burrowing owls are found on the site outside of nesting season, passive relocation efforts shall be conducted in coordination with CDFW. With approval from CDFW, passive relocation shall include

installation of one-way doors in burrow openings. Burrows shall be closed or collapsed following verification that burrows are empty through monitoring and scoping.

BIO-6: California Gnatcatcher

Prior to the start of any ground disturbing activities associated with construction a survey for California gnatcatcher shall be conducted by a qualified biologist holding a valid USFWS 10(a)(1)(A) permit for gnatcatcher. The survey shall be conducted in accordance with USFWS protocol and may be conducted during either the breeding season (March 15 through June 30) or the non-breeding season (July 1 through March 14). Survey results shall be provided to CDFW and USFWS.

If the survey finds California gnatcatcher within the Project disturbance area, California gnatcatcher shall be included in the application for federal take authorization along with San Bernardino kangaroo rat. No ground disturbance shall occur on the Project site until federal incidental take authorization is obtained.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas of the Project site utilized by California gnatcatcher (as observed during protocol surveys) and a 500-foot buffer (within the boundaries of the Project site). Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS (or as required by the incidental take permit). This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for California gnatcatcher.

Nesting bird surveys shall be conducted as specified in Mitigation Measure BIO-6. If nesting gnatcatchers are present and federal incidental take authorization has been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest (or as required by the incidental take permit) and immediately reported to CDFW and USFWS. The nest shall be monitored at least once per week by the permitted biologist to determine if the buffer is sufficient to prevent construction-related disturbance to the nesting gnatcatchers. If the buffer is insufficient, additional measures shall be implemented and may include a larger buffer, suspending or redirecting construction activities, or other appropriate measures as determined by the biologist (or as required by the incidental take permit). The buffer and any other measures employed shall remain in place until the permitted biologist has determined that juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. Nest monitoring reports shall be provided to CDFW and USFWS, including nest outcomes.

If nesting gnatcatchers are present and federal incidental take authorization has not been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest and USFWS and CDFW shall be immediately contacted for guidance.

BIO-7: Nesting Birds

Initial site disturbance (vegetation and ground disturbance, tree removal, fence installation, scalebroom eradication) shall be scheduled outside of the nesting season of January 15 to August 31, if feasible as determined by the project proponent. The nesting season is If initial site disturbance cannot be scheduled outside the nesting season, a preconstruction survey for nesting birds shall be conducted by a qualified biologist or biological monitor within three (3) days prior to any site disturbance during the nesting season.

If active nest(s) are present, an avoidance buffer of 500 feet for raptors and special status birds and 300 feet for all other birds (or as recommended by the Project biologist) shall be established and maintained until a qualified biologist or biological monitor has determined that the juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. An active nest is defined as a nest with eggs, chicks, or dependent juveniles, or a nest actively being constructed or utilized for reproduction.

The size of the buffer shall be determined by a qualified biologist based on the nature of proposed Project activities, the birds' tolerance to disturbance (if known), conservation status of the affected species, and any applicable agency recommendations or requirements. The boundary of the buffer shall be clearly flagged or marked, and construction crews informed of the restrictions.

BIO-8: San Bernardino Kangaroo Rat

The Project proponent shall obtain federal incidental take authorization for San Bernardino kangaroo rat (SBKR) through Section 7 of the federal Endangered Species Act (if there is a federal nexus) or through Section 10 of the ESA (if there is no federal nexus). If SBKR is a state listed or candidate species at the time the Project is scheduled to proceed, state incidental take authorization shall also be obtained through either an Incidental Take Permit (2081 permit) or a Consistency Determination. The Project proponent shall be responsible to provide any required surveys, reports, and documentation to support the permitting process. The Project proponent shall comply with all terms and conditions of the incidental take authorization(s), including required mitigation and monitoring.

Project-related impacts to occupied SBKR habitat shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of critical habitat that will be impacted on the site (or as required by the incidental take permit).

The Project shall avoid impacts to the ±6.53 acres of occupied habitat in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity by an agency-approved conservation entity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other conservation entity acceptable to CDFW and USFWS. The Project proponent

shall prepare a Habitat Enhancement Plan for the ±6.59 acres for SBKR, in coordination with the conservation entity and subject to review and approval by CDFW and USFWS and provide funding to fully implement the Habitat Enhancement Plan in conjunction with the conservation entity.

Prior to the start of Project activities, the Project proponent shall prepare a San Bernardino Kangaroo Rat Relocation Plan. The Plan will be submitted to the USFWS and CDFW for review and approval prior to the start of construction. Once approved by these agencies, the Project proponent shall be responsible for implementation of the Plan. The Plan shall include, but shall not be limited to the following topics:

- Exclusion fencing – type, location, installation methods, monitoring and protection or excavation of burrows during installation, inspection and maintenance
- Trapping and removal of SBKR from the Project disturbance area prior to construction – timing, duration, methodology, marking animals, qualifications of trapper
- Temporary holding of trapped animals – housing, feed, duration
- Relocation site selection – parameters for selection of suitable areas, alternatives, coordination with landowner/manager, data collection
- Relocation site preparation – artificial burrows, habitat restoration/enhancement, predator exclusion
- Relocation of SBKR – timing, methods, reporting
- Post-relocation monitoring and reporting – methods, duration and timetable, report contents

The Plan shall also include a strategy for the relocation of other special status small mammals that are incidentally caught during SBKR trapping. Once approved by USFWS and CDFW, the Project proponent shall be responsible for implementation of the Plan.

If a dead, injured, or entrapped SBKR is found during construction of the Project, workers will immediately notify the biological monitor. The monitor will notify USFWS and CDFW immediately (via phone, email, or text) with written follow-up report within two working days. Agency guidance shall be immediately sought for appropriate actions to release entrapped SBKR.

Rodenticides, herbicides, insecticides, or other chemicals that could potentially harm SBKR shall not be used on the Project site during the construction phase.

BIO-9: Wildlife Hazards

All potential wildlife pitfalls (trenches, bores, and other excavations) shall be backfilled or securely covered at the end of each workday. If backfilling or covering is not feasible,

wildlife escape ramps shall be installed, in consultation with the biological monitor, with a minimum 3:1 slope and sufficient to allow trapped wildlife to escape. Project workers or the biological monitor will inspect all excavations for trapped wildlife daily.

All construction pipes, culverts, or other hollow materials shall be securely covered or capped while stored on the Project site to prevent wildlife access. All such materials shall be inspected for wildlife before being moved, buried, or capped.

If wildlife become trapped, the biological monitor shall remove the animal (if feasible and safe to do so) and place it in nearby suitable habitat outside of the impact area. If the biological monitor is unable to remove the animal, CDFW or other wildlife authority will be immediately contacted for guidance and/or assistance. Any wildlife encountered on the Project site shall be allowed to leave the area unharmed or moved (or gently encouraged to move) out of harm's way by the biological monitor, if safe and feasible to do so.

Project personnel shall not bring firearms or pets onto the Project site. Firearms carried by authorized security personnel are exempt.

Trash brought onsite by workers, especially food items or packaging that could attract wild or domestic predators, will be kept inside vehicles or in securely closed containers and removed from work areas daily.

BIO-11: Listed and Special Status Plants

Prior to the start of construction, a focused survey for slender-horned spineflower and Santa Ana woollystar shall be conducted by a qualified botanist. The survey shall be conducted in accordance with CDFW protocols and include all potentially suitable habitat on the Project site. The survey shall be conducted during the appropriate blooming season, as verified by visits to known reference sites, and during a year with average or above-average precipitation. The botanist shall also verify the identification of sapphire woollystar present on the site and examine plants for any evidence of hybridization with Santa Ana River woollystar. A survey report shall be prepared and submitted to the lead agency, CDFW, and USFWS.

If the survey finds slender-horned spineflower or Santa Ana woollystar within the Project disturbance area, the occupied habitat area(s) shall be mapped using GPS and an avoidance buffer of 100-foot radius established. An incidental take permit application shall be prepared and submitted to CDFW and slender-horned spineflower and/or Santa Ana woollystar shall be included in the application for federal take authorization prepared for San Bernardino kangaroo rat. No impacts within the avoidance buffer shall occur until state and federal incidental take authorization is obtained. CDFW and USFWS shall be sought for the appropriate treatment of sapphire woollystar-Santa Ana River woollystar hybrids, if any appear to be present.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas occupied by slender-horned spineflower and/or Santa Ana woollystar plants plus a

100-foot radius area around each occurrence. Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for slender-horned spinyflower or Santa Ana woollystar.

The focused surveys shall also include special status plants. If chaparral sand verbena, Parry's spinyflower, or other special status plants with a CRPR of 1B.x are present in the disturbance area, propagules will be collected prior to the start of construction and planted in the avoidance area.

BIO-12: Heritage Trees

All heritage trees (as defined by City of Highland Municipal Code), excluding the eucalyptus groves, shall be replaced at a 2:1 ratio or as required by the City of Highland.

Trees that will not be removed shall be protected from damage or disturbance during construction in compliance with the City of Highland Municipal Code.

With implementation of these mitigation measure, the Project is not expected to conflict with any local policies or ordinances protecting biological resources and impacts would be less than significant.

4.3.1.5 *Threshold F: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Project is immediately adjacent to the Wash Plan and associated conservation lands. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan. Potential Project impacts include damage to habitat, plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust, toxic emissions, noise, runoff, erosion/sedimentation, lighting, noise, fire ignition, introduction and spread of invasive plants, predator subsidies, domestic predators, and human disturbance. (BRA p. 89)

Mitigation Measure BIO-1 requires fencing of Project disturbance areas to prevent incursion into offsite habitat. Mitigation Measure BIO-2 requires biological monitoring to ensure compliance with mitigation measures. Mitigation Measure BIO-3 requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. Mitigation Measure BIO-13 requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 requires measures to avoid and minimize the introduction and spread of invasive plants. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, the Project is not expected to conflict with the Wash Plan and impacts would be less than significant.

4.3.2 Recreation

4.3.2.1 Threshold B: *Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed Project which includes construction of 203 residential lots, a ½ acre public park, and community trails (12 feet wide) along the western and southern boundaries of the site that may result in direct and indirect impacts to sensitive biological resources. As outlined in Biological Resources Section 5.1.5, construction and operation of the proposed Project may result in significant direct and indirect impacts without mitigation to the following listed or otherwise sensitive species: Santa Ana woollystar, slender horned spinyflower, Parry's spine spinyflower, chaparral sand verbena, San Bernardino kangaroo rat, coastal California gnatcatcher, white-tailed kite, burrowing owl, and nesting birds and the loss of Riversidean alluvial fan sage scrub (RAFSS).

The proposed Project's community trail on the southern boundary of the site will coincide with the Pole Line Road Trail in the Wash Plan Master Trails Plan, and the Project's community trail on the western boundary will connect to it. The Proposed project's new residents would be expected to increase the use of the Wash Plan trails and potentially result in associated indirect impacts to the sensitive species and habitats covered in the Wash Plan. Indirect impacts are the result of such things as introduction of invasive plants and animals; predator subsidies (i.e., food, water, perch sites, etc.) that lead to increased predation on wildlife; and harassment or predation by domestic animals (dogs). These impacts may change the behavioral patterns of wildlife and reduce native plant and wildlife diversity and abundance in habitats adjacent to project sites. Mitigation measures are required to reduce potential direct and indirect impacts from construction to less than significant levels.

5.0 Environmental Impact Analysis

The purpose of this DEIR is to evaluate the potential environmental effects of the proposed Project. The City circulated the Project's Notice of Preparation (NOP) for public review and comment from February 28, 2020 to March 30, 2020. The NOP was transmitted to the State Clearinghouse, responsible agencies, and other interested parties on the City's distribution list to solicit issues and concerns related to the Project. The NOP and Initial Study are contained in Appendix A of the DEIR and the comment letters received in response to the NOP are contained in Appendix B.

Sections 5.1 through 5.3 of the DEIR, examine the potential and environmental impacts associated with implementation of the proposed Project and focuses on the following issues:

- Biological Resources
- Recreation
- Transportation

Technical Studies

Project-specific technical studies in the areas of air quality and greenhouse gas emissions, cultural resources, geology, energy, noise, and water quality were used in this DEIR and are included in Appendix A along with the Initial Study and NOP. Project-specific technical studies in the areas of biological resources and traffic, used to support the analysis in Sections 5.1 through 5.3 of the DEIR are included in Appendix C and D, respectively.

Analysis Format

The DEIR assesses how the proposed Project would impact the issue areas identified above. Each environmental issue addressed in this DEIR is presented in terms of the following subsections:

- **Setting:** Provides information describing the existing setting on or surrounding the Project site which may be subject to change as a result of the implementation of the Project. This setting describes the conditions that existed when the NOP was sent to the State Clearinghouse, responsible agencies, and other interested parties.
- **Related Regulations:** Provides a discussion of the applicable regulations with respect to each environmental issue.
- **Thresholds of Significance:** Provides criteria for determining the significance of Project impacts for each environmental issue.
- **Project Design Considerations:** Provides a discussion of the Project design features with respect to each environmental issue that is a part of the proposed Project and could reduce impacts.
- **Environmental Impacts before Mitigation:** Provides a discussion of the characteristics of the proposed Project that may have an effect on the environment; analyzes the nature and extent to which the proposed Project is expected to change the existing environment, and whether or not the Project impacts meet or exceed the levels of significance thresholds.

- **Proposed Mitigation Measures:** Identifies mitigation measures to reduce significant adverse impacts to the extent feasible.
- **Environmental Impacts After Mitigation Measures are Implemented:** Provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.

5.1 BIOLOGICAL RESOURCES

This section analyzes the effects of the proposed Project on Biological Resources. A Project-specific Biological Resources Assessment, Updated Burrowing Owl and Nesting Raptor Surveys, and Updated Botanical Surveys Report (BRA) was completed in March 2020. An extensive number of evaluations have been conducted on Project site between 2005 and 2019 including general biological assessments, botanical surveys, tree surveys, focused burrowing owl and nesting raptor surveys, trapping studies for San Bernardino kangaroo rat, and jurisdictional delineations and updates to these. The BRA report is summarized below and included in its entirety as Appendix F to this DEIR. Further, the discussion and analysis contained herein is informed by comments received during the NOP public review period from the California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS).

5.1.1 Setting

The approximately 59-acre Project site exhibits a mix of disturbed and native habitats. The western half of the site has been disturbed and is mostly converted for agricultural uses. It currently contains Eucalyptus groves, a jojoba plantation, and disked areas. The eastern half of the site is relatively undisturbed alluvial fan sage scrub.

Three historic ephemeral drainages are present on the site, trending from the northeast to the southwest. All drainages have been cut off from their upstream sources by offsite flood control and road development and no longer convey water onto or across the site.

Portions of the boundary of the site are defined by the presence of a barbed wire fence. The site is generally bounded as follows: to the west by disturbed vacant land and a mixture of residential developments; to the east by a flood control channel and mostly undisturbed open space; to the north by Greenspot Road and single-family residential developments; and to the south by Abbey Way (a gated road, part paved and part dirt), a row of power lines, and the Santa Ana Wash. (BRA p. 9)

The Project site is immediately adjacent to the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan), refer to Exhibit 5.1-1, Wash Plan and Conservation Lands with Project Location. The City of Highland Biological Mitigation Area (Highland BMA) and a portion of the Bureau of Land Management (BLM) Santa Ana River Area of Critical Environmental Concern (ACEC) are located immediately to the east of the Project site. A portion of the Santa Ana River Woollystar Preservation Area (WSPA) is located further to the east of the Project site, beyond the Highland BMA and ACEC. (BRA p.10)

According to the San Bernardino Valley Water Conservation District's (SBVWCD) website,¹ the Wash Plan is the culmination of over a decade of coordination among Task Force partners to

¹ <https://www.sbvwd.org/our-projects/wash-plan>

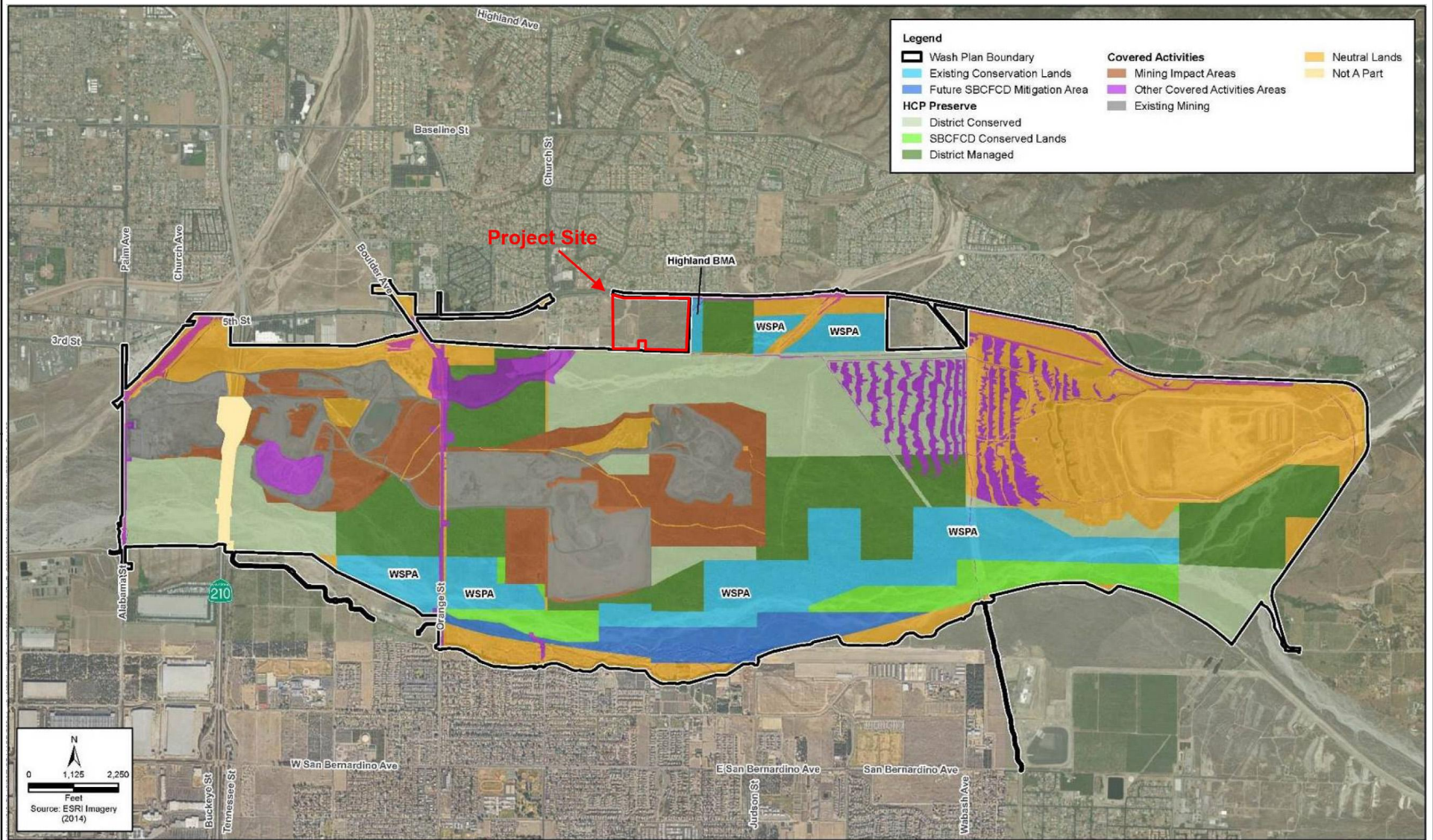
develop an integrated approach to permit and mitigate all construction and maintenance activities within the Wash area, including water conservation, wells and water infrastructure, aggregate mining, transportation, flood control, agriculture, trails, and habitat enhancement. Implementation of the Wash Plan would result in permanent conservation and management of approximately 1,660 acres of native habitats that support slender-horned spinyflower, Santa Ana River woolly-star, cactus wren, California gnatcatcher, and San Bernardino kangaroo rat. The SBVWCD Board of Directors is tentatively scheduled to review adoption of the Wash Plan HCP and certification of the Supplemental EIR on July 8, 2020.

Santa Ana River Area of Critical Environmental Concern/ Research Natural Area

The Bureau of Land Management (BLM) has designated portions of land it owns in the Wash Plan as an Area of Critical Concern (ACEC) where special management attention is needed to protect and prevent irreparable damage to important wildlife resources and other natural processes. ACECs were authorized as part of the Federal Land Policy and Management Act of 1976 (FLPMA), which gives priority to the designation and protections of ACECs. Secondary designations can also be attached to an ACEC depending on the type of resources present. The secondary designation of Research Natural Area (RNA) has also been applied to these lands in the Wash Plan. An RNA is a physical and biological unit where natural conditions are maintained insofar as possible, and which is reserved for the primary purpose of research and higher education. Approximately 695 acres of the ACEC/RNA are within the Wash Plan area. (Wash Plan HCP 2020 p. 3-4)

Santa Ana River Woolly Star Preservation Area

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 Woolly Star Preservation Area (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 US Army Corps of Engineers to address impacts to the Santa Ana River woolly star from the construction and operation of Seven Oaks Dam. (Wash Plan HCP 2020 p. 5-35)



HEATHERGLEN PLANNED DEVELOPMENT



Source: ICF (2019)

Wash Plan and Conservation Lands with Project Location

Exhibit 5.1-1

Vegetation

As shown on Exhibit 5.1-2-Vegetation Communities and Critical Habitat, communities on the site are relatively undisturbed Riversidean alluvial fan sage scrub (RAFSS), agriculture (eucalyptus groves and jojoba fields), and disturbed/ruderal/ornamental. The agricultural and disturbed/ruderal/ornamental areas (approximately 20.1 acres or 34 percent of the property) are on the western portion of the Project site, with RAFSS (approximately 38.6 acres or 66 percent of the property) on the eastern side. The RAFSS on the eastern side is within Unit 1 of the United States Fish & Wildlife Service (USFWS) designated critical habitat for San Bernardino Kangaroo Rat (SBKR). Acreages of each vegetation community on the site are provided in the table below (BRA p. 34).

Table 5.1-A Vegetation Communities Present

Vegetation Community	Acres
Agriculture - Jojoba	5.1
Agriculture - Eucalyptus Groves	5.6
Disturbed/Ruderal/Ornamental	9.4
Agriculture/Disturbed Subtotal	20.1
Riversidean Alluvial Fan Sage Scrub	38.6
Total	58.7

Riversidean Alluvial Fan Sage Scrub (RAFSS)

The RAFSS vegetation community on the Project site can be characterized as *Eriogonum fasciculatum*– (*Lepidospartum squamatum*) Alluvial Fan Association of California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) and *Artemisia californica*—*Lepidospartum squamatum* Association of California sagebrush scrub (*Artemisia californica* Shrubland Alliance) (based on A Manual of California Vegetation, 2nd Edition, California Native Plant Society, Sawyer et al. 2009). Both associations are ranked as S3 (vulnerable to extirpation) by CDFW California Natural Community List and are considered sensitive (BRA p. 34).

Terraces above wash channels are vegetated by three different phases of alluvial scrub vegetation. The phases are generally related to the time since the most recent flood event and are referred to as pioneer, intermediate, and mature. Pioneer phase RAFSS is found in active streambeds and has sparse, low-growing vegetation with low species diversity. The substrate is generally composed of boulders and cobbles without topsoil. Intermediate phase RAFSS is composed primarily of subshrubs and vegetation is fairly dense. The substrate is coarse and fine sand with cobbles. Mature RAFSS includes subshrubs and woody shrubs with a substrate of fine silty soil with few cobbles. The site has intermediate to mature RAFSS in a mosaic of native RAFSS vegetation, non-native annual grasses, and patches of bare ground. Within the RAFSS vegetation community, scalebroom (*Lepidospartum squamatum*) is present (uncommonly) in association with other large plants, including California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), California sagebrush (*Artemisia californica*), yerba santa (*Eriodictyon* species), and chaparral yucca (*Hesperoyucca whipplei*). Larger shrubs less

commonly observed include chamise (*Adenostoma fasciculatum*), spiny redberry (*Rhamnus crocea*), hollyleaf cherry (*Prunus ilicifolia*), blue elderberry (*Sambucus nigra* ssp. *cerulea* [*S. mexicana*]), and sugar bush (*Rhus ovata*).

California juniper (*Juniperus californica*) shrubs are present within the RAFSS community in low-density patches. These patches can be characterized as *Juniperus californica*—*Eriogonum fasciculatum*—*Artemisia californica* Association of California juniper woodland (*Juniperus californica* Woodland Alliance) (A Manual of California Vegetation) but are too small and scattered to be mapped as a separate vegetation community. This is not considered a sensitive vegetation community (CDFW California Natural Community List).

Other species present include white sage (*Salvia apiana*), brittlebush (*Encelia farinosa*), sweetbush (*Bebbia juncea*), cholla (*Cylindropuntia* species), interior bush lupine (*Lupinus excubitus* var. *hallii*), sand-wash butterweed (*Senecio flaccidus*), Thurber's wild buckwheat (*Eriogonum thurberi*), jimsonweed (*Datura wrightii*), chia (*Salvia columbariae*), California croton (*Croton californicus*), and telegraph weed (*Heterotheca grandiflora*). Small patches of tamarisk (*Tamarix* species) and scattered western sycamore trees (*Platanus racemosa*) were observed on portions of the site within historic drainage areas.

Native plants commonly found within this community on the subject property include (but are not limited to) deerweed (*Acmispon glaber*), phacelia (*Phacelia* species), morning-glory (*Calystegia macrostegia*), lance-leaved dudleya (*Dudleya lanceolata*), wild hyacinth (*Dichelostemma capitatum*), and horseweed (*Erigeron* [*Conyza*] *canadensis*). Less disturbed areas (especially areas with a cryptobiotic surface crust and/or areas without dense non-native grass cover) were inhabited with California plantain (*Plantago erecta*), sun cups (*Camissoniopsis* [*Camissonia*] species), four-spot clarkia (*Clarkia purpurea*), cryptantha (*Cryptantha* species), popcornflower (*Plagiobothrys* species), chaparral nightshade (*Solanum xanti*), yellow pincushion (*Chaenactis glabruiscula*), sapphire woollystar (*Eriastrum sapphirinum*), silverpuffs (*Uropappus lindleyi*), and other low-growing herbs. Fiddleneck (*Amsinckia intermedia*) was observed sporadically throughout disturbed and undisturbed portions of the site. Non-native grasses inhabit much of the understory, including wild oat (*Avena* species), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), and cheatgrass (*Bromus tectorum*).

Agricultural (Jojoba Fields and Eucalyptus Groves)

Agricultural areas on the Project site are composed of jojoba (*Simmondsia chinensis*) fields and eucalyptus (*Eucalyptus* species) groves. Rows of cultivated jojoba are present within the southwestern portion of the site, south of the eucalyptus groves, and appear to be abandoned. Examination of historic aerial images shows that the area currently occupied by the jojoba fields has been under cultivation since before 1938. A Manual of California Vegetation does not provide a classification for agricultural areas.

Two separate eucalyptus groves are present within the northwestern corner of the site. The understory consists of weedy low-growing annuals and grasses. In 2005, surveys found that the trees were being watered by drip irrigation and appeared healthy. Since 2006, the trees are no longer irrigated and are declining in health. By 2015, trees appeared to be water stressed. In 2019, many trees had lost most of their foliage and some appeared to be dead. Large

eucalyptus trees are present and, although not native, these trees provide potential nesting locations for raptors and other birds. Eucalyptus groves can be characterized as *Eucalyptus* Semi-Natural Woodland Stands (A Manual of California Vegetation). CDFW does not assign an S rank to non-native vegetation communities and they are not considered sensitive (CDFW California Natural Community List).

Disturbed/Ruderal/Ornamental

Weedy species, mainly non-natives, dominate these areas, including short-pod mustard (*Hirschfeldia incana*), redstem filaree (*Erodium cicutarium*), long-beak filaree (*Erodium botrys*), tumbling pigweed (*Amaranthus albus*), prickly lettuce (*Lactuca serriola*), and Russian thistle (*Salsola tragus*). Very dense non-native grasses, including red brome, ripgut brome, cheatgrass, fescue (*Festuca* [*Vulpia*] species), and wild oat, were observed in disturbed areas. Ruderal areas can be characterized as *Bromus rubens* and *Bromus rubens*—*Avena* species Semi-Natural Herbaceous Stands (A Manual of California Vegetation).

Other plant species less commonly observed within disturbed areas include calabazilla (*Cucurbita foetidissima*), tocalote (*Centaurea melitensis*), annual bur-sage (*Ambrosia acanthicarpa*), puncture vine (*Tribulus terrestris*), vinegar weed (*Trichostema lanceolatum*), and cheeseweed (*Malva parviflora*).

Non-native ornamental landscaping plants are present near the remnant structures on the site. Trees observed include eucalyptus, pine (*Pinus* species), Peruvian pepper tree (*Schinus molle*), and Russian olive (*Olea europaea*). A single Fremont cottonwood (*Populus fremontii*) is also present.

A Manual of California Vegetation does not provide a classification for disturbed or ornamental areas. CDFW does not assign an S rank to non-native vegetation communities and they are not considered sensitive (CDFW California Natural Community List).

Heritage Trees

Section 16.64.040 of the City of Highland Municipal Code deals with preservation of heritage trees and specifies required conditions, including replacement, and permits necessary for removal of heritage trees. Excluding the non-native eucalyptus trees found within two groves at the northwest corner of the site, 114 trees (and large shrubs) are present that meet the City of Highland heritage tree criteria based on size (Table 5.1-B, Exhibit 5.1-3). Details are provided in Appendix E of the BRA.

Native trees consist primarily of California juniper (*Juniperus californica*, 72 individuals) and western sycamore (*Platanus racemose*, 20 individuals), with a few Fremont cottonwood (*Populus fremontii*, 3 individuals), hollyleaf cherry (*Prunus ilicifolia*, 3 individuals) and blue elderberry (*Sambucus nigra* ssp. *cerulea*, two individuals). Non-natives include Tamarisk (*Tamarix* species), Peruvian pepper tree (*Schinus molle*), Russian olive (*Olea europaea*), ornamental pine (*Pinus* species), tree tobacco (*Nicotiana glauca*), and Eucalyptus (not within the groves). All of the trees in the two eucalyptus groves are in the development area and will be impacted. It is estimated that approximately 5 to 10 percent of the eucalyptus trees in the

east grove and 10 to 20 percent of the trees in the west grove would qualify as heritage trees based on size.

6/16/2020 JN \\Ontario\Tfs\Hroon\PDATA\170265 RVA\MXD\Exhibit 5.2-2 Vegetation Communities and Critical Habitat.mxd



HEATHERGLEN PLANNED DEVELOPMENT

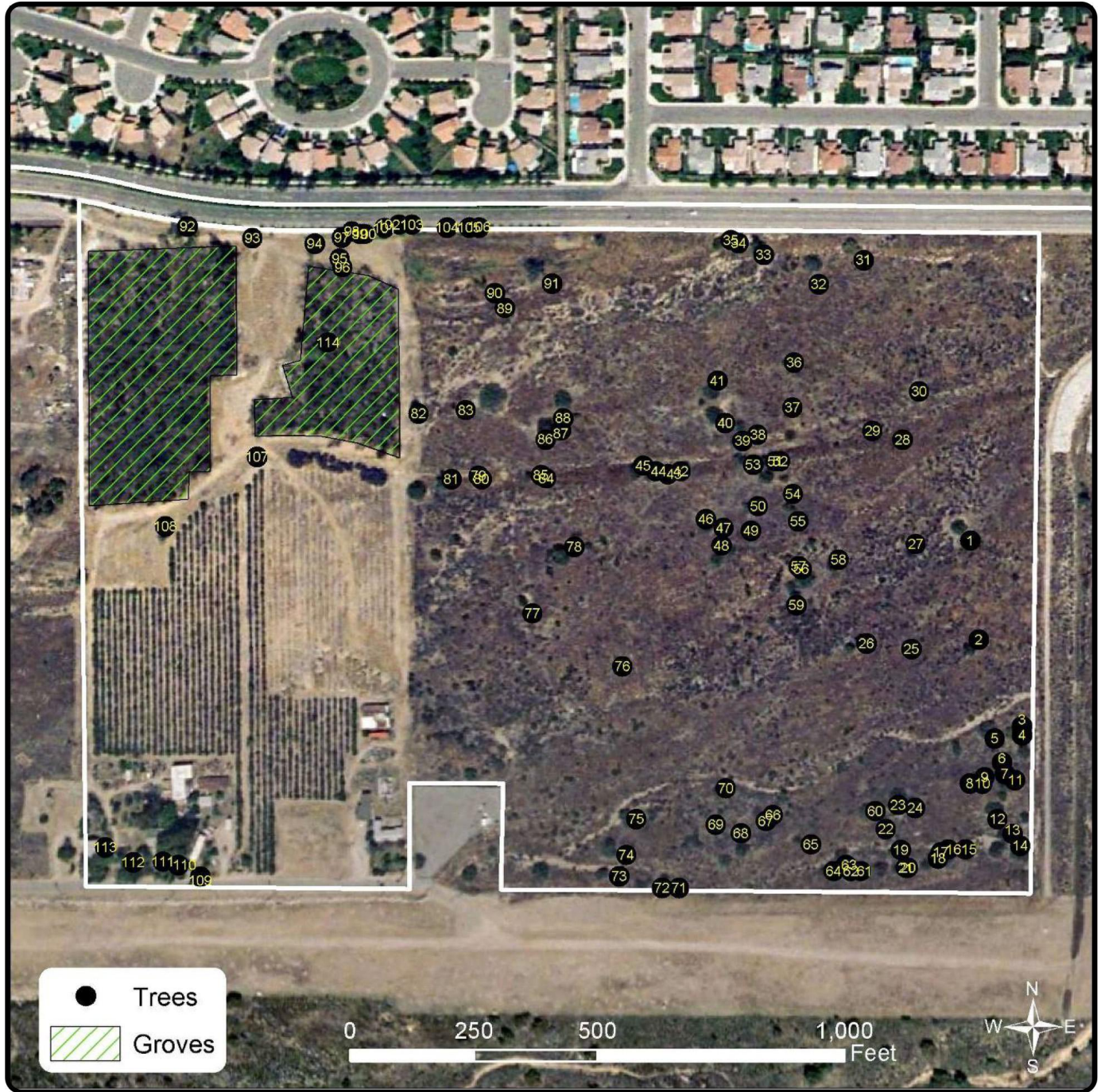


Vegetation Communities and Critical Habitat

Source: L&L Environmental, Inc., (March 2020); Google Earth, (February 2018)

Exhibit 5.1-2

6/16/2020 J:\Onitacat\170265 RVA\MapData\170265 RVA\MapData\5.1-3 Heritage Tree Locations.mxd



HEATHERGLEN PLANNED DEVELOPMENT



Source: L&L Environmental, Inc., (March 2020); Google Earth, (February 2018)

Heritage Tree Locations

Exhibit 5.1-3

Sensitive Plant Species

A total of 161 plant species have been observed during surveys. No listed plant species were observed during the current or previous botanical surveys or observed incidentally during other biological surveys. Two listed species have a moderate potential to occur: slender-horned spineflower and Santa Ana River woollystar. No listed species have a high potential to occur. No special status plant species were observed on the site during surveys, with the exception of a possible observation of the special status species chaparral sand verbena (*Abronia villosa* var. *aurita*). (BRA p.38)

*Listed Plant Species*Slender-horned Spineflower

Slender-horned spineflower (*Dodecahema leptoceras*) is state and federally listed as endangered and has a California Rare Plant Ranks (CRPR) of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The USFWS has not designated critical habitat and has not developed a recovery plan for this species. (BRA p. 40)

Slender-horned spineflower occurs in the immediate vicinity of the Project site, to the east and south within the Wash Plan area (Exhibit 5.1-4) but has not been observed on the Project site during multiple surveys from 2005 through 2019. Slender-horned spineflower may be confused with related taxa; however, no spineflower species, rare or common, have been identified on the site during multiple surveys. Potential habitat for slender-horned spineflower on the Project site has been further degraded by the loss of alluvial processes due to offsite development. The drainages across the Project site no longer receive the flows needed to scour and maintain RAFSS. (BRA pp. 40-41)

Under the Wash Plan, 20 extant patches and 36 historic (pre-2005) occurrences of slender-horned spineflower will be conserved along with adjacent habitat in the Wash Plan area. Habitat enhancement is also planned through control of invasive plants. (BRA p. 41).

Santa Ana River Woollystar

Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) is found in Riverside and San Bernardino Counties and presumed extirpated in Orange County. The species is state and federally listed as endangered and has a CRPR of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The USFWS has not designated critical habitat and has not developed a recovery plan for this species. (BRA p. 43)

Santa Ana River woollystar occurs in the immediate vicinity of the Project within the Wash Plan area. The closest of these are located within about 400 feet to the south and 900 feet to the east of the Project site (Exhibit 5.1-5) but has not been observed on the Project site during multiple surveys from 2005 through 2019. The California Natural Diversity Database (CNDDB) documents Santa Ana River woollystar throughout the area to the south and east of the Project site. This CNDDB occurrence (EO #5) is a huge area of scattered subpopulations but does not include more specific location information. (BRA p. 43)

Under the Wash Plan, 204.3 grid areas occupied by Santa Ana River woollystar will be conserved within the Wash Plan area (grid areas are 25 by 25 meters). Habitat enhancement is also planned through control of invasive plants. (BRA p. 44)

Special Status Plant Species

No special status plants were observed during the current or previous botanical surveys. One special status plant was reported onsite during small mammal trapping surveys. This plant was reported as *Abronia villosa* with no variety given. Based on the current known range of *A. villosa*, the taxon in the Project area would likely be the special status species chaparral sand verbena (*Abronia villosa* var. *aurita*). (BRA p.46)

Chaparral sand verbena

There is potentially suitable habitat on the Project site for chaparral sand verbena (*Abronia villosa* var. *aurita*), but no documented occurrences within 5 miles in the CNDDB. It has a CRPR 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). This taxon was not identified during any of the botanical surveys or other biological surveys and may have been confused with a common species with similar flowers, wishbone bush (*Mirabilis laevis* var. *crassifolia*). (BRA p.46)

Parry's spineflower

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) has a moderate or low to moderate potential to occur on the site. However, it was not found on the Project site during any of the botanical surveys or other biological surveys. It has a CRPR of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). (BRA p.46)

Plummer's mariposa lily

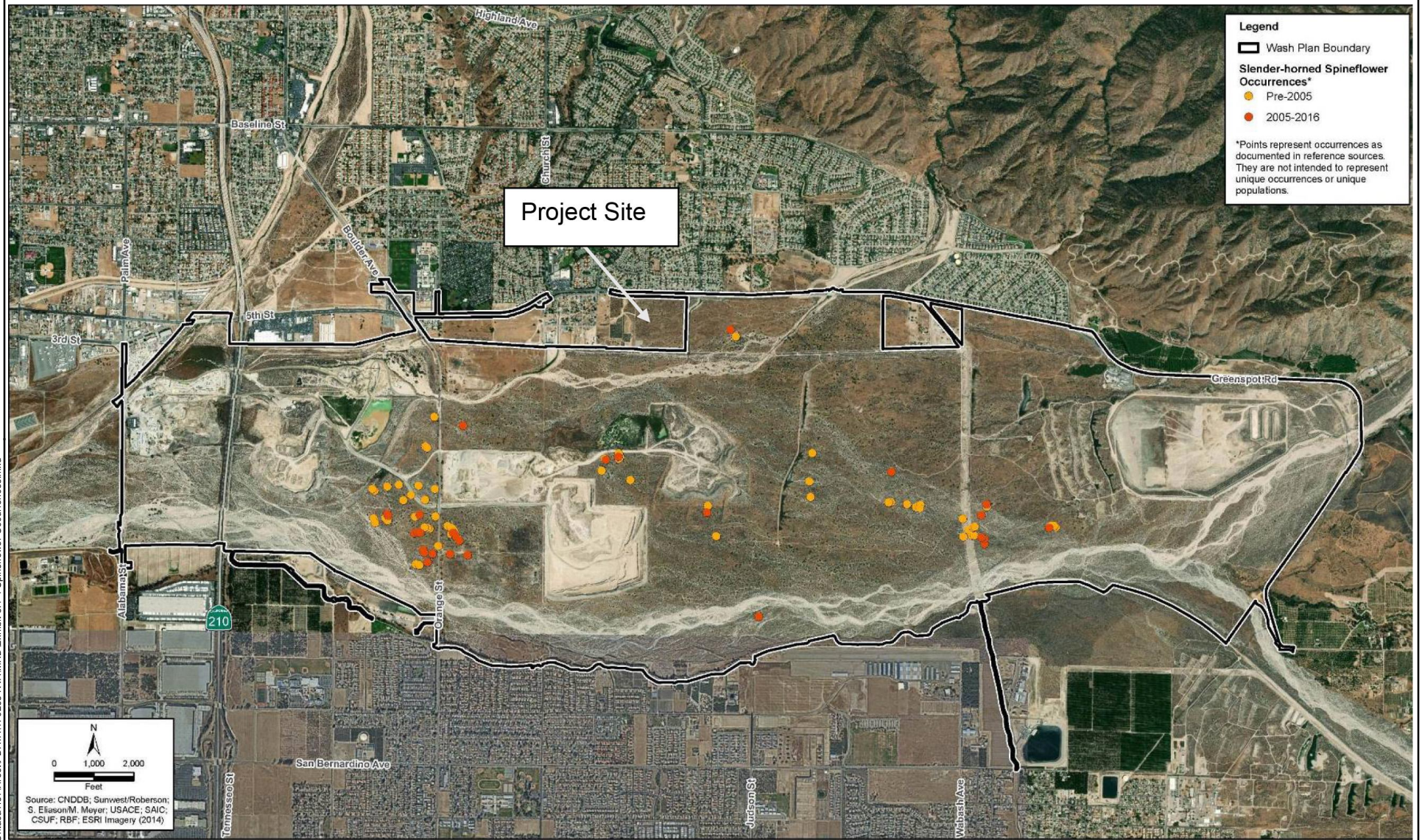
Plummer's mariposa lily (*Calochortus plummerae*) has a moderate or low to moderate potential to occur on the site. However, it was not found on the Project site during any of the botanical surveys or other biological surveys. It has a CRPR of 4.2 (Plants of limited distribution; fairly threatened in California). (BRA p.46)

Peninsular spineflower

Peninsular spineflower (*Chorizanthe leptotheca*) has a moderate or low to moderate potential to occur on the site. However, it was not found on the Project site during any of the botanical surveys or other biological surveys. It has a CRPR of 4.2 (Plants of limited distribution; fairly threatened in California). (BRA p.46)

Robinson's pepper-grass

Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) has a moderate or low to moderate potential to occur on the site. However, it was not found on the Project site during any of the botanical surveys or other biological surveys. It has a CRPR of 4.3 (Plants of limited distribution; not very threatened in California). (BRA p.47)



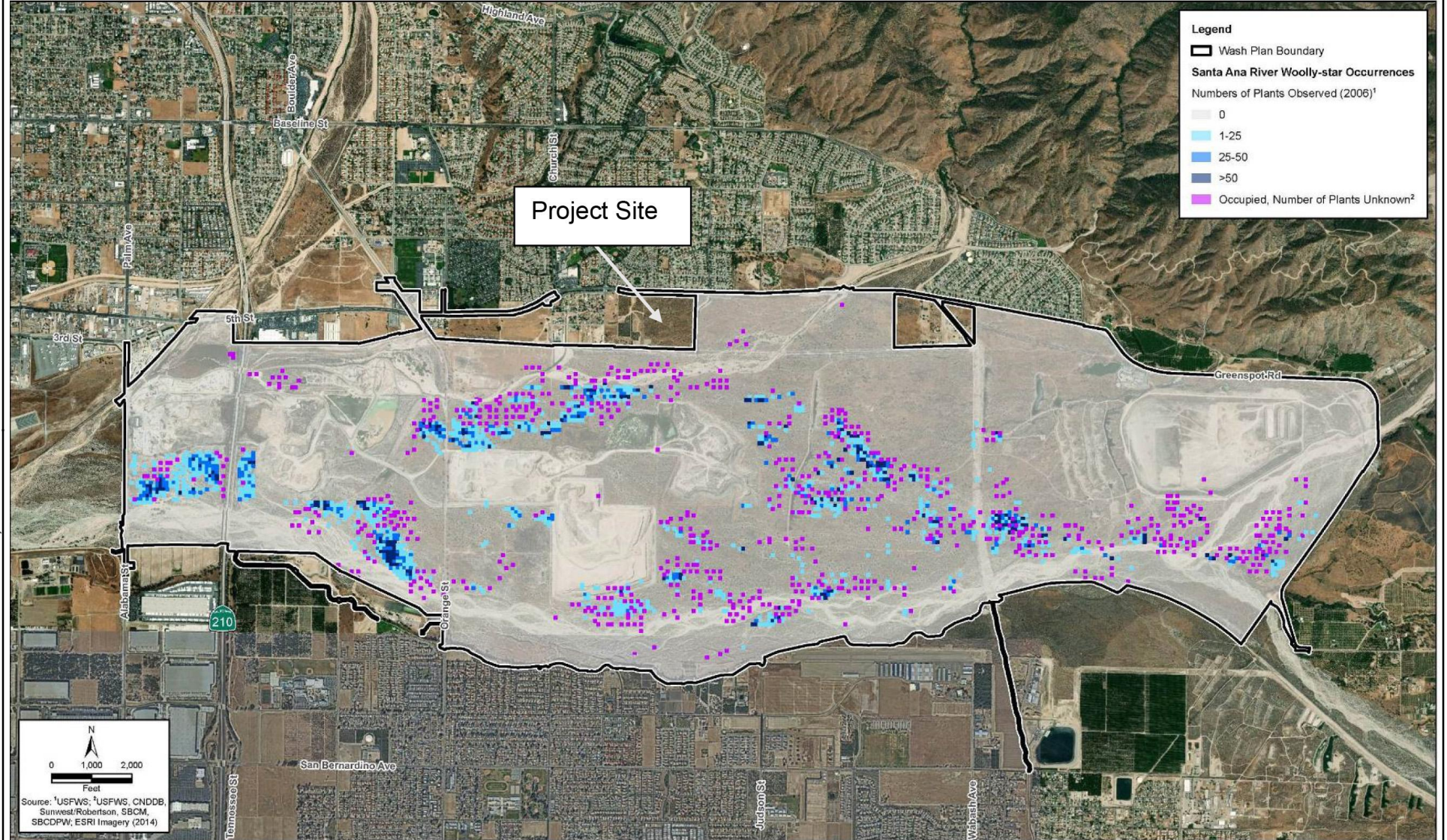
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Slender-horned Spineflower Occurrences in Wash Plan Area

Source: ICF, (2019), CNDD, Sunwest/Roberson; S. Eliason/M. Meyer; USACE; SAIC; CSUF; ESRI Imagery, (2014)

Exhibit 5.1-4



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Santa Ana River Woollystar Occurrences in Wash Plan Area

Source: ICF, (2019), USFWS, CNDD, Sunwest/Robertson; SBCM, SBCDPW, ESRI Imagery, (2014)

Exhibit 5.1-5

Wildlife

A total of 70 vertebrate animal species have been detected onsite during surveys conducted from 2005 to 2019. (BRA p. 50)

Sensitive Wildlife Species

Animals may be considered “sensitive” due to declining populations, vulnerability to habitat change or loss, or because of restricted distribution. Certain sensitive species have been listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal and/or state Endangered Species Acts (ESAs). Other species have been identified as sensitive by the USFWS and the CDFW. CDFW also places species on a Watch List (WL) that have previously been designated as species of special concern (SSC), or which do not yet meet the SSC criteria but for which there is concern and a need for additional information to clarify status. The 2008 USFWS Birds of Conservation Concern (BCC²) is the most recent effort to carry out the ESA and includes: nongame birds, gamebirds without hunting seasons, subsistence-hunted nongame birds in Alaska, ESA candidate, proposed, and recently delisted species.

*Listed and Fully Protected Wildlife Species*San Bernardino Kangaroo Rat

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*; SBKR) is federally endangered and became candidate species under the California Endangered Species Act (CESA) on August 21, 2019. In 2005, four SBKR were trapped in RAFSS habitat in the southeast corner of the site and one was trapped near the western limits by the joboba field. Eight SBKR were trapped on the Project site in 2011 and seven in 2016. One was trapped in the disturbed/agricultural areas and the remainder in RAFSS habitat. Most of the SBKR were trapped in sparse sage scrub and grassland habitats. Few were found in drainages, bare ground, or jojoba fields and there was a single capture in dense sage scrub. Most SBKR trapped were found in the eastern portion of the property. None were trapped in the eucalyptus groves in the northwestern portion of the site. Refer to Exhibit 5.1-6. (BRA pp. 55-56)

Trapping surveys conducted in 2018 included eleven individual SBKR (excluding recaptures). Of these eleven, two lactating females [average four pups per den] and one pregnant female [estimated four unborn pups]. Nine of these were in the RAFSS habitat and two were in or adjacent to the agricultural and disturbed areas on the west side of the site. Results indicate that occupied habitat is generally confined to the RAFSS habitat in the eastern portion of the site within and adjacent to the remnant drainages. Trapping results indicate that population density in the occupied areas of the site is trace to low, less than two SBKR per acre. (BRA p. 56)

SBKR habitat assessment results for the Wash Plan indicate that habitat immediately adjacent and similar to habitat on the Project site is rated as low or very low suitability for SBKR. Relatively few SBKR occurrences were documented in the Wash Plan area in the vicinity of the

² <https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

Project site as compared to areas further south near the Santa Ana River (Exhibit 5.1-7). (BRA p. 56)

Coastal California Gnatcatcher

Coastal California Gnatcatcher (*Poliioptila californica*; gnatcatcher) is federally Threatened and a California Species of Special Concern. Critical habitat was designated in 2000 and re-designated in 2008; the Project site is not located in designated critical habitat for this species. There is no approved draft or final recovery plan for this species. Biological surveys were conducted on the Project site by a gnatcatcher-permitted biologist from 2005 to 2019. No gnatcatchers were incidentally detected on the Project site during these surveys. Focused surveys for gnatcatcher were not conducted. Potentially suitable habitat is present on portions of the site, but it is primarily low quality and potential for occurrence of gnatcatcher is considered to be low. (BRA pp. 60-61)

The Wash Plan documents several occurrences of coastal California gnatcatcher within about 3 miles of the Project site. The closest is about 700 feet to the south. Gnatcatcher habitat in the Wash Plan area adjacent to the Project site is mapped as mainly low quality (potential foraging and dispersal habitat) or unsuitable, with some medium quality (potential wintering habitat) adjacent to the site to the south and southwest (Exhibit 5.1-8). (BRA p. 61)

White-tailed Kite

White-tailed Kite (*Elanus leucurus*) is a CDFW Fully Protected species. There is potentially suitable foraging habitat on the site and suitable nesting habitat in the eucalyptus groves and other large trees with a low to moderate potential for foraging or nesting on the site. There are no documented occurrences of nesting within 10 miles of the site in the CNDDDB. There are multiple eBird³ observations of white-tailed kite in the Wash Plan area in the vicinity of the Project site. White-tailed kite has not been observed on or near the site during biological surveys. Although potentially suitable habitat is present, there is no evidence that white-tailed kite is using the site for nesting. (BRA p. 63)

Special Status Wildlife Species

Several special status wildlife species were observed by biologists while conducting surveys of the site from 2005 through 2019. Details of observations are provided in Appendix B of the BRA. These species and their current conservation status are:

- Coastal (western) whiptail (*Aspidoscelis tigris stejnegeri*; CDFW Species of Special Concern)
- Cooper's hawk (*Accipiter cooperi*; CDFW Watch List species),
- Great blue heron (fly over) (*Ardea herodias*; CDFW Special Animal),

³ eBird is an online database used to find, explore, and track birds. eBird also offers a free mobile app that user can use offline while observing birds.

- Oak titmouse (*Baeolophus inornatus*; CDFW Special Animal, USFWS Bird of Conservation Concern),
- Costa's hummingbird (*Calypte costae*; CDFW Special Animal, USFWS Bird of Conservation Concern),
- Nuttall's woodpecker (*Picoides nuttallii*; USFWS Bird of Conservation Concern),
- Loggerhead shrike (*Lanius ludovicianus*; CDFW Species of Special Concern, USFWS Bird of Conservation Concern),
- Lawrence's goldfinch (*Spinus lawrencei*; CDFW Special Animal, USFWS Bird of Conservation Concern),
- Northwestern San Diego pocket mouse (*Chaetodipus fallax*; CDFW Species of Special Concern),
- Dulzura kangaroo rat (*Dipodomys simulans*; CDFW Special Animal),
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*; CDFW Species of Special Concern),
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; CDFW Species of Special Concern), and
- San Diego desert woodrat (*Neotoma lepida intermedia*; CDFW Species of Special Concern). (BRA pp. 63-64)

Other special status species with a low to moderate, moderate, or high potential to occur on the site are:

- Crotch bumblebee (*Bombus crotchii*; candidate for state listing),
- Southern California legless lizard (*Anniella stebbinsi*; CDFW Species of Special Concern),
- California glossy snake (*Arizona elegans occidentalis*; CDFW Species of Special Concern),
- Orange-throated whiptail (*Aspidoscelis hyperythra*; CDFW Watch List Species),
- Red-diamond rattlesnake (*Crotalus ruber*; CDFW Species of Special Concern),
- Coast horned lizard (*Phrynosoma blainvillii*; CDFW Species of Special Concern),
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*; CDFW Species of Special Concern),
- Two-striped gartersnake (*Thamnophis hammondi*; CDFW Species of Special Concern),
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*; CDFW Watch List species),
- Bell's sage sparrow (*Artemisiospiza belli*; USFWS Bird of Conservation Concern, CDFW Watch List species),
- Burrowing owl (*Athene cunicularia*; USFWS Bird of Conservation Concern, CDFW Species of Special Concern),
- Ferruginous hawk (*Buteo regalis*; USFWS Bird of Conservation Concern, CDFW Watch List species),
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*; USFWS Bird of Conservation Concern, CDFW Species of Special Concern),
- Wrentit (*Chamaea fasciata*; USFWS Bird of Conservation Concern),
- California horned lark (*Eremophila alpestris actia*; CDFW Watch List species),
- Merlin (*Falco columbarius*; CDFW Watch List species),

- Rufous hummingbird (*Selasphorus rufus*; USFWS Bird of Conservation Concern, CDFW Special Animal),
- Allen's hummingbird (*Selasphorus sasin*; USFWS Bird of Conservation Concern),
- Pallid bat (*Antrozous pallidus*; CDFW Species of Special Concern),
- Western mastiff bat (*Eumops perotis californicus*; CDFW Species of Special Concern),
- Western yellow bat (*Lasiurus xanthinus*; CDFW Species of Special Concern), and
- Southern grasshopper mouse (*Onychomys torridus ramona*; CDFW Species of Special Concern) (BRA pp. 64-65)

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is protected under the federal Migratory Bird Treaty Act and California Fish and Game Code and is a CDFW Species of Special Concern. It is a small, ground-dwelling owl found in open dry grassland, desert, or shrubland areas and in uncultivated agricultural areas, rangelands, and other open areas with low-growing vegetation. The CNDDB includes two documented occurrences of burrowing owl near the San Bernardino Airport, about 3.5 mi. west of the site. There are also multiple eBird observations of burrowing owl near the airport. Based on the available information, the potential for burrowing owl to occur on the site is low to moderate. Burrowing owl habitat assessments and focused surveys were conducted in 2005 and 2019 as shown below in table 5.1-B (BRA pp.37-41). Potentially suitable habitat is present, mainly in the disturbed areas on the west side of the site, but surveys did not identify any burrowing owl, occupied burrows, or burrowing owl sign. No owls or owl sign were incidentally observed during other biological resources surveys from 2005 through 2018. (BRA pp. 65-66)

Table 5.1-B Previous Surveys

Survey Dates (Reference)	Survey Area	Biologist(s)	Results
General Biological Resources			
June 2005 2 visits (L&L 2005a)	±70 acres (entire site plus 10-acre offsite parcel to the east)	Guy Bruyey	Site is a mix of agricultural and disturbed land and native habitat (alluvial fan sage scrub/juniper scrub). No special status plants observed. Special status wildlife detected (Cooper's hawk, Costa's hummingbird, western whiptail). Suitable habitat for nesting birds, including raptors. Suitable habitat for burrowing owl, but no owls or owl sign observed. (10-acre offsite parcel on the east side of the site, including Weaver Street Channel, was incorrectly included within the survey boundary).
June - September 2011 4 visits (L&L 2011)	±60 acres (entire site)	Guy Bruyey	Site is a mix of agricultural and disturbed land and native habitat (alluvial fan sage scrub/juniper scrub). No special status plants observed. Special status wildlife detected (San Diego black-tailed jackrabbit, loggerhead shrike, Lawrence's goldfinch, Costa's hummingbird). Suitable habitat for nesting birds, including raptors. Suitable habitat for burrowing owl, but no owls or owl sign observed.
April - August 2014 4 visits (L&L 2014a)	±21.5 acres (eastern portion)	Guy Bruyey	Eastern portion of site is relative undisturbed alluvial fan sage scrub/juniper scrub. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. Special status wildlife detected (San Diego black-tailed jackrabbit, great blue heron, Lawrence's goldfinch). Suitable habitat for nesting birds, including raptors.

Heatherglenn Planned Development DEIR

Biological Resources

Survey Dates (Reference)	Survey Area	Biologist(s)	Results
April - August 2014 4 visits (L&L 2014b)	±38.5 acres (western portion)	Guy Bruyey	About half of the western portion of the site is agricultural/disturbed land and about half is alluvial fan sage scrub/juniper scrub. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. Special status wildlife detected (San Diego black-tailed jackrabbit). Suitable habitat for nesting birds, including raptors.
April - July 2015 5 visits (L&L 2015a)	±21 acres (eastern portion)	Guy Bruyey	Vegetation communities unchanged from previous surveys. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. Special status wildlife detected (coastal whiptail, oak titmouse). Suitable habitat for nesting birds, including raptors.
April - July 2015 5 visits (L&L 2015b)	±38.5 acres (western portion)	Guy Bruyey	Vegetation communities unchanged from previous surveys. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. Special status wildlife detected (coastal whiptail). Suitable habitat for nesting birds, including raptors.
April - August 2016 3 visits (L&L 2016)	±38.5 acres (western portion)	Guy Bruyey	Vegetation communities unchanged from previous surveys. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. Special status wildlife detected (San Diego black-tailed jackrabbit). Suitable habitat for nesting birds, including raptors.
May – June 2018 2 visits (L&L 2018a)	±60 acres (entire site)	Guy Bruyey	Vegetation communities unchanged from previous surveys. No special status plants observed. Suitable habitat for burrowing owl, but no owls or owl sign observed. No special status wildlife detected. Suitable habitat for nesting birds, including raptors. Raptor nest offsite near southwest corner of site.
Burrowing Owl and Raptor Nest Survey			

Survey Dates (Reference)	Survey Area	Biologist(s)	Results
July 2005 6 visits (L&L 2005b)	Suitable habitat within entire site plus 150m buffer	Guy Bruyey, John Dicus, Melanie Dicus	Potentially suitable burrowing owl habitat and small mammal burrows present. No burrowing owl, owl sign, or occupied burrows found. Several potential raptor nest sites (inactive) in eucalyptus groves. No special status plants observed. Special status wildlife observed (coastal whiptail).

Other Wildlife Species

Invertebrates

The surveys did not include a compilation of common invertebrate species. The potential for occurrence of listed or special status invertebrates is addressed in Appendix C of the BRA; only the crotch bumble bee (*Bombus crotchii*) CESA Candidate Endangered has a moderate potential to occur. The Project site has potentially suitable habitat with many food plant species present. There are no documented occurrences within 5 miles but many scattered occurrences throughout the region. (BRA Appendix C, pp.136-137) No vernal pools or other ponding areas that could support fairy shrimp species were observed and soils that could support ponding are not mapped on the site. (BRA p. 67)

Fish

No perennial water is present on the site and there is no aquatic habitat to support fish species. (BRA p. 67)

Amphibians and Reptiles

No amphibians were detected onsite. Six (6) reptile species were observed onsite during current and previous surveys, including as previously mentioned; one (1) special status reptile species, coastal (western) whiptail (CDFW Species of Special Concern). A list of all reptile species identified onsite is provided in BRA Appendix A. (BRA p. 67)

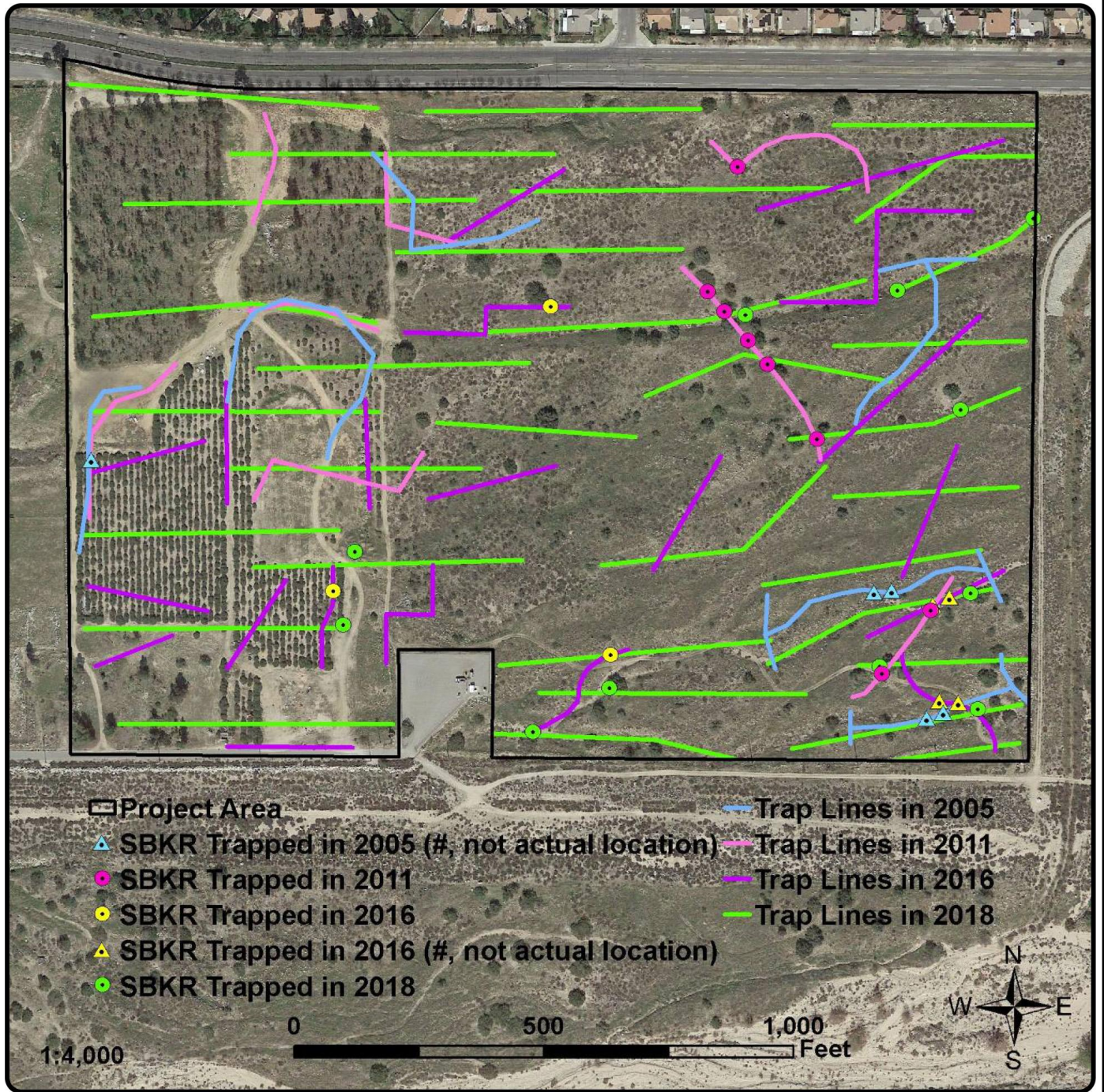
Birds

A total of 48 bird species were detected onsite during current and previous surveys, including as previously stated seven (7) special status birds and potential raptor nests. No burrowing owl or owl sign was observed during surveys. A list of all bird species detected onsite is provided in BRA Appendix A. (BRA pp. 67-68)

Mammals

A total of 16 mammal species were identified during the current and previous surveys (including domestic dog). Four (4) special status mammals were found on the site. Trapping surveys for SBKR incidentally trapped other special status small mammals: Los Angeles pocket mouse (LAPM), northwestern San Diego pocket mouse, and San Diego desert woodrat (all CDFW Species of Special Concern, and Dulzura kangaroo rat, a CDFW Special Animal. During the

2018 trapping effort, 2 LAPM, 83 northwestern San Diego pocket mouse, 1 San Diego desert woodrat, and 136 *Dipodomys deserti* kangaroo rat were trapped. (BRA pp. 66-67)



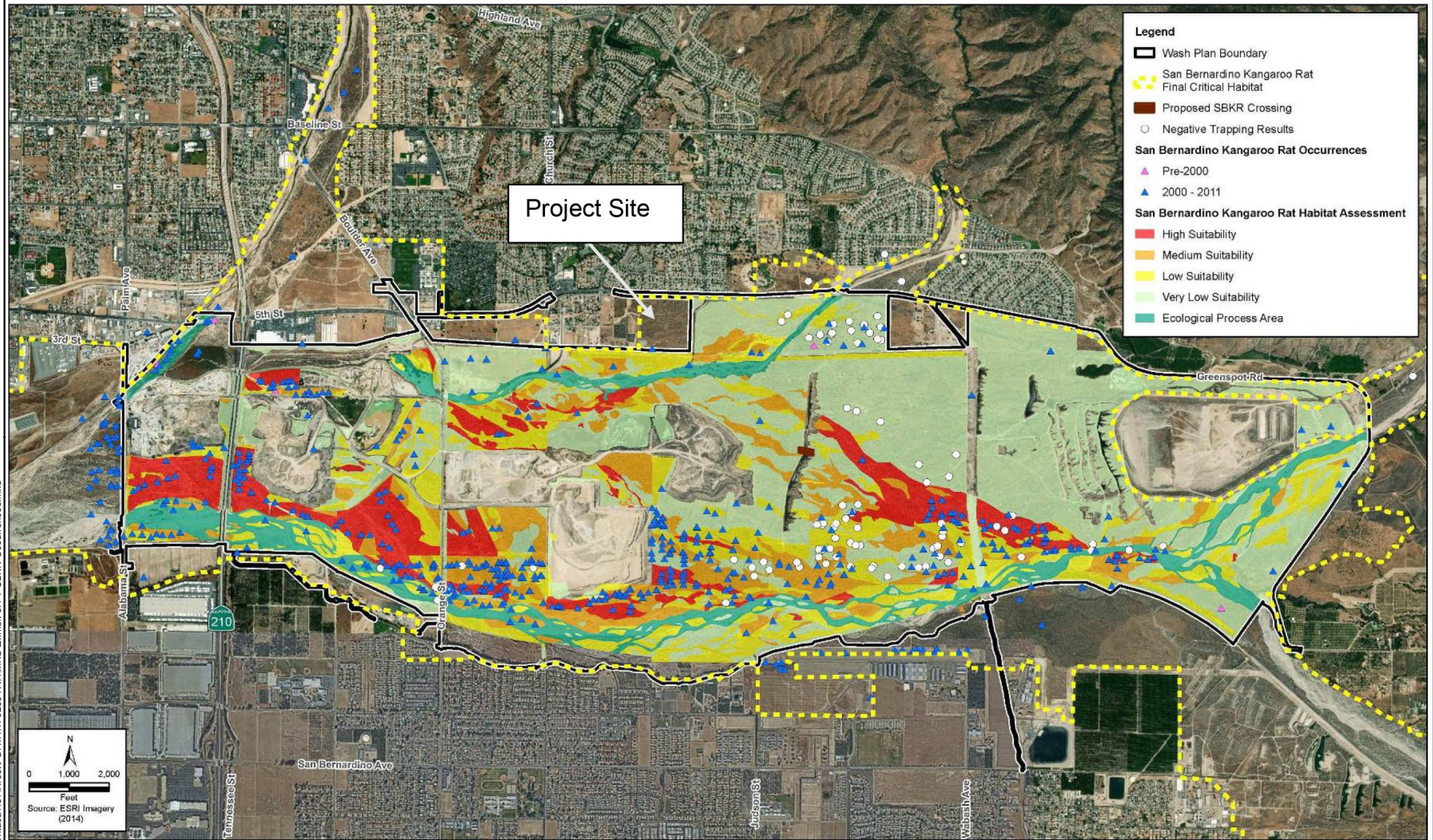
HEATHERGLEN PLANNED DEVELOPMENT



Traplines and SBKR Occurrences

Source: L&L Environmental, Inc., (March 2020); Google Earth, (February 2018)

Exhibit 5.1-6



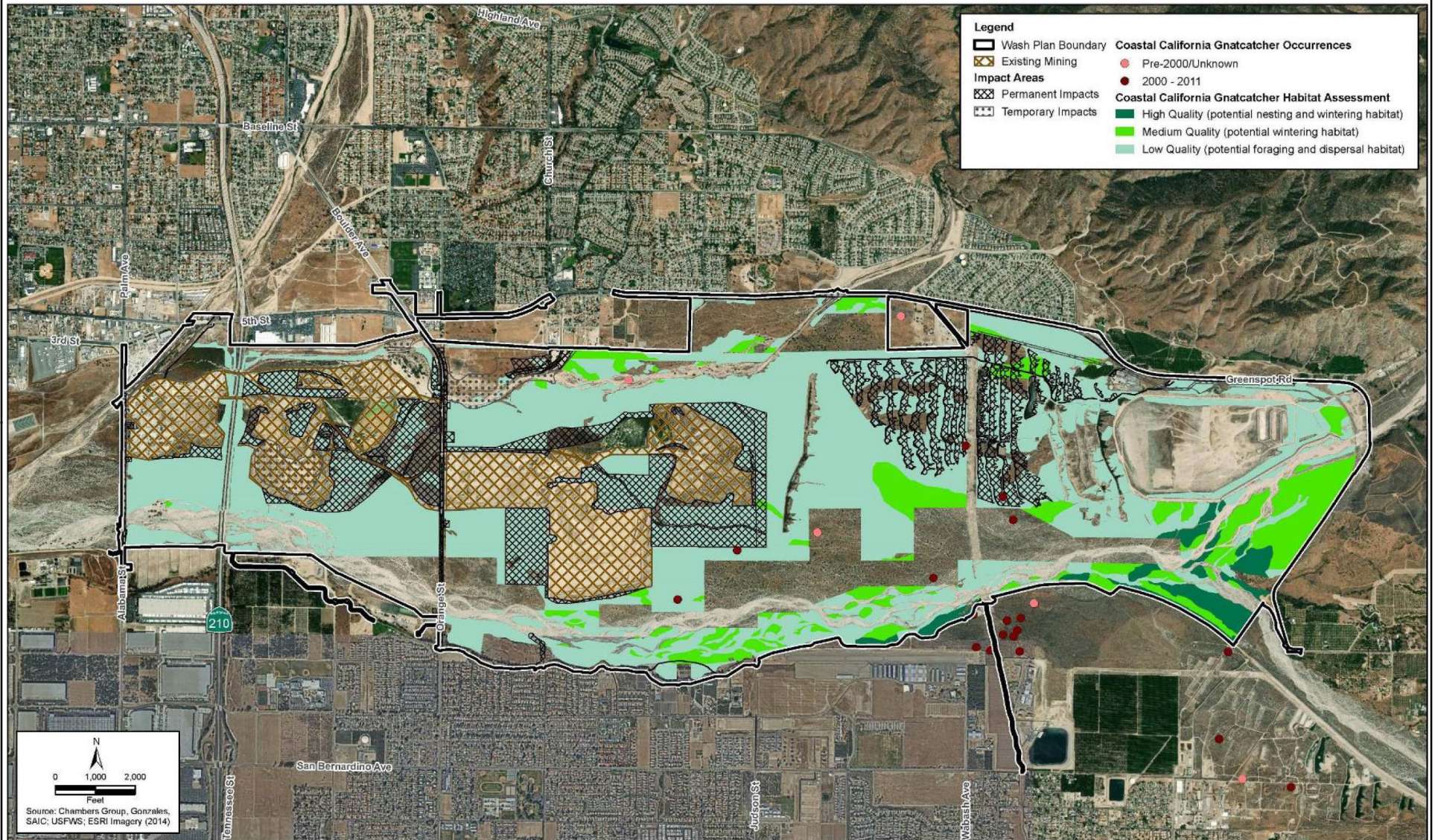
HEATHERGLEN PLANNED DEVELOPMENT



San Bernardino Kangaroo Rat Occurrences and Habitat in the Wash Plan Area

Source: ICF, (2019); ESRI Imagery, (2014)

Exhibit 5.1-7



HEATHERGLEN PLANNED DEVELOPMENT



Coastal California Gnatcatcher Occurrences and Habitat in the Wash Plan Area

Source: ICF, (2019); Chambers Group; Gonzales; SAIC; USFWS; ESRI Imagery, (2014)

Drainages and Jurisdictional Resources

Highland receives a considerable amount of runoff from watershed areas in the San Bernardino Mountains. This runoff flows along several improved, semi-improved, and unimproved flood control channels and creeks to the Santa Ana River and eventually to the Pacific Ocean. Plunge Creek, located to the east of the Project site, is one of eight major tributaries to the Santa Ana River, that traverse Highland from east to west. (City of Highland General Plan, Public Health and Safety Element pp. 6-15 – 6-16) Along Plunge Creek, just downstream of Greenspot Road, there are two levees (north and south) that flank both sides of the creek and help protect the area (including the Project site) from flooding, refer to Exhibit 5.9-1. The Weaver Street Channel is a diversion channel located immediately east of the Project site and directs flows from Cram Creek to the south, along the Project site's eastern boundary and into Plunge Creek and the Santa Ana Wash system. (BRA p.24)

Three historic ephemeral drainages are present on the site, trending from east to west (Features 1, 2, and 3; Exhibit 5.1-10). These drainages appeared as blue-line streams on previous USGS topographic quadrangle maps (2015 and earlier) but are not shown on the latest (2018) USGS map. No evidence of water flow was observed within these mapped features during recent surveys. All three features have been cut off from their upstream sources by previous offsite flood control projects and road development and no longer convey water onto or across the site. The construction of Weaver Street Channel to the east of the site has cut off the flows within Features 1, 2, and 2a. Construction of Greenspot Road and residential developments north of the site have cut off the flows within Feature 3. (BRA p. 69)

The historic ephemeral drainages are vegetated with common alluvial sage scrub perennials, including California buckwheat, California sagebrush, chaparral yucca, and yerba santa, and various low-growing native and non-native annuals. Scattered western sycamore trees are also present. There are no riparian or wetland plant communities present on the site. Soils mapped on the site are not suitable to support ponding and no naturally occurring vernal pool depressions or areas of standing water were observed on the site during surveys. Based on a jurisdictional delineation conducted in 2006 and updated in 2015 and 2017, there are no state or federal jurisdictional features within the Project site. (BRA p. 69)

Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Various studies have concluded that in the absence of corridors and larger habitat linkages that allow movement to adjoining open space areas, some wildlife species (especially the larger and more mobile mammals) will not likely persist over time. Such fragmented or isolated habitat areas hinder the transfer of new individuals and genetic information. (BRA p. 68)

Corridors mitigate the effects of this fragmentation by:

- Allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (fire, disease, etc.) will result in population or local species extinction; and
- Serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources. (BRA p. 68)

Wildlife movement activities usually fall into one of three movement categories: dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions), seasonal migration, and movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). (BRA p. 68)

The Project site is immediately adjacent to conserved lands in the Santa Ana Wash. The Santa Ana River is a major drainage that extends from the San Bernardino Mountains to the Pacific Ocean and is considered a regional wildlife corridor. San Bernardino County has identified the Santa Ana River as a wildlife corridor/open space area with connections to multiple other open space areas in the County. (BRA p. 68)

Historically, the Santa Ana River was likely to have supported substantial regional wildlife movement. However, loss of habitat due to development on the floodplain and surrounding areas, as well as construction of Seven Oaks Dam, are likely to have greatly reduced the amount of regional wildlife movement through the corridor. (BRA p. 69)

Upper Santa Ana River Wash Habitat Conservation Plan

The Project site is immediately adjacent to the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan), which encompasses approximately 4,892 acres, extending approximately 6 miles westward from Greenspot Road in the City of Highland to Alabama Street in the City of Highland. The south and east boundaries of the Project site are surrounded by the Wash Plan area. Greenspot Road on the north side of the Project site is also covered under the Wash Plan (Exhibit 5.1-1). The primary goal of the Wash Plan is to balance the ground-disturbing activities of water conservation, aggregate mining, recreational activities, and other public services in the Wash Plan area with the conservation of natural communities and populations of special-status plants and wildlife. The Wash Plan is part of the Incidental Take Permit (IRP) application submitted to the US Fish and Wildlife Service (USFWS) by the San Bernardino Valley Water Conservation District (SBVWCD) on behalf of the participating entities, including the City of Highland, City of Redlands, SBVWCD, East Valley Water District, Cemex, Inc., and Robertson's Ready-Mix.

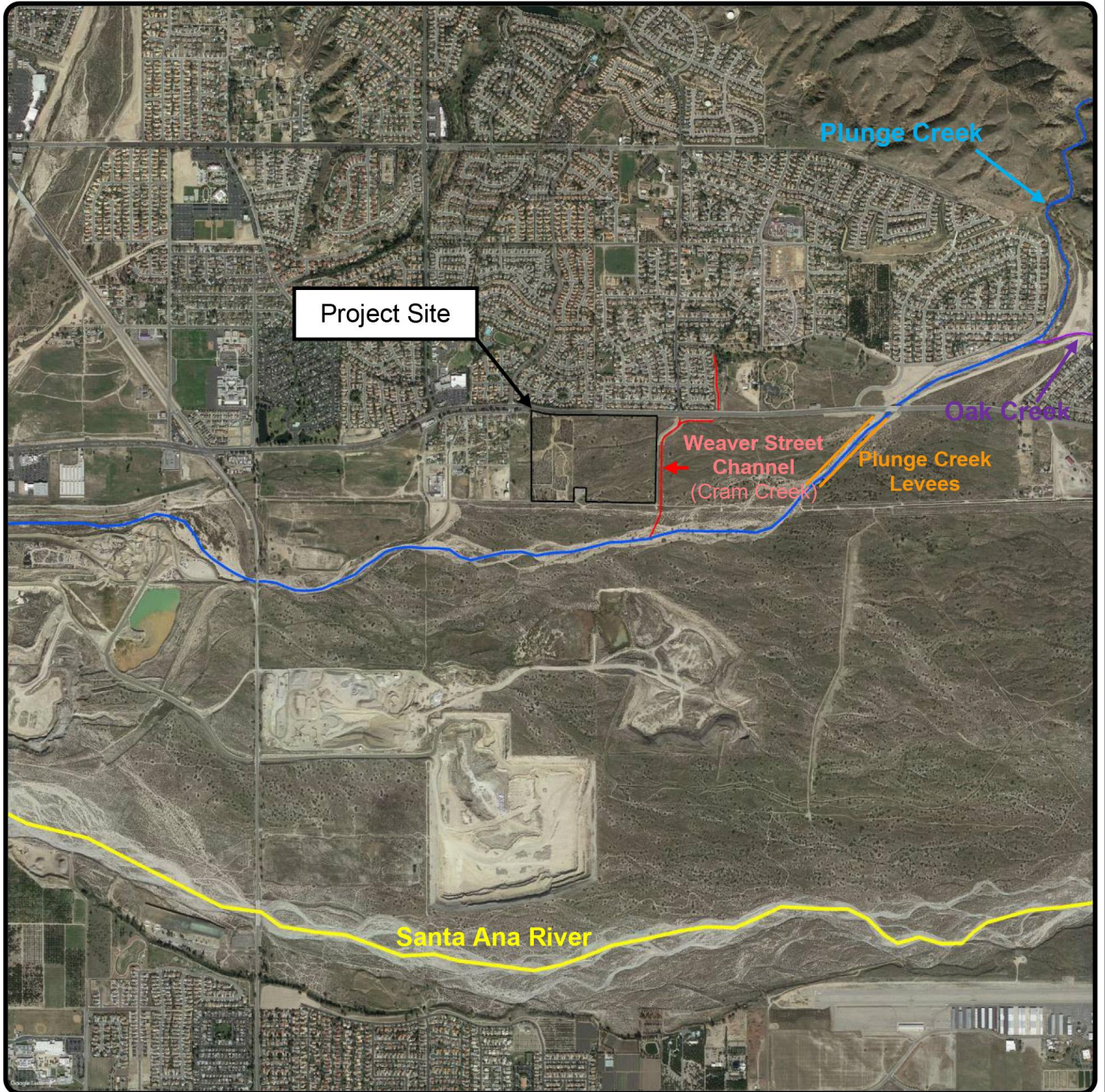
Covered Species in the Wash Plan include:

- San Bernardino kangaroo rat (*Dipodomys merriami parvus*; federally listed endangered, candidate for state listing as endangered, CDFW Species of Special Concern)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*; federal and state listed endangered, California Rare Plant Rank [CRPR] 1B.1)

- slender-horned spineflower (*Dodecahema leptoceras*; federal and state listed endangered, CRPR 1B.1)
- coastal California gnatcatcher (*Polioptila californica californica*; federally listed threatened, CDFW Species of Special Concern)
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*; CDFW Species of Special Concern, USFWS Bird of Conservation Concern, but it is not state or federally listed)

Implementation of the Wash Plan would result in permanent conservation and management of about 1,660 acres conservation of native habitats, that support slender-horned spineflower, Santa Ana River woollystar, cactus wren, California gnatcatcher, and San Bernardino kangaroo rat.

6/16/2020 JN \\Ontario\Tfs\Hroon\PDATA\170265 RVA\MXD\Exhibit 5.1-9 Waterways.mxd



HEATHERGLEN PLANNED DEVELOPMENT



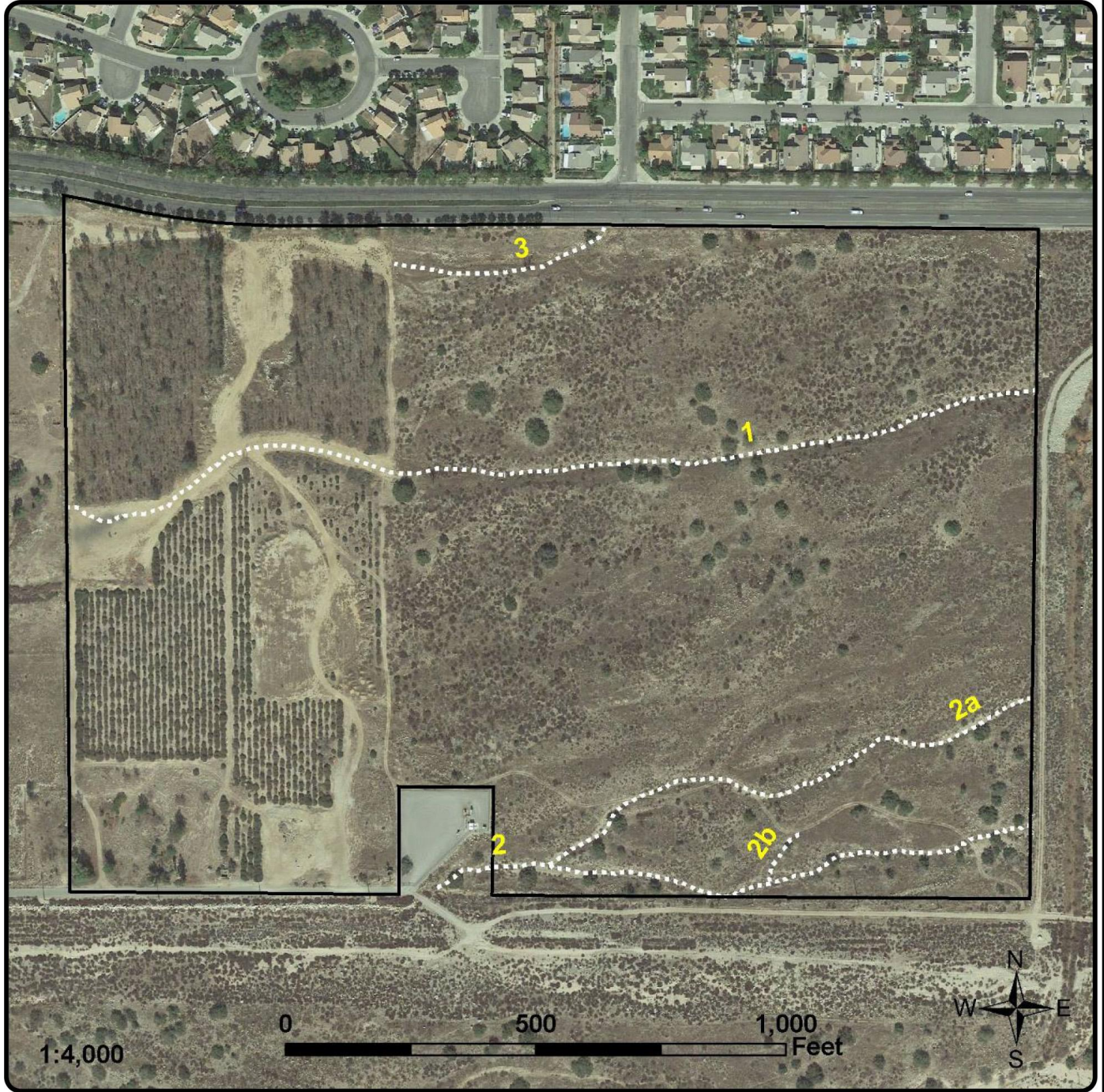
Not to Scale

Source: L&L Environmental, Inc., (March 2020); Google Earth, (February 2018)

Waterways in the Vicinity

Exhibit 5.1-9

6/16/2020 JN \\Ontario\Tfs\Hroon\PDATA\170265 RVA\MXD\Exhibit 5.1-10 Historic Drainages.mxd



HEATHERGLEN PLANNED DEVELOPMENT



Source: L&L Environmental, Inc., (March 2020); Google Earth, (February 2016)

Historic Drainages

Exhibit 5.1-10

5.1.1.1 Federal Regulations

Federal Endangered Species Act of 1973

The Federal Endangered Species Act of 1973 (FESA) (16 U.S.C. 1531–1543) and subsequent amendments provide for the conservation of endangered and threatened species and the habitats on which they depend. A federally endangered species is one that is facing extinction throughout all or a significant portion of its geographical range. A federally threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally threatened or endangered species on a site generally imposes constraints on development, and this is particularly true if development would result in a “take” of the species or its habitat, which is prohibited under Section 9 of the FESA. The term “take,” as defined under the FESA, means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct.” Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history. Thus, if a listed species is present on the Project site and take of the species cannot be avoided, the Project proponent must obtain an incidental take permit, issued by USFWS, through Section 7 or Section 10 Consultation. Habitat Conservation Plans (HCPs) for the impacted species must be developed in support of incidental take permits for non-federal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

San Bernardino Kangaroo Rat Critical Habitat

Critical habitat identifies specific areas, both occupied and unoccupied by a federally protected species, that are essential to the conservation of a listed species and may require special management considerations or protection. The location of a proposed project within critical habitat typically warrants a habitat assessment and, if suitable habitat is present, focused (protocol) surveys to determine presence or absence of the listed species. Any project involving a federal agency, federal monies, or a federal permit that falls within an area designated as critical habitat requires the project proponent to consult with the USFWS regarding potential impacts to the listed species and conservation measures to offset identified impacts.

The San Bernardino kangaroo rat was emergency listed as endangered in January 1998, when its population had been reduced by approximately 95 percent due to habitat loss, urban development, degradation, water conservation activities, and fragmentation owing to sand and gravel mining operations. The species are typically found on alluvial fans, in floodplains, along washes, in adjacent upland areas, and in areas with historic braided channels. Final designation of critical habitat for the San Bernardino kangaroo rat was issued in April 2002 (Department of the Interior 2002). Approximately 33,295 acres in San Bernardino and Riverside Counties have been designated as critical habitat for the species. Portions of the City are within Critical Habitat Unit 1 (Santa Ana River and San Timoteo Canyon), which covers, roughly, the areas encompassing City Creek, Plunge Creek, and the Santa Ana River wash. The project site is within Critical Habitat for the San Bernardino kangaroo rat as designated by the USFWS.

San Bernardino kangaroo rat occupied City Creek prior to floods in 2004; it has not been detected in the Creek in the vicinity of the project site since then. This species was last observed in 2018 during trapping surveys. Eleven SBKR individuals were identified with nine in the RAFSS habitat and two in or adjacent to the agricultural and disturbed areas on the west side of the site. However, the project site is not considered to contain optimal habitat for the species because the soils are too compacted.

Coastal California Gnatcatcher Critical Habitat

The coastal California gnatcatcher (*Polioptila californica californica*) was federally listed as threatened in 1993, CSC that typically occurs in or near coastal sage scrub habitat. A revised final designation of critical habitat for the species (50 CFR Part 17) was issued by the USFWS in December 2007. The designated habitat consists of 197,303 acres in a six-county area of southwestern California, Ventura to San Diego County. Under the Wash Plan, 1,292.2 acres of gnatcatcher habitat will be conserved with the Wash Plan area (70.5 acres of high quality habitat, 190.2 acres of medium quality habitat, and 1,031.5 acres of low quality habitat). The Wash Plan documents several occurrences of coastal California gnatcatcher within about 3 miles of the Project site. The closest is about 700 feet to the south. Gnatcatcher habitat in the Wash Plan area adjacent to the Project site is mapped as mainly low quality (potential foraging and dispersal habitat) or unsuitable, with some medium quality (potential wintering habitat) adjacent to the site to the south and southwest. High quality (potential nesting and wintering habitat) is mapped about 1.5 to three miles southeast and east of the Project site. The Project site is not within designated critical habitat for California gnatcatcher.

Clean Water Act

Pursuant to Section 404 of the CWA, the USACE regulates the discharge of dredged and/or fill material into waters of the U.S., including, but not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. The USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S. if a proposed activity can demonstrate compliance with standard conditions. Normally, the USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acres of waters of the U.S., and projects that result in impacts less than 0.5 acre can be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions.

The term “waters of the U.S.,” as defined in the Code of Federal Regulations (CFR) Section 328.3, include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sand-flats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, waters of the U.S., with at least intermittently flowing water or tidal influences are demarcated by an ordinary high water mark (OHWM). The OHWM is defined in CFR Section 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding

areas. In this region, the OHWM is typically indicated by the presence of an incised streambed with defined bank shelving.

The USACE defines a wetland (33 CFR 328.3(b)) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. As a result of the 2001 Solid Waste Agency of Northern Cook County (SWANCC) case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional.

Generally, the USACE does not assert jurisdiction over swales and erosional features, and ditches excavated wholly in or draining only uplands and that do not carry a relatively permanent flow of water. However, the USACE does reserve the right to regulate these waters on a case-by-case basis. Additionally, as part of the USACE permitting process, consultation with USFWS is required under Section 7 of the FESA for projects that may affect listed species or their designated habitat.

According to Section 401 of the CWA, “any applicant for a federal permit for activities that involve a discharge to waters of the state, shall provide the federal permitting agency a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the RWQCB.

Under Section 401 of the CWA, the RWQCB regulates all activities that are regulated by the USACE. Additionally, under the state’s Porter-Cologne Water Quality Act, the RWQCB regulates all activities, including dredging, filling, or discharge of materials into “waters of the state” that are not regulated by the USACE due to a lack of connectivity with a navigable water body and/or lack of an OHWM. The definition of “waters of the state” under the state Water Code is any surface water or groundwater, including saline waters, within the boundaries of the state, but may also include isolated waterbodies.

Migratory Bird Treaty Act

The MBTA protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs. Pursuant to the MBTA, it is unlawful to “take” (i.e., capture, kill, pursue, or possess) migratory birds or their nests. Nesting birds must not be disturbed. The MBTA requires that impacts to nesting bird species be minimized or eliminated by avoiding impacts to active nest sites present.

5.1.1.2 State Regulations

California Endangered Species Act

California Endangered Species Act (CESA) (Fish and Game Code 2050, et seq.) establishes that it is the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The state considers an “endangered” species one whose prospects of survival and reproduction are in immediate jeopardy. A “threatened” species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A “rare” species is one present in such small numbers throughout its portion of its known geographic range that it may become endangered if its present environment worsens. The rare species designation applies to California native plants. The term “species of special concern” is an informal designation used by CDFW for some declining wildlife species that are not state candidates for listing. This designation does not provide legal protection but signifies that these species are recognized as sensitive by CDFW.

CESA mandates that state agencies should not approve projects which would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. Section 2080 of the California Fish and Game Code provides the permitting structure for CESA. The “take” of a state-listed endangered or threatened species or candidate species will require incidental take permits as authorized by the CDFW. Thus, if a listed species is present on a project site and take of the species cannot be avoided, the project proponent must obtain an incidental take permit, as issued by the CDFW, through a 2081 permit or Memorandum of Understanding (MOU).

California Fish and Game Code

CDFW administers the Fish and Game Code. There are particular sections of the Fish and Game Code that are applicable to natural resource management. For example, Section 3503 of the Fish and Game Code states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under the MBTA. Fish and Game Code Section 3503.5 further protects all birds in the orders Falconiformes and Strigiformes, birds of prey such as hawks and owls, and their eggs and nests from any form of take. Fish and Game Code Section 3511 lists fully protected bird species where the CDFW is unable to authorize the issuance of permits or licenses to take these species.

Water resources are regulated by CDFW under Section 1600-1616 of the Fish and Game Code. Specifically, the Fish and Game Code makes it unlawful for any person to substantially divert or obstruct the natural flow or to substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or to use any material from the streambeds, without first notifying CDFW. CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, the location of definable bed and banks, and the presence of existing fish or wildlife resources. Further, CDFW jurisdiction is often extended to habitats adjacent to watercourses, such as oak

woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but re-emerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFW does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake. Waters that are jurisdictional to CDFW require a Streambed Alteration Agreement between the CDFW and the project proponent as set forth in Section 1602.

Porter-Cologne Water Quality Control Act

This Act is the principal law governing water quality regulation in the state. It is the policy of the state, as set forth by this Act, that the quality of all of the “waters of the state” shall be protected, and that all activities and factors affecting the quality of water be regulated to attain the highest water quality within reason. Pursuant to this Act, the RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state.” Waters of the state are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.”

5.1.1.3 Regional Regulations

Refer to *Upper Santa Ana River Wash Habitat Conservation Plan, Santa Ana River ACEC/RNA, and WSPA* above in Section 5.1.1.

5.1.1.4 Local Regulations

City of Highland General Plan Conservation and Open Space Element

The Highland General Plan Open Space and Conservation Element relates to comprehensive and long-range preservation and conservation of open space land for natural resource preservation, resource management, outdoor recreation and public health and safety. Natural resources include water, soils, rivers, wildlife, minerals, and other natural resources. Highland takes a broad and inclusive view for planning open space and natural resources and integrating them with future development is both a challenge and an opportunity. The City realizes that protecting these natural resources goes beyond a passive preservation role; it requires proactive management for the enjoyment of the entire community now and into the future.

The following goals and policies apply to the Project:

Goal 5.7 Maintain, protect, and preserve biologically significant habitats, including riparian areas, woodlands, and other areas of natural significance.

Policies

- 1) Continue participation, in cooperation with relevant agencies and jurisdictions, in the preparation, planning and implementation of Habitat Conservation Plans and preservation areas.
- 2) Ensure that all development, including roads proposed adjacent to riparian and other biologically sensitive habitat, avoid significant impacts to such areas.

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

- Minimize or eliminate the potential for unauthorized entry into the sensitive areas;
- 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;
- Protect wildlife crossings and corridors.

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

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.

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

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

8) Within rural and hillside residential areas, permit only such natural vegetation to be removed as is necessary to locate home sites, construct access roads and ensure fire safety.

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

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.

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

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 Highland Land Use and Development Code.

The following are provisions in the City of Highland's Land Use and Development Code (Title 16 of the Municipal Code) that are relevant to the proposed Project:

Chapter 16.64 (Environmental Management);

- **Section 16.64.040 (Heritage Tree Preservation Requirements).** Heritage trees defines as any live woody plant more than 15 feet in height and with a single-trunk circumference of 24 inches or greater; or a multi-trunk tree with total circumference of 30 inches or greater; or a stand of trees in which each is dependent on the others for survival; or any other tree as may be deemed historically or culturally significant by the Community Development Director designee because of size, condition, location, or aesthetic qualities (City of Highland Municipal Code section 8.36.020). Relocation, removal, or destruction of heritage trees is prohibited without first obtaining a tree removal permit from the Community Development Director. Exceptions to this policy are specified in said Section.
- **Section 16.64.050 (Riparian Plant Conservation).** The removal of any vegetation within 25 feet of the drip line of riparian vegetation along a USGS blueline stream or indicated as a protected riparian area on a community or specific plan, shall be subject to a tree removal permit in accordance with the procedures detailed by this section and shall be subject to environmental review.

5.1.2 Comments Received in Response to NOP

CDFW provided a comment letter on March 30, 2020 (contained in Appendix C) with the following comments and recommendations (summarized) for the EIR:

1. Include an assessment of habitat types and mapping following *The Manual of California Vegetation*, second edition (Sawyer et. al. 2009)
2. Include a biological inventory of fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and in adjacent areas including the California Natural Diversity Database (CNDDB)
3. Include a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the project footprint and within offsite areas with the potential to be affected
4. Include a thorough, recent, floristic based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*
5. Information on the regional setting, with special emphasis on resources that are rare or unique to the region
6. Include a full accounting of all open space and mitigation /conservation lands within and adjacent to the Project
7. Include an analysis of direct, indirect, and cumulative impacts to biological resources
8. An alternatives analysis
9. Mitigation measures for project impacts to biological resources

10. Address all impacts to listed species and specify a mitigation monitoring and reporting program that will meet the requirements of the California Endangered Species Act.

California Native Plant Society (CNPS) provided a comment letter on March 30, 2020 (contained in Appendix C) with the following comments and recommendations (summarized) for the EIR:

1. The project site contains juniper woodland, specifically *Juniperus californica/ Ericameria linearifolia/* annual – perennial herb association. From a regional perspective this vegetation type is extremely rare and is also listed by the state as a sensitive natural community. If avoidance is not feasible mitigation would be required to adequately compensate for its loss.
2. The CNDDDB includes records on the property for the following: San Bernardino kangaroo rat, coastal California gnatcatcher, California glossy snake, and two-striped gartersnake.
3. The following sensitive plants species have a high likelihood of occurring: Santa Ana River woollystar, slender-horned spineflower, Parry's spineflower.
4. Recommend reaching out to the Inland Empire Resource Conservation District (IERCD) and/or SBVWCD to discuss the potential purchase of these parcels for conservation purposes.

5.1.3 Project Design Considerations

The Project has been designed to avoid impacts to the ±6.59 acres of occupied SBKR habitat in the southeastern corner of the site. Lot L is 6.53 acres and will not be graded and developed but set aside and preserved as open space as designated on the Tract 17604 Comprehensive Site Plan.

A Project specific Water Quality Management Plan (WQMP) has been prepared and identifies the infrastructure and Best Management Practices (BMPs) to ensure stormwater runoff and non-stormwater runoff from the development will comply with Storm Water Regulations for new developments and will not result in discharge of polluted runoff to adjacent areas.

5.1.4 Thresholds of Significance

The City of Highland Planning Commission has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The City of Highland Planning Commission generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the State CEQA Guidelines. The Environmental Checklist prepared by the City for the Project (see Appendix A of this document) indicates that impacts related to the Heatherglen Planned Development Project may be considered potentially significant if the proposed project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in in local or

regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance;
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.1.5 Environmental Impacts before Mitigation

Threshold A: *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

The following discussion examines potential impacts to biological resources that may occur as a result of implementation of the proposed Project. Impacts can be direct, indirect, or cumulative. Direct impacts are those that are caused by a project and occur at the same time and place. Indirect effects are reasonably foreseeable and caused by a project but occur at a different time or place. Cumulative impacts are two or more individual effects which, when considered together, compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time.

Direct impacts include the loss, modification, or disturbance of vegetation communities, which in turn, directly affect plant and wildlife species dependent on those habitats, as well as the destruction of individual plants or wildlife. Direct impacts also include any effects that result from vegetation or ground disturbing activities during construction, including associated dust, noise, and vibration, etc.

Indirect impacts are the result of such things as introduction of invasive plants and animals; predator subsidies (i.e., food, water, perch sites, etc.) that lead to increased predation on wildlife; and harassment or predation by domestic animals. These impacts may change the

behavioral patterns of wildlife and reduce native plant and wildlife diversity and abundance in habitats adjacent to project sites.

Listed and Special-Status Plant Species

Two plant species were determined to have a moderate potential for occurrence at the Project site, the slender-horned spineflower and Santa Ana River woollystar. However, the focused plant surveys conducted throughout the blooming season (following protocols recommended by USFWS, CDFW and CNPS, did not reveal any sensitive, federal, or state listed plant species on the site. One special status plant species, chaparral sand verbena, may have been observed on the site although there is some uncertainty regarding this observation. Four other special status plants, Parry's spineflower, Plummer's mariposa lily, Peninsular spineflower, and Robinson's pepper-grass, have a moderate or low to moderate potential to occur, but were not observed during focused protocol surveys. (BRA p. 74)

Although not detected during focused protocol surveys, if slender-horned spineflower, Santa Ana River woollystar, or special status plants are present on or adjacent to the Project site, implementation of the construction phase of the Project could impact these plants through loss of habitat and loss of individuals within the disturbance area and degradation of habitat and loss or harm to individuals in the avoidance area or adjacent offsite areas due to human disturbance, dust, toxic emissions, or introduction and spread of invasive plants. During the operation phase of the Project, impacts to slender-horned spineflower, Santa Ana River woollystar, and special status plants in the avoidance area (if present) and in adjacent areas could occur due to human disturbance, dust, toxic emissions, or introduction and spread of invasive plants. These impacts potentially include degradation of habitat and loss of or harm to individuals or populations. (BRA p. 74-75)

The killing or possession of California rare, threatened or endangered plant species is prohibited by California law, however CDFW may issue permits authorizing the "take " of these species if the take is incidental to otherwise lawful activities and certain conditions are met. Under the federal Endangered Species Act, there are no prohibitions for the take of listed plants on non-federal lands, unless the taking is in violation of state law. However, if there is a federal nexus (federal funding, permitting, or ownership), consultation with the USFWS is required. (BRA p. 75)

If slender horned spineflower or Santa Ana woollystar are found on the Project site, within the construction footprint, an incidental take permit from CDFW will be required prior to any impacts. Any direct impacts to these listed species would be significant without mitigation. If chaparral sand verbena or Parry's spineflower are present in the disturbance area (or other CRPR 1B.x species), direct impacts to a individuals or a population of these species, could be significant without mitigation.

Listed, Fully Protected, and Special Status Wildlife

San Bernardino Kangaroo Rat

One listed species occurs on the Project site: SBKR. Direct and indirect impacts to SBKR will occur during construction of the Project and during subsequent occupation of the housing development and include loss and degradation of habitat in adjacent areas due to fugitive dust, toxic emissions, runoff, erosion/sedimentation, and invasive plants; displacement of individuals; potential injury and mortality of individuals; destruction of burrows with possible entombment of adults and young; potential entrapment in Project materials or excavations and resulting injury or mortality; physiological harm and behavioral disturbance from noise, lighting, dust, toxic emissions, fire ignition, and human disturbance; physical harm from toxic chemicals; and increased predation pressure resulting from predator subsidies (e.g., food and water sources) for coyotes and other native predators and introduction of domestic predators (cats) into the area. (BRA p. 78)

The Project will result in a loss of 32.01 acres of designated critical habitat on site. There are 3,258 acres of designated critical habitat for SBKR within the Santa Ana wash. The area of critical habitat on the Project site represents 0.98 percent of the total in the Santa Ana wash. Degradation of SBKR habitat on the site (including critical habitat) is largely due to the loss of alluvial processes, particularly as a result of previous flood control (Seven Oaks Dam and the Weaver Street Channel) and development projects. Mitigation for the Seven Oaks Dam included conservation of 764 acres of habitat in the WSPA. The Wash Plan will conserve about 1,530 acres of native habitats that support SBKR and other species. (BRA p. 78) Direct impacts to on-site individuals of SBKR and SBKR critical habitat, as well as off-site indirect impacts to SBKR individuals and critical habitat, would be significant without mitigation.

Coastal California Gnatcatcher

Coastal California gnatcatcher has not been incidentally observed on the site during multiple biological surveys from 2005 through 2019, habitat quality is low, and potential for occurrence is low. If present, potential Project-related impacts to California gnatcatcher include harm to individuals and loss of nesting and foraging habitat. Adult birds will typically avoid or flee from construction activities and other disturbance and the potential for physical harm would be limited to nests, eggs, and dependent juveniles. Potential impacts to California gnatcatcher nesting or foraging outside of the Project site could occur if construction activities exceed the Project boundary. California gnatcatcher is a federally listed species. If California gnatcatcher occur within the Project disturbance area, federal take authorization would be required. California gnatcatcher in adjacent habitat could also be impacted by fugitive dust, toxic emissions, noise, lighting, fire ignition, predator subsidies, domestic predators, and human disturbance. (BRA pp. 79-80) Direct and indirect impacts could be significant without mitigation.

White-tailed Kite

White-tailed kite has not been observed foraging or nesting on the Project site during surveys, but suitable habitat is present. White-tailed kite has a low to moderate potential for foraging or nesting on the site. If present, potential Project-related impacts to white-tailed kite include harm to individuals and loss of nesting and foraging habitat. Adult birds will typically avoid or flee from construction activities and other disturbance and the potential for physical harm would be limited to nests, eggs, and dependent juveniles. Potential impacts to white-tailed kite nesting or

foraging outside of the Project site could occur if construction activities exceed the Project boundary. White-tailed kite in adjacent habitat could also be impacted by fugitive dust, toxic emissions, noise, lighting, fire ignition, predator subsidies, domestic predators, and human disturbance. (BRA p. 80) Potential impacts could be significant without mitigation.

Burrowing Owl

Burrowing owl has not been detected on the site during surveys, although potentially suitable habitat is present. Because burrowing owls will tend to shelter in their burrows rather than flee from disturbance, adults as well as juveniles or eggs could be harmed by Project activities, if they were to start using the site prior to construction start. Potential impacts include loss or degradation of habitat; displacement of individuals; injury or mortality of individuals; potential entrapment in Project materials or excavations and resulting injury or mortality; physiological harm and behavioral disturbance from noise, lighting, dust, toxic emissions, fire ignition, and human disturbance; and physical harm from toxic chemicals. (BRA p. 81) Potential impacts to burrowing owl, if they were to occur on site, could be significant without mitigation.

Nesting Birds

There is potential habitat for nesting birds, including raptors, on and adjacent to the site. Adult birds will typically avoid or flee from construction activities and other disturbance and the potential for physical harm would be limited to nests, eggs, and dependent juveniles. The Project would also result in loss of trees and other habitat for nesting birds. Potential impacts to nesting birds outside of the Project site could occur if construction activities exceed the Project boundary. Nesting birds in adjacent habitat could also be impacted by fugitive dust, toxic emissions, noise, lighting, fire ignition, predator subsidies, domestic predators, and human disturbance. (BRA p. 82) Potential impacts could be significant without mitigation.

Other Special Status Species

Several special status wildlife species were detected on the site during surveys and several others have a low to moderate, moderate, or high potential to occur (refer to 5.1.1 Setting above, pages 5.1-15 to 5.1-17). Potential impacts include loss or degradation of habitat; displacement of individuals; injury or mortality of individuals; potential entrapment in Project materials or excavations and resulting injury or mortality; physiological harm and behavioral disturbance from noise, lighting, dust, toxic emissions, fire ignition, and human disturbance; and physical harm from toxic chemicals. Potential impacts to special status wildlife species outside of the Project site could occur if construction activities exceed the Project boundary. Special status species in adjacent habitat could also be impacted by fugitive dust, toxic emissions, noise, lighting, fire ignition, predator subsidies, domestic predators, and human disturbance. (BRA pp. 82-83) Potential impacts could be significant without mitigation.

Threshold B: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

RAFSS

Implementation of the Project will result in the direct permanent loss of ± 52.11 acres of various vegetation communities on the Project site. The entire ± 20.1 acres of agriculture and disturbed/ruderal/ornamental vegetation on the western portion of the site will be permanently removed. On the eastern portion, ± 32.01 acres of RAFSS will be permanently removed. An area of RAFSS in the southeast corner, totaling ± 6.59 acres, will be avoided and conserved. (BRA pp. 83-84)

Table 5.1-C. Vegetation Communities Impacted

Vegetation Community	Area (Acres)		
	Total Present	Impacted by Project	Avoided and Conserved
Agriculture - Jojoba	5.1	5.1	--
Agriculture – Eucalyptus Groves	5.6	5.6	--
Disturbed/Ruderal/Ornamental	9.4	9.4	--
Agriculture/Disturbed Subtotal	20.1	20.1	--
Riversidean Alluvial Fan Sage Scrub	38.6	32.01	6.59
Total	58.7	52.11	6.59

Agricultural and disturbed/ruderal/ornamental areas are not native vegetation communities and the loss of these areas would have no impact on the extent of native vegetation communities in the region. No mitigation is proposed for impacts to agricultural and disturbed/ ruderal/ ornamental areas. (BRA p. 84)

RAFSS is a sensitive vegetation community. The RAFSS habitat on the site has been degraded through loss of alluvial processes on the site due to offsite development, particularly the construction of the Seven Oaks Dam and Weaver Street Channel. Mitigation for the Seven Oaks Dam included conservation of 764 acres of habitat in the WSPA. The environmental documents regarding the Weaver Street Channel project could not be found; however, mitigation for the impacts to downstream habitat, including habitat on the Heatherglen Project site, should have been implemented to compensate for the lost habitat functions and values from that project. (BRA p. 84)

Potential direct impacts/ loss of ± 32.01 acres of degraded RAFSS habitat, and indirect impacts to RAFSS outside of the Project site would be significant without mitigation.

Wash Plan

The Project is immediately adjacent to sensitive vegetation communities and conservation lands within the Wash Plan. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan. Potential Project impacts include damage to habitat, plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust,

toxic emissions, noise, runoff, erosion/sedimentation, lighting, noise, fire ignition, introduction and spread of invasive plants, predator subsidies, domestic predators, and human disturbance. (BRA p. 89) Indirect impacts to sensitive vegetation communities preserved in the Wash Plan, outside of the Project site would be significant without mitigation.

Threshold C: *Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The three historic ephemeral drainages that cross the site (Refer to Exhibit 5.1-10) have been cut off from their upstream sources by previous offsite flood control projects and road development and no longer convey water onto or across the site. A jurisdictional delineation found that there are no state or federal jurisdictional water or wetlands present on the site. Therefore, no Project-related impacts to state or federal jurisdictional water or wetlands on the Project site would occur and no mitigation is proposed. (BRA p. 86)

The site is located within the Santa Ana wash (floodplain); Weaver Channel is adjacent to the site on the east and Plunge Creek is located just to the south. Weaver Street Channel directs flows from Cram Creek into Plunge Creek and the Santa Ana Wash system. (Refer to Exhibit 5.1-9) The Project will not encroach on either Plunge Creek or Weaver Street Channel. However, impacts such as dust, sedimentation, release of toxic chemicals, human disturbance, and invasive plants could affect these areas during construction and operation of the Project. (BRA p. 86) Potential impacts from the Project could be significant without mitigation.

Threshold D: *Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The functions and values of wildlife corridors, including the Santa Ana River wash, could be affected by Project related introduction and spread of invasive plants, dust, noise and vibration, lighting, domestic predators, and other anthropogenic disturbances. The Project is immediately adjacent to the covered area for the Wash Plan and associated conservation lands. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash plan, including wildlife movement through the Plan area. Potential impacts include damage to habitat, plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust, toxic emissions, noise, runoff, erosion/sedimentation, domestic predators, and human disturbance. (BRA pp. 87, 89) Potential impacts from the Project could be significant without mitigation.

Threshold E: *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance?*

The City of Highland General Plan Conservation and Open Space Element includes goals and policies for the protection of biological resources. These policies include preservation of habitat and wildlife corridors, preservation of biologically sensitive habitats, conservation of rare plants and animals, and protection or replacement of heritage trees. (BRA p. 88)

The Project will avoid approximately 30 of the total 114 heritage trees on site as they are located in the open space/conservation area of ±6.59 acres in the southeastern corner of the site. The avoided trees are mainly California juniper within the area proposed for permanent conservation in the southeast corner of the site. The remaining 84 trees, of which 11 are non-natives would be impacted (Table 5.1-D). Potential impacts from the Project could be significant without mitigation.

Table 5.1-D. Heritage Tree Impacts

Species	Total Trees (and large shrubs)		
	Total Present	In Impact Area	In Avoidance Area
Natives			
California juniper (<i>Juniperus californica</i>)	72	44	28
Western sycamore (<i>Platanus racemosa</i>)	20	20	0
Fremont cottonwood (<i>Populus fremontii</i>)	3	3	0
Hollyleaf cherry (<i>Prunus ilicifolia</i>)	3	1	2
Blue elderberry (<i>Sambucus nigra ssp. cerulea</i>)	2	2	0
Sugar bush (<i>Rhus ovata</i>)	2	2	0
Unidentified	1	1	0
Total Natives	103	73	30
Non-natives			
Tamarisk (<i>Tamarix species</i>)	5	5	0
Peruvian pepper tree (<i>Schinus molle</i>)	2	2	0
Russian olive (<i>Olea europaea</i>)	1	1	0
Ornamental pine (<i>Pinus species</i>)	1	1	0
Tree tobacco (<i>Nicotiana glauca</i>)	1	1	0
Eucalyptus (<i>Eucalyptus species</i>) – not within grove	1	1	0
Total Non-natives	11	11	0
Grand Total	114	84	30

Threshold F: *Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Project is immediately adjacent to the Wash Plan and associated conservation lands. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan. Potential Project impacts include damage to habitat, plants, and wildlife outside of the Project boundaries through direct loss or harm, fugitive dust, toxic emissions, noise, runoff, erosion/sedimentation, lighting, noise, fire ignition, introduction and spread of invasive plants, predator subsidies, domestic predators, and human disturbance. (BRA p. 89) Potential impacts from the Project could be significant without mitigation.

5.1.6 Proposed Mitigation Measures

An Environmental Impact Report is required to describe feasible mitigation measures that could minimize significant adverse impacts (State CEQA Guidelines Section 15126.4).

BIO-1: Disturbance Area Fencing

The Project disturbance areas shall be clearly fenced prior to vegetation clearing or grading to prevent incursion into the avoidance area or offsite habitat. No construction activities, equipment, materials, debris, or spoils shall be allowed in the avoidance area or offsite native habitat. Personnel shall be instructed to restrict activities to the disturbance area. Fencing shall remain in place and shall be maintained until replaced by permanent fencing/walls or until Project construction is complete.

BIO-2: Biological Monitoring

One or more qualified biological monitors shall be assigned to the Project to monitor construction activities. At least 15 calendar days prior to initiating Project activities, the resumes of biological monitors shall be submitted to CDFW and USFWS for review.

A biological monitor shall be present during all initial site clearing activities (vegetation clearing and ground disturbance) and any other construction activities (fence installation, scalebroom eradication) that could result in take of listed or special status species and at least once per week throughout the duration of construction to ensure compliance with mitigation measures and incidental take permit conditions.

Monitors shall be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, and sensitive biological resources are avoided to the extent possible. The biological monitor shall have the authority to halt/suspend all activities until appropriate corrective measures have been implemented.

BIO-3: WEAP Training

Biological monitors shall conduct Workers Environmental Awareness Program (WEAP) training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. All onsite personnel must attend WEAP training prior to the start of any ground-disturbing activities. Attendance at training will be documented and workers provided with a hardhat sticker.

Training will include information about listed and special status species and sensitive habitat on the Project site and adjacent areas, responsibilities of the biological monitor, mitigation measures and permit conditions, restrictions on activities, and contact information for the biological monitor. Supporting materials such as images and descriptions of species and instructions on what to do and who to contact (includes contact information) if any of the identified species are encountered, will be provided to all personnel during the training program. Informal or formal refresher training shall be conducted as needed to maintain compliance.

BIO-4: Preconstruction Clearance Surveys

A qualified biologist shall conduct clearance surveys for listed and special status plant and wildlife resources within or adjacent to the Project disturbance area within three (3) calendar days prior to initial vegetation clearing and ground disturbance, including fence installation and scalebroom removal. The biologist shall inspect debris piles, pipes, burrows, vegetation, and other potential refugia prior to initiation of clearing, grubbing, grading, or any other project activity that may injure listed or special status wildlife species. The biologist shall also survey any trees, structures, rock piles, etc. that may provide roosting habitat for bats. The survey will be done on the area(s) scheduled for work within the next (3) calendar days and repeated as needed until initial vegetation clearing and ground disturbance has been completed on the entire Project disturbance area.

Prior to construction each day, biological monitors shall conduct a 'clearance sweep' of all areas scheduled for construction to confirm that listed and special status species are not present.

If any listed or special status plants or wildlife are found, the biological monitor shall take appropriate action as defined in mitigation measures BIO-5, BIO-6, BIO-7, BIO-9, and BIO-11), permit conditions, and regulations. Federal, state, and local agencies will be consulted as needed and appropriate. If the biological monitor determines it to be necessary, an appropriate avoidance buffer with a radius of no less than 100 feet will be established to protect the resource until required actions have been completed.

If any common wildlife species are present in work areas, the biological monitor shall move the animal to nearby suitable habitat or encourage it to move out of harm's way, if safe and feasible to do so.

Monitoring and survey activities shall be documented through daily monitoring reports, survey reports, and monthly summary reports. A final compliance report will be prepared at the conclusion of Project construction activities. All reports will be submitted to the lead agency, CDFW, and USFWS.

BIO-5: Burrowing Owl

A preconstruction clearance survey for burrowing owl shall be conducted by a qualified biologist within no more than 30 calendar days prior to any site disturbance, including vegetation removal or mowing, ground disturbance, fence installation, etc. The survey will be conducted as close to the actual initiation of site disturbance as possible. The survey is valid for 30 calendar days. If work does not commence within the 30 days, the survey shall be repeated. If work starts and is suspended for 30 or more calendar days, the survey shall be repeated.

If burrowing owls are found on the site during their nesting season (February 1 to August 31), an avoidance buffer shall be established in coordination with CDFW. The buffer shall be no less than 300 feet, or as required by CDFW. If burrowing owls are found on the site outside of nesting season, passive relocation efforts shall be conducted in coordination with CDFW. With approval from CDFW, passive relocation shall include installation of one-way doors in burrow openings. Burrows shall be closed or collapsed following verification that burrows are empty through monitoring and scoping.

BIO-6: California Gnatcatcher

Prior to the start of any ground disturbing activities associated with construction a survey for California gnatcatcher shall be conducted by a qualified biologist holding a valid USFWS 10(a)(1)(A) permit for gnatcatcher. The survey shall be conducted in accordance with USFWS protocol and may be conducted during either the breeding season (March 15 through June 30) or the non-breeding season (July 1 through March 14). Survey results shall be provided to CDFW and USFWS.

If the survey finds California gnatcatcher within the Project disturbance area, California gnatcatcher shall be included in the application for federal take authorization along with San Bernardino kangaroo rat. No ground disturbance shall occur on the Project site until federal incidental take authorization is obtained.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas of the Project site utilized by California gnatcatcher (as observed during protocol surveys) and a 500-foot buffer (within the boundaries of the Project site). Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS (or as required by the incidental take permit). This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for California gnatcatcher.

Nesting bird surveys shall be conducted as specified in Mitigation Measure BIO-6. If nesting gnatcatchers are present and federal incidental take authorization has been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest (or as required by the incidental take permit) and immediately reported to CDFW and USFWS. The nest shall be monitored at least once per week by the permitted biologist to determine if the buffer is sufficient to prevent construction-related disturbance to the nesting gnatcatchers. If the buffer is insufficient, additional measures shall be implemented and may include a larger buffer, suspending or redirecting construction activities, or other appropriate measures as determined by the biologist (or as required by the incidental take permit). The buffer and any other measures employed shall remain in place until the permitted biologist has determined that juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. Nest monitoring reports shall be provided to CDFW and USFWS, including nest outcomes.

If nesting gnatcatchers are present and federal incidental take authorization has not been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest and USFWS and CDFW shall be immediately contacted for guidance.

BIO-7: Nesting Birds

Initial site disturbance (vegetation and ground disturbance, tree removal, fence installation, scalebroom eradication) shall be scheduled outside of the nesting season of January 15 to August 31, if feasible as determined by the project proponent. The nesting season is If initial site

disturbance cannot be scheduled outside the nesting season, a preconstruction survey for nesting birds shall be conducted by a qualified biologist or biological monitor within three (3) days prior to any site disturbance during the nesting season.

If active nest(s) are present, an avoidance buffer of 500 feet for raptors and special status birds and 300 feet for all other birds (or as recommended by the Project biologist) shall be established and maintained until a qualified biologist or biological monitor has determined that the juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. An active nest is defined as a nest with eggs, chicks, or dependent juveniles, or a nest actively being constructed or utilized for reproduction.

The size of the buffer shall be determined by a qualified biologist based on the nature of proposed Project activities, the birds' tolerance to disturbance (if known), conservation status of the affected species, and any applicable agency recommendations or requirements. The boundary of the buffer shall be clearly flagged or marked, and construction crews informed of the restrictions.

BIO-8: San Bernardino Kangaroo Rat

The Project proponent shall obtain federal incidental take authorization for San Bernardino kangaroo rat (SBKR) through Section 7 of the federal Endangered Species Act (if there is a federal nexus) or through Section 10 of the ESA (if there is no federal nexus). If SBKR is a state listed or candidate species at the time the Project is scheduled to proceed, state incidental take authorization shall also be obtained through either an Incidental Take Permit (2081 permit) or a Consistency Determination. The Project proponent shall be responsible to provide any required surveys, reports, and documentation to support the permitting process. The Project proponent shall comply with all terms and conditions of the incidental take authorization(s), including required mitigation and monitoring.

Project-related impacts to occupied SBKR habitat shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of critical habitat that will be impacted on the site (or as required by the incidental take permit).

The Project shall avoid impacts to the ±6.53 acres of occupied habitat in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity by an agency-approved conservation entity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other conservation entity acceptable to CDFW and USFWS. The Project proponent shall prepare a Habitat Enhancement Plan for the ±6.59 acres for SBKR, in coordination with the conservation entity and subject to review and approval by CDFW and USFWS and provide funding to fully implement the Habitat Enhancement Plan in conjunction with the conservation entity.

Prior to the start of Project activities, the Project proponent shall prepare a San Bernardino Kangaroo Rat Relocation Plan. The Plan will be submitted to the USFWS and CDFW for review and approval prior to the start of construction. Once approved by these agencies, the Project

proponent shall be responsible for implementation of the Plan. The Plan shall include, but shall not be limited to the following topics:

- Exclusion fencing – type, location, installation methods, monitoring and protection or excavation of burrows during installation, inspection and maintenance
- Trapping and removal of SBKR from the Project disturbance area prior to construction – timing, duration, methodology, marking animals, qualifications of trapper
- Temporary holding of trapped animals – housing, feed, duration
- Relocation site selection – parameters for selection of suitable areas, alternatives, coordination with landowner/manager, data collection
- Relocation site preparation – artificial burrows, habitat restoration/enhancement, predator exclusion
- Relocation of SBKR – timing, methods, reporting
- Post-relocation monitoring and reporting – methods, duration and timetable, report contents

The Plan shall also include a strategy for the relocation of other special status small mammals that are incidentally caught during SBKR trapping. Once approved by USFWS and CDFW, the Project proponent shall be responsible for implementation of the Plan.

If a dead, injured, or entrapped SBKR is found during construction of the Project, workers will immediately notify the biological monitor. The monitor will notify USFWS and CDFW immediately (via phone, email, or text) with written follow-up report within two working days. Agency guidance shall be immediately sought for appropriate actions to release entrapped SBKR.

Rodenticides, herbicides, insecticides, or other chemicals that could potentially harm SBKR shall not be used on the Project site during the construction phase.

BIO-9: Wildlife Hazards

All potential wildlife pitfalls (trenches, bores, and other excavations) shall be backfilled or securely covered at the end of each workday. If backfilling or covering is not feasible, wildlife escape ramps shall be installed, in consultation with the biological monitor, with a minimum 3:1 slope and sufficient to allow trapped wildlife to escape. Project workers or the biological monitor will inspect all excavations for trapped wildlife daily.

All construction pipes, culverts, or other hollow materials shall be securely covered or capped while stored on the Project site to prevent wildlife access. All such materials shall be inspected for wildlife before being moved, buried, or capped.

If wildlife become trapped, the biological monitor shall remove the animal (if feasible and safe to do so) and place it in nearby suitable habitat outside of the impact area. If the biological monitor is unable to remove the animal, CDFW or other wildlife authority will be immediately contacted for guidance and/or assistance. Any wildlife encountered on the Project site shall be allowed to leave the area unharmed or moved (or gently encouraged to move) out of harm's way by the biological monitor, if safe and feasible to do so.

Project personnel shall not bring firearms or pets onto the Project site. Firearms carried by authorized security personnel are exempt.

Trash brought onsite by workers, especially food items or packaging that could attract wild or domestic predators, will be kept inside vehicles or in securely closed containers and removed from work areas daily.

BIO-10: Riversidean Alluvial Fan Sage Scrub

Project-related impacts to the Riversidean Alluvial Fan Sage Scrub (RAFSS) shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of RAFSS that will be impacted on the site. The Project proponent shall purchase mitigation credits at an agency-approved mitigation bank or equivalent mitigation at a ratio of no less than 0.5:1. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes RAFSS.

The Project shall avoid impacts to the ±6.59 acres of RAFSS in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other entity acceptable to CDFW and USFWS.

BIO-11: Listed and Special Status Plants

Prior to the start of construction, a focused survey for slender-horned spineflower and Santa Ana woollystar shall be conducted by a qualified botanist. The survey shall be conducted in accordance with CDFW protocols and include all potentially suitable habitat on the Project site. The survey shall be conducted during the appropriate blooming season, as verified by visits to known reference sites, and during a year with average or above-average precipitation. The botanist shall also verify the identification of sapphire woollystar present on the site and examine plants for any evidence of hybridization with Santa Ana River woollystar. A survey report shall be prepared and submitted to the lead agency, CDFW, and USFWS.

If the survey finds slender-horned spineflower or Santa Ana woollystar within the Project disturbance area, the occupied habitat area(s) shall be mapped using GPS and an avoidance buffer of 100-foot radius established. An incidental take permit application shall be prepared and submitted to CDFW and slender-horned spineflower and/or Santa Ana woollystar shall be included in the application for federal take authorization prepared for San Bernardino kangaroo rat. No impacts within the avoidance buffer shall occur until state and federal incidental take authorization is obtained. CDFW and USFWS shall be sought for the appropriate treatment of sapphire woollystar-Santa Ana River woollystar hybrids, if any appear to be present.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas occupied by slender-horned spineflower and/or Santa Ana woollystar plants plus a 100-foot radius area around each occurrence. Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS. This

mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for slender-horned spinyflower or Santa Ana woollystar.

The focused surveys shall also include special status plants. If chaparral sand verbena, Parry's spinyflower, or other special status plants with a CRPR of 1B.x are present in the disturbance area, propagules will be collected prior to the start of construction and planted in the avoidance area.

BIO-12: Heritage Trees

All heritage trees (as defined by City of Highland Municipal Code), excluding the eucalyptus groves, shall be replaced at a 2:1 ratio or as required by the City of Highland.

Trees that will not be removed shall be protected from damage or disturbance during construction in compliance with the City of Highland Municipal Code.

BIO-13: Adjacent Habitat

The Project shall incorporate measures to ensure that runoff is not altered in an adverse way as compared to existing conditions, which includes landscape irrigation. Stormwater systems shall 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 in adjacent habitat.

Best management practices (BMPs) as outlined in the project-specific Water Quality Management Plan (WQMP) shall be employed during Project construction to control fugitive dust, toxic emissions, noise, runoff, and erosion/sedimentation to ensure that adjacent offsite habitat and waterways are not impacted. BMPs include regular street sweeping, drainage facility maintenance and litter control as well as efficient irrigation and infiltration basins.

Any permanent lighting shall be directed away from adjacent habitat. Construction activities shall be limited to daylight hours.

Construction activities that generate noise in excess of 60 dBA Leq hourly, as measured at the nearest boundary of the Project site with adjacent habitat, shall incorporate noise-reducing features, as appropriate, to minimize the effects of noise on the adjacent habitat.

A permanent block wall shall be installed by the project proponent between the Project and the avoidance area and adjacent native habitat to limit access by residents and domestic animals. The Project proponent shall provide educational materials to homeowners, prior to occupation of residences, regarding the plants and animals present in the adjacent habitat and their conservation value.

In coordination with the San Bernardino Valley Water Conservation District (SBVWCD), the Project proponent shall place educational signage at any access point(s) to the adjacent native habitat to explain the value and sensitivity of the habitat and encourage stewardship. The Project proponent shall also work with SBVWCD to develop appropriate signage for the community trail and integrate it into existing or proposed trails in the Wash Plan area. The

community trail shall be restricted to non-motorized use. Appropriate fencing or barriers will be installed to prevent access by motorized vehicles, as needed.

Adequate fire suppression capability shall be maintained in active construction areas, including having a water tender on site during periods of high fire danger. Appropriate fire prevention measures shall be employed during grinding, welding, and other spark-inducing activities near vegetated areas.

Dust control measures shall be employed to control fugitive dust and minimize impacts on adjacent vegetation. If watering is used to control dust, pooling of water will be minimized to the extent feasible to avoid attracting predators. Vehicles moving within the Project site shall be limited to a speed of 15 miles per hour.

Equipment and material storage, fueling, and staging areas shall be located within the Project disturbance area at least 100 feet from adjacent habitat and necessary precautions shall be taken to prevent any runoff from entering adjacent habitat. Project-related spills of hazardous materials shall be cleaned up immediately and contaminated soils removed from the site for proper disposal.

BIO-14. Invasive Plants

To prevent the spread of invasive plants, all heavy equipment used onsite shall be washed at a commercial truck wash or other appropriate offsite location prior to bringing it onto the Project site. All soil and debris that may contain seeds or propagules of invasive plants shall be removed from the equipment. Particular attention shall be paid to removing soil and debris from the wheels, undercarriage, outriggers, and other parts that come in contact with vegetation or soil.

Any straw, mulch, or similar products used on the Project site shall be certified weed-free. Any erosion control planting or seeding shall consist of appropriate native species, native seed mix, or other ecologically appropriate, non-invasive plants. Imported fill material shall be obtained from weed-free sources.

Invasive plant species on the California Invasive Plant Council Inventory (<https://www.cal-ipc.org/plants/inventory/>) shall not be installed in landscaping. The Project proponent shall prepare educational materials for homeowners regarding invasive plants and the CC&Rs for the development shall include restrictions on planting of invasives.

5.1.7 Summary of Project-Specific Environmental Effects after Mitigation Measures are Implemented

Listed and Special Status Plant Species

Mitigation Measure BIO-11 (Listed and Special Status Plants) requires a focused survey for slender-horned spineflower and Santa Ana woollystar (including visits to known reference sites) and special status plants, including chaparral sand verbena and Parry's spineflower, prior to the start of construction. If slender-horned spineflower or Santa Ana woollystar is found on the Project site, an incidental take permit from CDFW will be required prior to any impacts. Federal

take authorization will be required for San Bernardino kangaroo rat through either Section 7 of the federal Endangered Species Act (if there is a federal nexus) or through Section 10 (if there is no federal nexus). If slender-horned spineflower and/or Santa Ana woollystar is present, these species would be included in the USFWS consultation. If chaparral sand verbena or Parry's spineflower are present in the disturbance area (or other CRPR 1B.x species), propagules will be collected and planted in the avoidance area. CRPR 4.x species are generally not regulated and no mitigation is proposed for 4.x species, if present. (BRA p. 75)

Mitigation Measure BIO-11 includes offsite compensation for loss of slender horned spineflower or Santa Ana woollystar occupied habitat. Due to the habitat degradation from offsite development unrelated to the Project and previous mitigation associated with that offsite, unrelated-development, a ratio of no less than 0.5:1 is proposed. However, the incidental take permit will specify conditions that may include a higher ratio and other avoidance and minimization measures. No mitigation is proposed for loss of occupied habitat for chaparral sand verbena and Parry's spineflower or other special status plants, as any impacts to individuals shall be mitigated with mitigation measure BIO-11. In addition, Mitigation Measure BIO-4 (Preconstruction Clearance Surveys) requires clearance surveys for listed and special status plant and wildlife resources within or adjacent to the Project disturbance area within three (3) days prior to initial vegetation clearing and ground disturbance. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of construction activities and Mitigation Measure BIO-3 (WEAP Training) requires Workers Environmental Awareness Program (WEAP) training for onsite personnel. Biological monitoring will prevent sensitive species from being impact while the WEAP training will educate workers on sensitive species. The focused survey for slender-horned spineflower, Santa Ana woollystar and special status plants will also reduce impacts. With implementation of Mitigation Measures BIO-11, BIO-2, BIO-3, and BIO4, impacts to slender horned spineflower and Santa Ana woollystar and special status plants due to loss of occupied habitat and loss of individuals on the Project site is expected to be less than significant. (BRA p. 76)

Potential indirect impacts to listed and special status plants outside of the Project site could occur if construction activities exceed the Project boundary, or if dust, toxic emissions, runoff, or sediment enter offsite habitat. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project disturbance area to be clearly marked to prevent any construction-related disturbance outside of the Project boundary. Mitigation Measure BIO-13 (Adjacent Habitat) requires implementation of appropriate best management practices (BMPs) during Project construction to control dust, toxic emissions, runoff, and sediment to avoid and minimize impacts to adjacent offsite habitat. Mitigation Measure BIO-4 requires preconstruction surveys, Mitigation Measure BIO-2 requires biological monitoring, and BIO-3 requires WEAP training. With implementation of Mitigation Measures BIO-1 through BIO-4 and BIO-13, construction-related indirect impacts to listed plants outside the Project boundary are expected to be less than significant. (BRA p. 76)

Listed and special status plant species present in adjacent areas could be adversely affected by the introduction and/or spread of invasive plants. Invasive plant species could be introduced or

spread during construction or planted as part of landscaping during operation of the Project. Many invasive species are already present on the site, but Mitigation Measure BIO-11 (Invasive Plants) would avoid and minimize the potential for introduction of additional non-native plant species during construction. Mitigation Measure BIO-11 would also avoid and minimize the potential for introduction of non-native plants in landscaping. With implementation of Mitigation Measure BIO-11, Project-related impacts due to invasive plants are expected to be less than significant. (BRA pp. 76-77)

Potential indirect impacts to listed and special status plants outside of the Project site could occur as a result of ongoing human disturbance during operation of the Project. A trail system is proposed in the Wash Plan and the Project includes a community trail along the western boundary. Mitigation Measure BIO-13 requires the Project proponent to provide educational material to homeowners regarding the plants and animals present in the adjacent habitat and their conservation value. This measure also requires the Project proponent to work with San Bernardino Valley Water Conservation District (SBVWCD) to develop appropriate signage for the community trail and integrate it into existing or proposed trails in the Wash Plan area. It should be noted that the Wash Plan includes development and maintenance of trails for non-motorized public use, including trails along the northern, eastern, and southern boundaries of the Project. The construction, operation, and maintenance of local trails is covered by the Wash Plan and is considered a conditionally compatible use, meaning trails in the Wash Plan area are permissible following preparation of a Trail Management Plan (Trail Plan) and its approval by the Wildlife Agencies. The Trail Plan prepared for the Wash Plan area will detail how covered species and habitats will be protected and trail-related impacts will be avoided, minimized, monitored, and managed. With implementation of Mitigation Measure BIO-13, Project-related impacts to listed plant species and habitat in adjacent offsite areas are expected to be less than significant. (BRA p. 77)

Listed, Fully Protected, and Special Status Wildlife

San Bernardino Kangaroo Rat

Mitigation Measure BIO-8 (San Bernardino Kangaroo Rat) requires offsite compensation for loss of occupied habitat. Due to the habitat degradation from offsite development unrelated to the Project and previous mitigation associated with that development, a ratio of no less than 0.5:1 is proposed. The federal and/or state take authorization may require additional mitigation. Mitigation Measure BIO-8 also requires avoidance and conservation in perpetuity of ± 6.59 acres of occupied habitat in the southeastern corner of the site as well as development and implementation of a Habitat Enhancement Plan for this land. This measure also requires development and implementation of an SBKR Relocation Plan (subject to CDFW and USFWS approval). CDFW has noted that the remaining SBKR populations are low in size and that the success of SBKR relocation has yet to be proven effective. Mitigation Measure BIO-8 also prohibits the use of rodenticides or other chemicals that could harm SBKR on the site during construction. Mitigation Measure BIO-9 (Wildlife Hazards) requires actions to prevent injury or entrapment of wildlife. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project

boundary. Mitigation Measure BIO-10 requires offsite compensation for loss of native RAFSS habitat. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. With implementation of these mitigation measures, Project-related impacts to SBKR will be avoided and minimized to the extent feasible. However, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant. (BRA p.79)

Coastal California Gnatcatcher

Mitigation Measure BIO-6 (California Gnatcatcher) requires a protocol survey prior to the start of construction. California gnatcatcher is a federally listed species. If the survey finds California gnatcatcher within the Project disturbance area, federal take authorization would be required. Mitigation Measure BIO-6 also includes avoidance buffers and nest monitoring if nesting gnatcatchers are present on the site and offsite compensation for loss of habitat. The incidental take permit may require additional mitigation. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of site clearing activities and BIO-4 (Preconstruction Clearance Surveys) requires preconstruction clearance surveys and sweeps. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. With implementation of these mitigation measures, Project-related impacts to California gnatcatcher are expected to be less than significant. (BRA p. 80)

White-tailed Kite

Mitigation Measure BIO-7 (Nesting Birds) requires initial site disturbance to occur outside of the nesting season, if feasible by the qualified biological monitor. If this work cannot be scheduled outside of the nesting season, preconstruction surveys are required 7 days prior to the start of disturbance. An avoidance buffer will be established for any active nests to avoid and minimize any potential impacts to nesting birds. Mitigation Measure BIO-12 (Heritage Trees) requires 2:1 replacement of removed trees on the site and Mitigation Measure BIO-10 requires offsite compensation for loss of native RAFSS habitat. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of site clearing activities and BIO-4 (Preconstruction Clearance Surveys) requires preconstruction clearance surveys and sweeps. The biological monitor will be inspecting the site for the presence of white-tailed kite and other sensitive species. These mitigation measures will reduce impacts since a qualified biological monitor will be conducting sweeps prior to the start of construction any ensuring any active nests are avoided. With implementation of these mitigation measures, Project-related impacts to white-tailed kite are expected to be less than significant. (BRA pp. 80-81)

Burrowing Owl

Mitigation Measure BIO-5 (Burrowing Owl) requires preconstruction surveys for burrowing owl and avoidance buffers if any owls are on the site during nesting season. Outside of nesting season, burrowing owls may be passively relocated with approval from CDFW. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of site clearing activities and BIO-4 (Preconstruction Clearance Surveys) requires preconstruction clearance surveys and sweeps. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project related impacts to the adjacent habitat. The preconstruction survey along with the focused survey will determine the presence or absence of burrowing owl prior to the start of construction. If present avoidance buffers will be clearly marked with flags to avoid impacts. With implementation of these mitigation measures, Project-related impacts to burrowing owl are expected to be less than significant. Loss of the unoccupied habitat on the Project would be a less-than-significant impact and no mitigation is proposed. (BRA p.81)

Nesting Birds

Mitigation Measure BIO-7 (Nesting Birds) requires initial site disturbance to occur outside of the nesting season, if feasible by the qualified biological monitor. If this work cannot be scheduled outside of the nesting season, preconstruction surveys are required. An avoidance buffer will be established for any active nests to avoid and minimize any potential impacts to nesting birds. Mitigation Measure BIO-12 (Heritage Trees) requires 2:1 replacement of removed trees on the site and Mitigation Measure BIO-10 requires offsite compensation for loss of native RAFSS habitat. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of site clearing activities and BIO-4 (Preconstruction Clearance Surveys) requires preconstruction clearance surveys and sweeps. The mitigation measures listed above will allow for the determination of presence or absence of nesting birds. If nesting birds are found and work cannot be scheduled outside of the nesting season flags will be placed around the buffer area to avoid impacting nest. With implementation of these mitigation measures, Project-related impacts to nesting birds are expected to be less than significant. (BRA p.82)

Other Special Status Species

Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring of site clearing activities and BIO-4 (Preconstruction Clearance Surveys) requires preconstruction clearance surveys and sweeps. Wildlife found on the site will be moved or encouraged to move out of harm's way. Mitigation Measure BIO-9 (Wildlife Hazards) requires actions to prevent injury or entrapment of wildlife. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-10 requires offsite compensation for loss of native RAFSS habitat. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. Several special status small mammal species

were found on the site during trapping for SBKR. Mitigation Measure BIO-8 (San Bernardino Kangaroo Rat) requires development and implementation of a Relocation Plan for SBKR to include a strategy for the relocation of other special status small mammals that are incidentally caught during SBKR trapping. The mitigation measures listed above will reduce impacts as a biological monitor will be present during all site clearing activities. Additionally, a survey is required as previously stated. With implementation of these mitigation measures, Project-related impacts to special status wildlife are expected to be less than significant. (BRA p. 83)

Sensitive Vegetation Communities – RAFSS

Mitigation Measure BIO-10 would require offsite compensation for loss of the ±32.01 acres of degraded RAFSS habitat on the site via purchase of mitigation credits at an agency-approved mitigation bank or equivalent mitigation. Due to the habitat degradation from offsite development unrelated to the Project and previous mitigation associated with that development, a ratio of no less than 0.5:1 is proposed. This measure also requires the ±6.59 acres of RAFSS in the southeast corner of the site to be avoided and conserved in perpetuity. (BRA p. 84)

Impacts to sensitive vegetation communities (RAFSS) outside of the Project site could occur if construction activities exceed the Project boundary. However, Mitigation Measure BIO-1 requires a disturbance fence which will visually identify the boundary and Mitigation Measure BIO-2 requires biological monitoring to avoid sensitive species and communities. With implementation of Mitigation Measures BIO-1 and BIO-2, no impacts to sensitive vegetation communities outside the Project boundary are expected to occur. (BRA pp. 84-85)

Wash Plan

Mitigation Measure BIO-1 (Disturbance Area Fencing) requires fencing of Project disturbance areas to prevent incursion into offsite habitat in the Wash Plan area. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring to ensure compliance with mitigation measures. Mitigation Measure BIO-3 (WEAP Training) requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of invasive plants. Implementation of BMPs from the WQMP will also reduce impacts to the Wash Plan by avoiding any contamination to adjacent properties. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, Project related impacts to sensitive vegetation communities in the adjacent Wash Plan area is expected to be less than significant with implementations of these mitigation measures. (BRA p. 85, 89)

Jurisdictional Drainages/ Waters/ Wetlands

Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project related impacts to the adjacent habitat, including jurisdictional waters and any wetlands associated with Weaver Channel, Plunge Creek, and the Santa Ana Wash system, and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of

invasive plants. Mitigation Measure BIO-13 addresses fugitive dust, toxic emissions, runoff, erosion/sedimentation, fire ignition, and human disturbance. Implementation of Mitigation Measures BIO-13 and BIO-14 will require workers to follow additional guidelines to ensure the adjacent habitat is not impacted. With implementation of Mitigation Measures BIO-13 and BIO-14, Project-related impacts to offsite jurisdictional waters and any wetlands are expected to be less than significant. (BRA p. 86)

Wildlife Corridors

Mitigation Measure BIO-1 (Disturbance Area Fencing) requires fencing of Project disturbance areas to prevent incursion into offsite habitat. Mitigation Measure BIO-2 (Biological Monitoring) requires biological monitoring to ensure compliance with mitigation measures. Mitigation Measure BIO-3 (WEAP Training) requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 (Invasive Plants) requires measures to avoid and minimize the introduction and spread of invasive plants. The qualified biological monitor will be required to observe and ensure wildlife corridors are not being impacted. Additionally, the WEAP training will inform workers on mitigations measures that need to be followed. Within implementation of Mitigation Measure BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, Project related impacts to wildlife corridors are expected to be less than significant. (BRA p. 87)

Conflict with Local Plans and Policies – City of Highland General Plan

These issues are addressed through Mitigation Measure BIO-1 to avoid and minimize impact to habitat adjacent to the Project site; Mitigation Measure BIO-2 to ensure that Project construction is in complete with compliance with mitigation measure; Mitigation Measure BIO-3 to inform onsite personnel of the sensitive resources that may be present and the restrictions that must be observed; Mitigation Measures BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-11 to avoid, minimize, and compensate for impacts to special status plants and animals on the Project site; BIO-10 to compensate for impacts to a sensitive vegetation community on the Project site; BIO-13 and BIO-14 to avoid and minimize impact to adjacent native habitat including conservation lands and a wildlife corridor; and BIO-12 to replace heritage trees that will be removed by the Project and protect remaining trees from construction-related impacts. Per mitigation measure BIO-12 heritage trees will be replaced at a 2:1 ratio as required by the City of Highland. This will yield more trees that were originally on the Project site. With implementation of these mitigation measure, the Project is not expected to conflict with any local policies or ordinances protecting biological resources and impacts would be less than significant. (BRA p. 88)

Conflict with Provisions of Adopted HCP or NCCP

Mitigation Measure BIO-1 requires fencing of Project disturbance areas to prevent incursion into offsite habitat. Mitigation Measure BIO-2 requires biological monitoring to ensure compliance with mitigation measures. Mitigation Measure BIO-3 requires training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for

compliance. Mitigation Measure BIO-13 requires measures to avoid and minimize Project-related impacts to the adjacent conservation lands and BIO-14 requires measures to avoid and minimize the introduction and spread of invasive plants. Additionally, BIO-14 requires that invasive plants on the California Invasive Plant Council Inventory not be installed in landscaping. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-13, and BIO-14, the Project is not expected to conflict with the Wash Plan and impacts would be less than significant. (BRA p. 88)

5.1.8 Summary of Cumulative Environmental Effects after Mitigation Measures are Implemented

Cumulative impacts refer to the combined effect of Project-related impacts with the impacts of other past, present, and reasonably foreseeable future projects. A project may have a significant effect on the environment if the potential effects are individually limited but cumulatively considerable. The cumulative impacts analysis is based on a cumulative project list in Table 5.1-E, as of March 2020. The geographic extent of this cumulative impacts analysis includes projects that are located within the City of Highland and adjacent to or likely to impact biological resources within the Wash Plan area. (BRA pp. 90-91) Therefore, this cumulative project list evaluated herein is a subset of the larger list and focuses on just those that have potential impacts to sensitive biological species.

Existing cumulative conditions are defined by past and present development along and within the Santa Ana River wash, as well as conservation efforts. Review of historic aerial images shows substantial residential development in the Project vicinity, mainly north of Greenspot Road. Within the wash, gravel and rock mining operations have impacted habitat. Construction of the Seven Oaks Dam has affected alluvial processes and the vegetation communities, plants, and animals that are dependent on those processes. Mitigation for the Dam and implementation of the Wash Plan, as well as other efforts, have placed large areas of the wash under conservation. (BRA p. 90)

Reasonably foreseeable future projects within the Project vicinity are expected to be characteristic of past and ongoing projects. Ongoing development (Table 5.1-E) is dominated by residential and retail projects on the north and south sides of Greenspot Road, outside of the area covered by the Wash Plan. Within the Wash Plan area, covered activities include ongoing and expanded gravel and rock mining, groundwater recharge and other water management, transportation facilities, flood control, recreational trails, existing agriculture, and habitat enhancement and monitoring. (BRA p. 90)

Table 5.1-E – Projects Considered in the Cumulative Impacts Analysis

Project Name and Location*	Type	Size
Projects covered under Wash Plan	Various	--
Blossom Trails – south of Greenspot Road and west of Church Street	Residential condominium	137 units

Highland Crossroads -- south of Greenspot Road and west of 210 Freeway	Retail	47,840 square feet
7-11 – Boulder Avenue and Greenspot Road	Gas station & convenience store	1.41-acre site 3,100 square feet
Greenspot Village & Marketplace – north of Greenspot Road west of Boulder Avenue	Residential / Retail	83 to 104 acres 769,600 square feet of retail; up to 800 residential units
Mediterra Specific Plan – north of Greenspot Road, east of Santa Paula	Residential	178-acre site 306 units

Listed and Special Status Plants

No federal or state listed plants were observed on the site during surveys, but two have a moderate potential for occurrence, slender-horned spineflower and Santa Ana River woollystar. One special status plant species, chaparral sand verbena, may have been observed on the site and four other special status plants have a moderate or low to moderate potential to occur. Potential impacts include loss or degradation of habitat and loss or harm to individuals on the Project site or adjacent areas in the Santa Ana River wash. Degradation of habitat on the site is largely due to the loss of alluvial processes as a result of previous flood control and development projects. Other projects in the vicinity (Table 5.1-D) may contribute incrementally to cumulative impacts to listed and special status plants in the area. The Wash Plan will conserve about 1,530 acres of native habitat that supports slender-horned spineflower, Santa Ana River woollystar, and other rare plants. (BRA p.91)

With implementation of mitigation measures, potential Project-related direct and indirect impacts to listed and special status plant species would be less than significant. This is due to the 1,530 acres being conserved by the Wash Plan. While there has been a cumulative degradation of habitat for listed and special status plants in the wash, the Project's contribution would not be considerable. (BRA p. 91)

Listed, Fully Protected, and Special Status Wildlife

One listed species occurs on the Project site: SBKR. Direct and indirect impacts to SBKR will occur during construction of the Project and during subsequent occupation of the housing development and include loss and degradation of habitat, loss of 32.01 acres of designated critical habitat, and loss or harm to individuals. Degradation of habitat on the site is largely due to the loss of alluvial processes as a result of previous flood control and development projects. Other projects in the vicinity (Table 5.1-D) may contribute incrementally to cumulative impacts to SBKR in the area. The Wash Plan will conserve about 1,530 acres of native habitats that support SBKR and other species. (BRA p.92)

The Santa Ana River, San Jacinto River, and Lytle and Cajon washes support the largest extant concentrations of SBKR and the largest areas of suitable habitat for this species, approximately 3,200 acres total. The Project would add to loss of SBKR habitat in the region and other projects

in the vicinity (Table 5.1-D) may also contribute incrementally to cumulative impacts. With implementation of mitigation measures, Project-related impacts to SBKR will be avoided and minimized to the extent feasible. However, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant. There has been a cumulative degradation of habitat for SBKR in the wash and Project-related impacts would be cumulatively adverse and potentially considerable. (BRA p.92)

With implementation of mitigation measures, impacts to other listed and special status wildlife species would be less than significant. These species include coastal California gnatcatcher, white-tailed kite, burrowing owl, nesting birds, and others (see Section 5.1.1 Setting, pages 5.1-15-5.1-17). This is particularly due to the preconstruction nesting bird survey and the presence of the qualified biological monitor. Although there has been a cumulative degradation of habitat in the wash and other projects in the vicinity may contribute incrementally, Project-related impacts are not expected to be cumulatively considerable. (BRA p.92)

Sensitive Vegetation - RAFSS

Implementation of the Project will result in the direct permanent loss of ±32.01 acres of degraded RAFSS habitat on the site and potential indirect impacts to RAFSS in adjacent areas. Degradation of the RAFSS on the site is largely due to the loss of alluvial processes as a result of previous flood control and development projects. Other projects in the vicinity may contribute incrementally to the degradation or loss of RAFSS habitat. However, the Wash Plan will conserve about 1,530 acres of RAFSS in the region. While there has been a cumulative degradation and loss of RAFSS in the wash, the Project's contribution, from loss of degraded habitat, would not be considerable. Mitigation measure BIO-10 will require a ratio of no less than 0.5:1 for RAFSS. With implementation of mitigation measures, Project-related impacts to RAFSS is expected to be less than significant. (BRA pp. 92-93)

Wash Plan

The Project is immediately adjacent to the Wash Plan and associated conservation lands. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan. However, with implementation of the mitigation measures such as the inclusion of fencing as outlined in Section 5.1.6, the Project is not expected to conflict with the Wash Plan and impacts would be less than significant and not cumulatively considerable. (BRA pp. 93-94)

Jurisdictional Drainages/ Waters/ Wetlands

As a result of past development and flood control projects, there are no state or federal jurisdictional waters or wetlands present on the site and therefore there would be no Project-related impacts. With implementation of mitigation measures, any potential Project-related impacts to waters or wetlands in adjacent areas would be less than significant. While there has been a cumulative loss of jurisdictional waters, the Project's contribution would not be considerable. (BRA p. 93)

Wildlife Corridors

The Project is immediately adjacent to the Wash Plan and associated conservation lands. Any Project-related impacts to offsite adjacent habitat could conflict with the conservation goals for the Wash Plan, including wildlife movement through the Plan area. With implementation of mitigation measures, any potential impacts from the Project to wildlife movement are expected to be less than significant. Although other projects in the vicinity may contribute incrementally, Project-related impacts are not expected to be cumulatively considerable. (BRA p. 93)

Conflict with Local Plans and Policies – City of Highland General Plan

The City of Highland General Plan includes several policies that protect biological resources (see Section 5.1.1.4). These policies include preservation of habitat and wildlife corridors, preservation of biologically sensitive habitats, conservation of rare plants and animals, and protection or replacement of heritage trees. With implementation of the mitigation measures outlined in Section 5.1.6, the Project is not expected to conflict with any local policies or ordinances protecting biological resources. Project-related impacts would be less than significant and not cumulatively considerable. (BRA p. 93)

5.1.9 References

The following references were used in the preparation of this section of the DEIR:

BRA	L & L Environmental, Inc. Biological Resources Assessment, Updated Burrowing Owl and Nesting Raptor Surveys, and Updated Botanical Surveys for Greenspot Partners TT 17604, City of Highland, County of San Bernardino, CA, March 2020.
BCC	U.S. Fish & Wildlife Service, Birds of Conservation Concern (Available at https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php , accessed March 2020)
HT	City of Highland, Heritage Trees, Chapter 8.36 (Available at https://www.codepublishing.com/CA/Highland/html/Highland08/Highland0836.html , accessed March 2020.)
Wash Plan HCP	San Bernardino Valley Water Conservation District, Final Upper Santa Ana River Wash Habitat Conservation Plan, May 2020. (Available at https://www.sbvwd.org/wash-plan/6167-washplan-hcp-final-full-clean-20200420 , accessed May 2020)

5.2 RECREATION

The focus of this section is to analyze potential impacts related to Recreation. Based upon the analysis in the IS/NOP prepared for this Project (Appendix A), impacts related to Recreation were found to be potentially significant and are analyzed below.

5.2.1 Setting

Parks and Regional Recreation

As outlined in the General Plan Conservation and Open Space Element, because the City of Highland is located at the foot of the San Bernardino Mountains, the City offers a wide array of recreational opportunities. Bordered by the San Bernardino National Forest, the City's geographic setting provides for such activities as biking, hiking, sightseeing, horseback riding and winter sports.

The challenge for Highland, as with all cities in the region, will be to provide enough parks with the desired facilities to serve a growing population. Through a combination of development impact fees, capital budgeting and land acquisition agreements, Highland is working to develop the most comprehensive parks and recreation program possible, and these efforts can be guided by a Parks and Recreation Master Plan, separate from, but consistent with, the policies contained in the City's General Plan.

The City has the advantage of being close to a number of excellent regional recreational amenities. It is located within one hour of the vacation resort areas of Big Bear Lake and Lake Arrowhead, the San Geronio Wilderness and the San Jacinto Mountains. The San Bernardino National Forest provides for outdoor activities as diverse as swimming, boating, hiking, camping, downhill skiing and cross-country skiing. Other surrounding regional recreation areas include: Lake Perris and Lake Elsinore, Lake Skinner County Park, Yucaipa Regional Park, Glen Helen Regional Park and Mt. San Jacinto State Park.

Within its city limits, the community also contains active and passive parks and recreation and community centers. Parks and recreation amenities near the Project site include:

- Aurantia Park (Approximately 1/2-mile northeast)
- Public School (Arroyo Verde Elementary) with Recreation Facility Open to the Public (Approximately 1/2-mile northwest)
- Private Park/ Clubhouse Facility with Tennis Courts and Pool (Approximately 1/2-mile northwest)
- Joint-Use School Facility (Highland Grove Elementary and Beattie Middle School) with Soccer Fields (Approximately 1.5 miles northwest)
- Private Park/ Clubhouse Facility and East Highland Sand Volley Court (Approximately 2 miles north)
- Highland Community Park (Approximately 3.5 miles west)

Aurantia Park is a 10-acre passive park within a ½ mile service area radius of the Project. Arroyo Grande Elementary a public school with recreation facilities open to the Public is also within a ½ mile service area radius of the Project. Highland Grove Elementary and Beattie Middle School are a Joint-Use School Facility with Soccer Fields and located approximately 1.5 miles northwest of the Project. Central Avenue Park is a 17-acre park that surrounds the Jerry Lewis Community Center, consisting of a 30,000 square-foot multi-use facility containing a gymnasium, several multi-purpose rooms, and a kitchen and offices. The community center houses the YMCA of the East Valley which provides recreation programs to residents.

Trails

Trails and equestrian use have a strong tradition in Highland. In the early days of the City's development, citrus crops were pulled by horses along an extensive system of trails. The proximity of mountains, rivers and open space has made equestrian, hiking and biking uses both popular and practical. The views afforded from area trails and bikeways are some of the finest in the region. An accessible trail system not only promotes exercise, but also links community facilities and neighborhoods together. Successful implementation of the Multi-Use Trails Master Plan depends on strong community support, careful planning and consistent funding. Exhibit 5.2-1 shows the City's Multi-Use Trails network, which includes a multi-use trail along the south and east sides of the Project.

In the early agricultural period of Highland's development, an extensive system of informal trails developed, mostly associated with equestrian transport routes. Over time, the gentle, sloping and scenic terrain attracted even more recreational uses. Some of these early routes are now becoming a formal trail system. The majority of the trails are located in the vicinity of East Highlands Ranch and the more rural portions of East Highland. Trail opportunities in the western portions of the City are limited because of urbanization and subsequent lack of open space.

Regional Connections – Santa Ana River and the Scenic Trail System

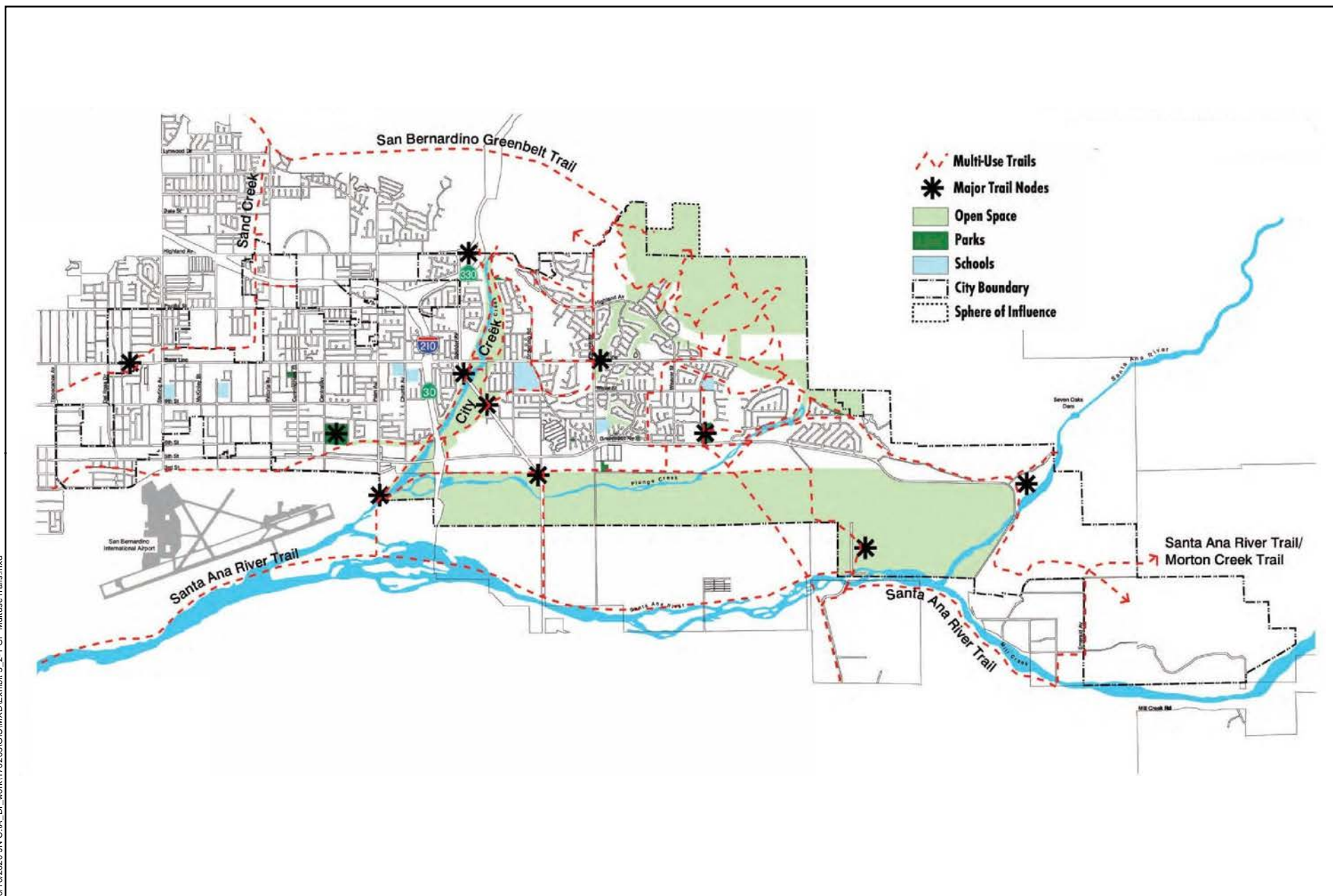
Highland's location at the base of the San Bernardino Mountains gives its citizens and visitors major opportunities to access to City-maintained trails and the regional network of multi-use trails. In fact, the City is home to or is close to several trails designated as Scenic Trails by the County of San Bernardino (see Exhibit 5.2-1 General Plan Multi-Use Trails), including:

- Santa Ana River Trail (SART)
- San Bernardino Green Belt Trail
- City Creek Trail

Of major significance is the Santa Ana River Trail. This river corridor is approximately 110 miles long and covers three counties from the crest of the San Bernardino Mountains to the Pacific Ocean. About 2 of the 18 miles that lie in San Bernardino County have been paved as bicycle paths and are accessible to Highland. The remaining portion of the trail project will be addressed with future funding sources. The eastern portion of the River corridor provides a peaceful, natural setting, which would facilitate high-quality rural and equestrian-oriented

development in areas not subject to flooding. This system of trails interconnects with the other regional/local trails within Orange, Riverside and San Bernardino County. SART is a significant trail system that plans to link the Pacific Ocean with the San Bernardino Mountains.

Exhibit 2-1, Proposed Trails Network and Existing Trails of the Upper Santa Ana Wash Land Management and Habitat Conservation Plan Trails Master Plan, identifies the following planned trails: Pole Line Trail along the south, the Weaver Trail along the west side, and the Greenspot Road Trail along the north side of the Project site. The Shelton Trail is identified as an existing trail extending north from Greenspot Road, just west of Gold Buckle Road, to Water Street. The trail itself is approximately ½ mile long and is adjacent to the northside of the proposed Project site. Refer to Exhibit 5.2-2, Wash Plan Master Trails Plan.



5.2.2 Regulatory Setting

5.2.2.1 Federal Regulations

There are no federal regulations for this topic.

5.2.2.2 State Regulations

Quimby Act (California Government Code 66477)

The Quimby Act was established by California legislature in 1965 to provide parks for the growing communities in California. The Act authorizes cities to adopt ordinances addressing parkland and/or fees for residential subdivisions for the purpose of providing and preserving open space and recreational facilities and improvements. The Act requires the provision of 3 acres of park area per 1,000 persons residing within a subdivision, unless the amount of existing neighborhood and community park area exceeds that limit, in which case the City may adopt a higher standard not to exceed 5 acres per 1,000 residents.

Proposition 40 Park Bond Act

Proposition 40 is intended to maintain a high quality of life for California's growing population by providing a continuing investment in park and recreational facilities. Specifically, it is for the acquisition and development of neighborhood, community, and regional parks and recreation land, as well as facilities in urban and rural areas. Eligible projects for Proposition 40 funding include the acquisition, development, improvement, rehabilitation, restoration, or enhancement of interpretive facilities, local parks, recreational land, or other related facilities. Funds are distributed based on the City's population.

5.2.2.3 Local Regulations

City of Highland General Plan

The City of Highland's General Plan Open Space and Conservation Element contains objectives and policies related to parks, trails, and recreational facilities in the City. The Conservation and Open Space Element is directly linked to the City's Land Use, Safety and Community Design Elements. Land use designations are the primary legal tool that cities use to preserve open space and provide the foundation for more specific zoning regulations and development standards. The required mapping of hazards in the Safety Element designates open space resources and cites policies related to protection of public health and safety. The Community Design Element sets policies for land use transitions and open space buffers, all related to open space and conservation efforts.

Throughout the country, park planning is conducted by establishing a ratio of park acreage per population. The open space ratio established for the Highland is 2.5 acres per 1,000 residents, which includes a ratio of 2.0 acres of developed park acreage and 0.5 acre of undeveloped natural parkland. In California, park standards are provided by the Quimby Act of 1975, which gave cities the authority to pass parkland impact fees or dedication ordinances, recognizing the tremendous strain that local cities were under to provide enough parkland and open space for their residents. It is the City's intention to exceed state-mandated minimums, which generally fall

in the 4 to 5 acres per 1,000 citizen range. With regard to types of facilities within parks, no single set of accepted standards exists, partly due to the diverse needs of different communities and population changes. Nevertheless, the National Recreation and Parks Association (NRPA) has published benchmark guidelines for communities to consider and they are summarized in Table 5.2 of the City of Highland General Plan Conservation and Open Space Element.

Park and recreation facilities are in short supply in the City, partly the result of a lack of developable space. For future planning, given a projected build-out population of 69,582, Highland should have approximately 143.8 acres of developed park acreage and 36 acres of undeveloped natural parkland, totaling 179 acres based on the standard of two acres of parkland per 1,000 residents.

The General Plan Open Space and Conservation Element includes the following goals and policies that are applicable to the Project.

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

Policies, Adequate Supply of Parks

- 1) Develop and periodically update a Parks and Recreation Master Plan, with direction from the Planning Commission, Design Review Board and City Council, to identify specific future sites for additional parks and recreational open space.
- 2) Supplement existing development fee program for parkland acquisition with other funding sources, grants and programs (fee sponsors, corporate sponsors, fund raising, for example).
- 3) Use the redevelopment process for the selection, acquisition and funding of additional parkland in western portions of the City.
- 4) Prepare a phased strategy for developing new facilities.
- 5) Assess areas of potential annexation into the City and, if necessary, negotiate an agreement with the County of San Bernardino to provide parks meeting City standards within areas of eventual annexation into the City.

Parks for Diverse Needs

- 6) Conduct periodic assessments of park and recreation facilities and services, including user surveys.
- 7) Provide handicap access to all parks.
- 8) Develop a multi-dimensional recreation program for all citizen groups in Highland including exercise, arts and crafts and cultural enrichment.

Park Design

- 9) Provide a variety of activity options, including active and passive uses, within each park.

- 10) Study the desirability of developing “specialty parks” such as skate, dirt bike, fishing and art parks.
- 11) Evaluate the facilities and amenities of all City parks as part of the periodic update of the Parks and Recreation Master Plan.
- 12) Conduct periodic user surveys on the design of public parks.
- 13) Conduct service-area based design charettes with community members on park design.
- 14) Give priority to the acquisition of large parcels for the development of Community Parks that accommodate athletic fields.
- 15) Encourage design competitions for new and remodeled parks.

Parks in Newly Developing Areas

- 16) Continue to implement the local park ordinance through developer dedication of parkland or in-lieu fees.
- 17) Require that new specific plans and planned unit developments (PUDs) incorporate sufficient park and recreation facilities along with natural open space areas, where appropriate, to serve the needs of their future residents.
- 18) Given the residential focus in Highland, increase park standard acreage ratios above state required minimums.
- 19) Connect newly developed parks, wherever practical, to the existing and future bicycle and recreational trail system.
- 20) Initiate a long-term program to correct park deficiencies.
- 21) Adopt a density bonus program for development that includes usable park and open space lands above the City-required standard.

City of Highland Municipal Code

Chapter 16.40.200 in the City’s Municipal Code, Park and Recreation Facilities General Development Standards, states that the city may, as established within the conservation and open space element of the general plan and this title, as a condition of approval for development projects, require the payment of fees, dedication of land, or both for the provision of neighborhood and community park and recreation facilities for city residents. The general plan establishes the ultimate ratio of two and one-half acres of parkland per 1,000 persons residing in the city. This ratio consists of two acres of developed active park acreage (e.g., neighborhood and community recreational facilities) and one-half acre of undeveloped natural parkland. The number of actual or potential dwelling units created by a subdivision or development shall be as follows:

1. One dwelling unit per unit approved.

2. Where the number of units to be built in a multifamily residential district is unknown, the maximum number of dwelling units allowed under that zone classification.
3. For a condominium project, the number of dwelling units created shall be the number of condominium units approved.

Exemptions. This section shall not apply to the following subdivisions:

1. Commercial or industrial developments.
2. Condominium projects or stock cooperatives which consist of the subdivision of air space in an existing apartment building which is more than five years old, and as to which no new dwelling units have been added by the subdivision.
3. Subdivisions containing less than five parcels and not used for residential purposes; provided, however, that a condition of approval shall be placed on those maps that if a building permit is requested for the construction of a residential structure or structures on one or more of the parcels within four years after recordation of the subdivision map, the fees shall be required to be paid by the owner of each parcel as a condition to the issuance of such permit.

Upper Santa Ana Wash Land Management and Habitat Conservation Plan Trails Master Plan

The Trail Master Plan was prepared in November 2016 and is based upon a Concept Trails Plan adopted by the SBVWCD Board of Directors in 2015 and provides greater detail, as well as, addresses potential strategies for plan implementation.

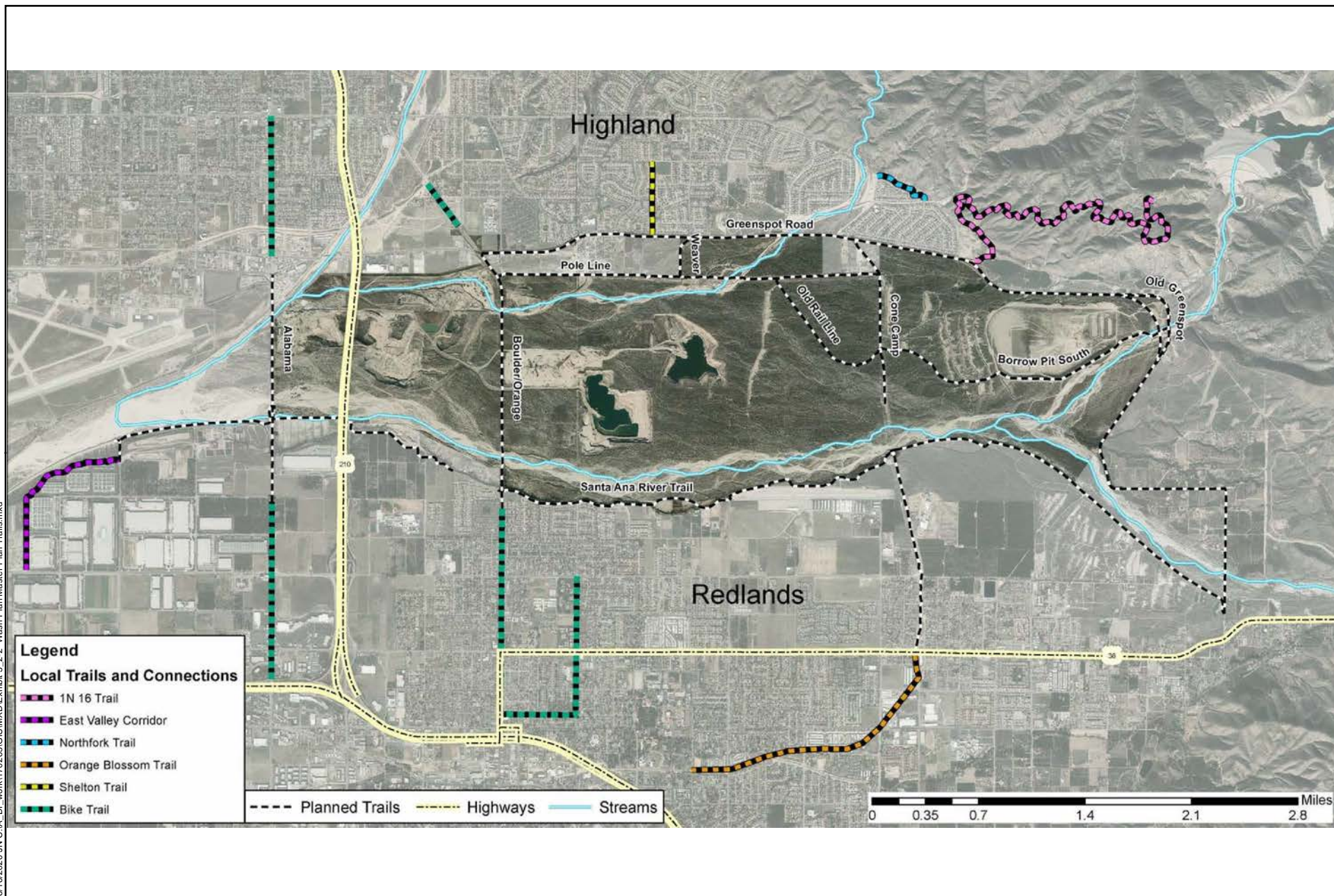
The purpose of this Trails Master Plan is to develop a framework for creating an integrated system of pathways that will link the residents of the Cities of Highland and Redlands and provide access to the outdoors while providing essential habitat preservation and enhancements for threatened and endangered species as part of the implementation of the Wash Plan. The extension of the Santa Ana Trail westward along the southern boundary of the Preserve will provide a link to further the ultimate goal to connect Huntington Beach on the Pacific Ocean to Big Bear Lake along the length of the Santa Ana River for a total of 110 miles. Multiple other trails within the Preserve are intended to serve local users and connect to other trails within the communities of Redlands and Highland. The Trails Master Plan contains detailed trail corridor recommendations and guidance in the creation of an interconnected network of trails that utilize current traveled ways while minimizing further disruption to the ecosystem. The system of trail networks described in this Trails Master Plan creates the opportunity to enhance recreational opportunities for a variety of user groups and to improve the quality of life for the cities of Redlands and Highland.

A fundamental part of the Trails Master Plan vision is that the trail network will contribute to the overall quality of life throughout the cities of Redlands and Highland. Given the benefits of a trails system outlined in the previous section, specific visions and goals for the Trails Master Plan include the following:

- Develop a safe, accessible, and interconnected region-wide network of trail facilities that link together destinations and people.
- Improve quality of life in local areas by developing a trail network that provides facilities and programs designed to expand and encourage active recreation, community strength, and alternative transportation.
- Enhance, protect, and preserve the environmental quality of open space, waterways, and wildlife habitats.
- Conserve local culture, history, and heritage through interpretative trails and signage.

Adjacent to the Project site are three existing and proposed trails: Greenspot Road Trail, Pole Line Road Trail, and the Weaver Trail as described in the listed section of the Trails Master Plan:

- **Greenspot Road Trail (Section 3.6.5)** – The trail is along the northern boundary of the Project site. This trail is a paved trail that provides a direct east-west connection for residential areas of the City of Highland to the north and Mill Creek to the south. Approximately 4.5 miles in length, the trail is proposed as a Class 2 bikeway along both sides of the paved roadway section of the Greenspot Road right-of-way. Portions of this trail are already marked with bicycle lanes.
- **Pole Line Road Trail (Section 3.6.8)** – The trail is along the southern boundary of the Project site. This trail is an unpaved west-east connection between Boulder Avenue/Orange Street Trail and Cone Camp Trail. Parallel to Greenspot Trail (one-quarter mile south), trail access is also available from the unpaved Weaver and Plunge Creek Trails. Unlike Greenspot Road, this trail is without vehicular traffic. East of Church Street, a portion of this trail would be located along the existing right-of-way of Abby Way, which currently terminates near an East Valley Water District (EVWD) well site. Thus, occasional vehicular access may be encountered for regular maintenance of the utilities along this corridor.
- **Weaver Trail (3.6.10)** - This trail is unpaved and is along the western boundary of the Project site. The trail extends south from Weaver Street and Greenspot Road traffic intersection (Greenspot Road Trail) to Pole Line Trail. Due to its location, Aurantia Park provides an ideal entry point to the trails system with a traffic signal at Weaver Street to facilitate safe crossing of Greenspot Road. This unpaved trail is adjacent to an engineered drainage channel, which could have originally been part of construction and/or maintenance access. It is also located along the edge of undeveloped areas identified as critical habitat. The northern portion of the alignment bisects a large block of undeveloped habitat and bends through an area identified as a mitigation area.



HEATHERGLEN PLANNED DEVELOPEMENT



Source: SBVWCD GIS, (November 3, 2016)

Wash Plan Trails Network and Existing Trails

Exhibit 5.2-2

5.2.3 Comments Received in Response to NOP

There were no comments letters received in response to the NOP related to recreation.

5.2.4 Project Design Considerations

Tentative Tract Map (TTM) 17604 is a low density, single family residential development project that includes 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat preservation, and East Valley Water District facilities). These lettered lots (A through M) total 12.44 acres of the project site. A public park is planned as part of the Project and is located at the southwest corner of Gold Buckle Road and Street "B." The park (Lot C) is ½ acre and will be improved with a small tot-lot containing a low maintenance multi-faceted play structure with a soft fall zone area, benches, and shade structure. The balance of the park will be a passive play area with water efficient landscaping. The park will be maintained by a Homeowners Association (HOA) or assessment district, as will all of the letter lots. The project will include a community trail (12 feet wide) along the western boundary of the site from Greenspot Road to the southern boundary of the site. The project will include construction of the Pole Line Trail (12 feet wide) along southern portions of the project site. The park will offer a passive play area for both residents of the Project and residents of the surrounding community. The proposed park and entry features will be designed to ensure conformance with the remainder of the Project Site's design theme and landscaping.

5.2.5 Thresholds of Significance

The City of Highland has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The City of Highland generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the State CEQA Guidelines. The Environmental Checklist prepared by the City for the Project indicates that impacts related to the Heatherglen Planned Development Project may be considered potentially significant if the proposed Project would:

- increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.2.6 Environmental Impacts before Mitigation

Threshold A: *Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The project entails 203 numbered residential lots and 13 lettered lots for various open space uses (entry points, public park, irrigated slopes/easements, infiltration basin, open space habitat

preservation, and East Valley Water District facilities). These lettered lots (A through M) total 12.44 acres of the Project site. A public park is planned as part of the Project and is located at the southwest corner of Gold Buckle Road and Street "B." The park (Lot C) is ½ acre and will be improved with a small tot-lot containing a low maintenance multi-faceted play structure with a soft fall zone area, benches, and shade structure. The balance of the park will be a passive play area with water efficient landscaping. The park will be maintained by a Homeowners Association (HOA) or assessment district, as will all of the letter lots. The Project will include a community trail (12 feet wide) along the western boundary of the site from Greenspot Road to the southern boundary of the site. The Project will include construction of the Pole Line Trail (12 feet wide) along southern portion of the Project site.

The Project proposes 203 lots for single-family residences on approximately 59 acres, which constitutes a density of one dwelling unit per 3.4 acres, which is within the allowable intensity. Therefore, the proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. Thus, the proposed Project's population will not exceed the City's General Plan projection, or projected increase in use of existing neighborhood and regional parks or other recreational facilities.

The on-site park will serve as an amenity to the proposed future residents of the Project as well as residents in the surrounding community. In addition to the on-site park there are several other public park facilities within 2 miles or less to serve the proposed future residents. Aurantia Park is located on Greenspot Road, approximately one-half mile to the northeast of the Project site. This ten-acre Park has a combination of natural habitat, orange grove, tot lot, and a dog park. Arroyo Grande Elementary, a public school with recreation facilities open to the Public, is also within a ½ mile service area radius of the Project. Highland Grove Elementary and Beattie Middle School are a Joint-Use School Facility with Soccer Fields and located approximately 1.5 miles northwest of the Project. Central Avenue Park is a 17-acre park that surrounds the Jerry Lewis Community Center, located to the west of the Project on Central Avenue just north of 5th Street. The community center consists of a 30,000 square-foot multi-use facility containing a gymnasium, several multi-purpose rooms, and a kitchen and offices, and houses the YMCA of the East Valley which provides recreation programs to residents. Therefore, the proposed Project will be adequately served by the proposed onsite park as well as existing parks and recreational facilities within a couple miles of the Project.

The proposed Project will provide an internal street and sidewalk network that will provide a way for residents to walk to the park within the project as well as throughout the proposed neighborhood. The proposed Project will provide connection to Greenspot Road, identified as an existing trail in both the General Plan Conservation and Open Space Element and the Wash Plan Master Trails Plan. The Project will also provide a community trail on the west side of the project from Greenspot Road south to Abbey Way and the Pole Line Road Trail, which also connects to the Weaver Trail to the east of the Project site.

Since the Project will be developing a public park to serve its new residents, as well as an internal network of sidewalks and connections to nearby existing trails and parks, impacts would be less than significant without mitigation. The proposed Project is not expected to substantially

increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and potential impacts are less than significant.

Threshold B: *Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed Project which includes construction of 203 residential lots, a ½ acre public park, and community trails (12 feet wide) along the western and southern boundaries of the site that may result in direct and indirect impacts to sensitive biological resources. As outlined in Biological Resources Section 5.1.5, construction and operation of the proposed Project may result in significant direct and indirect impacts without mitigation to the following listed or otherwise sensitive species: Santa Ana woollystar, slender horned spinyflower, Parry's spine spinyflower, chaparral sand verbena, San Bernardino kangaroo rat, coastal California gnatcatcher, white-tailed kite, burrowing owl, and nesting birds and the loss of Riversidean alluvial fan sage scrub (RAFSS).

The proposed Project's community trail on the southern boundary of the site will coincide with the Pole Line Road Trail in the Wash Plan Master Trails Plan, and the Project's community trail on the western boundary will connect to it. The Proposed project's new residents would be expected to increase the use of the Wash Plan trails and potentially result in associated indirect impacts to the sensitive species and habitats covered in the Wash Plan. Indirect impacts are the result of such things as introduction of invasive plants and animals; predator subsidies (i.e., food, water, perch sites, etc.) that lead to increased predation on wildlife; and harassment or predation by domestic animals (dogs). These impacts may change the behavioral patterns of wildlife and reduce native plant and wildlife diversity and abundance in habitats adjacent to project sites. Mitigation measures are required to reduce potential direct and indirect impacts from construction to less than significant levels.

As outlined above, the Wash Plan Trails Master Plan is intended to develop a framework for creating an integrated system of pathways that will link the residents of the Cities of Highland and Redlands and provide access to the outdoors while providing essential habitat preservation and enhancements for threatened and endangered species as part of the implementation of the Wash Plan. Section 6, Operations and Management, of the Trails Master Plan includes operations and management activities to address minimizing impacts from trail users on the sensitive habitats & species in the Wash Plan area as outlined below.

6.1 Overview/ Guiding Principles

Multi-use trails in the Santa Ana Riverbed will be designated to accommodate hikers and mountain bikers, however permanent changes to the river bottom to increase access will not be permitted. ...

6.2 Patrolling

Regular patrol of the trails by paid staff and volunteers will be essential to assess conditions which may impact the immediate safety of visitors and to identify damage to the resource and impacts to Covered Species. Specifically, identify evidence of motorized vehicles or bicycles outside of permitted areas, any off-trail use, intrusion by domestic animals or invasive species, and identify trail deterioration, evidence of erosion, excess sediment deposition or other habitat destruction. The Preserve Trails Master Plan requires that trail use be limited to authorized trails and that non-administrative off-trail travel will not be permitted. Local ordinances will be adopted to provide enforceability. It is expected that patrols of Preserve wildland trails will occur under the direction of the Conservation District, Redlands, and Highland. The SART will be patrolled by San Bernardino County code enforcement.

Patrols will take place throughout the trail system multiple times per week. Patrol objectives include:

- *Discouraging off-trail use*
- *Monitoring for wildfire or other fire*
- *Monitor and report any trail damage that requires trail repair*
- *Pick-up and remove trash*
- *Report signs of vandalism or other illegal activities*
- *Promote responsible trail use through information and education*
- *Maintain public safety, through education and citation*
- *Respond to emergency situations*

6.3 Routine and Remedial Maintenance and Operations

Consistent with the Habitat Conservation Plan, limited maintenance of the trails would be provided as either part of the road maintenance program, in the case of trails on existing roadways, or as part of the regular maintenance activities associated with water management in the Wash. Trails must be inspected regularly for safety. Riding and hiking trails need to have even surfaces. All trails are to be kept at least 10 feet wide at all times. Trail surfaces are to be inspected annually and after large storms. Routine maintenance includes trash/debris removal, incidental repairs to eroded trails, preventative erosion control (such as sandbags, water bars, rolling grade drips, and spoons) and weed management. If the trail is also used as a maintenance road, it should be designed to allow for adequate drainage.

Routine and remedial maintenance activities are described below.

Maintenance Activity	Description	Maintenance Frequency
Empty trash cans along trails	Trash cans will be near trailheads and will need to be emptied so that trash stays off the trails.	Weekly
Refill pet waste	Pet waste dispensers will be located throughout the	Every month

bags	trails system and will need to be refilled when they become empty.	
Maintenance of informational signs	Informational signs will be located at each of the staging zones. These signs will need to be maintained and repaired so that the public will always have access to them.	1 time every 3 months
Updating information in informational kiosks	Information will be located at the informational kiosks at the staging areas. This information will need to be kept up to date so all hikers are aware of current conditions on the trail network.	Weekly
Installations of signs	Signs will need to be installed to warn hikers of hazards and let them know where not to enter. Signs will also be used to guide hikers through the trail network.	As needed
Repair/ Maintenance of signs	Repair and maintenance of signs should take place as needed. Signs should be visible and easy to see at all times.	As needed
Removal of invasive species	Invasive species removal will take place periodically to make sure no trails are blocked or obscured.	Annually
Recovery from acts such as vandalism or dumping	There is a possibility that vandalism and dumping of trash may take place on the trail networks. Maintenance will include repairing and or replacing anything that is damaged in such acts.	As needed
Grade non-asphalt trail	Trails should be maintained so that hikers and bikers can travel easily. This includes grading, resurfacing, and filling potholes on trails.	As needed
Patrol	Trails will need someone to be responsible for providing public safety, park information and protecting properties within the Wash Plan area. Will be determined by governing entity.	Every few days

With implementation of the operations and management activities outlined above in Section 6, of the Trails Master Plan, potential indirect impacts from trail users on the sensitive habitats & species would be minimized. There are no direct impacts to trails outside the Project footprint. Direct impacts from the construction of onsite recreational facilities (within the Project footprint) are analyzed in Section 5.1 Biological Resources. The proposed Projects residents use of the project's community trails, which connect to and coincide with trails in the Wash Plan, are not expected to have an adverse physical effect on the environment, including the sensitive species and habitats in the Wash Plan, with implementation of the Trails Master Plan operations and maintenance activities.

5.2.7 Proposed Mitigation Measures

Biological Resources, Section 5.1.6 of this EIR describes feasible mitigation measures that could minimize significant impacts to sensitive biological resources and include the following:

BIO-1: Disturbance Area Fencing

The Project disturbance areas shall be clearly fenced prior to vegetation clearing or grading to prevent incursion into the avoidance area or offsite habitat. No construction activities, equipment, materials, debris, or spoils shall be allowed in the avoidance area or offsite native habitat. Personnel shall be instructed to restrict activities to the disturbance area. Fencing shall remain in place and shall be maintained until replaced by permanent fencing/walls or until Project construction is complete.

BIO-2: Biological Monitoring

One or more qualified biological monitors shall be assigned to the Project to monitor construction activities. At least 15 calendar days prior to initiating Project activities, the resumes of biological monitors shall be submitted to CDFW and USFWS for review.

A biological monitor shall be present during all initial site clearing activities (vegetation clearing and ground disturbance) and any other construction activities (fence installation, scalebroom eradication) that could result in take of listed or special status species and at least once per week throughout the duration of construction to ensure compliance with mitigation measures and incidental take permit conditions.

Monitors shall be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, and sensitive biological resources are avoided to the extent possible. The biological monitor shall have the authority to halt/suspend all activities until appropriate corrective measures have been implemented.

BIO-3: WEAP Training

Biological monitors shall conduct Workers Environmental Awareness Program (WEAP) training to inform construction personnel of applicable mitigation measures and permit conditions and requirements for compliance. All onsite personnel must attend WEAP training prior to the start of any ground-disturbing activities. Attendance at training will be documented and workers provided with a hardhat sticker.

Training will include information about listed and special status species and sensitive habitat on the Project site and adjacent areas, responsibilities of the biological monitor, mitigation measures and permit conditions, restrictions on activities, and contact information for the biological monitor. Supporting materials such as images and descriptions of species and instructions on what to do and who to contact (includes contact information) if any of the identified species are encountered, will be provided to all personnel during the training program. Informal or formal refresher training shall be conducted as needed to maintain compliance.

BIO-4: Preconstruction Clearance Surveys

A qualified biologist shall conduct clearance surveys for listed and special status plant and wildlife resources within or adjacent to the Project disturbance area within three (3) calendar days prior to initial vegetation clearing and ground disturbance, including fence installation and scalebroom removal. The biologist shall inspect debris piles, pipes, burrows, vegetation, and other potential refugia prior to initiation of clearing, grubbing, grading, or any other project activity that may injure listed or special status wildlife species. The biologist shall also survey

any trees, structures, rock piles, etc. that may provide roosting habitat for bats. The survey will be done on the area(s) scheduled for work within the next (3) calendar days and repeated as needed until initial vegetation clearing and ground disturbance has been completed on the entire Project disturbance area.

Prior to construction each day, biological monitors shall conduct a 'clearance sweep' of all areas scheduled for construction to confirm that listed and special status species are not present.

If any listed or special status plants or wildlife are found, the biological monitor shall take appropriate action as defined in mitigation measures BIO-5, BIO-6, BIO-7, BIO-9, and BIO-11), permit conditions, and regulations. Federal, state, and local agencies will be consulted as needed and appropriate. If the biological monitor determines it to be necessary, an appropriate avoidance buffer with a radius of no less than 100 feet will be established to protect the resource until required actions have been completed.

If any common wildlife species are present in work areas, the biological monitor shall move the animal to nearby suitable habitat or encourage it to move out of harm's way, if safe and feasible to do so.

Monitoring and survey activities shall be documented through daily monitoring reports, survey reports, and monthly summary reports. A final compliance report will be prepared at the conclusion of Project construction activities. All reports will be submitted to the lead agency, CDFW, and USFWS.

BIO-5: Burrowing Owl

A preconstruction clearance survey for burrowing owl shall be conducted by a qualified biologist within no more than 30 calendar days prior to any site disturbance, including vegetation removal or mowing, ground disturbance, fence installation, etc. The survey will be conducted as close to the actual initiation of site disturbance as possible. The survey is valid for 30 calendar days. If work does not commence within the 30 days, the survey shall be repeated. If work starts and is suspended for 30 or more calendar days, the survey shall be repeated.

If burrowing owls are found on the site during their nesting season (February 1 to August 31), an avoidance buffer shall be established in coordination with CDFW. The buffer shall be no less than 300 feet, or as required by CDFW. If burrowing owls are found on the site outside of nesting season, passive relocation efforts shall be conducted in coordination with CDFW. With approval from CDFW, passive relocation shall include installation of one-way doors in burrow openings. Burrows shall be closed or collapsed following verification that burrows are empty through monitoring and scoping.

BIO-6: California Gnatcatcher

Prior to the start of any ground disturbing activities associated with construction a survey for California gnatcatcher shall be conducted by a qualified biologist holding a valid USFWS 10(a)(1)(A) permit for gnatcatcher. The survey shall be conducted in accordance with USFWS protocol and may be conducted during either the breeding season (March 15 through June 30)

or the non-breeding season (July 1 through March 14). Survey results shall be provided to CDFW and USFWS.

If the survey finds California gnatcatcher within the Project disturbance area, California gnatcatcher shall be included in the application for federal take authorization along with San Bernardino kangaroo rat. No ground disturbance shall occur on the Project site until federal incidental take authorization is obtained.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas of the Project site utilized by California gnatcatcher (as observed during protocol surveys) and a 500-foot buffer (within the boundaries of the Project site). Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS (or as required by the incidental take permit). This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for California gnatcatcher.

Nesting bird surveys shall be conducted as specified in Mitigation Measure BIO-6. If nesting gnatcatchers are present and federal incidental take authorization has been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest (or as required by the incidental take permit) and immediately reported to CDFW and USFWS. The nest shall be monitored at least once per week by the permitted biologist to determine if the buffer is sufficient to prevent construction-related disturbance to the nesting gnatcatchers. If the buffer is insufficient, additional measures shall be implemented and may include a larger buffer, suspending or redirecting construction activities, or other appropriate measures as determined by the biologist (or as required by the incidental take permit). The buffer and any other measures employed shall remain in place until the permitted biologist has determined that juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. Nest monitoring reports shall be provided to CDFW and USFWS, including nest outcomes.

If nesting gnatcatchers are present and federal incidental take authorization has not been obtained, an avoidance buffer of no less than 500 feet shall be established around the nest and USFWS and CDFW shall be immediately contacted for guidance.

BIO-7: Nesting Birds

Initial site disturbance (vegetation and ground disturbance, tree removal, fence installation, scalebroom eradication) shall be scheduled outside of the nesting season of January 15 to August 31, if feasible as determined by the project proponent. The nesting season is If initial site disturbance cannot be scheduled outside the nesting season, a preconstruction survey for nesting birds shall be conducted by a qualified biologist or biological monitor within three (3) days prior to any site disturbance during the nesting season.

If active nest(s) are present, an avoidance buffer of 500 feet for raptors and special status birds and 300 feet for all other birds (or as recommended by the Project biologist) shall be established

and maintained until a qualified biologist or biological monitor has determined that the juvenile birds have fledged and are no longer dependent on the nest or the nest has otherwise become inactive. An active nest is defined as a nest with eggs, chicks, or dependent juveniles, or a nest actively being constructed or utilized for reproduction.

The size of the buffer shall be determined by a qualified biologist based on the nature of proposed Project activities, the birds' tolerance to disturbance (if known), conservation status of the affected species, and any applicable agency recommendations or requirements. The boundary of the buffer shall be clearly flagged or marked, and construction crews informed of the restrictions.

BIO-8: San Bernardino Kangaroo Rat

The Project proponent shall obtain federal incidental take authorization for San Bernardino kangaroo rat (SBKR) through Section 7 of the federal Endangered Species Act (if there is a federal nexus) or through Section 10 of the ESA (if there is no federal nexus). If SBKR is a state listed or candidate species at the time the Project is scheduled to proceed, state incidental take authorization shall also be obtained through either an Incidental Take Permit (2081 permit) or a Consistency Determination. The Project proponent shall be responsible to provide any required surveys, reports, and documentation to support the permitting process. The Project proponent shall comply with all terms and conditions of the incidental take authorization(s), including required mitigation and monitoring.

Project-related impacts to occupied SBKR habitat shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ± 32.01 acres of critical habitat that will be impacted on the site (or as required by the incidental take permit).

The Project shall avoid impacts to the ± 6.53 acres of occupied habitat in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity by an agency-approved conservation entity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other conservation entity acceptable to CDFW and USFWS. The Project proponent shall prepare a Habitat Enhancement Plan for the ± 6.59 acres for SBKR, in coordination with the conservation entity and subject to review and approval by CDFW and USFWS and provide funding to fully implement the Habitat Enhancement Plan in conjunction with the conservation entity.

Prior to the start of Project activities, the Project proponent shall prepare a San Bernardino Kangaroo Rat Relocation Plan. The Plan will be submitted to the USFWS and CDFW for review and approval prior to the start of construction. Once approved by these agencies, the Project proponent shall be responsible for implementation of the Plan. The Plan shall include, but shall not be limited to the following topics:

- Exclusion fencing – type, location, installation methods, monitoring and protection or excavation of burrows during installation, inspection and maintenance

- Trapping and removal of SBKR from the Project disturbance area prior to construction – timing, duration, methodology, marking animals, qualifications of trapper
- Temporary holding of trapped animals – housing, feed, duration
- Relocation site selection – parameters for selection of suitable areas, alternatives, coordination with landowner/manager, data collection
- Relocation site preparation – artificial burrows, habitat restoration/enhancement, predator exclusion
- Relocation of SBKR – timing, methods, reporting
- Post-relocation monitoring and reporting – methods, duration and timetable, report contents

The Plan shall also include a strategy for the relocation of other special status small mammals that are incidentally caught during SBKR trapping. Once approved by USFWS and CDFW, the Project proponent shall be responsible for implementation of the Plan.

If a dead, injured, or entrapped SBKR is found during construction of the Project, workers will immediately notify the biological monitor. The monitor will notify USFWS and CDFW immediately (via phone, email, or text) with written follow-up report within two working days. Agency guidance shall be immediately sought for appropriate actions to release entrapped SBKR.

Rodenticides, herbicides, insecticides, or other chemicals that could potentially harm SBKR shall not be used on the Project site during the construction phase.

BIO-9: Wildlife Hazards

All potential wildlife pitfalls (trenches, bores, and other excavations) shall be backfilled or securely covered at the end of each workday. If backfilling or covering is not feasible, wildlife escape ramps shall be installed, in consultation with the biological monitor, with a minimum 3:1 slope and sufficient to allow trapped wildlife to escape. Project workers or the biological monitor will inspect all excavations for trapped wildlife daily.

All construction pipes, culverts, or other hollow materials shall be securely covered or capped while stored on the Project site to prevent wildlife access. All such materials shall be inspected for wildlife before being moved, buried, or capped.

If wildlife become trapped, the biological monitor shall remove the animal (if feasible and safe to do so) and place it in nearby suitable habitat outside of the impact area. If the biological monitor is unable to remove the animal, CDFW or other wildlife authority will be immediately contacted for guidance and/or assistance. Any wildlife encountered on the Project site shall be allowed to leave the area unharmed or moved (or gently encouraged to move) out of harm's way by the biological monitor, if safe and feasible to do so.

Project personnel shall not bring firearms or pets onto the Project site. Firearms carried by authorized security personnel are exempt.

Trash brought onsite by workers, especially food items or packaging that could attract wild or domestic predators, will be kept inside vehicles or in securely closed containers and removed from work areas daily.

BIO-10: Riversidean Alluvial Fan Sage Scrub

Project-related impacts to the Riversidean Alluvial Fan Sage Scrub (RAFSS) shall be mitigated through offsite compensation at a ratio of no less than 0.5:1 for the ±32.01 acres of RAFSS that will be impacted on the site. The Project proponent shall purchase mitigation credits at an agency-approved mitigation bank or equivalent mitigation at a ratio of no less than 0.5:1. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes RAFSS.

The Project shall avoid impacts to the ±6.59 acres of RAFSS in the southeastern corner of the site. The Project proponent shall conserve the avoidance area through a conservation easement and provide an endowment sufficient to fund management in perpetuity. Alternatively, the land may be transferred in fee title to San Bernardino Valley Water Conservation District or other entity acceptable to CDFW and USFWS.

BIO-11: Listed and Special Status Plants

Prior to the start of construction, a focused survey for slender-horned spineflower and Santa Ana woollystar shall be conducted by a qualified botanist. The survey shall be conducted in accordance with CDFW protocols and include all potentially suitable habitat on the Project site. The survey shall be conducted during the appropriate blooming season, as verified by visits to known reference sites, and during a year with average or above-average precipitation. The botanist shall also verify the identification of sapphire woollystar present on the site and examine plants for any evidence of hybridization with Santa Ana River woollystar. A survey report shall be prepared and submitted to the lead agency, CDFW, and USFWS.

If the survey finds slender-horned spineflower or Santa Ana woollystar within the Project disturbance area, the occupied habitat area(s) shall be mapped using GPS and an avoidance buffer of 100-foot radius established. An incidental take permit application shall be prepared and submitted to CDFW and slender-horned spineflower and/or Santa Ana woollystar shall be included in the application for federal take authorization prepared for San Bernardino kangaroo rat. No impacts within the avoidance buffer shall occur until state and federal incidental take authorization is obtained. CDFW and USFWS shall be sought for the appropriate treatment of sapphire woollystar-Santa Ana River woollystar hybrids, if any appear to be present.

For purposes of mitigation, acreage of occupied habitat shall be calculated to include all areas occupied by slender-horned spineflower and/or Santa Ana woollystar plants plus a 100-foot radius area around each occurrence. Offsite mitigation credits shall be purchased to replace the occupied habitat at no less than a 0.5:1 ratio from the Lytle Creek Conservation Bank, Cajon Creek Conservation Bank, or equivalent mitigation as approved by CDFW and USFWS. This mitigation may be nested with offsite compensation for San Bernardino kangaroo rat if it also includes suitable habitat for slender-horned spineflower or Santa Ana woollystar.

The focused surveys shall also include special status plants. If chaparral sand verbena, Parry's spineflower, or other special status plants with a CRPR of 1B.x are present in the disturbance area, propagules will be collected prior to the start of construction and planted in the avoidance area.

BIO-12: Heritage Trees

All heritage trees (as defined by City of Highland Municipal Code), excluding the eucalyptus groves, shall be replaced at a 2:1 ratio or as required by the City of Highland.

Trees that will not be removed shall be protected from damage or disturbance during construction in compliance with the City of Highland Municipal Code.

BIO-13: Adjacent Habitat

The Project shall incorporate measures to ensure that runoff is not altered in an adverse way as compared to existing conditions, which includes landscape irrigation. Stormwater systems shall 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 in adjacent habitat.

Best management practices (BMPs) as outlined in the project-specific Water Quality Management Plan (WQMP) shall be employed during Project construction to control fugitive dust, toxic emissions, noise, runoff, and erosion/sedimentation to ensure that adjacent offsite habitat and waterways are not impacted. BMPs include regular street sweeping, drainage facility maintenance and litter control as well as efficient irrigation and infiltration basins.

Any permanent lighting shall be directed away from adjacent habitat. Construction activities shall be limited to daylight hours.

Construction activities that generate noise in excess of 60 dBA Leq hourly, as measured at the nearest boundary of the Project site with adjacent habitat, shall incorporate noise-reducing features, as appropriate, to minimize the effects of noise on the adjacent habitat.

A permanent block wall shall be installed by the project proponent between the Project and the avoidance area and adjacent native habitat to limit access by residents and domestic animals. The Project proponent shall provide educational materials to homeowners, prior to occupation of residences, regarding the plants and animals present in the adjacent habitat and their conservation value.

In coordination with the San Bernardino Valley Water Conservation District (SBVWCD), the Project proponent shall place educational signage at any access point(s) to the adjacent native habitat to explain the value and sensitivity of the habitat and encourage stewardship. The Project proponent shall also work with SBVWCD to develop appropriate signage for the community trail and integrate it into existing or proposed trails in the Wash Plan area. The community trail shall be restricted to non-motorized use. Appropriate fencing or barriers will be installed to prevent access by motorized vehicles, as needed.

Adequate fire suppression capability shall be maintained in active construction areas, including having a water tender on site during periods of high fire danger. Appropriate fire prevention measures shall be employed during grinding, welding, and other spark-inducing activities near vegetated areas.

Dust control measures shall be employed to control fugitive dust and minimize impacts on adjacent vegetation. If watering is used to control dust, pooling of water will be minimized to the extent feasible to avoid attracting predators. Vehicles moving within the Project site shall be limited to a speed of 15 miles per hour.

Equipment and material storage, fueling, and staging areas shall be located within the Project disturbance area at least 100 feet from adjacent habitat and necessary precautions shall be taken to prevent any runoff from entering adjacent habitat. Project-related spills of hazardous materials shall be cleaned up immediately and contaminated soils removed from the site for proper disposal.

BIO-14. Invasive Plants

To prevent the spread of invasive plants, all heavy equipment used onsite shall be washed at a commercial truck wash or other appropriate offsite location prior to bringing it onto the Project site. All soil and debris that may contain seeds or propagules of invasive plants shall be removed from the equipment. Particular attention shall be paid to removing soil and debris from the wheels, undercarriage, outriggers, and other parts that come in contact with vegetation or soil.

Any straw, mulch, or similar products used on the Project site shall be certified weed-free. Any erosion control planting or seeding shall consist of appropriate native species, native seed mix, or other ecologically appropriate, non-invasive plants. Imported fill material shall be obtained from weed-free sources.

Invasive plant species on the California Invasive Plant Council Inventory (<https://www.cal-ipc.org/plants/inventory/>) shall not be installed in landscaping. The Project proponent shall prepare educational materials for homeowners regarding invasive plants and the CC&Rs for the development shall include restrictions on planting of invasives.

5.2.8 Summary of Project-Specific Environmental Effects after Mitigation Measures are Implemented

The proposed Project is not expected to substantially increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and potential impacts are less than significant.

The proposed Project does include the construction of recreational facilities, an on-site ½ acre-park and perimeter community trails, which could have an adverse physical effect on the environment, including sensitive biological species and their habitats. As outlined in Biological Resources Section 5.1.7, with implementation of Mitigation Measures BIO-1 through BIO-14 potential direct and indirect impacts to sensitive species and their habitats, on-site and off-site in

the adjacent Wash Plan area, will be reduced to less than significant levels, except for the San Bernardino kangaroo rat. Although Project-related impacts to SBKR will be avoided and minimized to the extent feasible, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant.

5.2.9 Summary of Cumulative Environmental Effects after Mitigation Measures are Implemented

Although existing parks and other recreational facilities would be potentially used by residents of the proposed project, the proposed project will provide a public park and will also be served by a system of trails. The proposed Project is not expected to substantially increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and potential Project specific impacts as well as cumulative impacts, are less than significant.

The proposed Project does include the construction of recreational facilities, an on-site ½ acre-park and perimeter community trails, which could have an adverse physical effect on the environment, including sensitive biological species and their habitats. With implementation of Mitigation Measures BIO-1 through BIO-14 potential direct and indirect impacts to sensitive species and their habitats, on-site and off-site in the adjacent Wash Plan area, will be reduced to less than significant levels, except for San Bernardino kangaroo rat.

As outlined in Biological Resources Section 5.1.8, the Project would add to loss of SBKR habitat in the region and other projects in the vicinity may also contribute incrementally to cumulative impacts. With implementation of mitigation measures, Project-related impacts to SBKR will be avoided and minimized to the extent feasible. However, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant. There has been a cumulative degradation of habitat for SBKR in the wash and Project-related impacts would be cumulatively adverse and potentially significant.

5.2.10 References

The following references were used in the preparation of this section of the DEIR:

Conservation and Open Space Element	City of Highland General Plan Conservation and Open Space Element http://www.ci.highland.ca.us/GeneralPlan/
HMC	City of Highland Municipal Code (https://www.codepublishing.com/CA/Highland/)

	The Trust for Public Land Park Score Index (https://www.tpl.org/city/highland-california)
Wash Plan Trails Master Plan	Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan) Trails Master Plan (https://www.sbvwd.org/docman-categories/projects/wash-plan/4715-trails-master-plan-november-2016/file)

5.3 TRANSPORTATION

This section analyzes the effects of the proposed project on Transportation. A Project-specific Traffic Analysis Report was completed in June 2019. The following discussion and analysis are based on findings in the Traffic Impact Analysis (TIA) Report, included in its entirety as Appendix D of this EIR.

5.3.1 Setting

Existing Roadway System

State Route 210 (SR-210), also known as the Foothill Freeway, is located west of the Project site and provides regional access to the Project site. Within the vicinity of the Project, the SR-210 provides two general purpose lanes in the eastbound and westbound directions. The principal local network of streets serving the site consists of Greenspot Road/5th Street, Boulder Avenue, and Church Street. Exhibit 5.3-1, Existing Roadway Conditions and Intersection Controls presents an inventory of the existing roadway conditions within the study area evaluated for the Project's TIA and identifies the number of travel lanes and intersection controls for the key study area intersections and roadway segments. Exhibit 5.3-2, City of Highland General Plan Circulation Element, shows the roadway network in the City and designated roadway classifications. The following provides a brief synopsis of the key area streets.

Greenspot Road

Greenspot Road is an east-west, six-lane divided roadway west of Boulder Avenue and a four-lane divided roadway east of Boulder Avenue. It borders the north side of the Project site. On the west side of SR-210, Greenspot Road becomes 5th Street. Greenspot Road is designated a Major Highway in the General Plan Circulation Element, with a four-lane 80-foot roadway curb-to-curb (including a 12-foot median) with two vehicle lanes in each direction and a bicycle lane and sidewalk in each direction.

5th Street

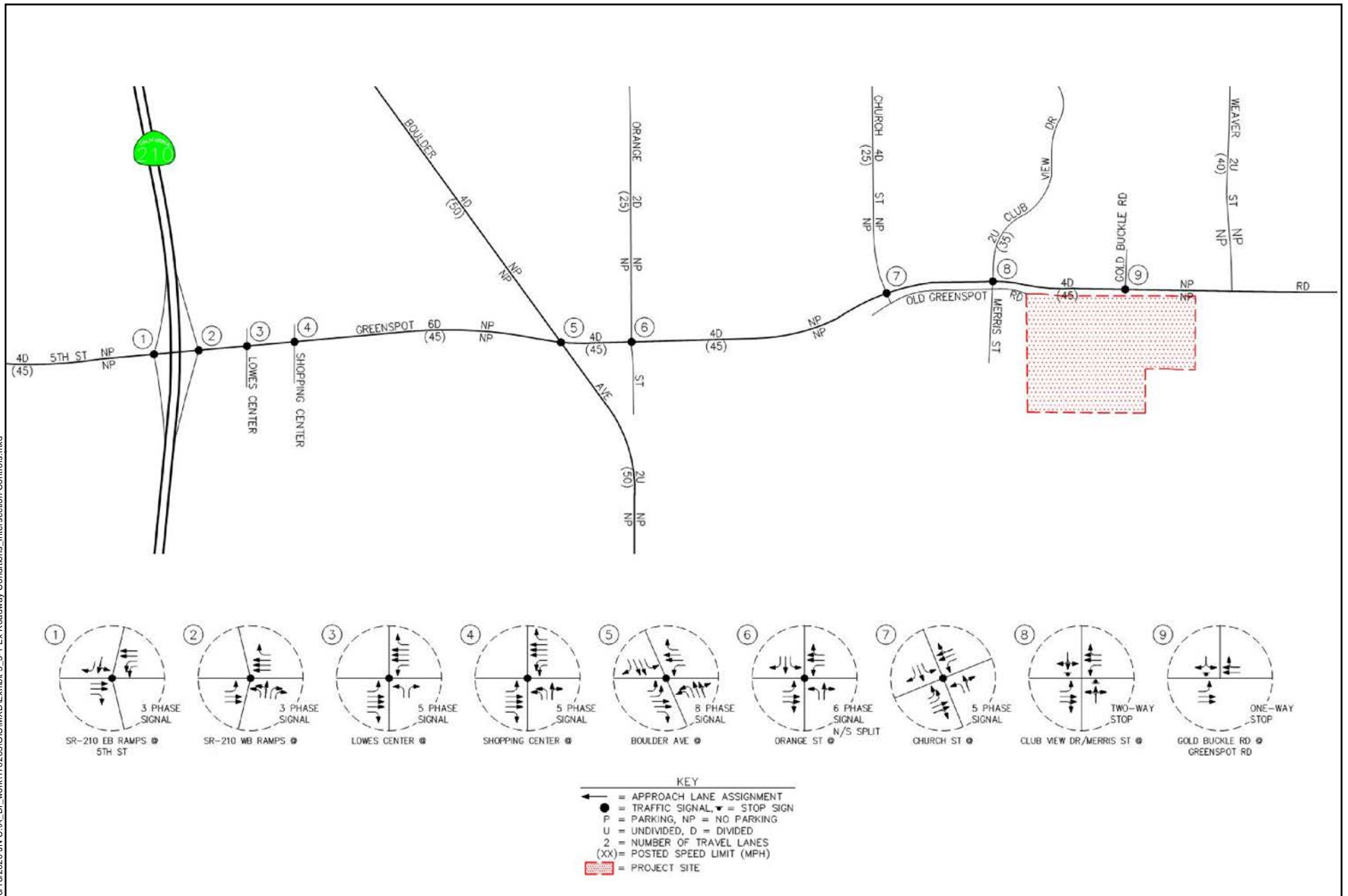
5th Street is an east-west, four-lane divided roadway and is located west of the Project site. 5th Street becomes Greenspot Road east of the SR-210. 5th Street is designated in the General Plan Circulation Element as a Primary Arterial (up to three lanes in each direction, 96-foot roadway, curb-to-curb), west of SR-210 to Palm Avenue, and as a Major Highway west of Palm Avenue.

Boulder Avenue

Boulder Avenue is a north-south, four-lane divided roadway north of Greenspot Road and a two-lane undivided roadway south of Greenspot Road. It is located west of the Project site. Boulder Avenue is designated as a Modified Primary Arterial (four-lane divided roadway plus Class I bike lane, 98-foot side, curb-to-curb, with raised median) in the General Plan Circulation Element.

Church Street

Church Street is a north-south, four-lane divided roadway and is located west of the Project site. Church Street is designated as a Secondary Highway (Four lane divided roadway) in the General Plan Circulation Element.



HEATHERGLEN PLANNED DEVELOPMENT



Not to Scale

Source: Linscott Law & Greenspan Engineers

Existing Roadway Conditions and Intersections Controls

Exhibit 5.3-1

Existing Public Bus Transit Services

The Project area is served by Omnitrans, and a description of the bus transit services in the project vicinity are as follows:

Omnitrans Route 15:

- Serves Fontana and Redlands via Rialto and San Bernardino
- Mainly travels along Orange Street/Boulder Avenue, Greenspot Road, and Church Street within the vicinity of the Project
- Three bus stops along Greenspot Road west of the Project site at Church Street, Valencia Court, and Orange Street
- The Church Street bus stop is improved (bench, shade structure, trash container and signage) and located at the Village at East Highlands Retail center, located at the northeast corner of Greenspot Road and Church Street, located approximately 1,500 linear feet or approximately 1/3 of a mile from the Project site

Bicycle Lanes and Sidewalks

Greenspot Road is designated as a Major Highway in the General Plan Circulation Element, with a four-lane 80-foot roadway curb-to-curb (including a 12-foot median) with two vehicle lanes in each direction and a bicycle lane and sidewalk in each direction. Greenspot Road is improved along the Project site's northern frontage with bike lane and sidewalk in the westbound direction and also in the eastbound direction, but the sidewalk stops just west of Gold Buckle Road.

Site Access

Access for the proposed Project will be provided via the extension of Old Greenspot Road and one full-movement access driveway and one left/right-turn in and right-turn out driveway on Greenspot Road. The full access driveway will be located at the existing intersection of Gold Buckle Road and Greenspot Road and the limited access driveway will be located east of Gold Buckle Road. The proposed Project will also connect to the existing Abbey Way in the southwest corner of the site to provide emergency access only.

Traffic Impact Analysis Study Area

Nine key study intersections and one future Project driveway were designated for evaluation in the Project's TIA based on the City of Highland Traffic Impact Analysis criteria and discussions with City staff. These key intersections provide local and regional access to the Project study area and include:

1. SR-210 EB ramps at 5th Street
2. SR-210 WB ramps at Greenspot Road
3. Lowes Center at Greenspot Road
4. Shopping Center at Greenspot Road

5. Boulder Avenue at Greenspot Road
6. Orange Street at Greenspot Road
7. Church Street at Greenspot Road
8. Club View/Merris Street at Greenspot Road
9. Gold Buckle Road at Greenspot Road
10. Project Driveway 2 at Greenspot Road (future intersection with Street "P")

A Basic Freeway Segment Analysis for freeway mainlines was conducted for the following four Caltrans freeway segments:

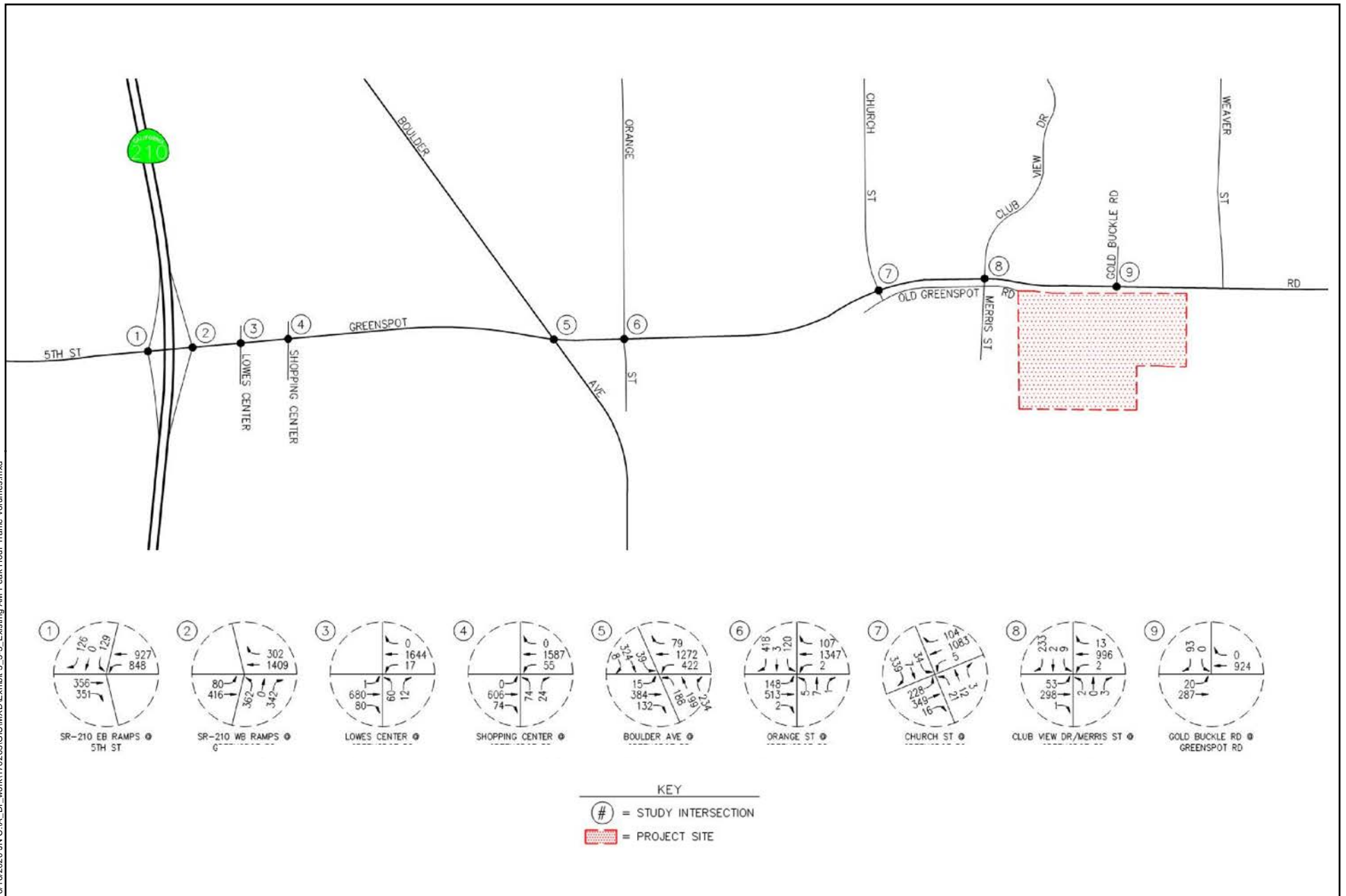
1. SR-210 WB *south* of 5th Street/Greenspot Road
2. SR-210 WB *north* of 5th Street/Greenspot Road
3. SR-210 EB *north* of 5th Street/Greenspot Road
4. SR-210 EB *south* of 5th Street/Greenspot Road

In addition, a Freeway Merge and Diverge Segment Analysis for ramp junctions was conducted for the following four Caltrans freeway merge and diverge segments:

1. SR-210 WB Off-Ramp *to* 5th Street/Greenspot Road
2. SR-210 WB On-Ramp *from* 5th Street/Greenspot Road
3. SR-210 EB Off-Ramp *to* 5th Street/Greenspot Road
4. SR-210 EB On-Ramp *from* 5th Street/Greenspot Road

Existing Traffic Volumes

Existing (i.e. baseline) AM and PM peak traffic volumes for the nine key study intersections evaluated in the Project's TIA were collected in December 2016 on a "typical" weekday for use in preparation of intersection and roadway segment level of service calculations. Exhibits 5.3-3 and 5.3-4 show the existing AM and PM peak hour traffic volumes, respectively, for the nine key study intersections. Existing traffic count data for the analyzed freeway segments was obtained from the Caltrans website.



HEATHERGLEN PLANNED DEVELOPEMENT

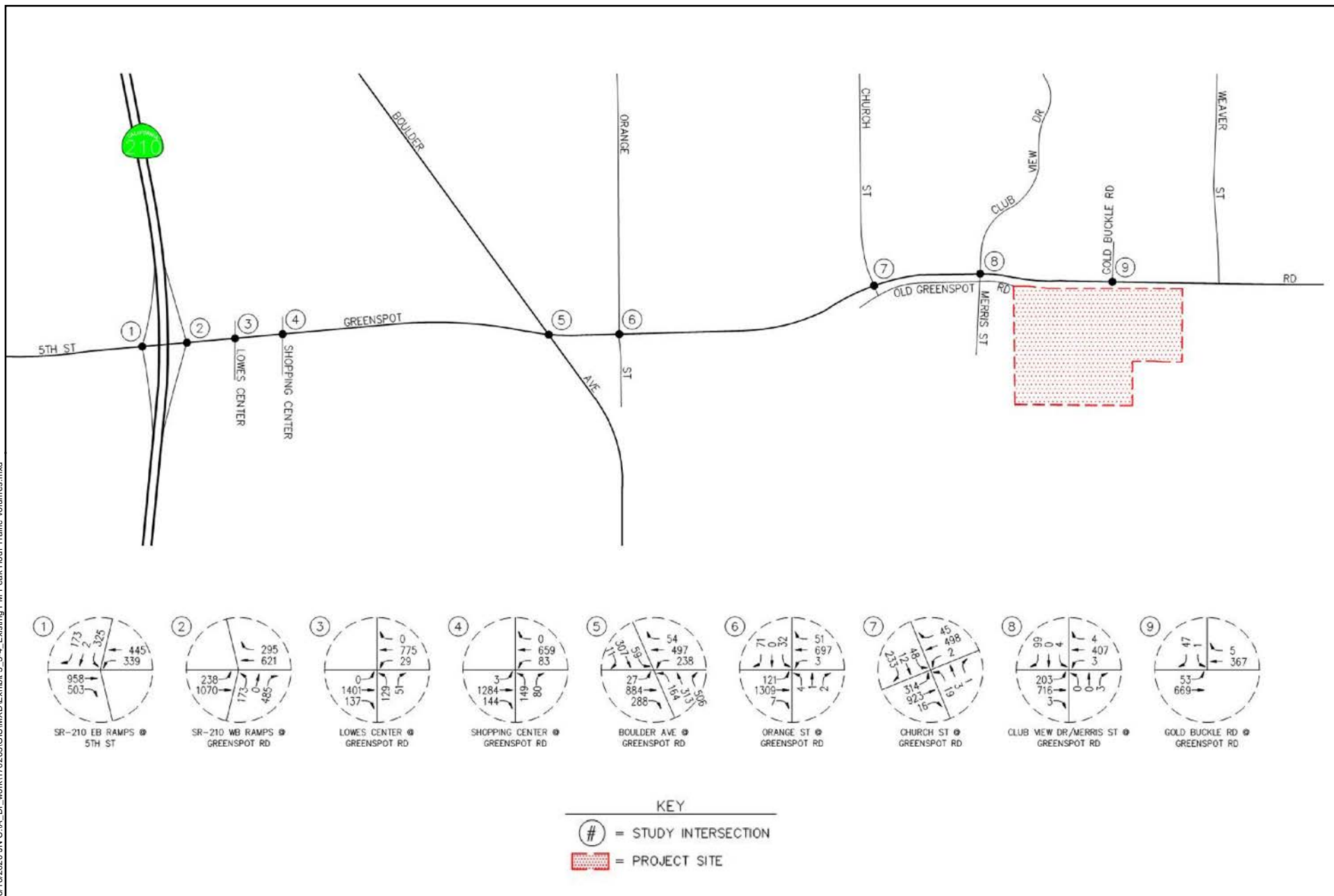


Not to Scale

Source: Linscott Law & Greenspan Engineers

Existing AM Peak Hour Traffic Volume

Exhibit 5.3-3



HEATHERGLEN PLANNED DEVELOPEMENT



Not to Scale

Source: Linscott Law & Greenspan Engineers

Existing PM Peak Hour Traffic Volume

Exhibit 5.3-4

Level of Service (LOS) Methodology for Intersections

The *Highway Capacity Manual* (HCM) defines LOS as a qualitative measure that describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

At an intersection, the HCM methodology expresses the LOS in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. For signalized intersections, average total delay per vehicle for the overall intersection is used to determine LOS. LOS criteria for traffic signals are stated in terms of the control delays in seconds per vehicle. The LOS thresholds established for the automobile mode at a signalized intersection are shown below in Table 5.3-A. LOS criteria for unsignalized intersections differ from LOS criteria for signalized intersections as signalized intersections are designed for heavier traffic and therefore a greater delay. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable, which can reduce users' delay tolerance. Two-way stop-controlled intersections are comprised of a major street, which is uncontrolled, and a minor street, which is controlled by stop signs. LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay. The HCM control delay value ranges for two-way stop-controlled intersections are shown in Table 5.3-B.

Table 5.3-A – Level of Service Criteria for Signalized Intersections (HCM Methodology)¹

Control Delay (sec/veh)	Level of Service (LOS)	Level of Service Description
≤10	A	This level of service occurs when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short.
>10-20	B	This level generally occurs when the v/c ratio is low and either progression is highly favorable or the cycle length is short.
>20-35	C	Average traffic delays. These higher delays may result when progression is favorable, or the cycle length is moderate. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
>35-55	D	Long traffic delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop and individual cycle failures are noticeable.
>55-80	E	Very long traffic delays. This level is considered by many agencies (i.e.,

		SANBAG) to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
>80	F	Severe congestion. This level, considered to be unacceptable to most drivers, often occurs with over saturation; that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

¹Source: *Highway Capacity Manual*, Chapter 18: Signalized Intersections.

Table 5.3-B – Level of Service Criteria for Unsignalized Intersections (HCM Methodology)²

Control Delay (sec/veh)	Level of Service (LOS)	Level of Service Description
0-10	A	Little or no delay
>10-15	B	Short traffic delays
>15-20	C	Average traffic delays
>25-35	D	Long traffic delays
>35-50	E	Very long traffic delays
>50	F	Severe congestion

²Source: *Highway Capacity Manual*, Chapter 19: Two-Way Stop-Controlled Intersections. The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

Level of Service (LOS) Methodology for Freeway Segments

The basic freeway segment criteria are based on peak hour HCM 2010 density analysis. The capacities are based on information contained in the HCM 2010. Basic freeway segment levels of service are determined from segment density. Table 5.3-C below presents the correlation between LOS and density in terms of passenger cars per mile per lane (pc/mi/ln) for basic freeway segments.

Table 5.3-C – Basic Freeway Segments Level of Service Criteria (HCM Methodology)³

Level of Service (LOS)	Basic Freeway Segment Density (pc/mi/ln)
A	≤11.0
B	>11.0 – 18.0
C	>18.0 – 26.0
D	>26.0 – 35.0
E	>35.0 – 45.0
F	>45.0

³Source: *Highway Capacity Manual*, Chapter 11: Basic Freeway Segments.

Freeway merge and diverge segment analysis is based on peak hour HCM 2010 density analysis for freeway-to-arterial interchanges. According to HCM 2010 methodology, the ramp merge and diverge segments focus on an influential area of 1,500 feet, including acceleration or

deceleration lane(s) and adjacent freeway ramps. The methodology incorporates three fundamental steps:

- Determination of the traffic entering the freeway lanes upstream of the merge or at the beginning of the deceleration lane at diverge;
- Determination of the capacity for the segment; and
- Determination of the density of traffic flow within the ramp influence area and its level of services.

The LOS for freeway merge and diverge segments is determined by traffic density based on criteria outlined in the HCM 2010. Table 5.3-D presents the correlation between LOS and density in terms of passenger cars per mile per lane (pc/mi/ln) for freeway merge and diverge segments.

Table 5.3-D – Freeway Merge and Diverge Segments Level of Service Criteria (HCM Methodology)⁴

Level of Service (LOS)	Freeway Ramp Density (pc/mi/ln)	Level of Service Description
A	≤10.0	Unrestricted operations
B	>10.0 – 20.0	Merging and diverging maneuvers noticeable to drivers
C	>20.0 – 28.0	Influence area speeds begin to decline
D	>28.0 – 35.0	Influence area turbulence becomes intrusive
E	>35.0	Turbulence felt by virtually all drivers
F	Demand Exceeds Capacity	Ramp and freeway queues form

⁴Source: *Highway Capacity Manual*, 2010, Chapter 13: Freeway Merge and Diverge Segments.

The *City of Highland General Plan Circulation Element* states that the City considers LOS D to be the minimum acceptable LOS for all intersections for peak operating periods. Thus, any intersection operating at LOS E or LOS F is considered deficient. Further, based on the *Caltrans Traffic Impact Study Guidelines* (December 2002), Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities and *Caltrans District 8* has typically established that LOS D is the operating standard for all Caltrans facilities. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than appropriate target LOS, the existing LOS should be maintained.

5.3.2 Regulatory Setting

This section includes a discussion of the applicable state, regional, and local laws, ordinances, regulations, and standards governing transportation and traffic, which must be adhered to before and during project implementation.

5.3.2.1 State Regulations

State Senate Bill 743

Senate Bill (SB) 743 was signed into law by Governor Brown in 2013 and tasked the State Office of Planning and Research (OPR) with establishing new criteria for determining the significance of transportation impacts under the California Environmental Quality Act (CEQA). SB 743 requires the new criteria to “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” It also states that alternative measures of transportation impacts may include “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.”

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changes transportation impact analysis as part of CEQA compliance. SB 743 requires the Governor’s OPR to identify new metrics for identifying and mitigation transportation impacts within CEQA. In January 2018, OPR transmitted its proposed CEQA Guidelines implementing SB 743 to the California Natural Resources Agency for adoption. In December 2018 the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the Guidelines section implementing Senate Bill 743 (Section 15064.3)

CEQA Guidelines Section 15064.3 indicates:

This section describes specific considerations for evaluating a project’s transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, “vehicle miles traveled” refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project’s effect on automobile delay shall not constitute a significant environmental impact.

The provisions of CEQA Guidelines Section 15064.3 apply to CEQA documents that are released for public review commencing on July 1, 2020. (Section 1506.43 and section 15007).

5.3.2.2 Regional Regulations

Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is an association of local governments and agencies that serves as a Metropolitan Planning Organization (MPO), a Regional Transportation Planning Agency (RTPA) and a Council of Governments (COG). The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities. SCAG is responsible for developing long-range regional transportation plans, including the regional Sustainable Communities Strategy (SCS) and associated growth forecasts, regional transportation improvement programs, and regional housing needs allocations (SCAG 2018).

SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-range regional transportation and land use network plan that looks ahead 20 plus years and provides a vision of the region's future mobility and housing needs with economic, environmental and public health goals. The RTP/SCS identifies major challenges as well as potential opportunities associated with growth, transportation finances, the future of airports in the region, and pending transportation system deficiencies that could result from regional growth. SCAG adopted its current RTP/SCS in April 2016 (SCAG 2016).

5.3.2.3 Local Regulations

City of Highland General Plan Circulation Element

The Circulation Element of the City of Highland General Plan provides specific implementation programs to address existing traffic conditions in the General Plan study area. The programs are additionally designed to prevent future deterioration of roadway capacity in the community. The Circulation Element addresses current transportation-related issues and future challenges associated with the growth posed by the General Plan. In addition, the Circulation Element analyzes future traffic impacts to the city due to the planned growth of Highland's Land Use Plan and the inevitable region-wide growth. The purpose of the Circulation Element is to develop an efficient, cost-effective, and comprehensive transportation management strategy consistent with regional plans and local needs to maintain and improve mobility in a manner consistent with the goals and character of the community.

The following goals and policies apply to the Project:

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

Policies

- 1) Require new development proposals to ensure that all mid-block street segments operate at LOS "D" or better during the peak hours of traffic.
- 2) Ensure that all intersections operate at LOS "D" or better during the peak hours of traffic.
- 3) Ensure that the City's street system be designed and constructed to accommodate the traffic generated by buildout of the General Plan land use designations.
- 4) Maintain flexibility in the cross-sections and configuration of streets within topographically rugged or environmentally sensitive areas as long as mid-block street segments and intersections operate at LOS "D" or better.
- 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.
- 6) Periodically update the General Plan master traffic study to maintain its relevance and correspondence to the General Plan land use designations and the design and construction of new and existing City streets.
- 7) Monitor the intensity of land use to keep traffic on any arterial in balance with roadway capacity.

- 8) Require development proposals with the potential to generate traffic volumes or other impacts not adequately evaluated in the Circulation Element and the General Plan Program EIR to prepare a traffic analysis consistent and compatible with the City's Master General Plan Traffic Model.
- 9) Restrict the number of access points and intersections along arterials to preserve mid block and intersection capacities and to maintain public safety.
- 10) Encourage major employers to reduce vehicle 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 3.4 Provide a safe circulation system.

Policies

- 1) Establish the local street system within developing neighborhoods through cooperative public/private planning process.
- 2) Require new development to install and maintain streets within planned residential areas as private streets and in accordance with development standards set forth in the Development Code and other applicable standards and guidelines.
- 3) Promote the principle that streets have multiple uses and users, and protect the safety of all users.
- 4) Require new development to provide pedestrian paths and linkages through projects, locating linkages to avoid conflicts with motorized traffic.
- 5) Discourage high-speed, through traffic on local streets with appropriate traffic-calming measures (e.g. traffic enforcement, bulb-outs, lane striping, chokers, etc).
- 6) Design access onto major arterial streets in an orderly and controlled manner.
- 7) Utilize shared driveways in common areas to minimize disruptions to traffic and pedestrian/ bicycle flow.
- 8) Implement street design features such as the use of medians, bus turnouts and consolidated driveways to minimize mis-block traffic congestion.
- 9) Support freeway improvements that remove through traffic from local streets.
- 10) Provide adequate sight distances for safe vehicular movement on roadways and at intersections.
- 11) Encourage and improve pedestrian connections from residential neighborhoods to retail activity centers, employment centers, schools, parks, open space areas and community centers.
- 12) Encourage barrier-free accessibility for all handicapped residents, employees and visitors throughout the City's circulation system.
- 13) Support the planning of sidewalks of appropriate width to allow the provision of buffers to shield nonmotorized traffic from vehicles.
- 14) Add raised, landscaped medians and bulb-outs, where appropriate, to reduce exposure to cross traffic at street locations.

- 15) When feasible, walkways should include pedestrian amenities such as shade trees and/or plantings, trash bins, benches and shelters.

Goal 3.5 Promote bus service and paratransit improvements.

Policies

- 1) Continue to support the regional bus system to provide intracity service, intercity service to major employment centers, and connection to regional transportation transfer points.
- 2) Plan for the provision of areas within the City to be used as park-and-ride regional bus and carpool facilities.
- 3) Work with Omnitrans to ensure that transit services are extended to serve residents in the eastern portion of the study area.
- 4) Coordinate with Omnitrans to provide safe, clean and attractive bus shelters at bus stops and transfer stations.
- 5) Ensure accessibility of disabled persons to public transportation.
- 6) Investigate new opportunities to finance further transit service for the elderly, handicapped and recreational purposes.
- 7) Support privately funded local transit systems for commuter residents and maintain local transit systems for seniors and youth.
- 8) Design transit improvements to minimize impacts on other modes of travel.

Goal 3.7 Protect and encourage bicycle travel.

Policies

- 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.
- 2) Encourage new development to provide reasonable and secure space for bicycle storage.
- 3) Provide bicycle racks at all public facilities and along major public streets.
- 4) Assure that local bicycle routes will compliment regional systems and be compatible with routes of neighboring municipalities.
- 5) Provide linkages between bicycle routes and other trails, such as the Santa Ana River Trail, within the City as appropriate.

5.3.3 Comments Received in Response to NOP

There were no comments letters received in response to the NOP related to transportation, including vehicle miles traveled.

5.3.4 Project Design Considerations

There are no proposed design considerations to reduce potential transportation impacts.

5.3.5 Thresholds of Significance

The City of Highland Planning Commission has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The City of Highland generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the State CEQA Guidelines. The Environmental Checklist prepared by the City for the Project (Appendix A) indicates that impacts related to the Heatherglenn Planned Development Project may be considered potentially significant if the proposed Project would:

- conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; or
- conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

5.3.6 Environmental Impacts before Mitigation

Threshold A: *Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Traffic Analysis Methodology

In compliance with City of Highland requirements, the methodologies outlined in the *Highway Capacity Manual 2010* (HCM 2010) were used in the analysis for the Project's traffic study.

Traffic counts were conducted to quantify existing traffic conditions. The analysis considered the weekday AM and PM peak hours of traffic. The following conditions were analyzed:

- AM and PM peak hour Level of Service (LOS) analyses for Existing (Year 2019) Conditions
- AM and PM peak hour LOS analyses for Existing Conditions with Project traffic
- AM and PM peak hour LOS analyses for Near-Term (Year 2019) Conditions without and with Project traffic
- Daily, AM, and PM peak hour LOS analyses for Long-Term (Year 2040) Conditions without and with Project traffic

The Year 2040 General Plan Buildout traffic volume forecasts were obtained through utilization of the San Bernardino Traffic Analysis Model (SBTAM) travel demand model.

As previously described in Section 5.3.1, nine key study intersections and one future Project driveway were evaluated based on City of Highland TIA criteria and discussions with City staff. The TIA conducted for the proposed Project was done to determine the potential traffic impacts the Project may have on the local and/or the regional transportation network in the vicinity of the Project site. Per the requirements of the City, the *HCM* Delay and corresponding LOS calculations at the key study intersections were used to evaluate the potential traffic-related impacts associated with area growth, related projects, and the proposed Project.

The *City of Highland General Plan Circulation Element* states that the City considers LOS D to be the minimum acceptable LOS for all intersections for peak operating periods. Thus, any

intersection operating at LOS E or LOS F is considered deficient. Further, Caltrans requires the use of methods provided in the HCM 2010 for the analysis of basic freeway segments and freeway merge and diverge segments. Based on the *Caltrans Traffic Impact Study Guidelines* (December 2002), Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities and *Caltrans District 8* has typically established that LOS D is the operating standard for all Caltrans facilities. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than appropriate target LOS, the existing service level should be maintained.

Local Transportation Network

Existing Conditions

Table 5.3-E summarizes the peak hour LOS results at the nine key study intersections for Existing traffic conditions, with and without the proposed Project. As shown in Table 5.3-E, all nine key study intersections currently operate at acceptable LOS D or better during the AM and PM peak hours. Under Existing With Project traffic conditions, Table 5.3-E indicates that two of the nine key study intersections are forecast to operate at unacceptable levels of service during the AM and PM peak hours and they are: intersection number (no.) 8, Club View Drive/Merris Street at Greenspot Road and no. 9, Goldbuckle Road at Greenspot Road.

Year 2019 Traffic Conditions

In addition, Table 5.3-F summarizes the AM and PM peak hour LOS results at the nine key study intersections for the Year 2019 traffic conditions, with and without the proposed Project. As indicated in Table 5.3-F, under Year 2019 Without Project traffic conditions, two of the nine key study intersections are forecasted to operate at an unacceptable LOS during the AM peak hour when compared to the LOS standards defined earlier in this section. These intersections are no. 6, Orange Street at Greenspot Road, and no.8, Club View Drive/Merris Street at Greenspot Road. Further, Table 5.3-F additionally indicates that under Year 2019 With Project traffic conditions, three of the nine intersections are forecasted to operate at unacceptable LOS during the AM and/or PM peak hours. These intersections are no. 6, Orange Street at Greenspot Road, no. 8, Club View Drive/Merris Street at Greenspot Road, and no. 9, Goldbuckle Road at Greenspot Road.

Year 2040 Traffic Conditions

Further, Table 5.3-G summarizes the AM and PM peak hour LOS results at the nine key study intersections for the Year 2040 traffic conditions, with and without the proposed Project. As indicated in Table 5.3-G, under Year 2040 Without Project traffic conditions, three of the nine key study intersections are forecast to operate at an unacceptable LOS during the AM and/or PM peak hours when compared to the LOS standards defined earlier in this section. Further, as additionally indicated in Table 5.3-G, under Year 2040 With Project traffic conditions, five of the nine key intersections are forecast to operate at unacceptable LOS during the AM and/or PM peak hours.

Table 5.3-E – Existing Conditions Peak Hour Intersection Capacity Analysis Summary

Key Intersection	Min. Acceptable LOS	Time Period	Existing Traffic Conditions		Existing W/ Project Traffic Conditions		Significant Impact	Existing w/ Project w/ Mitigation	
			Delay (s/v)	LOS	Delay (s/v)	LOS	Yes/No	Delay (s/v)	LOS
1. SR-210 EB Ramps at 5 th Street	D	AM	19.5	B	19.8	B	No	--	--
		PM	23.2	C	24.7	C	No	--	--
2. SR-210 WB Ramps at Greenspot Road	D	AM	17.2	B	16.5	B	No	--	--
		PM	18.0	B	18.5	B	No	--	--
3. Lowes Center at Greenspot Road	D	AM	4.2	A	4.2	A	No	--	--
		PM	7.6	A	7.5	A	No	--	--
4. Shopping Center at Greenspot Road	D	AM	5.4	A	5.3	A	No	--	--
		PM	9.1	A	8.9	A	No	--	--
5. Boulder Avenue at Greenspot Road	D	AM	30.2	C	30.8	C	No	--	--
		PM	39.7	D	47.1	D	No	--	--
6. Orange Street at Greenspot Road	D	AM	39.4	D	43.5	D	No	--	--
		PM	11.0	B	11.2	B	No	--	--
7. Church Street at Greenspot Road	D	AM	23.4	C	24.3	C	No	--	--
		PM	17.5	B	17.0	B	No	--	--
8. Club View Drive/Merris Street at Greenspot Road	D	AM	24.8	C	71.6	F	Yes	14.8	B
		PM	11.7	B	94.4	F	Yes	12.7	B
9. Gold Buckle Road at Greenspot Road ⁵	D	AM	13.2	B	34.5	D	No	7.2	A
		PM	9.8	A	37.1	E	Yes	4.8	A
Notes: <ul style="list-style-type: none">s/v = seconds per vehicle delayLOS = Level of ServiceBold Delay/LOS values indicate adverse service levels based on the LOS standards described in Tables 5.3-A through 5.3-D. ⁵ This intersection will be converted to a four-legged intersection in conjunction with the Project development and has been assumed in the background traffic conditions for the "With" Project scenarios.									

Table 5.3-F – Year 2019 Conditions Peak Hour Intersection Capacity Analysis Summary

Key Intersection	Min. Acceptable LOS	Time Period	Existing Traffic Conditions		Year 2019 Without Project Traffic Conditions		Year 2019 With Project Traffic Conditions		Significant Impact	Year 2019 With Project with Mitigation	
			Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (s/v)	LOS		Delay (s/v)	LOS
1. SR-210 EB Ramps at 5 th Street	D	AM	19.5	B	19.6	B	19.8	B	No	--	--
		PM	23.2	C	22.3	C	23.0	C	No	--	--
2. SR-210 WB Ramps at Greenspot Road	D	AM	17.2	B	15.6	B	15.7	B	No	--	--
		PM	18.0	B	19.7	B	20.5	C	No	--	--
3. Lowes Center at Greenspot Road	D	AM	4.2	A	8.1	A	8.2	A	No	--	--
		PM	7.6	A	13.0	B	13.2	B	No	--	--
4. Shopping Center at Greenspot Road	D	AM	5.4	A	9.3	A	9.4	A	No	--	--
		PM	9.1	A	16.2	B	16.4	B	No	--	--
5. Boulder Avenue at Greenspot Road	D	AM	30.2	C	34.1	C	35.3	D	No	--	--
		PM	39.7	D	29.7	C	29.8	C	No	--	--
6. Orange Street at Greenspot Road	D	AM	39.4	D	81.9	F	97.0	F	Yes	49.4	D
		PM	11.0	B	14.2	B	14.8	B	No	14.4	B
7. Church Street at Greenspot Road	D	AM	23.4	C	31.7	C	36.1	D	No	--	--
		PM	17.5	B	18.9	B	19.3	B	No	--	--
8. Club View Drive/Morris Street at Greenspot Road	D	AM	24.8	C	112.7	F	967.1	F	Yes	17.1	B
		PM	11.7	B	17.2	C	664.9	F	Yes	12.1	B
9. Gold Buckle Road at Greenspot Road ⁶	D	AM	13.2	B	17.7	C	167.0	F	Yes	6.5	A
		PM	9.8	A	11.6	B	301.7	F	Yes	4.2	A

Notes: s/v = seconds per vehicle delay; LOS = Level of Service; **Bold Delay/LOS values** indicate adverse levels based on the LOS standards defined in Tables 5.3-A through 5.3-D.

⁶This intersection will be converted to a four-legged intersection in conjunction with the Project development and has been assumed in the background traffic conditions for the "With" Project scenarios.

Table 5.3-G – Year 2040 Conditions Peak Hour Intersection Capacity Analysis Summary

Key Intersection	Min. Acceptable LOS	Time Period	Existing Traffic Conditions		Year 2040 Without Project Traffic Conditions		Year 2040 With Project Traffic Conditions		Significant Impact	Year 2040 With Project with Mitigation	
			Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (s/v)	LOS		Delay (s/v)	LOS
1. SB-210 EB Ramps at 5 th Street	D	AM	19.5	B	21.2	C	21.4	C	No	20.4	C
		PM	23.2	C	56.1	E	60.0	E	Yes	39.4	D
2. SR-210 WB Ramps at Greenspot Road	D	AM	17.2	B	18.5	B	19.4	B	No	--	--
		PM	18.0	B	46.8	D	50.7	D	No	--	--
3. Lowes Center at Greenspot Road	D	AM	4.2	A	14.3	B	14.7	B	No	--	--
		PM	7.6	A	32.2	C	35.7	D	No	--	--
4. Shopping Center at Greenspot Road	D	AM	5.4	A	14.8	B	15.1	B	No	--	--
		PM	9.1	A	34.7	C	39.2	D	No	--	--
5. Boulder Avenue at Greenspot Road	D	AM	30.2	C	45.7	D	48.7	D	No	--	--
		PM	39.7	D	45.0	D	48.4	D	No	--	--
6. Orange Street at Greenspot Road	D	AM	39.4	D	147.3	F	163.0	F	Yes	31.6	C
		PM	11.0	B	25.0	C	32.3	C	No	28.2	C
7. Church Street at Greenspot Road	D	AM	23.4	C	53.3	D	62.3	E	Yes	37.0	D
		PM	17.5	B	26.2	C	29.2	C	No	20.9	C
8. Club View Drive/Merris Street at Greenspot Road	D	AM	24.8	C	10,000.0	F	10,000.0	F	Yes	24.9	C
		PM	11.7	B	339.4	F	8,297.4	F	Yes	14.0	B
9. Gold Buckle Road at Greenspot Road ⁷	D	AM	13.2	B	33.2	D	1,788.9	F	Yes	7.0	A
		PM	9.8	A	18.2	C	5,317.5	F	Yes	4.7	A

Notes: s/v = seconds per vehicle delay; LOS = Level of Service; **Bold Delay/LOS Values** indicate adverse service levels based on the LOS standards defined in Tables 5.3-A through 5.3-D.
⁷This intersection will be converted to a four-legged intersection in conjunction with the Project development and has been assumed in the background traffic conditions for the "With" Project scenarios.

*Regional Transportation Network*Existing Conditions

Table 5.3-H summarizes the peak hour Level of Service results at the four basic freeway segments for Existing traffic conditions, and Table 5.3-I summarizes the peak Level of Service results at the four freeway merge and diverge segments for Existing traffic conditions. As indicated by Tables 5.3-H and 5.3-I, one of the four basic freeway segments and two of the four merge and diverge segments are forecast to have an unacceptable LOS under Existing With Project traffic conditions. However, the addition of the Project trips is not anticipated to result in any new deficient service levels at these locations and are forecast to remain at unacceptable LOS E. In compliance with Caltrans impact criteria, the Project's contribution to the SR-210 Eastbound *south* of 5th Street/Greenspot Road and the freeway merge and diverge segments SR-210 Westbound Off-Ramp *to* 5th Street/Greenspot Road and SR-210 Eastbound On-Ramp *from* 5th Street/Greenspot Road can be considered insignificant under the Existing With Project traffic conditions analysis scenario. The remaining freeway segments and freeway merge and diverge segments are forecast to operate at acceptable levels of service.

It should be noted that Caltrans is currently in the process of improving the SR-210 Freeway with the Mixed Flow Lane Addition Project, which will widen SR-210 from Sterling Avenue to San Bernardino Avenue in the cities of Highland, San Bernardino, and Redlands, as well as a portion of unincorporated San Bernardino County. The Caltrans project will add a mixed flow lane along the study corridor, add an auxiliary lane in each direction between the Baseline and 5th Street/Greenspot Road interchanges, and extend the acceleration lane at the 5th Street eastbound on-ramp.

Table 5.3-H – Existing Conditions Peak Hour Basic Freeway Segments Capacity Analysis Summary

Key Basic Freeway Segment	Time Period	Existing Traffic Conditions			Existing With Project Traffic Conditions			Significant Impact	Existing With Project w/ Mitigation		
		Peak Hour Volume	Density (pc/mi/ln)	LOS	Peak Hour Volume	Density (pc/mi/ln)	LOS	Yes/No	Peak Hour Volume	Density (pc/mi/ln)	LOS
1. SR-210 WB <i>south of 5th Street/Greenspot Road</i>	AM	3,296	27.7	D	3,311	27.9	D	No	--	--	--
	PM	3,738	33.1	D	3,789	33.8	D	No	--	--	--
2. SR-210 WB <i>north of 5th Street/Greenspot Road</i>	AM	2,974	24.5	C	2,998	24.7	C	No	--	--	--
	PM	3,613	31.4	D	3,629	31.6	D	No	--	--	--
3. SR-210 EB <i>north of 5th Street/Greenspot Road</i>	AM	3,164	26.3	D	3,172	26.4	D	No	--	--	--
	PM	3,205	26.8	D	3,232	27.0	D	No	--	--	--
4. SR-210 EB <i>south of 5th Street/Greenspot Road</i>	AM	4,108	38.8	E	4,154	39.6	E	No	--	--	--
	PM	3,549	30.6	D	3,579	31.0	D	No	--	--	--
Notes: <ul style="list-style-type: none"> • WB = Westbound • EB = Eastbound • pc/mi/ln = Passenger cars per mile per lane (density) • LOS = level of service; Bold Volume/Density/LOS values indicate adverse level of service based on Caltrans LOS Criteria 											

Table 5.3-I – Existing Conditions Peak Hour Freeway Merge and Diverge Segments Capacity Analysis Summary

Key Fwy Merge or Diverge Segment	Analysis Type	Time Period	Existing Traffic Conditions				Existing W/ Project Traffic Conditions				Significant Impact	Existing W/ Project w/ Mitigation			
			Fwy Pk Hr Vol	Ramp Pk Hr Vol	Density (pc/mi/ln)	LOS	Fwy Pk Hr Vol	Ramp Pk Hr Vol	Density (pc/mi/ln)	LOS	Yes/No	Fwy Pk Hr Vol	Ramp Pk Hr Vol	Density (pc/mi/ln)	LOS
1. SR-210 WB Off-Ramp to 5 th St./Greenspot Rd.	Diverge	AM	3,296	704	33.0	D	3,311	719	33.2	D	No	--	--	--	--
		PM	3,738	658	37.1	E	3,789	709	37.5	E	No	--	--	--	--
2. SR-210 WB On-Ramp from 5 th St./Greenspot Rd.	Merge	AM	2,592	382	24.9	C	2,592	406	25.1	C	No	--	--	--	--
		PM	3,080	533	30.2	D	3,080	549	30.3	D	No	--	--	--	--
3. SR-210 EB Off-Ramp to 5 th St./Greenspot Rd	Diverge	AM	3,164	255	31.2	D	3,172	263	31.3	D	No	--	--	--	--
		PM	3,205	500	31.6	D	3,232	527	31.8	D	No	--	--	--	--
4. SR-210 EB On-Ramp from 5 th St./Greenspot Rd.	Merge	AM	2,909	1,199	35.2	E	2,909	1,245	35.6	E	No	--	--	--	--
		PM	2,705	844	30.7	D	2,705	874	31.0	D	No	--	--	--	--
Notes: <ul style="list-style-type: none">• WB = Westbound• EB = Eastbound• Fwy Pk Hr Vol = Freeway Peak Hour Volume• pc/mi/ln = Passenger cars per mile per lane (density)• LOS = Level of Service; Bold Volume/Density/LOS values indicate adverse service levels based on Caltrans LOS Criteria															

Year 2019 Traffic Conditions

Additionally, Table 5.3-J summarizes the peak hour Level of Service results at the four basic freeway segments for the Year 2019 traffic conditions. The results of the Year 2019 With Project traffic conditions LOS analyses indicate three of four basic freeway segments are forecast to operate at deficient levels of service. The remaining basic freeway segment is forecast to operate at an acceptable LOS D or better during the AM and PM peak hours under Year 2019 With Project traffic conditions. Moreover, Table 5.3-K summarizes the Level of Service results at the four freeway merge and diverge segments for the Year 2019 traffic conditions. As indicated by Table 5.3-K, three of the freeway merge and diverge segments are forecast to operate at deficient levels of service under Year 2019 With Project traffic conditions while the remaining freeway diverge segment is forecast to operate at an acceptable LOS D during the AM and PM peak hours. With the implementation of recommended mitigation measures, all impacted basic freeway segments and impacted freeway merge and diverge segments are forecast to operate at acceptable LOS and potential impacts would be reduced to a less than significant level.

Table 5.3-J – Year 2019 Conditions Peak Hour Basic Freeway Segments Capacity Analysis Summary

Key Basic Freeway Segment	Time Period	Existing Traffic Conditions			Year 2019 Without Project Traffic Conditions			Year 2019 With Project Traffic Conditions			Significant Impact	Year 2019 With Project w/ Mitigation		
		Pk Hr Vol	Density (pc/mi/ln)	LOS	Pk Hr Vol	Density (pc/mi/ln)	LOS	Pk Hr Vol	Density (pc/mi/ln)	LOS	Yes/No	Pk Hr Vol	Density (pc/mi/ln)	LOS
1. SR-210 WB south of 5 th St./Greenspot Rd.	AM	3,296	27.7	D	3,609	31.3	D	3,624	31.5	D	No	3,624	19.8	C
	PM	3,738	33.1	D	4,201	40.5	E	4,252	41.5	E	Yes	4,252	23.2	C
2. SR-210 WB north of 5 th St./Greenspot Rd.	AM	2,974	24.5	C	3,363	28.4	D	3,387	28.7	D	No	3,387	18.5	C
	PM	3,613	31.4	D	4,003	37.0	E	4,019	37.3	E	Yes	4,019	21.9	C
3. SR-210 EB north of 5 th St./Greenspot Rd.	AM	3,164	26.3	D	3,464	29.6	D	3,472	29.7	D	No	3,472	18.9	C ⁸
	PM	3,205	26.8	D	3,642	31.8	D	3,669	32.1	D	No	3,669	20.0	C ⁸
4. SR-210 EB south of 5 th St./Greenspot Rd.	AM	4,108	38.8	E	4,551	48.1	F	4,597	49.3	F	Yes	4,597	25.4	C
	PM	3,549	30.6	D	3,937	36.0	E	3,967	36.4	E	Yes	3,967	21.6	C

Notes:

- WB = Westbound
- EB = Eastbound
- Pk Hr Vol = Peak Hour Volume
- pc/mi/ln = Passenger cars per mile per lane (density)
- LOS = Level of Service
- **Bold Volume/Density/LOS values** indicate adverse service levels based on Caltrans LOS Criteria

⁸Although this mainline basic freeway segment is forecast to operate at an acceptable level of service, the freeway diverge segment on this mainline segment requires mitigation.

Table 5.3-K – Year 2019 Conditions Peak Hour Freeway Merge and Diverge Segments Capacity Analysis

Key Fwy Merge or Diverge Segment	Analysis Type	Time Period	Existing Traffic Conditions				Year 2019 Without Project Traffic Conditions				Year 2019 With Project Traffic Conditions				Sig. Impact Yes/No	Year 2019 With Project w/ Mitigation			
			Fwy Pk Hr Vol	R. Pk Hr Vol	Dens. (pc/mi/ln)	L O S	Fwy Pk Hr Vol	R. Pk Hr Vol	Dens. (pc/mi/ln)	L O S	Fwy Pk Hr Vol	R. Pk Hr Vol	Dens. (pc/mi/ln)	L O S		Fwy Pk Hr Vol	R. Pk Hr Vol	Dens. (pc/mi/ln)	L O S
1. SR-210 WB Off-Ramp to 5 th St./ Greenspot Rd.	Diverge	AM	3,296	704	33.0	D	3,609	857	35.9	E	3,624	872	36.0	E	Yes	3,624	872	26.5	C
		PM	3,738	658	37.1	E	4,201	933	41.3	E	4,252	984	41.8	E	No	4,252	984	29.8	D
2. SR-210 WB On-Ramp from 5 th St./ Greenspot Rd.	Merge	AM	2,592	382	24.9	C	2,752	611	28.1	D	2,752	635	28.2	D	No	2,752	635	19.1	B ⁹
		PM	3,080	533	30.2	D	3,268	735	33.3	D	3,268	751	33.4	D	No	3,268	751	22.6	C ⁹
3. SR-210 EB Off-Ramp to 5 th St./ Greenspot Rd.	Diverge	AM	3,164	255	31.2	D	3,464	379	33.9	D	3,472	387	34.0	D	No	3,472	387	24.1	C
		PM	3,205	500	31.6	D	3,642	769	35.6	E	3,669	796	35.8	E	Yes	3,669	796	25.9	C
4. SR-210 EB On-Ramp from 5 th St./ Greenspot Rd.	Merge	AM	2,909	1,199	35.2	E	3,085	1,466	38.7	F	3,085	1,512	39.1	F	Yes	3,085	1,512	28.7	D
		PM	2,705	844	30.7	D	2,873	1,064	33.8	D	2,873	1,094	34.1	D	No	2,873	1,094	24.4	C

Notes:

- Fwy = Freeway
- WB = Westbound
- EB = Eastbound
- Pk Hr Vol = Peak Hour Volume
- R. Pk Hr Vol = Ramp Peak Hour Volume
- Dens. (pc/mi/ln) = Density; Passenger cars per mile per lane
- LOS = Level of Service
- **Bold Volume/Density/LOS values** indicate adverse service levels based on Caltrans LOS Criteria

⁹Although this freeway merge segment is forecast to operate at an acceptable level of service, the adjacent mainline segment requires mitigation.

Year 2040 Traffic Conditions

The Year 2040 Without Project and Year 2040 With Project freeway mainline volumes were created using methodology used to create the long-term horizon year traffic growth for the key study intersection volumes. The Year 2040 traffic volumes were obtained by post-processing the peak hour traffic volumes of the freeway mainline based on the base year validation model run output to the base year ground traffic counts and represent the General Plan Buildout traffic conditions. It should be noted that the Basic Freeway Segment and Freeway Merge and Diverge Segment analyses include the planned improvements from the SR-210 Mixed Flow Lane Addition Project in the Year 2040 background traffic conditions.

Table 5.3-L summarizes the peak hour Level of Service results at the four basic freeway segments for Year 2040 traffic conditions. As indicated in Table 5.3-L, all four basic freeway segments are forecast to operate at an acceptable LOS D or better during the AM and PM peak hours under Year 2040 With Project traffic conditions.

Additionally, Table 5.3-M summarizes the peak hour Level of Service results at the four freeway merge and diverge segments for Year 2040 traffic conditions. As indicated in Table 5.3-M, one of the four freeway merge and diverge segments will have a significant cumulative impact under Year 2040 With Project traffic conditions.

Table 5.3-L – Year 2040 Conditions Peak Hour Basic Freeway Segments Capacity Analysis Summary¹⁰

Key Basic Fwy Segment	Time Period	Existing Traffic Conditions			Year 2040 Without Project Traffic Conditions			Year 2040 With Project Traffic Conditions			Sig. Impact Yes/No	Year 2040 With Project w/ Mitigation		
		Pk Hr Vol	Density (pc/mi/ln)	LOS	Pk Hr Vol	Density (pc/mi/ln)	LOS	Pk Hr Vol	Density (pc/mi/ln)	LOS		Pk Hr Vol	Density (pc/mi/ln)	LOS
1. SR-210 WB <i>south of 5th St./ Greenspot Rd.</i>	AM	3,296	27.7	D	4,910	27.5	D	4,925	27.6	D	No	--	--	--
	PM	3,738	33.1	D	5,180	29.5	D	5,231	29.9	D	No	--	--	--
2. SR-210 WB <i>north of 5th St./ Greenspot Rd.</i>	AM	2,974	24.5	C	4,730	19.3	C	4,754	19.4	C	No	--	--	--
	PM	3,613	31/4	D	4,942	20.2	C	4,958	20.3	C	No	--	--	--
3. SR-210 EB <i>north of 5th St./ Greenspot Rd.</i>	AM	3,164	26.3	D	4,278	17.5	B	4,286	17.5	B	No	--	--	--
	PM	3,205	26.8	D	4,277	17/5	B	4,304	17.6	B	No	--	--	--
4. SR-210 EB <i>south of 5th St./ Greenspot Rd.</i>	AM	4,108	38.8	E	5,429	31.5	D	5,475	31.9	D	No	--	--	--
	PM	3,549	30.6	D	4,332	23.7	C	4,362	23.9	C	No	--	--	--

Notes:

- Fwy = Freeway
- WB = Westbound
- EB = Eastbound
- Pk Hr Vol = Peak Hour Volume
- Pc/mi/ln = Passenger cars per mile per lane (density)
- LOS = Level of Service
- **Bold Volume/Density/LOS Values** indicate adverse service levels based on the Caltrans LOS Criteria

¹⁰The Basic Freeway Segment analyses include the planned improvements from the Mixed Flow Lane Addition Project in the Year 2040 background traffic conditions.

Table 5.3-M – Year 2040 Conditions Peak Hour Freeway Merge and Diverge Segments Capacity Analysis Summary¹¹

Key Fwy Merge or Diverge Segment	Analysis Type	Time Period	Existing Traffic Conditions				Year 2040 Without Project Traffic Conditions				Year 2040 With Project Traffic Conditions				Significant Impact	Year 2040 With Project w/ Mitigation				
			Fwy Pk Hr Vol	R. Pk Hr Vol	Density (pc/mi/ln)	L O S	Fwy Pk Hr Vol	R. Pk Hr Vol	Density (pc/mi/ln)	L O S	Fwy Pk Hr Vol	R. Pk Hr Vol	Density (pc/mi/ln)	L O S		Yes / No	Fwy Pk Hr Vol	R. Pk Hr Vol	Density (pc/mi/ln)	L O S
1. SR-210 WB Off-Ramp to 5 th St./ Greenspot Rd.	Diverge	AM	3,296	704	33.0	D	4,910	1,061	32.9	D	4,925	1,076	33.0	D	No	4,925	1,076	22.8	C	
		PM	3,738	658	37.1	E	5,180	1,363	34.8	D	5,231	1,414	35.1	E	Yes	5,231	1,414	25.7	C	
2. SR-210 WB On-Ramp from 5 th St./ Greenspot Rd.	Merge	AM	2,592	382	24.9	C	3,849	881	6.2	A	3,849	905	15.9	B	No	--	--	--	--	
		PM	3,080	533	30.2	D	3,817	1,125	7.0	A	3,817	1,141	7.1	A	No	--	--	--	--	
3. SR-210 EB Off-Ramp to 5 th St./ Greenspot Rd.	Diverge	AM	3,164	255	31.2	D	4,278	604	10.9	B	4,286	612	11.0	B	No	--	--	--	--	
		PM	3,205	500	31.6	D	4,277	1,368	14.9	B	4,304	1,395	15.1	B	No	--	--	--	--	
4. SR-210 EB On-Ramp from 5 th St./ Greenspot Rd.	Merge	AM	2,909	1,199	35.2	E	3,674	1,755	28.6	D	3,674	1,801	29.0	D	No	--	--	--	--	
		PM	2,705	844	30.7	D	2,909	1,423	22.1	C	2,909	1,453	22.4	C	No	--	--	--	--	
Notes: <ul style="list-style-type: none">Fwy = FreewayWB = WestboundEB = EastboundPk Hr Vol = Peak Hour VolumeR. Pk Hr Vol = Ramp Peak Hour VolumePc/mi/ln = Passenger cars per mile per lane (density)LOS = Level of ServiceBold Volume/Density/LOS values indicate adverse service levels based on Caltrans LOS Criteria																				
¹¹ The Basic Freeway Segment analyses include the planned improvements from the Mixed Flow Lane Addition Project in the Year 2040 background traffic conditions.																				

The *City of Highland General Plan Circulation Element* states that the City considers LOS D to be the minimum acceptable LOS for all intersections for peak operating periods. Thus, any intersection operating at LOS E or LOS F is considered deficient. Further, based on the *Caltrans Traffic Impact Study Guidelines* (December 2002), Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities and *Caltrans District 8* has typically established that LOS D is the operating standard for all Caltrans facilities. The proposed Project would result in intersections and state highway facilities operating at unacceptable LOS without mitigation. Therefore, the Project would conflict with City of Highland General Plan and Caltrans Traffic Impact Study Guideline policies, a potentially significant impact, without implementation of mitigation measures.

Furthermore, there are no public transit routes, including train (Metrolink) or bus routes or bus stops (Omnitrans) along the Project's frontage on Greenspot Road. As discussed above, the nearest bust stop is located 1500 linear feet or 1/3 of a mile from the Project site, on Greenspot Road. Greenspot Road, along the proposed Project's northerly boundary, includes existing bike lanes in both directions. In addition, there is an existing sidewalk along the northern side of Greenspot Road and partially along the southern side along the Project site's frontage. The proposed Project would be required to extend the sidewalk on the southern side of Greenspot Road along the Project's frontage and would not conflict with existing or planned bicycle or pedestrian facilities.

As identified in Section 5.3.2.3 above SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-range regional transportation and land use network plan that looks ahead 20 plus years and provides a vision of the region's future mobility and housing needs with economic, environmental and public health goals. The proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. Therefore, the proposed Project's population projection will be within those planned for in the City's General Plan and the SCAG's RTP/SCS.

The Project will not conflict with the City of Highland General Plan Circulation Element Goals and Policies (as identified in Section 5.3.2.3 above) as follows:

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

A project specific TIA was required by the City and prepared for the Project which outlined the Project's anticipated traffic generation, identified roadway segments and intersections that would operate at deficient levels as a result of the Project, and the improvements/ mitigation measures required to address those deficiencies. The improvements/mitigation measures required for the Project would ensure that the City's street system is designed and constructed to accommodate the traffic generated by the Project which is consistent with the General Plan land use designation for the site and contributes towards buildout of the General Plan.

Goal 3.4 *Provide a safe circulation system.*

As discussed in 5.3.7 below, the improvements/mitigation measures required for the Project would ensure that the City's street system is designed and constructed to accommodate the

traffic generated by the Project. Several of the Project's improvements/mitigation measures involve lane striping/restriping as well as crosswalk striping, crosswalk installations, existing traffic signal modifications, and freeway improvements, which are consistent with the City's Circulation Element policies for providing a safe circulation system.

Goal 3.5 *Promote bus service and paratransit improvements.*

There are no public transit routes, including train (Metrolink) or bus routes or bus stops (Omnitrans) along the Project's frontage on Greenspot Road. The nearest bus stop is an improved Omnitrans bus stop located 1,500 linear feet or 1/3 of a mile from the Project site, on Greenspot Road. Access to this nearest bus stop from the Project site is provided via Greenspot Road, vehicle lanes, bicycle lanes, and a sidewalk with a signalized intersection, including striped crosswalks. Further, in consistency with the General Plan, the Project includes improvements/mitigation measures designed to accommodate Project-generated traffic and minimize impacts on other modes of travel.

Goal 3.7 *Protect and encourage bicycle travel.*

Design features of the Project include provision of secure space for bicycle storage, and as discussed, Greenspot Road, along the proposed Project's northerly boundary, includes existing bike lanes in both directions. The Project would not conflict with existing or planned bicycle or pedestrian facilities.

Thus, potential impacts to both the local and regional transportation network would be less than significant and the proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system for transit, roadway, bicycle, or pedestrian facilities.

Threshold B: *Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

CEQA Guidelines Section 15064.3 indicates:

(a) Purpose.

This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that

decrease vehicle miles traveled in the project area compared to the existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgement based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(5) Applicability. The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.

The Project Specific Traffic Impact Analysis was prepared in February 2019, with an update in June 2019. At the time that the Traffic Impact Analysis was prepared, the City of Highland did not have existing models or methods available for estimating Vehicle Miles Traveled (VMT) for the Project. Because this Draft EIR is being released for public review before July 1, 2020, a Project specific VMT analysis is not required and was not prepared. Nonetheless, the Project's potential impacts related to VMT are evaluated qualitatively herein for informational purposes only, even though such analysis is not required by law, and it is not the basis of formal impact conclusions under the thresholds of significance.

The proposed development is consistent with the existing General Plan Land Use Designation and zoning for the site. The General Plan Land Use Designation for the site is Planned Development/ Low Density Residential (PD/LDR) which limits uses to single-family detached residential and mobile homes with a maximum intensity of six dwelling units per 1.0 acre. The existing zoning for the site is PD/R-1 Single-Family Residential, which allows for small lot single-

family detached and mobile homes parks and subdivisions at a maximum allowable density of six dwelling units per gross acre. The proposed development proposes 203 single-family residences on approximately 59 acres, with a density of one dwelling unit per 3.4 acres that is within the allowable intensity. Therefore, the proposed Project's population projection will be within those planned for in the City's General Plan and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals.

The proposed Project is located directly adjacent to and south of Greenspot Road, a designated Major Highway in the General Plan Circulation Element (see Exhibit 5.3-2), with a four-lane 80-foot roadway curb-to-curb (including a 12-foot median) with two vehicle lanes in each direction and a bicycle lane and sidewalk in each direction. There are Omnitrans bus stops along Greenspot Road west of the Project site at Church Street, Valencia Court, and Orange Street. Greenspot Road is considered an existing high-quality transit corridor in the City of Highland.

The Village at East Highlands Retail center, located at the northeast corner of Greenspot Road and Church Street, is located approximately 1,500 linear feet or approximately 1/3 of a mile from the Project site. The Retail Center includes an anchor grocery store, bank, hair and nail salons, dry cleaning, multiple restaurants, medical offices (dentist and optometrist), and an improved Omnitrans bus stop (bench, shade structure, trash container and signage). Access to the Retail Center from the Project site is provided via Greenspot Road, vehicle lanes, bicycle lanes (Class II On-Street), and sidewalk with a signalized intersection of Greenspot Road and Church Street, including striped crosswalks. Additional retail is located approximately 2 miles east of the Project site at Greenspot Road and SR-210, which includes major retail (Lowe's Home improvement, Staples, AT&T), a gas station, fitness gym, medical offices and multiple restaurants.

Arroyo Verde Elementary School is located directly north of the Village at East Highland Retail Center. Cram Elementary School is located approximately 1-mile northeast of the site, Highland Grove Elementary, and Beattie Middle School are located approximately 1.5 miles northeast of the Project site, as well as a U.S. Post Office. Aurantia Park is a ten-acre park with a combination of natural habitat, orange grove, tot lot, and dog park located on Greenspot Road approximately one-half mile to the east of the Project Site.

As the proposed Project is consistent with the City's General Plan; is located along Greenspot Road, which is considered a high-quality transit corridor; is located within 1/3 mile of a retail center and an improved bus stop; and is within 2 miles of additional retail, schools, a park and a U.S. Post office, it is not anticipated to result in significant impacts related to VMT. Thus, potential impacts would be less than significant, and no mitigation measures are required.

5.3.7 Proposed Mitigation Measures

An Environmental Impact Report is required to describe feasible mitigation measures that could minimize significant adverse impacts (State CEQA Guidelines Section 15126.4).

MM TRANS-1: SR-210 EB Ramps at 5th Street (TIA Intersection no. 1) – Widen and/or re-stripe the southbound off-ramp to provide a second exclusive left-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.

MM TRANS-2: Orange Street at Greenspot Road (TIA Intersection no. 6) – Re-stripe the southbound through lane on Orange Street to a shared through-right-turn lane; re-stripe the westbound right-turn lane on Greenspot Road to a shared through-right-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.

MM TRANS-3: Church Street at Greenspot Road (TIA Intersection no. 7) – Re-stripe the southbound through lane on Church Street to a shared through-right-turn lane; modify the existing traffic signal as needed; pay the Project's fair share contribution for these improvements.

MM TRANS-4: Club View Drive/Merris Street at Greenspot Road (TIA Intersection no. 8) – Install a traffic signal and design for a five-phase operation with protected left-turn phasing on Greenspot Road; pay the Project's fair share contribution for these improvements.

MM TRANS-5: Gold Buckle Road at Greenspot Road (TIA Intersection no. 9) – Install crosswalks on all four legs; install a traffic signal and design for a two-phase operation; pay the Project's fair share contribution for these improvements.

MM TRANS-6: Project Driveway 2 at Greenspot Road (TIA Intersection 10) – The intersection is proposed to be a one-way stop-controlled three-legged intersection with no north leg; the northbound movement will consist of a right-turn only lane; the westbound movement will consist of an exclusive left-turn lane and two through lanes.

MM TRANS-7: SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road – Add one off-ramp lane; the Project's fair share contribution to offset all Year 2040 With Project freeway diverge impacts is 6.75 percent or an estimated \$23,625.50.

5.3.8 Summary of Project-Specific Environmental Effects after Mitigation Measures are Implemented

Under Existing without Project conditions, none of the nine key study intersections operate below the acceptable LOS (Table 5.3-E). As discussed in Section 5.3.6, with the inclusion of Project-specific traffic, two of the nine key study intersections under Existing with Project traffic conditions, three of the nine study intersections under 2019 with Project traffic conditions, and five of the nine study intersections under 2040 with Project traffic conditions would operate below acceptable LOS. However, with the implementation of mitigation measures TRANS-2 through TRANS-5, all impacted intersections are forecast to operate at an acceptable LOS and will not conflict with City of Highland policies.

Under Existing with Project traffic conditions, the addition of Project trips is not anticipated to result in any new deficient service levels at the impacted basic freeway segment, which is forecast to remain at an unacceptable LOS E. Inclusion of Project-specific traffic would result in unacceptable LOS at three of the four basic freeway segments under 2019 with Project traffic conditions, while all four basic freeway segments are forecast to operate at acceptable LOS under 2040 with Project traffic conditions. With the implementation of recommended mitigation measure TRANS-1 at the basic freeway segments impacted under 2019 with Project traffic conditions, all impacted basic freeway segments are forecast to operate at an acceptable LOS and potential Project impacts at the basic freeway segments from conflict with Caltrans policies would be less than significant.

Further, the inclusion of Project-specific traffic would result in significant impacts at two of the four freeway merge and diverge segments under Existing with Project traffic conditions, three of the four freeway merge and diverge segments under 2019 with Project traffic conditions, and one of the four freeway merge and diverge segments under 2040 with Project traffic conditions. However, under Existing with Project traffic conditions, the addition of Project trips is not anticipated to result in any new deficient service levels at the impacted freeway merge and diverge segments, which are forecast to remain at an unacceptable LOS E. With implementation of recommended mitigation measures TRANS-1 and TRANS-7 at the impacted freeway merge and diverge segments under 2019 with Project traffic conditions and impacted segment under 2040 with Project traffic conditions, all impacted freeway merge and diverge segments are forecast to operate at acceptable LOS and therefore, the Project's potential to conflict with Caltrans policies would be less than significant. However, the City of Highland does not have control over the timing of improvement implementation within Caltrans facilities/Right-of-Way as identified in mitigation measures TRANS-1 and TRANS-7, and therefore the mitigation measures cannot be relied upon to achieve acceptable LOS on basic freeway and merge and diverge segments. Potential impacts from conflict with Caltrans policies would be significant and unavoidable.

5.3.9 Summary of Cumulative Environmental Effects after Mitigation Measures are Implemented

The Project's TIA utilizes both an ambient growth factor along with a list of related projects approach to analyze cumulative impacts. Related projects, as defined by Section 15355 of the CEQA Guidelines, are "closely related past, present, and reasonably foreseeable probably future projects." The Project's TIA assumes that these related projects will be developed and operational when the Project is operational, which represents the most conservative, worst-case approach as the exact timing of each related project is uncertain. Nine related projects located in the City of Highland and one related project located in the City of Redlands have been identified within the Project study area. Table 5.3-N provides the jurisdiction, description, and development totals of the related projects, and Table 5.3-O provides the resultant trip generation of the related projects. Exhibit 5.3-5 displays the locations of the related projects.

Under Year 2019 with Project traffic conditions, three of the four basic freeway segments discussed in Section 5.3.5 will have a significant cumulative impact when compared to the LOS criteria defined in Section 5.3.1. However, implementation of recommended mitigation measures (TRANS-1 and TRANS-7) at the impacted basic freeway segments mitigates the impacts of the proposed Project. The improvements listed below have been identified to address the traffic impacts at the basic freeway segments cumulatively impacted by Year 2019 with Project traffic. It should be noted that the following improvements are part of the SR-210 Mixed Flow Lane Addition Project; thus, the Project is not responsible for these improvements and, accordingly, no fair-share is required.

1. SR-210 Westbound south of 5th Street/Greenspot Road: Add one general purpose lane in the westbound direction.
2. SR-210 Westbound north of 5th Street/Greenspot Road: Add one general purpose lane in the westbound direction.
3. SR-210 Eastbound north of 5th Street/Greenspot Road: Add one general purpose lane in the eastbound direction.
4. SR-210 Eastbound south of 5th Street/Greenspot Road: Add one general purpose lane in the eastbound direction.

Additionally, under year 2019 with Project traffic conditions, the Project will have significant cumulative impacts at three of the four freeway merge and diverge segments discussed in Section 5.3.5. The improvements listed below have been identified to address the traffic impacts at the freeway merge and diverge segments cumulatively impacted by Year 2019 with Project traffic. It should be noted that the improvements are consistent with the SR-210 Mixed Flow Lane Addition Project; thus, the proposed Project is not responsible for the improvements and, accordingly, no fair share is required. It should additionally be noted that Project mitigation (TRANS-7) is included for the SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road freeway merge segment due to the unacceptable level of service at the adjacent basic freeway segment.

1. SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road: Add one general purpose lane in the westbound direction.
2. SR-210 Westbound On-Ramp from 5th Street/Greenspot Road: Add one general purpose lane in the westbound direction.
3. SR-210 Eastbound Off-Ramp to 5th Street/Greenspot Road: Add one general purpose lane in the eastbound direction.
4. SR-210 Eastbound On-Ramp to 5th Street/Greenspot Road: Add one general purpose lane in the eastbound direction.

Under Year 2040 with Project traffic conditions, the proposed Project will have a significant cumulative impact at one of the four freeway merge and diverge segments discussed in Section 5.3.5. The improvement listed below (mitigation measure TRANS-7) has been identified to

address the traffic impacts at the basic freeway segments cumulatively impacted by Year 2040 with Project traffic:

1. SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road: Add one general purpose lane in the westbound direction.

After implementation of the recommended improvements described above, cumulative impacts associated with Year 2019 with Project traffic conditions and Year 2040 with Project traffic conditions at the basic freeway segments and freeway merge and diverge segments would be less than significant. However, the City of Highland does not have control over the timing of improvement implementation within Caltrans facilities/Right-of-Way as identified in mitigation measure TRANS-7, and therefore they cannot be relied upon to achieve acceptable LOS on basic freeway and merge and diverge segments. Potential cumulative impacts from conflict with Caltrans policies would be significant and unavoidable.

Table 5.3-N – Location and Description of Related Projects in TIA

No.	Cumulative Project	Location/Address	Description
<i>City of Highland Development</i>			
1.	Blossom Trails	South of Greenspot Boulevard, East of Boulder Avenue	14 Dwelling Unit (DU) Single Family Detached, 306 DU Residential Condo/Townhouse
2.	Gated Community	Northwest corner of Orange Street at Greenspot Road	121 DU Single Family Detached
3.	Regency Centers	Southwest corner of Shopping Center at Greenspot Road	26,690 SF (square feet) Shopping Center
4.	Highland Retail Project	Southwest corner of Boulder Avenue at Greenspot Road	6,019 SF Fast Food with Drive-Thru, 8,356 SF Fast Food without Drive-Thru, 16,332 SF Retail
5.	Centerstone Subdivision	South of Greenspot Boulevard, East of Boulder Avenue	133 DU Single Family Detached
6.	Greenspot Village & Marketplace	North of Greenspot Road, East of SR-210, West of Boulder Avenue	679,000 SF Shopping Center, 11,200 SF Fast Food with Drive-Thru, 3.6 Gasoline/Service Station, 10,000 SF Drive-In Bank, 696 DU Apartment, 104 DU Senior Adult Housing-Attached, 240 room Hotel
7.	Harmony Specific Plan	South of Greenspot Road, North of Mill Creek Road, East of Crafton Avenue, West	1,650 Acres Master Plan with Residential, Park, Recreational, School, and

Transportation

Heatherglen Planned Development DEIR

No.	Cumulative Project	Location/Address	Description
		of Bryant Street	Commercial Uses
8.	Mediterra at East Highlands	North of Greenspot Road, East of Santa Paula Street	277 DU Single Family Detached
9.	TTM No. 18935	North of Santa Ana Canyon Road, South of Water Street, East of Aplin Street	80 DU Single Family Detached
<i>City of Redlands Development</i>			
10.	TTM No. 18979	North of San Bernardino Avenue, East of Judson Street	55 DU Single Family Detached

The Cumulative list of projects included in the TIA was based on the cumulative list of projects the City had at the time the TIA was prepared. The following outlines the differences between the cumulative project list contained in the TIA and the City's cumulative project list as of March 2020.

Reductions:

- Blossom Trails, revised unit count, reduce from 306 DU to 137 (by 169)
- Centerstone Subdivision, revised unit count, reduce from 133 DU to 125 (by 8)
- Harmony Specific Plan, remove as approvals rescinded (3,632 DU, various product types)
- Total – 3,809 DU

Additions:

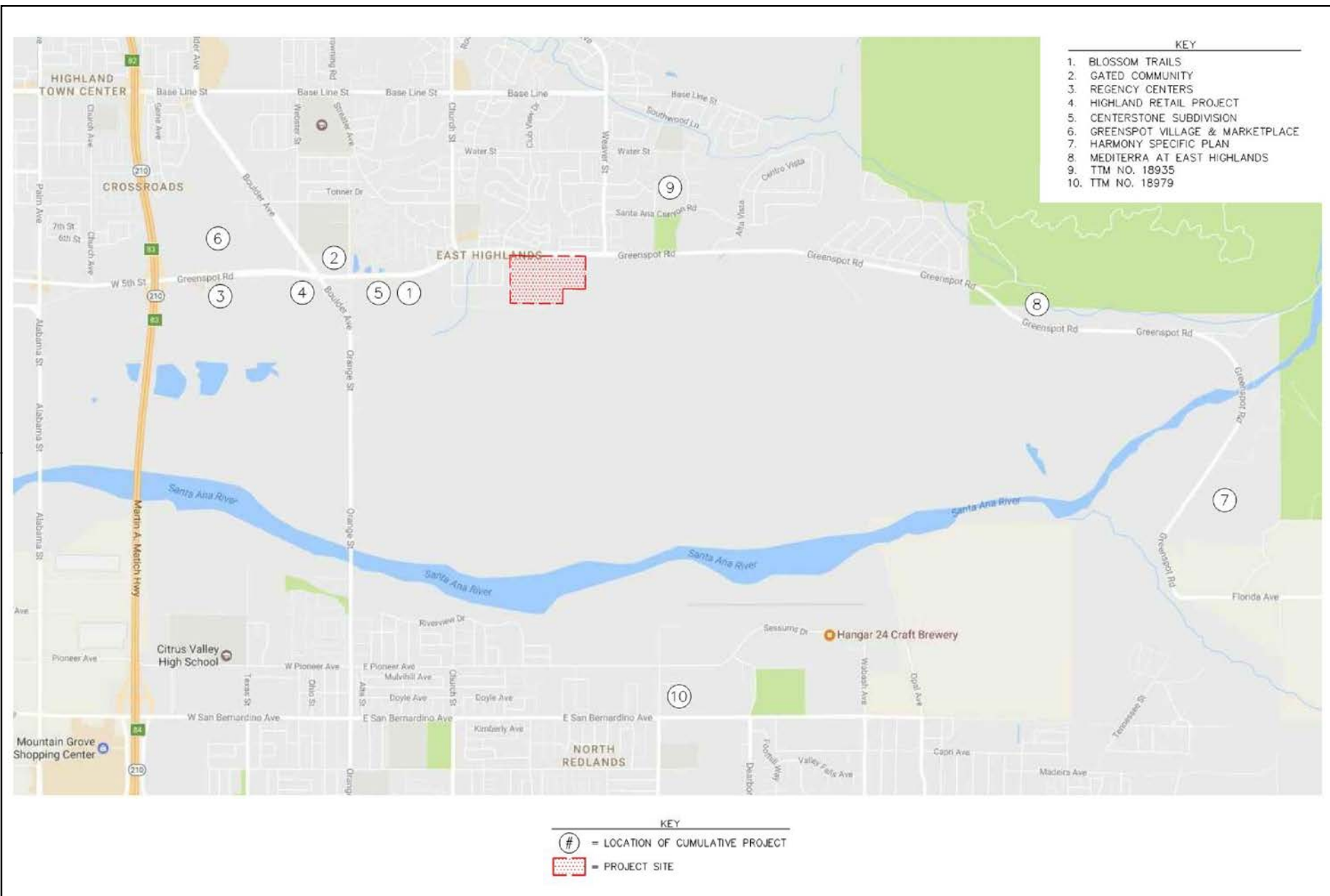
- San Manuel Village 3,500 SF restaurant with drive through and 5,800 SF restaurant
- Highland Crossroads 42,840 SF retail and 5,000 SF retail with drive through
- 7-11 Gas Station & Convenient Store 3,100 SF
- Chong Homes Residential 5 DU
- Orange New Jersey Pro industrial park 126,900 SF
- St. Adelaide Expansion, New Ministry Offices 9,000 SF
- Immanuel Baptist Church additional 90,000 SF
- Hispano Investors Residential, Single Family-Detached, 17 DU
- Golden Security Bank, Single Family-Detached, 9 DU
- Unnamed Retail Development, 23,500 SF
- Keven Chong Bank, 5,200 SF
- Mediterra Specific Plan, Residential, increase dwelling units from 300 to 306 (6 additional)
- ARCO Addition of Car Wash 4,000 SF
- Total – 37 DU, 92,940 Retail SF, 126,900 Industrial SF, and 99,000 SF Office/Institutional

Due to the large reduction in new dwelling units in the current cumulative project list and minor additions for dwelling units and moderate additions for retail, industrial and office/institutional (in

square feet) the cumulative analysis in the TIA is anticipated to still represent a worst-case, conservative estimate of cumulative traffic impacts.

Table 5.3-O – Related Projects Traffic Generation Forecast

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
1. Blossom Trails	1,927	24	121	145	116	57	173
2. Gated Community	1,158	23	68	91	77	45	122
3. Regency Centers	1,140	16	10	26	48	51	99
<i>Pass-by (25% Daily, 25% AM peak, 25% PM peak)</i>	<u>-285</u>	<u>-4</u>	<u>-3</u>	<u>-7</u>	<u>-12</u>	<u>-13</u>	<u>-25</u>
Net Total Trips	855	12	7	19	36	38	74
4. Highland Retail Project	3,674	249	171	420	148	141	289
5. Centerstone Subdivision	1,273	25	75	100	84	50	134
6. Greenspot Village & Marketplace	31,754	747	780	1,527	1,513	1,426	2,939
7. Harmony Specific Plan	33,749	600	1,750	2,350	2,185	1,312	3,497
8. Mediterra at East Highlands	2,637	53	155	208	175	102	277
9. TTM No. 18935	762	15	45	60	50	30	80
10. TTM No. 18979	524	10	31	41	35	20	55
Related Projects Total Trip Generation Potential	78,313	1,758	3,203	4,961	4,419	3,221	7,640



HEATHERGLEN PLANNED DEVELOPEMENT

Location of Related Projects

Exhibit 5.3-5



Not to Scale

Source: Linscott Law & Greenspan Engineers; Google

6.0 OTHER CEQA TOPICS

The *CEQA Guidelines* stipulate several general content requirements for EIRs. Those applicable to this project include: cumulative impacts (Section 15130), unavoidable adverse impacts (Section 15126(b)), irreversible changes (Section 15126 (c)), and growth inducing impacts (Section 15126(f)). Section 5 of this DEIR includes the cumulative impacts and unavoidable adverse impacts for the project. The following addresses the other general requirements.

6.1 Significant Irreversible Environmental Changes

Section 15126 (c) of the *CEQA Guidelines* requires that an EIR describe any significant irreversible environmental changes that would be caused by the proposed Project should it be implemented. In the case of the proposed Project, implementation would result in the development of 59 acres of vacant land with 203 single family residential units, along with open space and recreational uses.

Project development is a long-term irreversible commitment of the land. After the 50- to 75-year structural lifespan of the buildings is reached, it is improbable that the site would revert to its original relatively vacant state due to the large capital investment that would already have been committed.

Implementation of the proposed Project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources including gasoline, diesel, fuel, electricity, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals and water.

Implementation of the proposed Project would require an increased commitment of social services and public maintenance services, e.g., police, fire, schools, libraries, and sewer and water services. The public maintenance and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been developed.

Construction of the Project would permanently replace approximately 32 acres of native Riversidean alluvial fan sage scrub (RAFSS), a sensitive habitat that is occupied by the San Bernardino kangaroo rat, a federally endangered and candidate species under the California Endangered Species Act (CESA). This RAFSS habitat also supports other sensitive plant and wildlife, including snakes, birds, and small mammals.

Given the low likelihood that the land would revert to lower intensity uses or to its original form, the proposed Project would generally commit future generations to these environmental changes.

6.2 Growth Inducing Impacts

According to *CEQA Guidelines* Section 15126.2(e), a project may foster economic or population growth, or additional housing, either indirectly or directly, in a geographical area if it meets any one of the following criteria:

- a project would remove obstacles to population growth (a major expansion of a waste water treatment plant, might, for example, allow for more construction in service areas);
- increases in the population may tax existing community service facilities, causing significant environmental effects; or
- a project would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The *CEQA Guidelines* Section 15126.2(e), also indicates that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

As discussed in the Initial Study (Appendix A), Section 19, Utilities and Service Systems, existing utility and service systems are available to provide service to the proposed Project. Capacity remains in existing water and wastewater mains to serve the buildout of the Project. As described in Section 10, Hydrology and Water Quality, drainage improvements proposed as part of the Project would only serve the project site and would not remove obstacles to growth in the vicinity of the project site.

As discussed in the Initial Study, Section 15, Public Services, the proposed Project is not forecast to cause or contribute to significant new demand for fire protection. The project will add incrementally to the existing demand for law enforcement services, but the City recently installed a new Department station. The City does not anticipate the need for additional new facilities in the immediate future.

During project construction, a number of design, engineering and construction-related jobs would be created. This would be a temporary condition, lasting for an estimated 4 years, until construction is completed. New residents of the Project would seek shopping, entertainment, and employment opportunities in the City of Highland, as well as the surrounding region. This would represent an increased demand for such economic goods and services.

Occupancy of the proposed Project is estimated to be approximately 700 people with 3.45 persons per residential unit. The proposed Project would not promote population growth because the Project is consistent with the Project site's existing City of Highland General Plan land use designation of PD/LDR. As such, the Project will not result in any population growth not already contemplated in the General Plan.

For the purposes of background, on June 26, 2018 the City Council adopted Resolution No. 2018-033 to amend the General Plan Designation of this site and others within 316 acres of the Greenspot Road Corridor. The General Plan Land Use Designation, adopted in 2006, was changed from of Agricultural/Equestrian (AG/EQ) to Planned Development/Low Density Residential (PD/LDR). The City Council also adopted Ordinance No. 425 approving a Zone Change from Agricultural/Equestrian (AG/EQ) to Planned Development/R-1 Single Family (PD/R-1). This action was taken to allow LDR consistent with what was envisioned under the General Plan and designate Open Space consistent with the Upper Santa Ana River Wash

Land Management and Habitat Conservation Plan (“Wash Plan”). The Wash Plan includes an integrated approach to permit and mitigate all construction and maintenance activities within the Wash area, including water conservation, wells and water infrastructure, aggregate mining, transportation, flood control, agriculture, trails, and habitat enhancement. Implementation of the Wash Plan would result in permanent conservation and management of approximately 1,660 acres of native habitats, generally south of the Project site. The rezoning and land use designation change, in general, allowed for a transfer of the density that was lost from conversion to Open Space to the newly designated PD/LDR use areas.

In addition, the 2016 SCAG Regional Transportation Growth Projections anticipate a 1.5 percent growth rate within the City of Highland through the year 2020. The U.S. Census FactFinder estimated that in 2015 the City of Highland had 16,554 housing units and a very low homeowner vacancy rate of 0.7 percent, which indicates that additional homeowner housing is needed to meet the needs of the City’s residents, and to provide a “healthy” housing market. The 203 single-family residences that would be developed by the proposed Project would equate to a 1.3 percent increase in total residential units within the City, which is below the SCAG anticipated 1.5 percent annual increase in housing and would assist in providing units to fill the City’s homeowner housing needs.

The proposed Project is consistent with the existing General Plan land use designation and the allowable intensity of dwelling units for the site. The proposed Project would not result in population growth that exceeds the parameters of the General Plan, the EIR prepared for the General Plan, and the SCAG projections. And, as the proposed Project would not remove obstacles to population growth, would not result in a substantial increase in the population such that existing community service facilities would be taxed, and would not encourage and facilitate other activities that could significantly affect the environment, it would not result in significant growth inducing impacts.

6.3 References

The following references were used in the preparation of this section of the DEIR:

GP & EIR	City of Highland General Plan and Environmental Impact Report, Adopted by the City Council March 14, 2006
GPA & ZC	City of Highland General Plan Land Use Amendment & Zoning Amendment GPA 017-002 and ZC 017-002 (Greenspot Road/Pole Line Road) Initial Study Negative Declaration, Adopted by the City Council April 17, 2018
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) 2016-2040, Southern California Area of Governments (SCAG), April 7, 2016. http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx

7.0 Alternatives to the Proposed project

The following discussion considers alternatives to implementation of the Project. The discussion examines the potential environmental impacts resulting from each alternative. Through comparisons of these alternatives to the Project, the relative advantage(s) of each can be weighed and analyzed.

The *CEQA Guidelines*, Section 15126.6, identify the parameters within which consideration and discussion of alternatives to the proposed Project should occur. As stated in this section of the guidelines, an EIR shall describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

7.1 Project Objectives

As stated in Section 3.0 of this DEIR, the Project objectives include:

- Increase the amount of detached single-family housing available consistent with the goals of the City's General Plan Housing Element;
- To provide high quality housing that will attract a broad spectrum of buyers, including attractive, modern, housing that will provide "move-up" opportunities for local residents within the project and the City of Highland;
- Establish a distinctive residential neighborhood, with safe and convenient pedestrian access to nearby open space areas and commercial/ shopping opportunities;
- To create a visually attractive development through consistent application of architectural and landscape standards/guidelines that will provide a unique residential experience;
- Implement the City of Highland's General Plan goals and objectives for the project site; and
- Use land resources efficiently by providing a well-planned, infill development on a vacant site served by a fully improved public street system with utilities.

7.2 Significant Unavoidable Impacts

The CEQA Guidelines required that an EIR disclose the significant environment effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines Section 15126(b)). As described in detail in Section 5.0 of this EIR, the proposed Project is anticipated to result in the following impacts related to biological resources, recreation, and transportation that cannot be reduced to below a level of significance after the implementation of relevant standard conditions of approval, compliance with applicable laws and regulations, and application of feasible mitigation measures. The significant effects of the proposed Project that cannot be feasibly mitigated are as follows:

- **Biological Resources Threshold: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.** Mitigation Measure BIO-8 (San Bernardino Kangaroo Rat) requires offsite compensation for loss of occupied habitat. Due to the habitat degradation from offsite development unrelated to the Project and previous mitigation associated with that development, a ratio of no less than 0.5:1 is proposed. The federal and/or state take authorization may require additional mitigation. Mitigation Measure BIO-8 also requires avoidance and conservation in perpetuity of ±6.59 acres of occupied habitat in the southeastern corner of the site as well as development and implementation of a Habitat Enhancement Plan for this land. This measure also requires development and implementation of an SBKR Relocation Plan (subject to CDFW and USFWS approval). CDFW has noted that the success of SBKR relocation has yet to be proven effective and low population size in the remaining SBKR populations. Mitigation Measure BIO-8 also prohibits the use of rodenticides or other chemicals that could harm SBKR on the site during construction. Mitigation Measure BIO-9 (Wildlife Hazards) requires actions to prevent injury or entrapment of wildlife. Mitigation Measure BIO-1 (Disturbance Area Fencing) requires the Project impact area to be clearly marked to prevent any disturbance outside of the Project boundary. Mitigation Measure BIO-10 requires offsite compensation for loss of native RAFSS habitat. Mitigation Measure BIO-13 (Adjacent Habitat) requires measures to avoid and minimize Project-related impacts to the adjacent habitat. With implementation of these mitigation measures, Project-related impacts to SBKR will be avoided and minimized to the extent feasible. However, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant.
- **Recreation Threshold: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.** The proposed Project does include the construction of recreational facilities, an on-site ½ acre-park and perimeter community trails, which could have an adverse physical effect on the environment, including sensitive biological species and their habitats. As outlined in Biological Resources Section 5.1.7, with implementation of Mitigation Measures BIO-1 through BIO-14 potential direct and indirect impacts to sensitive species and their habitats, on-site and off-site in the adjacent Wash Plan area, will be reduced to less than significant levels, except for the San Bernardino kangaroo rat. Although Project-related impacts to SBKR will be avoided and minimized to the extent feasible, the loss of occupied critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts indicate that Project-related impacts to SBKR are unavoidable, adverse, and potentially significant.
- **Transportation Threshold: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.** The inclusion of Project-specific traffic would result in significant impacts at two of the four freeway (State Route 210, aka Foothill Freeway) merge and diverge segments under Existing with Project traffic conditions, three of the four freeway

merge and diverge segments under 2019 with Project traffic conditions, and one of the four freeway merge and diverge segments under 2040 with Project traffic conditions. However, under Existing Project traffic conditions, the addition of Project trips is not anticipated to result in any new deficient service levels at the impacted freeway merge and diverge segments, which are forecast to remain at an unacceptable LOS E. With implementation of recommended mitigation measures TRANS-1 and TRANS-7 at the impacted freeway merge and diverge segments under 2019 with Project traffic conditions and impacted segment under 2040 by Project traffic conditions, all impacted freeway merge and diverge segments are forecast to operate at acceptable LOS and potential Project impacts at the freeway merge and diverge segments from conflict with Caltrans policies would be less than significant. However, the City of Highland does not have control over the timing of improvement implementation within Caltrans facilities/Right-of-Way as identified in mitigation measures TRANS-1 and TRANS-7, and therefore they cannot be relied upon to achieve acceptable LOS on basic freeway and merge and diverge segments. Potential impacts from conflict with Caltrans policies would be significant and unavoidable.

7.3 Less Than Significant Impacts

As outlined in *Section 4.0, Environmental Effects Found not to be Significant*, the following environmental topics were found not to be significant during the preparation of the NOP and therefore are not discussed in the EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology / Water Quality
- Land Use/ Planning
- Mineral Resources
- Noise
- Population and Housing

- Public Services
- Tribal Cultural Resources
- Utility and Service Systems
- Wildfire.

These environmental topics were scoped out of the EIR because as a part of the NOP they were determined to be less than significant. For the purposes of the alternatives analysis since none of these topics were determined to be significant, they are not included in the detailed analysis of the alternatives to compare to the Proposed Project.

7.4 Rationale for Alternative Selection

CEQA Guidelines (Section 15162.6(e)) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. For development projects that include a revision to an existing land use plan, the “no project” alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan, the “no project” alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines Section 15126(e)(3)(A-B)). For the alternatives analysis in this EIR, the potential scenario where the Project does not proceed is considered to be the “No Project/No Development Alternative”. The applicant initially planned to develop the entire site without conservation for SBKR habitat, Lot L. Alternative 2 consists of development of the entire site with no on-site open space and conservation of SBKR habitat. The applicant intends to develop the site in three Phases, as described in more detail in Section 3.2.2 Phasing Plan. Alternative 3 consists of a smaller development footprint which would not construct Phase 3, a reduction in 73 single family residential units.

7.5 Description of Alternatives

7.5.1 Alternative 1 – No Project/No Development

The No Project/No Development Alternative considers no development/disturbance on the Project site beyond which occurs under the existing conditions. As such, the entire 59-acre site would remain vacant and undeveloped. Under this alternative, no improvements would be made to the Project site and none of the Project roadway, utility, and storm drain system improvements would be completed. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

7.5.1.1 Evaluation of Alternative 1

Biological Resources

The No Project/ No Development Alternative would leave the property in its existing condition. Under this alternative, there would not be direct impacts to 38.6 acres of occupied SBKR critical habitat from and no indirect impacts to adjacent habitat (including predation by domestic cats),

and from relocation efforts. This alternative would avoid any new or additional impacts to biological resources.

Recreation

As no new residential development would occur there would be no increase in the use of existing neighborhood and regional parks or other recreational facilities and this alternative would avoid any new impacts from increased use of existing recreational facilities. As the proposed Project would not be constructed, the recreational facilities that are a part of the Project, including the on-site ½ acre-park and the perimeter community trails, would not be constructed either. Under this alternative, direct impacts to occupied SBKR critical habitat from construction of the park and trails, and indirect impacts to adjacent habitat (including predation by domestic cats) and relocation efforts would not occur.

Transportation

Under the No Project/ No Development Alternative no new residences would be constructed that would generate new trips/traffic. Significant and unavoidable Project traffic and cumulatively considerable traffic impacts on the state highway system, at the basic freeway segments and freeway merge and diverge segments, would be avoided with this alternative. However, because there would be no new development on the Project site under this alternative, no monetary contributions would be made by the Project applicant for its fair share contribution for improvements to SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road.

7.5.2 Alternative 2 – Higher Density/Greater Development Footprint Alternative

The Higher Density/ Greater Development Footprint Alternative considers disturbance to and development of the entire 59-acre site, without preservation of Lot L, 6.53 acres in the southwest portion of the site designated as open space and conserved SBKR habitat. The entire site under this alternative would be graded and developed and none would be preserved as open space and SBKR habitat. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would utilize the entire site for residential development, increasing the amount of detached single-family housing available consistent with the goals of the City's General Plan Housing Element. The initial version of the proposed tract map included a total of 225 single family residential lots, 23 greater than the current proposed Project.

7.5.2.1 Evaluation of Alternative 2

Biological Resources

The Higher Density/ Greater Development Footprint Alternative would result in impacts to and development of the entire 59-acre site, without preservation of Lot L with 6.53 acres of occupied SBKR critical habitat. Therefore, this alternative would have a greater direct impact to occupied SBKR habitat, with a total of 38.6 acres. Under this alternative, there would be an additional 23 single family residential lots, which would increase the number of residents and associated indirect impacts to adjacent habitat (including predation by domestic cats), and from relocation efforts. This alternative would result in greater impacts to SBKR than the proposed Project.

Recreation

Under this alternative, there would be an additional 23 single family residential lots, which would increase the number of residents and associated use of existing neighborhood and regional parks or other recreational facilities. Therefore, this alternative would have an increased use of existing recreational facilities, and increased rate in physical deterioration of these facilities, as compared to the proposed Project. This alternative would also include construction of recreational facilities, including the on-site ½ acre-park and the perimeter community trails, like the proposed Project. Under this alternative, direct impacts to occupied SBKR critical habitat from construction of the park and trails would be the same as the proposed Project and would be significant and unavoidable.

Transportation

Under the Higher Density/ Greater Development Footprint Alternative an additional 23 single family residential lots would be constructed, which would increase the number of residents and associated trips/traffic. Significant and unavoidable Project traffic and cumulatively considerable traffic impacts on the state highway system, at the basic freeway segments and freeway merge and diverge segments, would be greater with this alternative than the proposed Project. With this alternative, the Project applicant would be expected to contribute a higher monetary contribution for its fair share for improvements to SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road.

7.5.3 Alternative 3 – Reduced Density/Smaller Development Footprint Alternative

The Lower Density/ Smaller Development Footprint Alternative considers development of Phase 1 and 2, as described in more detail in Section 3.2.2 Phasing Plan, which includes 130 residential lots (lots 1-94 and 168-203), the construction of the neighborhood park (Letter Lot C), the entry features at Old Greenspot Road (Letters Lots A and B), a portion of the Greenspot Road improvements (Letter Lot I) and a portion of the community trail on the Project's westerly boundary (Letter Lot H). Phase 1 will also necessitate the construction of the Infiltration Basin (Letter Lot E) and Lift Station (Letter Lot F), both are proposed along the southerly border of the Project outside of the Phase 1 area. Included in Phase 2 will be the construction and/or preservation of the 6.53 acres of SBKR habitat area (Letter Lot L) and the completion of the community trail on the westerly boundary of the Project (Letter Lot H). This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would reduce the impacts to SBKR. This alternative would result in reduced impacts to SBKR habitat, as compared to the proposed Project. Construction of only Phase 1 and 2 of the proposed tract map includes a total of 130 single family residential lots, 73 fewer than the current proposed Project.

7.5.3.1 Evaluation of Alternative 3

Biological Resources

The Lower Density/ Smaller Development Footprint Alternative would still include preservation of Lot L with 6.53 acres of occupied SBKR critical habitat and have additional preservation of SBKR habitat due to the smaller footprint. Therefore, this alternative would have a smaller direct

impact to occupied SBKR habitat. Under this alternative, there would be 73 fewer single family residential lots, which would decrease the number of residents and associated indirect impacts to adjacent habitat (including predation by domestic cats), and from relocation efforts. This alternative would result in less impacts to SBKR than the proposed Project.

Recreation

Under this alternative, there would be 73 fewer single family residential lots, which would decrease the number of residents and associated use of existing neighborhood and regional parks or other recreational facilities. Therefore, this alternative would have a decrease in use of existing recreational facilities, and decrease in rate of physical deterioration of these facilities, as compared to the proposed Project. This alternative would also include construction of recreational facilities, including the on-site ½ acre-park and the perimeter community trails, like the proposed Project. Under this alternative, direct impacts to occupied SBKR critical habitat from construction of the park and trails would be the same as the proposed Project and would be significant and unavoidable.

Transportation

Under the Lower Density/ Smaller Development Footprint Alternative 73 fewer single family residential lots would be constructed. This would decrease the number of residents and associated new trips/traffic. Significant and unavoidable Project traffic and cumulatively considerable traffic impacts on the state highway system would be less with this alternative than the proposed Project, however it is still anticipated to be significant and unavoidable. The Project applicant would be expected to contribute a lower monetary contribution for its fair share for improvements to SR-210 Westbound Off-Ramp to 5th Street/Greenspot Road.

7.6 Comparison of Alternatives

Table 7-A, Comparison of Alternatives Matrix, below, compares the potential environmental impacts of each alternative and ranks each alternative as **less**, **same**, or **greater** in comparison to the significance determinations that the proposed Project would have with respect to each issue area.

Table 7-A, Comparison of Alternatives Matrix

Environmental Issue	Proposed Project	Alternative 1 No Project/No Development	Alternative 2 Higher Density/ Greater Development Footprint	Alternative 3 Reduced Density/ Smaller Development Footprint
Biological Resources	Significant impacts to SBKR and its habitat. The loss of 32.01 acres of occupied SBKR critical habitat, potential impacts in adjacent habitat (including predation by domestic cats), and uncertainty regarding the likely success of SBKR relocation efforts are significant and unavoidable.	Less – No direct impacts to 38.6 acres of occupied SBKR critical habitat from construction of the project or indirect impacts to adjacent habitat (including predation by domestic cats) and relocation efforts. There would be no impacts.	More – Direct impacts to 38.6 acres of occupied SBKR critical habitat from construction of the project and indirect impacts from relocation efforts. With an additional 23 single family residential lots would also increase indirect impacts to adjacent habitat (including predation by domestic cats). Impacts would be significant and unavoidable.	Less – The development footprint would be decreased and direct impacts to occupied SBKR critical habitat would be reduced and indirect impacts from relocation efforts as well. With 73 fewer single family residential lots would also decrease indirect impacts to adjacent habitat (including predation by domestic cats). Impacts would be significant and unavoidable.
Recreation	Less than significant impact related to increased use and accelerated	Less – No new residential development and no increase in use of existing	More – This alternative would include an additional 23 single family residential	Less – This alternative with 73 fewer single family residential lots would also

Environmental Issue	Proposed Project	Alternative 1 No Project/No Development	Alternative 2 Higher Density/ Greater Development Footprint	Alternative 3 Reduced Density/ Smaller Development Footprint
	<p>deterioration of existing recreation facilities.</p> <p>The construction of on-site recreational facilities will result in direct and indirect impacts to SBKR on-site, and off-site in the adjacent Wash Plan area, that are significant and unavoidable</p>	<p>recreational facilities. No construction of on-site park and trail facilities and therefore no direct impacts to occupied SBKR critical habitat from the construction of these facilities.</p> <p>No impacts would occur.</p>	<p>lots, with increased number of residents and associated use of existing recreational facilities than the proposed Project.</p> <p>This alternative includes construction of the on-site ½ acre-park and the perimeter community trails, like the proposed Project. Under this alternative, direct impacts to occupied SBKR critical habitat from construction of the park and trails would be the same as the proposed Project</p> <p>Impacts would be significant and unavoidable.</p>	<p>decrease indirect impacts to adjacent habitat (including predation by domestic cats).</p> <p>However, with construction of the on-site ½ acre-park and the perimeter community trails, would have significant direct impacts to occupied SBKR critical habitat, the same as the proposed Project.</p> <p>Impacts would be significant and unavoidable.</p>
Transportation	The Project-specific traffic would result in significant impacts at two of the four freeway merge and diverge segments under Existing with Project traffic conditions, three of the four freeway merge and diverge segments under 2019 with Project traffic conditions,	<p>Less – No generation of new daily trips.</p> <p>No impacts would occur.</p>	<p>More – This alternative would include an additional 23 single family residential lots, with increased number of residents and associated trips/traffic. As there are more trips generated with this alternative it would result in greater impacts to the</p>	<p>Less – This alternative would have 73 fewer single family residential lots and less new trips/traffic than the proposed Project. The Project applicant would be expected to contribute a lower monetary contribution for its fair</p>

Alternatives to the Proposed Project

Heatherglenn Planned Development DEIR

Environmental Issue	Proposed Project	Alternative 1 No Project/No Development	Alternative 2 Higher Density/ Greater Development Footprint	Alternative 3 Reduced Density/ Smaller Development Footprint
	<p>and one of the four freeway merge and diverge segments under 2040 with Project traffic conditions.</p> <p>Impacts would be significant and unavoidable due to uncertain timing of required off-site improvements within Caltrans facilities/ Right-of-way.</p>		<p>state highway system, than the proposed Project. Project applicant would pay higher monetary contribution for its fair share of improvements to SR-210.</p> <p>Impacts would be significant and unavoidable due to uncertain timing of required off-site improvements within Caltrans facilities/ Right-of-way.</p>	<p>share for improvements to SR-210.</p> <p>Impacts would be significant and unavoidable due to uncertain timing of required off-site improvements within Caltrans facilities/ Right-of-way.</p>
Environmentally Superior to Proposed Project?	Not applicable	Yes	No	Yes
Meets Project Objectives?	Yes – The proposed Project meets all of the Project's objectives	No – This alternative does not meet any of the Project's objectives.	Yes – This alternative meets all of the Project's objectives.	No – This alternative does not meet all of the Project's objectives.

7.7 Environmentally Superior Alternative

Alternative 1 – No Project/ No Development

Because this alternative would avoid the project's impacts, it warrants consideration as the "environmentally superior alternative." With this alternative however, the Project site would remain vacant and underutilized and thus, not meet the City of Highland's goals and objectives for the site, or achieve any of the Project's objectives. However, all environmental impacts would be avoided or lessened with this alternative as compared to the proposed Project. This alternative does not meet any of the Project's objectives.

Alternative 2 – Higher Density/ Greater Development Footprint Alternative

This alternative would have greater impacts to SBKR, both direct and indirect. This alternative would also have greater impacts to existing recreational facilities and to transportation/ traffic due to the increase in number of residential lots, number of residents and generated trips. This alternative does not meet all of the Project's objectives.

Alternative 3 – Lower Density/ Smaller Development Footprint Alternative

Because this alternative also avoids more impacts than the proposed Project, it also warrants consideration as the "environmentally superior alternative." This alternative would have less impacts than the proposed Project related to SBKR, use of existing recreational facilities, and on the state highway system (SR-210). However, this alternative does not meet all of the Project's objectives.

7.8 References

The following references were used in the preparation of this section of the DEIR:

BRA	L & L Environmental, Inc. Biological Resources Assessment, Updated Burrowing Owl and Nesting Raptor Surveys, and Updated Botanical Surveys for Greenspot Partners TT 17604, City of Highland, County of San Bernardino, CA, March 2020.
Land Use & Housing Elements	City of Highland General Plan Land Use Element and Housing Element http://www.ci.highland.ca.us/GeneralPlan/
Linscott, Law & Greenspan 2019	Linscott, Law & Greenspan, <i>Revised Traffic Impact Analysis Report for the Heatherglen Residential Project</i> . June 2019.
Wash Plan Trails Master Plan	Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan) Trails Master Plan (https://www.sbvwd.org/docman-categories/projects/wash-plan/4715-trails-master-plan-november-2016/file)

8.0 ORGANIZATIONS AND PERSONS CONSULTED

8.0.1 Document Preparation Staff

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9.0 REFERENCES

The following documents were referred to as general information sources during preparation of this Draft EIR. They are available for public review at the locations identified after each listing. They are referenced in the DEIR by the acronyms shown at the end of each reference.

Section 5.1 Biological Resources

- BRA L & L Environmental, Inc. *Biological Resources Assessment, Updated Burrowing Owl and Nesting Raptor Surveys, and Updated Botanical Surveys* for Greenspot Partners TT 17604, City of Highland, County of San Bernardino, CA, March 2020. (Appendix C)
- BCC U.S. Fish & Wildlife Service, Birds of Conservation Concern (Available at <https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>, accessed March 2020)
- HT City of Highland, Heritage Trees, Chapter 8.36 (Available at <https://www.codepublishing.com/CA/Highland/html/Highland08/Highland0836.html>, accessed March 2020.)
- Wash Plan San Bernardino Valley Water Conservation District, Final Upper Santa Ana River
HCP Wash Habitat Conservation Plan, May 2020. (Available at <https://www.sbvwd.org/wash-plan/6167-washplan-hcp-final-full-clean-20200420>, accessed May 2020)

Section 5.2 Recreation

- COSE City of Highland General Plan Conservation and Open Space Element
<http://www.ci.highland.ca.us/GeneralPlan/>
- HMC The Trust for Public Land Park Score Index (<https://www.tpl.org/city/highland-california>)
- TPLPS The Trust for Public Land Park Score Index (<https://www.tpl.org/city/highland-california>)
- Wash Plan Upper Santa Ana Wash Land Management and Habitat Conservation Plan
Trails Master Plan (Wash Plan) Trails Master Plan (<https://www.sbvwd.org/docman-categories/projects/wash-plan/4715-trails-master-plan-november-2016/file>)

Section 5.3 Transportation

- Linscott, Law & Greenspan Linscott, Law & Linscott, Law & Greenspan, *Revised Traffic Impact Analysis Report for the Heatherglen Residential Project*. June 2019.
- Omnitrans website Omnitrans, Maps and Schedules, <https://omnitrans.org/getting-around/maps-schedules/>, accessed on May 15, 2020

Section 6.3 Other CEQA Topics

- GPA & ZC City of Highland General Plan Land Use Amendment & Zoning Amendment GPA 017-002 and ZC 017-002 (Greenspot Road/Pole Line Road) Initial Study Negative Declaration, Adopted by the City Council April 17, 2018
- RTP/SCS Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) 2016-2040, Southern California Area of Governments (SCAG), April 7, 2016.
<http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx>

Section 7.0 Alternatives

- BRA L & L Environmental, Inc. *Biological Resources Assessment, Updated Burrowing Owl and Nesting Raptor Surveys, and Updated Botanical Surveys* for Greenspot Partners TT 17604, City of Highland, County of San Bernardino, CA, March 2020. (Appendix C)
- LUHE City of Highland General Plan Land Use Element and Housing Element
<http://www.ci.highland.ca.us/GeneralPlan/>
- Linscott, Law & Greenspan 2019 Linscott, Law & Linscott, Law & Greenspan, *Revised Traffic Impact Analysis Report for the Heatherglenn Residential Project*. June 2019.
- Wash Plan Trails Master Plan Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan) Trails Master Plan (<https://www.sbvwd.org/docman-categories/projects/wash-plan/4715-trails-master-plan-november-2016/file>)